

Unraveling the Dimensions of E-Servicescape and its Influence on E-Grocery Shopping Intention: Application of Stimulus-Organism-Response (S-O-R) Framework

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Abstract: *This study aims to measure the influence of e-servicescape dimensions on consumers' attitude, trust on e-grocery purchase intention. Based on the dimensions of e-servicescape proposed by Harris and Goode (2010) and the S-O-R framework proposed by Mehrabian and Russel (1974), a conceptual model was developed, which considered e-servicescape environment as 'stimuli', internal response as 'organism' and e-grocery purchase intention as 'behavioral response'. Through conducting an online survey, data were collected from 200 respondents who purchase grocery items from e-commerce websites in Bangladesh by a structured questionnaire where the five-point Likert scale was used. The conceptual model was evaluated by PLS-SEM using SmartPLS V.3.3.3. The results revealed that financial security has positive influence on attitude towards website, and shows a significant positive impact of aesthetic appeal, layout & functionality, and financial security on trust in website. Besides, consumers' attitude and trust had different levels of indirect (mediating) impacts on consumers' e-grocery purchase intention. This study suggests that e-grocery retailers and web developers should focus on the different dimensions of e-servicescape and give importance on the development of consumers' positive attitude and trust in websites. Therefore, present study added important theoretical and managerial implications for future researchers and e-grocery retailers of Bangladesh.*

Keywords: *E-servicescape, e-commerce website, e-grocery, S-O-R framework, Bangladesh.*

1 Introduction

Because of the diversification of trade and commerce in the twenty-first century, multichannel has emerged where the online method is one of the most significant methods throughout the world (Johnson et al., 2001). As the top-most vital and rapid industry in the world, the retail industry is now operating in two methods. First, traditional brick and mortar retail stores and second, digitally designed e-

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commerce stores (Jagani et al., 2020). As a result, consumers are increasingly motivated for online shopping at retail level. Online shopping means electronic commerce for purchasing goods or services from the vendor using the internet (Rahman et al., 2018). According to the report of Grand View Research (2019), the worldwide e-commerce market value was USD 9.09 trillion in 2019 that is anticipated to increase at a compound annual growth rate of 14.7% from 2020 to 2027. Given this state of global e-commerce market, e-commerce business in Bangladesh is estimated to increase US\$70 billion because of growth in ICT and smart technologies (The Financial Express, 2021). The Daily Star (2019) anticipated that by 2023 the e-commerce market in Bangladesh will grow up to \$3.77 billion from \$1.6 billion in 2019.

The rise of ICT stimulates the purchase of lifestyle and fashion products of everyday groceries. As reported by Grand View Research (2021), the worldwide e-grocery market value was USD 285.70 billion in 2021 that is anticipated to increase at a compound annual growth rate of 25.3% from 2022 to 2030; and within the global e-grocery market, Asia Pacific region holds the major market share in 2021 that is anticipated to continue holding the largest market share and raise at a compound annual growth rate of nearly 28% from 2022 to 2030. Again, Bangladesh grocery market is expected to observe the reckless expansion with a compound annual growth of 11.3 percent by 2023 (IGD, 2018). In the Bangladesh e-grocery market, many retail companies are operating (e.g., Chaldal, DarazMart, Shwapno, KhaasFood, Pandamart, Jogaan, Othoba.com) that offer various items, including meat & fish, fruits & vegetables, beverages, cleaning products, home appliances, cooking essentials, and so on (Sarkar, 2020).

Although the e-commerce market is expanding, the profits made by the electronic retailers are not enough (Harris & Goode, 2004). As an essential predictor of consumer behavior, purchase intention is regarded as a vital indicator of repeat purchase (Schiffman and Kaunk, 2000). Thus, researchers shift their attention from physical servicescape to the virtual one which is also known as e-scape, cyberscape, online servicescape, virtual servicescape, digital servicescape and e-servicescape (Tankovic & Benazic, 2018). An e-servicescape refers to “the characteristics of the physical environment in virtual spaces such as websites” (Harris & Goode, 2010), which is one of the antecedents of consumers’ behavioral intention (Huang et al., 2017). An e-servicescape can stimulate customer feelings and perceptions toward a website and impact their perceptions, trusts, attitudes and purchase intentions (Wu et al., 2016), whereas, a lack of trust, negative attitudes toward websites, and brands were identified to be critical issues that affect purchase intention (Harris & Goode, 2004). The trust-building is crucial for attracting customers to an e-commerce website because of the risky and unsafe nature of the internet, (Jafarpour and Andalib, 2016). Thus, trust and attitude are important for purchase intention.

