What Makes Someone Want to Buy Something Online? A PLS-SEM Approach: Evidence from Bangladesh

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***Abstract*:** This study investigates the determinants of consumers' online purchase intention, utilizing elements from the Unified Theory of Acceptance and Use of Technology (UTAUT) model, with income as a moderator. Data was acquired by handing out questionnaires to 522 Bangladeshi internet users and analyzed using SmartPLS (Partial Least Square) 3.0 *software with structural equation modeling (SEM)*. The findings show that behavioral intention is significantly predicted by performance expectancy, effort expectancy, social influence, and facilitating conditions with *income significantly moderating these relationships*. The findings have practical relevance for online retailers to *enhance strategies based on these findings*. This study contributes to the body of existing research in the literature by analyzing particular components of the UTAUT framework in relation to online purchase intention in Bangladesh. It also tackles the dearth of studies on the moderating influence of income in the UTAUT model, providing insightful information for governments and online merchants alike regarding the behavior of consumers.

Keywords: *Online purchase, UTAUT, SmartPLS, Behavioral intention, Performance expectancy,* Effort expectancy, ocial influence, Facilitating conditions.

Paper Type: *Research Paper*

1. Introduction

In the era of globalization, the continuous growth of the e-commerce sector has captured the interest of scholars and practitioners around the world who want to learn more about its applications in terms of shopping online by area (Otarinia, 2024; Akgül et. al., 2019). Customers might take advantage of information technology to facilitate purchasing activities, assessing factors like ease of use and reading feedback from other users to make informed choices about products and services (Swift, 2001). The online platform offers consumers a wide range of facilities, including time efficiency, amazing deals, a large product choice, and lower, competitive prices, all of which encourage people to the online shopping activities (Dharmawirya and Smith, 2012). Based on information collected by eMarketer (2021), the retail e-commerce sales reached $19.821 trillion in 2023 in

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US, a 12 percent rise over the previous year. In Bangladesh, this sector has also seen substantial growth, driven by the increasing adoption of online shopping among its consumers. The Bangladesh Ecommerce Market Opportunities Report (2023) states that the country's e-commerce market reached US$6.9 billion in 2022 and grew by 9.33% annually. The e-commerce sector in Bangladesh has a promising medium- to long-term growth story. E-commerce is anticipated to expand at a compound annual growth rate (CAGR) of 7.37% from 2023 to 2027.

Due to the technological advancements, online platforms have become more ingrained in people's daily lives, blurring the distinction between online and offline activities and erasing the constraints of time and location (Abeele et al., 2018). Through active internet use, customers may follow a product's lifecycle from production to sale at retail, improving their capacity to make well-informed choices. Furthermore, customer reviews and comments on these sites influence other people's purchasing decisions, creating a more engaging shopping environment (Akgül et al., 2019).

The rapid evolution of then technology in Bangladesh has significantly influenced consumer behavior, encouraging the adoption of new, innovative payment methods that are gradually replacing traditional systems (Flavian et al., 2020). However, a segment of Bangladeshi consumers remains hesitant about online transactions, due to limited technological familiarity, which has slowed e-commerce growth. Recognizing this challenge, the government has prioritized the expansion of e-commerce to foster broader adoption of digital platforms.

However, there is a scarcity of research that explores the important factors that influence online purchasing intentions and characteristics of customers. As well as, few studies have seen the constructs of Unified Theory of Acceptance and Use of Technology Model (UTAUT) in online purchase intentions (Oktaviani et al., 2024; Winarno, & Roostika, 2024). In Bangladesh, there is no attempt to find out what factors stimulate the behavioral intentions of Bangladeshi e-shoppers'. And, no study has seen the effect of income as moderator in the UTAUT model to the behavioral intentions of online customers. To take advantage of this fantastic potential, this study aims to investigate these critical aspects and capitalize on the potential of the e-commerce market in Bangladesh.

It's crucial to comprehend the elements that affect customers' decisions to make purchases online given the rising popularity of e-commerce. Understanding these elements is essential because they can help businesses tailoring their strategies to better meet consumer needs and enhance user experience. Recent conceptual and empirical studies have conducted in-depth analyses of online purchasing behavior, focusing on various aspects such as online shopping behavior, the intention to use internet marketing, motivations for performing online purchases, and the adoption of mobile shopping and so on. For instance, studies by Venkatesh et al. (2003); Oktaviani et al., (2024); Winarno, & Roostika, (2024); Zia et al., (2022) have explored the UTAUT model and its' constructs in different contexts. Despite several studies on online retail purchasing and the Unified Theory of Acceptance and Use of Technology (UTAUT), there is a scarcity of

research on how UTAUT contents and other variables influence customers' purchase intentions in Bangladesh.

