Measuring Online Shopping Risk Factors towards Online Shopping Customer's Behaviour in Bangladesh: A Structural Equation Modelling

¹Happy Mitro, ²Golam Mustafa Chowdhury

1, 2 Assistant Professor

^{1, 2} Department of Business Administration

Institute of Science Trade & Technology (ISTT, Affiliated with National University, Bangladesh)

E-mail: ²mostafa_dba@istt.edu.bd

Cell: +88001916095848, +8801736172924

Abstract-Web shopping is a wonder that is developing quickly these days. There is as yet a gigantic piece of market potential for internet business in spite of the expansion of the fundamental players in this industry. Hence, this examination looks at the variables influencing on client's conduct of web based shopping that may be a pivotal part of online business and showcasing industry. In any case, this is a requesting social pattern and there are many reasons and it was excessively troublesome, making it impossible to discover about online buyer conduct. The reason for this exploration is to manage the shortcomings of web based shopping conduct that the past examination did not to assess yet. This goal is utilizing a model by looking at the effect of budgetary hazard, item chance, comfort chance, nonconveyance hazard and merchandise exchange on state of mind toward web based shopping conduct of purchasers as the theories of study. Straightforward arbitrary inspecting polls will be circulated to 250 online clients of Bangladesh. At last, every one of the information has been gathered Exploratory Factor Analysis and Structural Equation Modelling will be utilized to test factor stacking and the speculations of the examination. Besides, the discoveries affirmed that both financial risk and nondelivery chance have negative impacts in internet shopping, and the investigation additionally meant that a specific framework advancement and individual standards have a constructive outcome web based shopping conduct. What's more, the disposition has decidedly influenced client's web based shopping conduct.

Keywords: Online shopping, Online risk, Consumer's behaviour, Structural equation modelling, Bangladesh.

I. INTRODUCTION

Nowadays, online shopping services have been widely used by consumers. The internet plays an important role in our life so that people can talk with each other anywhere in the world through the internet, they can send email anytime, they can look for information online, they can play game with people across the world, and they can even buy things online. According to the research of U.S. firm e-Marketer, Global B2C online shopping sales amounted to about \$1.25 trillion. The advance of online shopping services is encouraged by not only by consumers, but also retailers. Compared to the physical stores, the online shopping retailers can save selling cost, and it can also help consumers to save time for shopping trips via internet, for example searching for product types, prices of the products reviews from others, choosing for products or services via Internet, placing the order, making payments, then followed by delivery of those products through Internet. The enhancement of the Internet and information technology has drastically accelerated the popularity of online shopping. In the last few decades, Internet grows into a significant platform for the online transaction and services. In the most developed countries, Internet has become a crucial medium, providing various kinds of products within 24 hour. In Iran, for example, there are certain

Limitations led to the business-to-consumer (B2C), the percentage of e-commerce business is always below the retail business. Otherwise, E-marketing has played an irreplaceable role in online B2C transactions. Online shopping has become an important channel in e-commerce during the past decade. Online shopping behaviour means the process of using Internet to purchase products or services. The typical online shopping process is that the consumers go to Internet searching for what they need, either merchandise or service. Then they need to make sure that the choice fits for their standard. Thus, the transaction was processed and the postsales were supported. In the light of customer's online shopping behaviour, it is according to the customer's psychological condition. The study of this research offers an extensive research and understanding of customer's online shopping behaviour and showing various influence factors, like perceived risks, attitude, intentions, social influence and many more. Particularly, it is to find out what the most important influence element is for online consumers and how to influence consumers and e-commerce supplier. Besides that, the study also supports the previous research results and illustrates the conclusion. In short, this research helps to enhance our knowledge about customer's online shopping behaviour.