Hence, several research gaps have been identified from the above discussions. First, the industry participants do not have enough information about the reasons behind consumers’ enthusiasm in this new method of purchasing. In Bangladesh

context, although some previous studies (Islam et al., 2022) have identified some factors (i.e., user influence, user experience, facilitating conditions, payment methods, fear of Covid-19 and social distancing) affecting consumers' attitude and intention to purchase e-grocery, but the study on identifying the effect of e-servicescape on consumers' purchase intention is very rare. Hence, there is a need to reveal the dimensions of e-servicescape of e-grocery sites and the effect of e-servicescape dimensions on consumers' attitude, trust and purchase intention towards e-grocery in Bangladesh.

Second, the mediating role of attitude and trust in between the relationships of e-servicescape dimensions and purchase intention are yet unrevealed in Bangladesh, which is essential to investigate how trust affects purchase intentions directly and indirectly in developing nations in Bangladesh (Yadav and Mahara, 2020). Although, some previous studies measured the impacts of e-servicescape on trust (Amer, 2021) and e-servicescape on attitude (Wu et al., 2016), but they considered trust and attitude as dependent variable only, not the mediating variable for purchase intention. Therefore, scholars are now interested in the mediating role of trust (Chaudhuri & Holbrook, 2001). Thus, the researchers can say that trust and attitude both raised as a potential mediator between e-servicescape and online purchase intention.

Therefore, the present research proposing and testing a model of e-servicescape and e-grocery purchase intention showing direct and indirect relationships between e-servicescape dimensions, attitude towards website, trust in website and e-grocery purchase intention in Bangladesh. E-commerce market of Bangladesh was thought to be worth US\$109 billion by 2023 as the seventh-largest Asian market and twentieth largest global e-grocery market (IGD, 2018). This study has three specific objectives. First, to measure the influence of e-servicescape dimensions on consumers' attitude towards website and trust in website. Second, to analyze the influence of attitude towards website and trust in website on consumers' e-grocery purchase intention. Third, to reveal the mediating role of attitude towards website and trust in website between the relationships of e-servicescape dimensions and e-grocery purchase intention.

2 Literature Review

2.1 Theoretical Background

2.1.1 E-servicescape Dimensions

E-servicescape, an internet-based web environment (Dailey, 2004), indicates all the environmental aspects present during service delivery process (Huang et al., 2017). In this study, researchers selected the three dimensions proposed by Harris and Goode (2010), who are considered as the pioneers to conceptualize and validate the comprehensive scale of e-servicescape in the online services literature (Sreejesh & Ponnampal, 2016). The three dimensions of Harris and Goode (2010) are: aesthetic appeal, layout & functionality and financial security. They also proposed that, the construct of e-servicescape is composed of three measures, nine scales, and fifty-two items. Many studies have applied the model

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of Harris and Goode (2010) in different online contexts such as e-commerce sites (Hermantoro & Albari, 2022), digital Islamic banking (Andriani et al., 2021), online shopping (Wu et al., 2016) and online booking intentions (Amer, 2021).

2.1.2 The Stimulus-Organism-Response (S-O-R) Framework

According to Mehrabian and Russell (1974), environmental stimuli (S) induce an emotional reaction (O) and consequently result in behavioral response (R). The S-O-R framework was applied to examine travel website's atmosphere (Kurniawan et al., 2022), virtual reality tourism (Kim et al., 2018), online shopping behavior (Amatus & Gisip, 2022) and online customer loyalty (Amatus & Gisip, 2022). The results of these studies support the S-O-R theory as stimuli significantly predict consumers' emotions, which in turn, directly influence their response. Many studies applied S-O-R framework to introduce a theoretical background for the e-servicescape effects (Wu et al., 2018; Tankovic & Benazic, 2018). When focusing on the online environment, researchers operationalized *stimuli* (S) as aesthetic appeal, layout & functionality, financial security (Hermantoro & Albari, 2022), website appearance, security, eWOM (Amatus & Gisip, 2022), authentic experience (Kim et al., 2018). *Organism* (O) was operationalized as trust (Andriani et al., 2021; Amatus & Gisip, 2022; Amer, 2021), attitude (Wu et al., 2016), emotional purchases (Peng & Kim, 2014), perceived value (Amer, 2021; Hermantoro & Albari, 2022). The *responses* (R) were reflected by purchase intention (Wu et al., 2016; Kurniawan et al., 2022), online booking intentions (Amer, 2021), visit intention (Kim et al., 2018), eWOM intention (Wu et al., 2016), virtual WOM (Andriani et al., 2021).