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The UTAUT model, which focuses on individual and organizational variables for online purchasing intentions, can be used as a possible lens to investigate the essential elements affecting consumers' intention to purchase online. Performance expectancy and effort expectancy have been found as significant drivers of behavioral intention to utilize a technology that are linked to individual attitudes and encourage consumers to buy something online (Utomo et al., 2021; Ryu & Fortenberry, 2021). Social influence, among other things, should be considered in order to extend the continuance intention to utilize internet technologies (Tam et al., 2020). However, only a few research have looked into these factors of behavior in the context of online purchasing intention. Moreover, according to previous researchers, facilitating condition appears to be a major element influencing consumers' attitudes and acceptance of online purchasing (Choi, & Park, 2020).

Other essential elements must also be researched in order to acquire a better understanding of customers' intentions to buy online. The goal of this study is to see how personal factor (such as income) influenced customers' online purchase intention. Online buying studies have become more well-known over the last decade for examining various demographic aspects of clients that impact their impulse buying behavior. Few studies have looked at gender variations in drivers of online buying intention in the UTAUT model and they have found significant positive impact of gender in the relationships of the other constructs and customers online buying behavior (Dewi, et al, 2020; Saleem, et al., 2022). Moreover, this study aims to detect the effect of income as moderator in the UTAUT model to evaluate the behavioral intention to buy something online.

2. Literature Review

Framework for a Unified Theory of Acceptance and Use of Technology

The Unified Theory of Acceptance and Use of Technology (UTAUT) is one of the most comprehensive theories for predicting and forecasting whether new technology will be accepted or rejected (Sikdar et al., 2019; Rydz et al., 2021). The performance expectancy, effort expectancy, social influence, and facilitating condition are the four core integrated variables that make up the UTAUT model (Sikdar et al., 2019; Acharya & Ganesan, 2019). These variables have a great consequence on how we avail new technology and intention to use it, with gender, age, experience, and our volition acting as moderators. UTAUT has been used in a variety of studies to better predict the elements that has impact on customers' online shopping intention (Van et al, 2020; Acharya & Ganesan, 2019). However, if it is to be used in the context of consumers, additional effective elements from the consumer side must be included to boost the UTAUT's relevance in the perspective of the consumer (Gefen et al., 2003; Pavlou, 2003). Because incorporating these additional elements can provide a deeper understanding of the factors influencing online shopping intention,

especially in unique cultural contexts like Bangladesh, where technological adoption is growing rapidly but may still encounter specific consumer concerns.

UTAUT is used by Venkatesh et al (2003) in an attempt to measure an individual's behavioral intention to adjust to a new technological environment. The research concluded that 70% of behavioral intentions may be explained by UTAUT. High levels of performance expectancy, effort expectancy, trust, and self-efficacy were found to have a substantial influence on the customer's buy intentions by Pappas et al. (2011). Dharmawirya and Smith (2012) conducted a study to find out what makes customers more likely to buy online. They found that performance expectations and conditions that make it easy to buy online are the most crucial factors that affect consumers' plans to buy again. They also came to the conclusion that performance expectations, effort expectations, and habits affect behavioral intentions to use mobile apps, but price doesn't have much of an effect on mobile activity or behavioral intentions.