II. LITERATURE REVIEW

A. Financial Risk

Risk usually creates important part in online purchasing decision. (Barnes, Bauer et al., 2007) said that insecurity is the main point that leads to the high negative perspective in web purchasing. Online shopping consists of many risks, in which the risk only creates a lot of problems when the result of online shopping is not certain. There are also prescribed risks before and after purchasing (Zeithaml, Bitner et al. 2006). Financial risk most likely occurs at the very initial stage of online shopping just after the customers are placing orders. Financial risk is connected with the loss of money in which there is a poor product or service choice. To define, financial risk is the degree of uncertainty that a customer is willing to acknowledge when making a financial operation. According to Guseman, every product contains risks, though separately. Moreover, according to (Cunningham, Gerlach et al. 2005), these risks also include no

Standard of products and no warranties. Financial risk is the potential loss of money associated with the purchase or dangerous use of the credit card information. Online technology usually exposed to safety threats like viruses, worms, crackers, and password sniffing (Lu, 2005). In short, there are many different views from different scholars on financial risks, but financial risks commonly influence customer's intention negatively to shop online.

B. Product Risk

Product risk can also be referred as the performance risk. To define, performance risks are the chances of the failure of products to meet its user's requirements. There are many categories of product failure among users, including the financial damage of a product and loss of goods from beginning to the end. According to Yeniceri and Akin (2013), product risk is referring to the poor product performance particularly when it does not meet the desired expectations by consumers. They also explained that it is because of consumer's inadequacy to measure the quality of product in online store because of the non-availability of physical inspection. This includes the touching of the real product, brand colours, imprecise information about the features of the products which can cause the performance risk of the product. Product risk also related to the probability of getting the product which is different from the description on the website. It is complicated for consumers to estimate the quality of products without inspection and material evidence, such as smell, taste, touch. According to Stoel (2005), in case of clothes purchasing, there are some problems related to fibre content, fit and colour as their inability to try on the garment physically.

C. Non-delivery Risk

Non-delivery risk is when there is a wrong delivery of products to people at wrong place. Non-delivery risk means that the product cannot be delivered to the consumer, or the delay of delivery of product from the period of time promised with consumers. According to Claudia (2012), during the delivery process the products might be damaged and its packing is not as proper as it should be. According to Hong (2015), there is a positive aspect of product delivery risk if consumer ordered it from a Trustworthy online dealer; therefore they find ways to deal with trustworthy online dealers to reduce the

Risk of product delivery. Meanwhile, Adnan (2014) Specified that there is a negative impact of product delivery on consumer's shopping behaviour. He even recommended that online dealers should provide insurance to online consumers if they do not receive the product in time. Yeniceri and Akin (2013) said that the product delivery risk is high when consumers are not receiving the products in time or there is a delay in product delivery.

D. Return Policy

Return policy refers to the easiest way to sale products is to ensure consumers about money back guarantee. This is to ensure them that they can give back their products at any time without any difficulty if they are not satisfied with the products they buy. Rajeshwary and Sayed said that this method has both positive and negative impact to the choice of customers. The positive impact is when the customers are not satisfied with goods ordered; they can give those goods back. Meanwhile, the negative impact is when if they want to get back the product, the whole process may take a long time to complete. Return policy is lenient in a way when the product is not likely as it has described and need to be exchange or to refund. To compensate the customers, in return policy or return policy is implemented to compensate the original payment for some service, partially refund. Shim, Eastlick and Lotz (2000) stated that in shopping online, customers view the characteristics of the product like price, ease of movement, and return policy as important. Online companies usually offer return conditions because of many reasons. For instance they want to remain competitive with their rivals' return policies, or because they believe that one of the most valuable assets for business is customer satisfaction (Rogers and Tibben-Lembke, 1999). According to Foscht and Ernstreiter (2013), when customers have low level of uncertainty and the products from the particular online store are familiar to them, they will usually return back fewer products and they will order more products that will eventually help to raise more profits for the company itself. The review of previous studies has embodied different factors that influence the attitude towards customers' online shopping behaviour. Those factors explained above Are deemed as the major components that relate to

Attitude towards online Shopping behaviour. Therefore, in this study, we will see how all these Five factors are affecting attitude of consumers towards their online shopping behaviour.

E. Attitude towards Online Shopping Behavior

The research about the attitude of consumers towards their purchasing behavior has previously investigated since the mid-1970s. Fishbein and Ajzen (1975) stated, according to the attitude change and behavior model, that consumer's attitudes are most likely affected by intention. When the intention is used by consumers when they are shopping online, the effect of the purchase transaction can be investigated by researchers. According to Jahng, Jain, and Ramamurthy (2001), one aspect is the acceptance of consumers that Internet is used as a medium of shopping. Previous studies have also shown that attitude is one of the significant reasons of online shopping behaviors (Yang et al., 2007) and (George, 2004; Yang et al., 2007) purchasing behaviors among consumers.