Based on the literature review, the Stimulus-Organism-Response (S-O-R) framework (Mehrabian & Russell, 1974) considered as the most appropriate theoretical lens for this study. This study considered and assessed 'e-servicescape dimensions' as external stimuli (S), 'attitude towards website' and 'trust in website' as organism (O) and 'purchase intention' as response (R). Hence, aesthetic appeal, layout & functionality and financial security (stimulus) were modelled as the antecedents of consumers' attitude and trust (organism) that directs consumers' purchase intention (response).

2.2 Hypotheses Development

2.2.1 Interrelationships between Stimulus and Organism Variables (E-servicescape, Trust and Attitude)

According to Harris and Goode (2010), aesthetic appeal is one of the dimensions of e-servicescape which can be defined as the overall impressiveness and attraction of a website that is a way to distinguish itself from its competitors. It has been proved that there is a positive linkage between the aesthetics appeal and consumers attitudes toward the website (Wu et al., 2013; Suh & Pedersen, 2010). Previous research findings of several researchers (Montoya-Weiss et al., 2003; Tractinsky and Lowengart, 2007) recommended that, characteristics of website aesthetic appeal are essential for e-servicescape. Following this line of research, present study intends to hypothesize that:

H1a. Aesthetic appeal of e-commerce website has a significant positive influence on consumers' attitude towards website.

Besides, Amer (2021); Harris and Goode (2010); Wu et al. (2018) revealed that the appearance of a website develops trust toward the website, as, there is a strong link between the aesthetic appeal of the e-servicescape and customers' trust development Chen and Chang (2003). In fact, Fusaro et al. (2002) draw the conclusion that the amount of online trust displayed by customers depends on the signals or reference points offered on websites. Hence, this study intends to hypothesize that:

H1b. Aesthetic appeal of e-commerce website has a significant positive influence on consumers' trust in website.

Layout & functionality are defined as the design aspects of a website that create enjoyable interactions and experiences for users (Harris & Goode, 2010). According to the findings of Donnelly (2001), website functionality, usability, ease of use are important to influence consumers' online behaviors. According to Wu et al. (2013), customers will have a favorable attitude towards website if online merchants have a good design for layout and attractive environment. According to Donnelly (2001), functionality is the most crucial factor that customers consider while evaluating websites. Hence, the following hypothesis is proposed:

H2a. Layout & functionality of e-commerce website has a significant positive influence on consumers' attitude towards website.

According to Constantinides (2004), consumers expect an easy, fast, and interactive website. In e-commerce, website layout & functionalities (e.g., ease of use) of a virtual store help to build consumer trust (Amer, 2021). The empirical study of Manganari et al. (2011) found that layout & functionality can affect website trust. Accordingly, the following hypothesis is proposed:

H2b. Layout and functionality of e-commerce website has a significant positive influence on consumers' trust in website.

Lastly, financial security is defined as the security tools that consumers use to make a payment (Harris & Goode, 2010). According to Chen and Chang (2003) and Szymanski & Hise (2000), one important factor that consumers consider when assessing how websites is easy it is to make and process payments. Security has emerged as one of the most critical issues in e-commerce as there are risks associated with online activity (Cristobal et al., 2007). Customer attitude is influenced by both perceived security and the ease of money transactions (Montoya-Weiss et al. 2003). With that, the following hypothesis is formed:

H3a. Financial security of e-commerce website has a significant positive influence on consumers' attitude towards website.

Consumers' trust is also greatly influenced by perceived security, which is a critical aspect of the online environment (Andriani et al., 2021). Concerns for payment security (Kim et al., 2006) and data privacy have become crucial for

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increasing customers' trust in e-commerce transactions (Anic et al., 2019). Online users want to believe that the web page provides secure transactions and the information (e.g., credit card information) will not be used for fraudulent purposes (Cristobal et al., 2007). Tatar, & Eren-Erdogmus (2016) also claimed that a trustworthy website can be boosted through online interactivity and a clear, safe website. With that, the following hypothesis is formed:

H3b. Financial security of e-commerce website has a significant positive influence on consumers' trust in website.

2.2.2 Interrelationships between Organism and Response Variables (Trust, Attitude and Purchase Intention)

Previous studies have proven that purchase intention can be influenced through internal responses (Wu et al., 2016). According to Ajzen (1991), people's attitude toward an action is determined by how positively or negatively they perceive the behavior in question. Kim and Park (2005) provided evidence that favorable attitude toward online shopping regularly affect consumers' willingness to make purchases online. Drawing on these studies, it is hypothesized that:

H4. Attitude towards e-commerce website has a significant positive influence on consumers' e-grocery purchase intention.