Juaneda-Ayensa et al. (2016) used the UTAUT 2 model in their investigations with the goal of identifying the variables that influence the behavior of multi-channel consumers with the desire to embrace and avail new technologies in the buying process. According to the study's findings, personal innovation, effort expectations, and performance expectations were the key predictors of purchasing intentions. Miladiovic (2016) used the UTAUT 2 model to examine the acceptance of fashion-based buying practices and came to the conclusion that users' behavioral intentions when using mobile fashion shopping applications are influenced by performance expectations, habits, enabling circumstances, and recreational motivation.
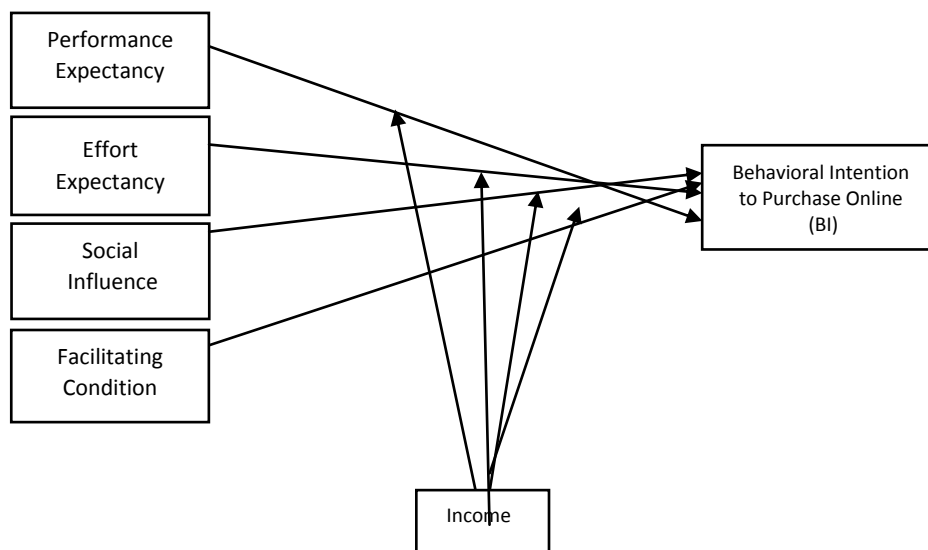
Performance expectancy, hedonic motivation, and facilitating factors were found to have a positive effect on the intention to buy for fresh agricultural items online using the UTAUT 2 model, which was developed by An et al. (2016). In their study, Singh et al. (2017) used the UTAUT 2 model to analyze the intention to buy things online. They have come to the conclusion that the variables included in this model have a favorable impact on consumer intentions to buy something online. Social influence and trust are the primary drivers of consumer desire to purchase in e-commerce, according to an analysis of these factors conducted by Mariani and Lamarauna (2017) using the UTAUT model. The differences in consumers' readiness to make electronic purchases were studied by Sanchez Torres et al. (2017) in Columbia. Their research, which used the UTAUT model, found that performance expectations and social pressure are influential in online shopping.

The UTAUT model is used in this study, however it is expanded by including income as a moderating variable to provide a better understanding of online purchase intention. As a result, the range of cellular model includes four variables as independent factors influencing consumer's behavioral intention toward online purchase: performance expectancy, effort expectancy, social influence, facilitating condition and one moderating variable income (Figure-1). Furthermore, prior UTAUT researchers had constraints due to the limiting

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evaluation of the product and online shop, which was tied to only there is one product and one online shop category. As a result, this proposed research fills in the gaps by looking at e-commerce in Bangladesh, which encompasses both product/service elements and online merchants.

3. Conceptual Model and Hypotheses Development

Recent studies have demonstrated that the UTAUT paradigm is useful for comprehending how different technologies are adopted. For instance, it was utilized in various studies (Zia et al., 2022; Winarno, & Roostika, 2024; Oktaviani et al., 2024) to pinpoint the key elements that motivate people to make online purchases. All of the original UTAUT variables were retained in further studies of emerging technologies using the UTAUT2 model. The UTAUT2 model, introduced by Venkatesh et al. (2012), builds on this foundation to address consumer technology acceptance more directly by adding hedonic motivation (enjoyment or pleasure in using the technology), price value (cost considerations), and habit (tendency to use technology routinely). While UTAUT2 provides a comprehensive framework for understanding consumer-focused contexts, this study retains the original UTAUT constructs to streamline the analysis and focus on the core factors influencing e-commerce adoption in Bangladesh. Given the study's objective, we chose not to incorporate UTAUT2's additional constructs, as the UTAUT framework's primary variables sufficiently address the factors impacting online purchase intentions within the local context. One dependent construct (Behavioral Intention) and four independent constructs (Performance expectancy, Effort expectancy, Social influence and Facilitating condition) from UTAUT's five primary constructs were retained for this investigation. Figure 1 depicts the conceptual framework of this study.

Figure: 1 Conceptual Framework

3.1 Performance Expectancy

Performance Expectancy is an extrinsic motivator. It shows how users anticipate to perform after using a technology or system as opposed to the previous ones (Silic & Back, 2017). Several studies have examined the link between perceived performance and behavioral intention, with the conclusion that performance expectations positively affect the continuance intentions and is demonstrated to be a primary predictor of the intention (Nurdin et. al., 2023).

Expectations for online shopping include time savings, appealing discounts, a wide selection of products, and lower costs, all of which significantly increase consumers' buying intention. (Zahari et al., 2023; El Moussaoui et. al., 2023). Several prior studies have shown that consumer expectation of performance has a major beneficial influence on their desire to purchase online. As a result, the given hypothesis is proposed:

H1. Performance Expectancy impacts the behavioral intentions in a positive way.

3.2 Effort Expectancy

Effort expectancy means the way of allowing the desired consequences of employing new technology as an internal incentive (Baltruschat et. al., 2023). The amount of effort consumers must put while searching for information and making purchases on a website will influence their decision to use the online shopping technique (Sudirjo et. al., 2023). It has been revealed that the behavioral intention is affected by effort expectation. Furthermore, according to many studies (Iranmanesh et. al., 2022; Acharya & Ganesan, 2019), the effort expectancy has a positive relationship with the willingness to buy something online. Therefore, the hypothesis is advanced:

H2. Effort expectancy also impacts on the likelihood of making an online purchase in a positive way.