According to Fusaro et al. (2002), without trust e-commerce is condemned to stagnation. Luo (2002) suggests that the development of trust should be the primary goal of online businesses. Some recent evidences also support that, trust on the website enhances the online purchasing intentions (Andriani et al., 2021; Amer, 2021; Baki, 2020; Yadav & Mahara, 2020). Considering these, it is hypothesized that:

H5. Trust in e-commerce website has a significant positive influence on consumers' e-grocery purchase intention.

2.2.3 Mediating Roles of Organism Variables (Trust and Attitude)

Ajzen and Fishbein (1980) stated that attitude pertains to evaluations of individuals, objects and issues. Park et. al. (2013) noted that customers' attitude mediates the relationship between psychological characteristics of consumers and online purchase intention and they came to the conclusion that attitudes of consumers toward an object are a key factor in the intention to buy. In the study of Pop et al., (2023) based on S-O-R framework, attitude found to be a mediator which affects purchase intention. The current study accordingly proposes the following hypotheses:

H6. Attitude towards e-commerce website mediates the relationship between (a) aesthetic appeal and e-grocery purchase intention, (b) layout & functionality and e-grocery purchase intention and (c) financial security and e-grocery purchase intention.

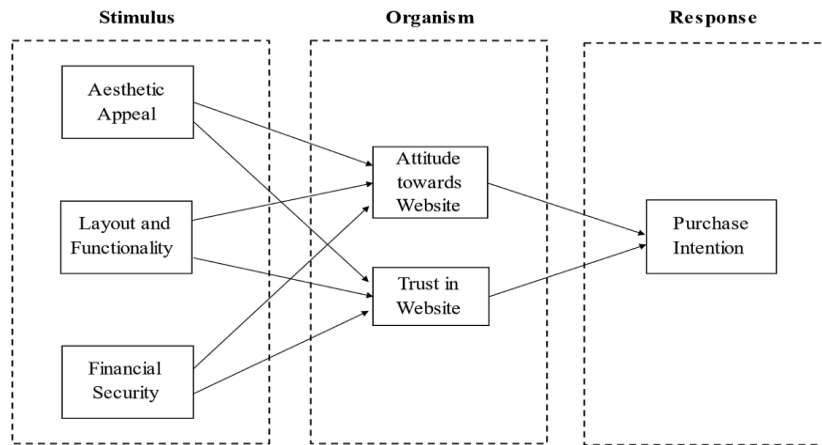
According to Harris and Goode (2010), one of the most important aspects that clients typically consider while using an e-service is trustworthiness. E-servicescape is an antecedent of trust (Andriani et al., 2021). Tri Kurniawati et al.

(2021) highlighted that promoting trust through e-servicescape is one of the best strategies for e-commerce merchants to keep their current consumers and draw in new ones. According to Cuong (2020) trust serves as a mediator for the buying intention. The current study accordingly proposes the following hypotheses:

H7. Trust in e-commerce website mediates the relationship between (a) aesthetic appeal and e-grocery purchase intention, (b) layout & functionality and e-grocery purchase intention and (c) financial security and e-grocery purchase intention.

2.3 Conceptual Framework

Considering e-servicescape dimensions as the antecedents of consumers’ attitude and trust that affects the e-grocery purchase intention, this study proposes the conceptual framework, where the researchers considered and assessed e-servicescape dimensions as external stimuli (S), attitude towards website and trust in website as organism (O) and purchase intention as response (R).



3 Research Method

3.1 Study Population and Sampling Procedure

This study followed a quantitative research design. The consumers who buy groceries from different e-commerce websites in Bangladesh are the study’s target population. According to Kline (2012), a sample size of 100 is considered as little, 100 to 200 as medium, and 200 or more as large. Thus, a total of 200 respondents of Bangladesh who purchase grocery items were surveyed. As there is no specific database of the customers of e-grocery sites are available in Bangladesh, the researchers used the purposive sampling method to gather cross-sectional data because of its popularity (Ritchie et al., 2014).

3.2 Methods of Data Analysis

For data analysis and the evaluation of the proposed model, partial least square structural equation modeling (PLS-SEM) was applied using SmartPLS V.3.3.3. According to Hoyle (1995), structural equation modeling (SEM) is a wide-

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ranging statistical method for analyzing relationships between observed and latent variables. In addition, SEM can reduce measurement errors and it is very helpful technique to evaluate the direct and indirect relationships between variables (Civelek, 2018). Hair et al. (2014) claimed that PLS-SEM can be used to measure more relationships than covariance-based structural equation modeling. PLS-SEM can estimate formative constructs and uses component-based techniques.