3.3 Social Influence

The term "social influence" means how other people's ideas impact a focus individual's perceptions, and it may be thought of as an external incentive stimulant (Wang et. al., 2016). Various researchers have addressed and identified social impact as a crucial motive in prior novel technology research, the behavioral goal of technological acceptance. Consumers who have the ability, other customers who exchange product-related information are more likely to be influenced by other consumers who communicate with one another or with their e-retailer (Bramall et. al., 2005). This is why social influence is a good way to look at customer intentions and actions when it comes to online purchasing. As a result, the hypothesis is formulated:

H3. Social influences affect online purchasing intention in a positive way.

3.4 Facilitating Condition

The technological infrastructure and organization that assist in the creation of a new system are examples of facilitating conditions that can be viewed as either aids or hindrances in the environment (Venkatesh et al., 2003). However, studies

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conducted in developing countries show that FC promotes the use of financial technology. FC has contributed to the expansion of mobile banking in both Bangladesh (Hussain et al., 2019) and Pakistan (Hussain et al., 2019). In Bangladesh's online shopping context, similar facilitating conditions are at play; the increasing availability of internet access, government initiatives supporting digital commerce, and rising public familiarity with online payment methods have all encouraged e-commerce adoption. In light of this, this study proposes this hypothesis:

H4. Facilitating condition positively impacts customers' behavioral intents to purchase online in Bangladesh.

3.5 Description of Moderator – Income

Income is a significant moderator in online purchase intentions. It affects the relationship between a customer's attitude towards online purchasing and their actual behavior of buying goods or services online (Rehman et. al., 2019). The affordability of products or services that a person can buy online is directly influenced by their income (Sudirjo et al., 2023). Consumers with higher income levels may have more purchasing power, which increases their likelihood of making expensive online purchases (Lubis, A. N. 2018).

Additionally, income can also impact the perceived risk associated with online shopping. Due to their capacity to bear financial losses, people with higher income levels may view online shopping as being fewer risks (Cho & Lee, 2006). Conversely, people with lower income levels may view internet buying as riskier since they may have less financial security to rely on in the event that something goes wrong (Cho & Lee, 2006).

Therefore, marketers should consider income levels when targeting their audience and designing their online shopping platforms. In line with this, the hypotheses that link moderating effects of income are surmised below:

H5. Income moderates the relationship between PE and customers' BI to make online purchase intentions.

H6. Income moderates the relationship between EE and customers' BI to make a web purchase.

H7. Income moderates the relationship between SI and customers' BI to make online shopping.

H8. Income moderates the relationship between FC and customers' BI to make online buying.

4. Research Methodology

4.1 Context

The study aims to examine and predict the relationship between individual and organizational factors by applying the Unified Theory of Acceptance and Use of Technology (UTAUT) model in a real-world context. Next, this study made a

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questionnaire to get enough information to test and validate the final framework for online purchase intention in Bangladesh and to test the hypotheses that had been made set up based on the discussions about the review of the literature.

Internet users in Dhaka, Bangladesh, who are at least 18 years old, are the focus of this study. Dhaka was selected for this analysis since it is home to the majority of Bangladesh's internet users. There are two administrative city corporations in Dhaka—the DSCC and the DNCC—that may be good representations of the whole country's population.

4.2 Data collection and Sample

Bangladeshi consumers who use the internet on a regular basis are given a survey form with a cover letter explaining the overall purpose of the study with detailed instruction. The respondents were selected on a simple random sampling basis. Five Hundred and Twenty-Two (522) participants filled up the questionnaires handed out. The Outcome showed that most respondents were male (55.6%), single (74.7%), aged below 20 years old (33.2%), and earned a monthly income less than 20,000 Tk (36.8%). Moreover, most respondents were students with an education level of Master's degree (50.8%).

Table 1: Demographic characteristics of the Sample (n=522)

Demographics		Frequency	Percentage (%)
Gender	Male	290	55.6
	Female	232	44.4
Education	PHD	12	2.3
	Masters	265	50.8
	Bachelor	143	27.4
	Diploma	17	3.3
	HSC	49	9.4
	SSC	36	6.9
Marital Status	Single	390	74.7
	Married	130	24.9
	Divorced	2	0.4
Age	Below 20 years	173	33.2
	20-25 years	129	24.8
	26-30 years	141	27.1
	31-35 years	42	8.1
	36-40 years	21	4.0
	41-50 years	9	1.70
	Over 50 years	6	1.10