3.3 Research Instrument and Measures of the Study

The main data collection instrument used in this study was a structured questionnaire where five-point Likert scale. Data were collected using an online survey. The scale items for aesthetic appeal (AA) were based on seven items adapted from Harris and Goode (2010). However, two items (AA3 and AA7) were deleted for low factor loadings. Five items concerning layout & functionality (LF) were based on the suggestions by Harris and Goode (2010). Financial security (FS) was measured with five items derived from Harris and Goode (2010). Attitude towards website (ATT) included five items based on the study of Chen and Wells (1999), Castaneda et al. (2007). Trust in website (T) included four items suggested by Harris and Goode (2010) and Filieri et al. (2015). With regard to e-grocery purchase intention (PI), four items were adapted from Namkung and Jang (2009) and Castaneda et al. (2007).

4. Data Analysis and Results

Table 1 represents the demographic profile of the respondents. Among the final group of participants, the majority of respondents were male (63.5%). Regarding the age group, most of the respondents were aged between 20-30 (87.5%), followed by an age group of 30-40, which constituted 9% of the sample.

Table 1 Sample Profile

		Frequency	Percentage (%)
Gender	Male	127	63.5
	Female	71	35.5
	Prefer not to say	2	1
Age	Below 20	5	2.5
	20-30	175	87.5
	30-40	18	9
	40-50	2	1
	50-60	0	0
	Above 60	0	0
Educational Qualification	Below SSC	0	0
	SSC	0	0

		Frequency	Percentage (%)
Employment Status	HSC	69	34.5
	Bachelor's degree	97	48.5
	Master's degree	34	17
	Full-time employment	51	25.5
	Part-time employment	20	10
	Unemployed	129	64.5
Income	No personal income	112	56
	Below Tk. 30,000	52	26
	Tk. 30,000-40,000	13	6.5
	Tk. 40,000-50,000	6	3
	Tk. 50,000-60,000	3	1.5
	Above Tk. 60,000	14	7
Total Sample		200	100

4.1 Measurement Model

The measurement model assessed the reliability (cronbach's alpha and rho_A) and convergent validity of the constructs (outer loadings, average variance extracted and composite reliability).

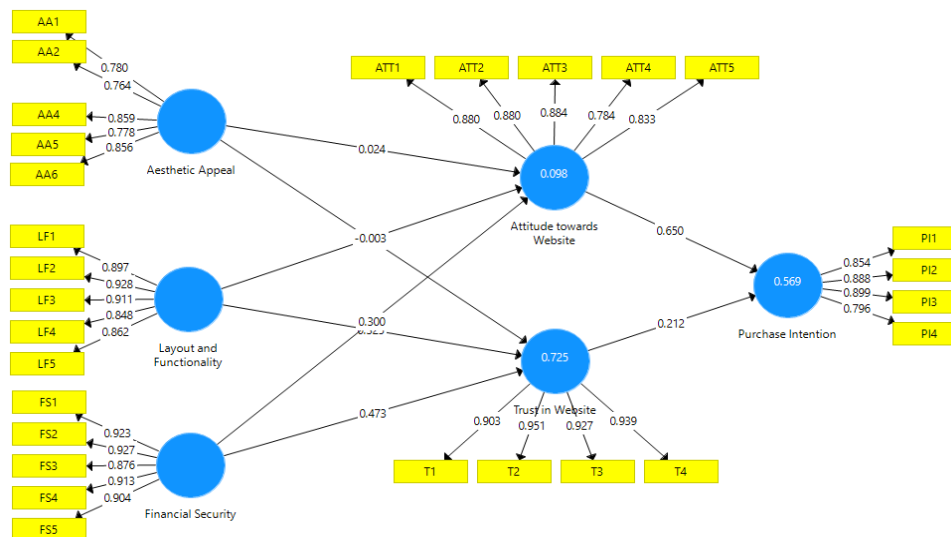


Figure 1 Measurement Model

Table 2 presents convergent validity indices. Here, outer loadings of all the indicators meet the recommended level 0.708 (Hair et al., 2014). As summarized in this table, CR and AVE also fulfill the recommended levels (Vinzi et al.,

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2010), with the CR ranging from 0.904 to 0.962 and the AVE ranges from 0.654 to 0.865. Moreover, the values of Cronbach's alpha (ranges from 0.868 to 0.948) and Dillon-Goldstein's rho (ranges from 0.880 to 0.949) ensured adequate construct reliability of the measurement model (Hair et al., 2011)