Demographics		Frequency	Percentage (%)
Job Experience	Less than 1 year	231	44.3
	1-3 years	193	37.0
	Over 3 years	98	18.8
Monthly Income	Less than 20000	192	36.8
	20001-50000	181	34.7
	50001-100000	117	22.4
	100001-200000	5	1.0
	Over 200000	27	5.1

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4.3 Instrument Development

This study's questionnaire is divided into seven sections (General information, Performance expectancy, Effort Expectancy, social influence, facilitating condition, Income level and online behavioral intention) and uses structured questions. The degree to which respondents agreed or disagreed with each statement of all constructs was measured using a 7-point Likert scale (1= strongly disagree, 2=quite disagree, 3=slightly disagree, 4= neither disagree nor agree, 5 = slightly agree, 6= quite agree, 7= strongly agree). To ensure the validity of the questionnaire, two experts in e-commerce and online purchasing—selected based on their extensive experience and academic backgrounds in digital consumer behavior—were personally consulted. Their feedback helped refine the questionnaire for consistency, relevance, and comprehensiveness, contributing to its face and content validity. The questionnaire was set in English at first. However, because all of the responders were native Bengali speakers, the questionnaire was translated into Bengali.

SPSS Version 25 and the Partial Least Squares Structural Equation Model (PLS-SEM) have been used to evaluate the data collected. Descriptive statistics (frequency and percentage) have been utilized to analyze the respondents' demographics. Each variable's data and questionnaire items have been examined using the mean and the standard deviation. The consistency and reliability of the data have been assessed with Cronbach's Alpha. The instrument's validity and reliability have been assessed by computing factor loadings.

5. Results

5.1 Data Analysis

The study used PLS-SEM methodology to analyze the data. The measuring model is evaluated in the first step, which looks at the reliability and validity of the constructs. In the second step, the structural model is evaluated, which looks at the direct relationship between external and endogenous components. In all postulated links, the constructs' reliability and validity are investigated. The structural model is then tested with 5000 bootstrap re-sampling as the second phase of the bootstrapping procedure.

5.2 Measurement Model Assessment

The measurement model has been examined in two ways: first, its construct, convergent, and discriminant validity have been examined. The assessment followed the guidelines laid out by Hair et al. (2016), which involved looking at loadings, average variance extracted (AVE), and composite reliability (CR) (Yeap et al. 2016).

The term "construct validity" refers to how closely the test's findings correspond to the hypotheses that informed their development (Sekaran and Bougie, 2010). Internal consistency and the reliability greater than the cutoff value of 0.708 is typical of adequate measurement models (Hair et al. 2014). However, Hair et al. (2016) stated that researchers ought to carefully assess the impacts of item removal on the composite reliability (CR) as well as the validity of the constructs, and only should consider for removal from the scale those that when eliminating the indicator leads to an increase in CR. Almost all of the item loadings were more than 0.70, which means they pass the fit test.

Additionally, if the AVE is 0.5 or greater, it means the concept has appropriate convergent validity (Bagozzi and Yi 1988; Fornell and Larcker 1981) and may account for more than half of the variation in its indicators. All item loadings were over 0.5, and composite reliabilities were all in excess of 0.7. (Hair et al. 2010). The AVE for this investigation ranged from 0.764 to 0.834, which indicates that the indicators caught a significant portion of the variation when compared to the measurement error. The findings are summarized in Table 2, which demonstrates that all five components can be measured with high reliability and validity. In other words, the study's indicators meet the validity and reliability criteria established by SEM-PLS.

Table 2: PLS-SEM Assessment Results of Reflective Measurement Models

Construct	Indicator	Mean	SD	Loading	Average Variance Extracted (AVE)	Composite Reliability (CR)	Cronbach's Alpha
BI	BI1	6.318	1.073	0.930	0.834	0.938	0.901
	BI2	6.323	1.092	0.907			
	BI3	6.333	0.965	0.904			
PE	PE1	6.289	1.001	0.878	0.764	0.907	0.845
	PE2	6.264	1.054	0.846			
	PE3	6.316	1.018	0.898			
EE	EE1	6.293	1.043	0.854	0.775	0.912	0.855
	EE2	6.356	0.926	0.878			
	EE3	6.316	1.035	0.909			

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Construct	Indicator	Mean	SD	Loading	Average Variance Extracted (AVE)	Composite Reliability (CR)	Cronbach's Alpha
SI	SI1	6.262	1.130	0.908	0.768	0.930	0.899
	SI2	6.201	1.194	0.910			
	SI3	6.216	1.130	0.842			
	SI4	6.277	1.109	0.844			
FC	FC1	6.255	1.086	0.902	0.795	0.921	0.871
	FC2	6.276	1.004	0.882			
	FC3	6.375	0.941	0.890			

The discriminant validity of the components was assessed using Fornell and Larcker's approach as well as the cross-loading values. For a model to be discriminant, the correlations between its individual components must be smaller than the square root of the average variance across items (AVE) for the respective component (Fornell and Larcker 1981). We observe that for all reflective constructs, the square roots of the AVE of the construct (represented diagonally and bold) are bigger than the correlation (stated off-diagonally) using the method described by Fornell and Larcker (Table 3).