Table 2 Factor Loading, Construct Reliability and Convergent Validity

Constructs	Items	Loadings	α	rho_A	CR	AVE
Aesthetic Appeal (AA)*	AA1	0.780	0.868	0.880	0.904	0.654
	AA2	0.764				
	AA4	0.859				
	AA5	0.778				
	AA6	0.856				
Layout & Functionality (LF)	LF1	0.897	0.934	0.939	0.950	0.792
	LF2	0.928				
	LF3	0.911				
	LF4	0.848				
	LF5	0.862				
Financial Security (FS)	FS1	0.923	0.947	0.949	0.959	0.825
	FS2	0.927				
	FS3	0.876				
	FS4	0.913				
	FS5	0.904				
Attitude towards Website (ATT)	ATT1	0.880	0.906	0.910	0.930	0.728
	ATT2	0.880				
	ATT3	0.884				
	ATT4	0.784				
	ATT5	0.833				
Trust in Website (T)	T1	0.903	0.948	0.949	0.962	0.865
	T2	0.951				
	T3	0.927				
	T4	0.939				
Purchase Intention (PI)	PI1	0.854	0.882	0.883	0.919	0.740
	PI2	0.888				
	PI3	0.899				
	PI4	0.796				

Note.

α = Cronbach's Alpha, CR = Composite Reliability, AVE=Average Variance Extracted

* Two items were dropped for low factor loadings

As shown in the Fornell and Larcker criterion assessment in table 3, the square root of AVE for each construct (shown on the diagonals) are greater than the off-diagonal values which demonstrated adequate discriminant validity of the constructs (Fornell & Larcker, 1981).

Table 3: Discriminant Validity (Fornell-Larcker Criterion)

	AA	ATT	FS	LF	PI	T
Aesthetic Appeal (AA)	0.809					
Attitude towards Website (ATT)	0.208	0.853				
Financial Security (FS)	0.617	0.313	0.909			
Layout and Functionality (LF)	0.698	0.270	0.850	0.890		
Online Purchase Intention (PI)	0.232	0.728	0.346	0.341	0.860	
Trust in Website (T)	0.635	0.369	0.821	0.808	0.451	0.930

Note: The diagonal values refer to the square roots of AVEs and the off-diagonal values represents the correlations between constructs

Results of the measurement model indicate a satisfactory level of reliability and validity, indicating that the constructs are adequately fit for the assessment of the structural model.

4.2 Structural Model

PLS-SEM was used to test the relationships of the proposed model where the bootstrapping method with 5,000 iterations of resampling was adopted.

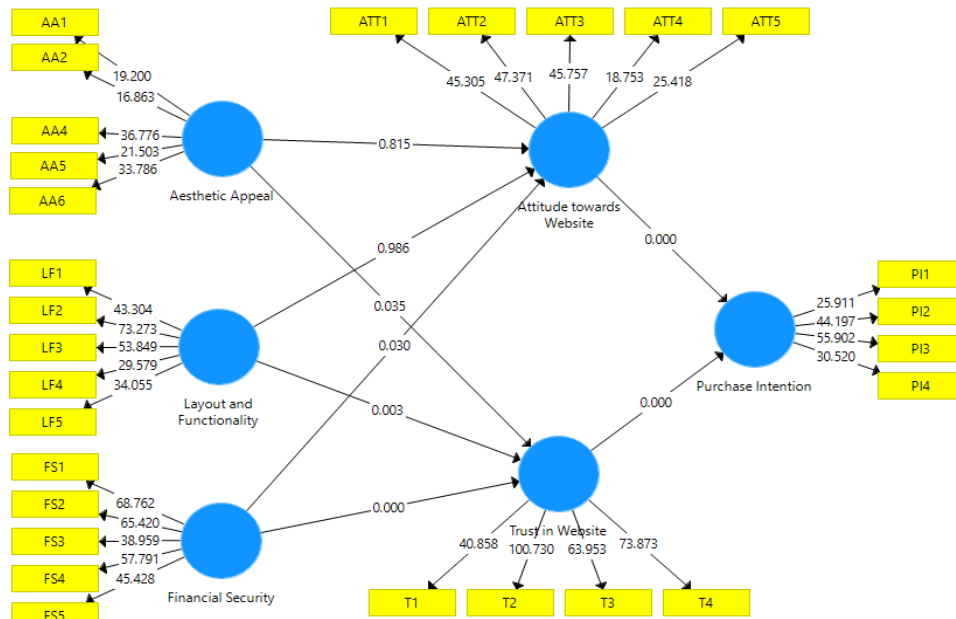


Figure 2 Structural Model

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Table 4 and table 5 shows the estimated path coefficients and associated t-values of the paths of the conceptual model. The path analysis (table 4) revealed that, the effect of aesthetic appeal on attitude towards website was insignificant ($t=0.234$, $p>0.05$), whereas, on trust in website was statistically significant ($t=2.114$, $p<0.05$). Thus, H1a was not supported while H1b was supported in this study. Furthermore, the effect of layout & functionality on attitude towards website was insignificant ($t=0.017$, $p>0.05$) whereas its effect on trust in website was statistically significant ($t=2.985$, $p<0.01$). Therefore, H2a was not supported but H2b was supported in this study. Also, financial security had significant effect on attitude towards website ($t=2.165$, $p<0.05$) and on trust in website ($t=4.078$, $p<0.001$). Hence, H3a and H3b were supported. So, this study found that only one dimension (financial security) affects consumers' attitude towards website. However, all three dimensions of e-servicescape affect consumers' trust in website. With regard to purchase intention, attitude towards website showed a significant positive relationship ($t=11.703$, $p<0.001$), thus supporting H4. Also, trust in website was found to have a significant positive impact on purchase intention ($t=3.934$, $p<0.001$), thus supporting H5. So, it can be summarized that, both the organism variables (attitude and trust) affect the response variable (i.e., purchase intention) in this study.

Table 4 Hypotheses Test Results

	Hypothesis	t Statistics	p Values	Decision
H1a	AA -> ATT	0.234	0.815	Not supported
H1b	AA -> T	2.114	0.035*	Supported
H2a	LF -> ATT	0.017	0.986	Not supported
H2b	LF -> T	2.985	0.003**	Supported
H3a	FS -> ATT	2.165	0.030*	Supported
H3b	FS -> T	4.078	0.000***	Supported
H4	ATT -> PI	11.703	0.000***	Supported
H5	T -> PI	3.934	0.000***	Supported

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; AA=Aesthetic Appeal, LF=Layout & Functionality, FS=Financial Security, ATT=Attitude towards Website, T=Trust in Website, PI=Purchase Intention

The indirect test results are presented in table 5. It was found that attitude towards website does not mediate the relationship between aesthetic appeal and purchase intention ($t = 0.235$, $p > 0.05$). Hence, H6a was not supported. Similarly, attitude towards website does not mediate the relationship between layout & functionality and purchase intention ($t = 0.017$, $p > 0.05$). Consequently, H6b was not supported as well. On the other hand, attitude towards website mediates the relationship between financial security and purchase intention ($t=2.201$, $p<0.05$). Therefore, H6c was supported. That means, among the three dimensions of e-servicescape, attitude towards website only mediates the relationship between financial security and purchase intention.

Furthermore, trust in website was not found to have any mediating relationship between aesthetic appeal and purchase intention ($t= 1.792, p>0.05$). Thus, H7a was not supported. Interestingly, though attitudes towards website did not mediate the relationship between layout & functionality and purchase intention, trust in website mediates this relationship ($t=2.269, p<0.05$). Hence, H7b was supported. Likewise, trust in website mediates the relationship between financial security and purchase intention ($t=2.880, p<0.01$). Thus, H7c was supported. That means, among the three dimensions of e-servicescape, trust mediates the relationship between layout & functionality and purchase intention. Also trust mediates the relationship between financial security and purchase intention.

Table 5 Mediation Test Results

	Hypothesis	t Statistics	p Values	Decision
H6a	AA -> ATT -> PI	0.235	0.815	Not supported
H6b	LF -> ATT -> PI	0.017	0.987	Not supported
H6c	FS -> ATT -> PI	2.201	0.028*	Supported
H7a	AA -> T -> PI	1.792	0.073	Not supported
H7b	LF -> T -> PI	2.269	0.023*	Supported
H7c	FS -> T -> PI	2.880	0.004**	Supported

Note.: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; AA = Aesthetic Appeal, LF=Layout & Functionality, FS=Financial Security, ATT=Attitude towards Website, T=Trust in Website, PI=Purchase Intention

5. Discussion

The study results revealed that, among the three dimensions of e-servicescape, only financial security has a significant positive influence on consumers’ attitude towards website. However, current findings are contrary to the studies of Suh & Pedersen (2010) and Wu et al. (2013). The possible reason behind the current finding may be that, attitude formation is a complex mechanism which cannot be explained properly. Besides, the e-grocery industry of Bangladesh is just expanding, it’s not a mature industry till now. The developers of e-commerce websites do not have clear idea about the importance of visual appeal and functionality of websites. The insignificant result may also be due to unattractive product display, non-user-friendly websites and not having easy access of product details in the ecommerce websites in Bangladesh (Islam et al., 2022). As a result, the attitude of consumers formed merely by the security system of the websites.