Table 3: **Discriminant Validity of the Data Sets**
(Fornell and Larcker's Technique)

	BI	PE	EE	SI	FC
BI	**0.913**				
PE	0.822	**0.874**			
EE	0.843	0.828	**0.880**		
SI	0.820	0.839	0.777	**0.877**	
FC	0.786	0.788	0.780	0.770	**0.892**

Further, the cross-loading values were evaluated, and it was found that all of the values are more than 0.707. All of these results point to the fact that each item is highly correlated with its own underlying construct. Each possible cross-loading value is listed in detail in Table 4. In sum, all indicators validate the concepts' discriminant validity. Constructs can be put forward to test the conceptual model because appropriate results have been discovered for construct reliability, convergent validity, and indicator reliability.

All items had a higher loading with their own underlying construct, as shown by the results, and the cross-loading values were also analyzed, with all values being more than 0.707. Table 4 displays all possible cross loading values.

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Table 4: Discriminant Validity of the Data Sets (Cross-Loadings)

	BI	PE	EE	SI	FC
BI1	**0.930**	0.738	0.797	0.736	0.713
BI2	**0.907**	0.746	0.733	0.772	0.722
BI3	**0.904**	0.767	0.780	0.741	0.718
PE1	0.684	**0.878**	0.712	0.700	0.652
PE2	0.736	**0.846**	0.679	0.757	0.687
PE3	0.731	**0.898**	0.779	0.739	0.724
EE1	0.733	0.739	**0.854**	0.708	0.722
EE2	0.747	0.712	**0.878**	0.672	0.644
EE3	0.746	0.735	**0.909**	0.673	0.695
SI1	0.775	0.729	0.701	**0.908**	0.688
SI2	0.789	0.763	0.722	**0.910**	0.706
SI3	0.655	0.727	0.683	**0.842**	0.680
SI4	0.640	0.726	0.612	**0.844**	0.624
FC1	0.746	0.716	0.729	0.737	**0.902**
FC2	0.690	0.716	0.689	0.686	**0.882**
FC3	0.660	0.674	0.665	0.630	**0.890**

In conclusion, the discriminant validity of all the constructs is met by the measurements. Construct reliability, convergent validity, and indicator reliability have all been evaluated and found to be adequate, thus the conceptual model may be put to the test.

5.3 Structural Model Assessment

The collinearity concerns, path co-efficient, coefficient of determination (R^2), and effect size (f^2) were assessed as part of Hair et al (2014)'s four-step methods for evaluating structural models. The substantial causal influence of lateral collinearity can skew results even if discriminant validity standards are fulfilled (Kock and Gary, 2012). The degree of collinearity between indicators is quantified by the variance inflation factor (VIF). The VIF values for each construct show that they are all below the threshold value of 5 (Hair et al., 2014), indicating that the structural model is free from collinearity problems. In order to examine the connections between the variables, the SmartPLS 3 program was utilized. The significance and t-statistics for every possible path were evaluated using software bootstrapping, with a total of 5000 replicates. Table 5 summarizes the results of the structural model analysis, which can also be depicted in the Figure 2, with the corresponding R^2, f^2, and t-values. According to the results of

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this analysis, there was a significant positive relationship between the behavioral intention and performance expectancy (β=0.160, p=0.005), effort expectancy (β=0.346, p=0.000), social influence (β =0.297, p=0.014), and facilitating condition (β = 0.145, p=0.044). Therefore, it demonstrates the correctness of all these assumptions. The model's robustness was demonstrated by an R^2 greater than 0.35, as suggested by Cohen (1988).

Table 5: Analysis of the structural model

Hypothesis	Relationship	Stand. β-Value	Effect Size f^2	Std Error	t-Value	P-Value	R^2	Decision
H1	PE -> BI	0.160	0.024	0.074	2.814	0.005	0.800	Supported
H2	EE -> BI	0.346	0.125	0.082	5.060	0.000		Supported
H3	SI ->BI	0.297	0.104	0.086	2.452	0.014		Supported
H4	FC -> BI	0.145	0.031	0.087	2.019	0.044		Supported
H5	Income*PE-> BI	0.061	0.003	0.083	2.090	0.037		Supported
H6	Income*EE-> BI	0.079	0.010	0.061	2.676	0.007		Supported
H7	Income*SI-> BI	-0.053	0.002	0.087	1.966	0.049		Supported
H8	Income*FC-> BI	-0.075	0.006	0.088	2.062	0.039		Supported

Although the p-value is useful for assessing the statistical significance of each relationship between exogenous constructs and endogenous components, it does not provide information about the influence's extent, which is synonymous with the findings' practical importance. In this research, we used a rule of thumb proposed by Cohen (1988) to assess the extent of the effect. By this criterion, an effect size of 0.02, 0.15, or 0.35 indicated a moderate, medium, or substantial impact, respectively. Table 5 shows that the effect sizes of social influence, enabling circumstances, and both performance and effort expectations are moderate. Since the effect size varies with the complexity of the model, the research setting, and the specific field of study (Sullivan and Feinn, 2012), it is difficult to calculate an impact size using a rule of thumb (Hair et al., 2010).

The moderating effects of income shows that the relationships between performance expectancy and behavioral intention, effort expectancy and behavioral intention, social influence and behavioral intention, facilitating condition and behavioral intention are significantly influenced by income level of the Bangladeshi consumers.
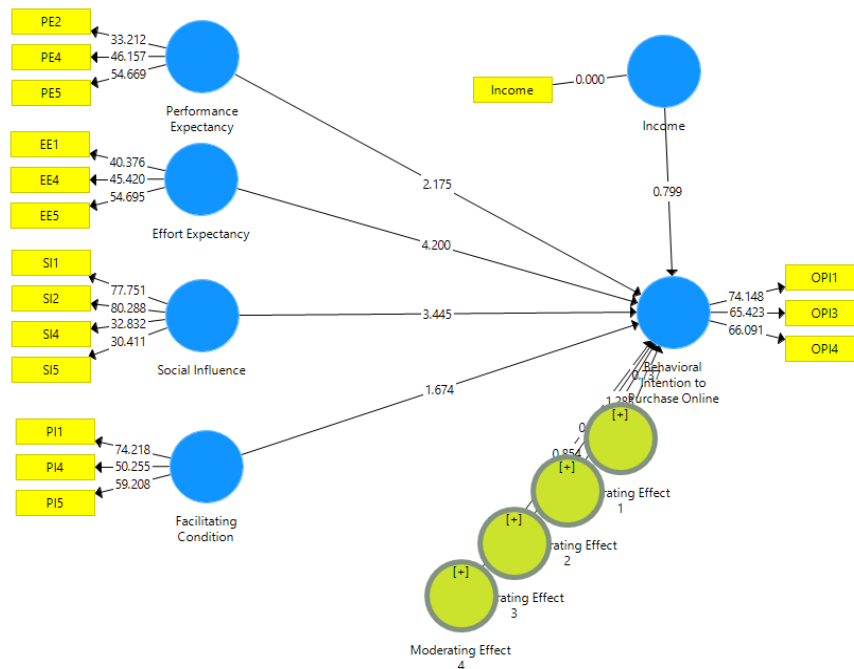
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Figure 2: Structural Model with T-values.

6. Discussion

The study's PLS-SEM model satisfied the proposed conceptual framework. The findings show the relationship between performance expectancy and behavioral intention to buy something online was shown to be substantial for the data, which supports hypothesis H1.

Similarly, the relationship between effort expectancy and behavioral intention to make online purchase was shown to be substantial for the data, which supports hypothesis H2. Again, the data indicates that there are no substantial variations in the link between social influence and online purchase intention (H3). Furthermore, the data also suggest that there are no substantial variations in the link between facilitating condition and online purchase intention (H4).

This conclusion is consistent with data from which it is found that practicality issues are the most important motivator of an online purchase for the most of Bangladeshi customers. This demonstrates that if utilizing online purchasing channels is the easiest and quick, consumers will try to utilize them to make an online purchase. It's worth noting that Bangladeshi online merchants take consumer efforts into account by supporting and encouraging internet usage and enhancing internet connection speed for all times.

The study's findings also demonstrate a favorable and major relationship in social interaction, there is a behavioral goal for internet buying. It confirms the prior

prediction that the strength of social media will increase customers' online buying intentions in the future. This means that digital merchants use design to emphasize the benefits of online purchase.

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Consumers in Bangladesh may want to Gain comments, support, and recommendations from family members when making a purchase through internet shopping channels which might easily affect their capacity to buy online. As a result, it's logical to infer that one of the most significant considerations for Bangladeshi buyers while making online purchases is social effect. Surprisingly, the data also demonstrated that the facilitating condition had a positive influence on behavioral intention, which is consistent with previous findings. This shows that if online customers are more creative, their capacity to create unique choices will improve, increasing the chance of individuals buying online. One possible explanation is that, because of the extensive usage of the internet in Bangladesh and the rising number of resourceful clients, the majority of online buyers are very used to with how to set up an e-commerce site.