Next, results confirmed that all three dimensions of e-servicescape affect Bangladeshi consumers’ trust in e-grocery websites which is like the findings of Harris and Goode (2010), Amer (2021), Anic et al., (2019) and Wu et al. (2016). That means if customers of Bangladesh get a visually appealing, user-friendly website as well as secured payment system while purchasing e-grocery, their trust in that website will be enhanced positively.

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Next, this study also found that both the organism variables (attitude and trust) affect the response variable (purchase intention), means, consumers' attitude towards website has significant effect on their e-grocery purchase intention, which is consistent with the previous research of Kim and Park (2005). That means, when consumers of Bangladesh feel that e-commerce website is a good way to purchase groceries, they like the idea of purchasing groceries from website. Results of this study also revealed that trust in website plays a significant role in influencing consumers purchase intention, which is similar with the findings of Yadav and Mahara (2020), Andriani et al. (2021) and Amer (2021). That means, if customers think that ecommerce websites are trustworthy and reliable, they are willing to purchase and recommend others to purchase e-grocery.

Lastly, the study found that among the three dimensions of e-servicescape, attitude mediates the relationship between financial security and purchase intention, but does not mediate the relationships of aesthetic appeal, layout & functionality and purchase intention. May be the direct effects of aesthetic appeal and layout & functionality on attitude were found to be insignificant in this study. Although it was found that, attitude affects purchase intention directly. Besides, among the three dimensions of e-servicescape, trust mediates on two dimensions (layout & functionality and financial security). The three dimensions of e-servicescape have direct influence on trust, though trust does not mediate the relationship between aesthetic appeal and purchase intention. That means, the three dimensions of e-servicescape can generate trust in website but when the indirect effect of trust is considered, only layout & functionality and financial security can affect the ultimate purchase intention. This is an interesting finding with regard to e-servicescape studies of e-grocery industry of Bangladesh.

6. Implications**6.1 Theoretical Implications**

This study contributes to e-servicescape literature and explores a variety of ways in which e-servicescape influences behavioral outcomes. First, this study proposed and tested the conceptual model based on direct and indirect relationships between e-servicescape and behavioral outcomes. It should be noted that, this study measured the individual effects of various e-servicescape dimensions in the development of consumer attitude and trust in websites, rather than accepting the integrated approach of analyzing e-servicescape at a general level. Second, this study integrates the dimensions of e-servicescape within the framework of S-O-R that establishes an added level of sophistication to the literature. Finally, it is worthy to mention that present study is one of the pioneer studies in Bangladesh to test the mediating role of attitude and trust between the relationships of e-servicescape dimensions and purchase intention. Although Wu et al. (2016) and Harris and Goode (2010) discovered direct relationships among e-servicecae, trust, attitude and purchase intention, they did not test the mediating role of attitude and trust. The present study thus confirms that indirect relationships among the stated constructs do exist.

6.2 Managerial Implications

On the practical side, this research is useful for marketers aiming to promote consumers' positive attitude and encourage purchase intention through website design. A notable finding of this study is that, financial security influences consumers' attitude towards website, which implies that consumers want to know where they are spending money and it will have a positive influence on their attitude. Therefore, e-grocery retailers should focus on making their websites more secured and reliable in order to build consumers' positive attitude by developing a straightforward & security conscious payment system and providing reassurance of security procedures in e-grocery websites. Next, all of the three dimensions of e-servicescape influence trust in website which in turn influences consumers' purchase intention from e-commerce websites. Therefore, marketers must make their websites aesthetically attractive and financially secured. Utilizing suitable color, entertaining web features and other aesthetic elements can improve the aesthetic appeal. Besides, making user-friendly websites with quick access to product details can enhance the design and performance of websites. These three attributes are therefore predicted to make the websites more dependable and trustworthy, which will draw more customers.

7. Limitations & Scope for Future Research

Although this noteworthy study has potential implications for e-grocery industry of Bangladesh, there exists some limitations. Present study included and tested two mediators (attitude and trust) in the model that further needs to be validated by other developing as well as developed country context. The sample size used here was limited to 200 and purposive sampling method was applied for selecting the samples. The sample profile showed that majority of the study sample belong to young generation (age 20-30). So, it is suggested that, future studies can be conducted by employing greater sample size with the probability sampling technique. Besides, comparative studies between various age groups can also be conducted in future. In addition, the study model did not test the effect of any moderating variables like income, gender and age. So future research can be conducted by including various moderating variables in the model.

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