7. Conclusion, Design Implication, Limitations and Further Research

7.1 Theoretical Contribution

Although it is true that much research has been conducted on consumers' intentions to shop online, a little is known about the connections between the aspects of the UTAUT as a theoretical model (Almashhadani et. al., 2023). In addition, only a few studies have looked at the impact of income on internet buyers' purchase intentions (Srivastava et. al., 2023; Lu et. al., 2009; Mohammed & Alkubise, 2012). As a result, the study's first theoretical contribution is to look into the individual factors (performance expectancy, effort expectancy, social influence, and facilitating conditions) that influence applying the UTAUT theory to the online buying intention.

Also, no research has specifically examined the factors influencing behavioral intentions of Bangladeshi e-shoppers. Given Bangladesh's emerging e-commerce sector and limited experience with online shopping platforms, this study is unique in its focus on this context. Notably, no previous study has considered income as a moderating factor within the UTAUT model in predicting online purchase intentions in Bangladesh. This research aims to address this gap, thereby offering new insights into the factors influencing e-commerce adoption among Bangladeshi consumers.

7.2 Practical Contribution

The government of Bangladesh has set a goal for Bangladesh to become a middle-income society by the end of 2035, which is in line with the expansion of Bangladesh's digital sector, and it has a vision to make Bangladesh the leading telecom economy in Southeast Asia by the year 2030 (Chowdhury et. al., 2020; Teske et. al., 2019; Ferdaush, 2015). This vision is in accordance with the growth of Bangladesh's digital sector. Bangladesh's government is prioritizing e-commerce to enhance its digital economy (Chowdhury et al., 2020). To achieve

the national goals, this is undertaken. In order to boost up the e-commerce, the Bangladeshi government has created a comprehensive online marketplace. In addition, little was known about Bangladeshi customers' online purchasing behavior before this study.

As a consequence, the outcome of this research will help the government by supplying reliable information about factors stimulating online purchase motive. This research presents a model that might help online retailers and the government obtain a better comprehension of the motives of online customers and the elements that influence them that influence their willingness to buy something online.

The findings suggest that by emphasizing performance expectancy, effort expectancy, and facilitating conditions, online businesses can increase customer satisfaction and profitability. Purchase intentions can be increased by streamlining the purchasing process and developing a user-friendly platform. Innovative consumers are more likely to shop online, and companies can take advantage of this by providing tactics that boost purchase intention and lessen customer anxiety. Social influence is also important because online feedback system can have a positive impact on purchasing decisions. Online merchants should reassure customers of safe transactions by sharing their security measures on social media and other platforms in order to build trust.

7.3 Limitations and Future Research

While the findings offer valuable insights into factors that encourage online purchasing intention, this study also has limitations that future research can address. First, this study concentrates on the moderating effect of income to the consumers' behavioral intentions neglecting other factors like as experience, trust, attitude and risk awareness that might account for the disparities in behavioral intention of Bangladeshi consumers. Second, the study's data originated from the respondents in Dhaka (DSCC & DNCC), hence it may not represent all Bangladeshi customers. However, more consumer analysis research in other cities may improve the study's generalizability. Third, with a higher proportion of male respondents, the results may be influenced by gender imbalance. Future research should explore economic and gender disparities in more depth. Being a cross-sectional research, the fourth limitation is that it cannot establish a direct link between variables across time. As individuals grow intellectually and experientially, their perspectives on many concepts may evolve. Consequently, a longitudinal technique might be used in future studies to get more accurate results from a targeted sample of participants.

Finally, this study relied on quantitative data collected through questionnaires, which may limit the depth of analysis as it explores the results of statistical testing only. Future research would benefit from utilizing a variety of approaches, such as qualitative or mixed methodologies to deepen conceptual understanding also. Lastly, mediating factors such as user experience or customer satisfaction may be incorporated into the model to assess the underlying mechanisms at play here.

7.4 Conclusion

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This study analyzes the relationship between prospective characteristics of buying behavior and customers' intentions to make purchases via online. The Constructs from UTAUT model served as the base for this study. The overall purpose of this study is to acquire a deeper comprehension of the phenomenon of behavioral intention to purchase online, specifically as it relates to the environment of Bangladesh.

According to the outcomes of the study, the performance expectancy, effort expectancy, social influence, and facilitating condition are the most powerful predictors of consumer online purchase intention, and that all of these factors are related to income level of the consumers.

Overall, Addressing the limitations identified in this study, the theoretical and practical contributions to the literature on online purchase intention can be significantly enhanced.

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