F. Convenience Risk

Convenience risk can be defined as the perception that time or effort wasted when a purchased product is being repaired or replaced (Hanjun et al., 2004). According (Forsythe et al., 2006), it also consists of the problem happened during online transactions, usually because of navigation difficulty or orders submission, or also delays upon receiving the products, or no proper method for product cancellation once it was ordered. According to (Dan et al., 2007), convenience risk can be referred to possible loss of delivery related to the loss of products, damaged products and products sent to the wrong address after shopping. In online shopping, there is a much absence of trust. There are also an amount of strains and threats that exist in online purchasing website. Claudia (2012) said that consumers are afraid that delivery of the products ordered will be delayed because of various conditions, for example, the delivery company would not deliver the product during the period agreed with customers, or they fear that the products might be broken when being transported, or the products are not properly packaged and handled transporting the products to consumers.

III.RESEARCH FRAMEWORK

Following mention figure has been illustrated on the base of various previous research works

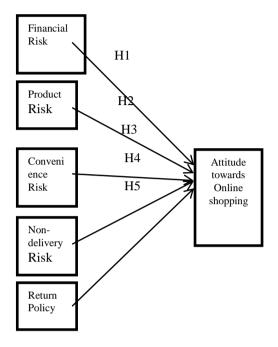


Figure1: Research Framework

A. METHOD OF THE STUDY

This part initially displays the exploration plan, calculated model and speculations to be tried. At that point the examination procedure including the study design and estimation of the investigation factors (including financial risk, product risk, convenience risk, non-delivery risk, and return policy), reviewing and data examination methods are depicted. The examination got a handle on in this examination is a practical report where the examination is attempted to delineate the responses to demand of the portions in state of mind towards web based shopping purchasers practices a record site in Bangladesh and, which of the segments expect the most essential part complete client devotion. Cross-sectional examination was driven by methods for study concentrate to take a delineation of the populace at a point in time as the examination is focusing on in perspective of existing keeping money customer and not focusing on the impact of earlier and after that a while later a customer getting the chance to be internet shopping state of mind of the customers in Bangladesh. Organized review was made to get the

Responses from web shopping buyers about their notions on various research factors. A total number of 250 web based shopping buyers (test gauge) have been haphazardly browsed different diverse shopping zones in Bangladesh. The examiners built up the review which includes essentially two segments, 1) Respondent's statistic information and 2) Elements related to shopper shopping demeanor and measuring hazard factors. 24 related polls were taken as self-governing components and general web based shopping states of mind towards web based shopping as the poor variable. By then the data was assembled through outline by using that overview. The gathered information was examined by utilizing SPSS and AMOS programming.

IV. RESULTS AND DISCUSSION

A. Exploratory factor analysis (EFA)

Hair et al. (2009) have indicated that it is basic to principle compute examination, as it helps scientists in gathering the information amassed from a particular course of action of data. In any case, before proceeding with EFA, two tests, to be particular, Kaiser- Meyer- Olkin (KMO) and Bartlett's Trial of Sphericity, should be affirmed for checking the factorability of data (Pallant, 2007). Tabachnick, Fidell, and Osterlind (2001) have exhibited that the estimation of the essential test (KMO) ranges from 0 to 1, and for a legitimate examination it is fundamental to have no not as much as an estimation of 0.6, and for the last specified (Bartlett's Trial of Sphericity) it is basic to accomplish a basic p regard (p < .05). In the wake of running both of these particular tests through SPSS, it was watched that the consequences of both fell inside the estimable range, displaying that the ace can run EFA. The eventual outcomes of the tests are appeared underneath in Table 3. From EFA, 24 things have been settled and every something are accepted to be basic as they comprehends how to stack with a regard more significant than 0.50, and any stacking over this regard is believed to be in every practical sense basic by (Hair et al., 2009). A higher change is cleared up when five sections are held. Cronbach's alpha has also been resolved for each something of the five components. It can be seen that everything under each of the components are strong as they all have beaded the base estimation

of .60 proposed by Hair, Dark, Babin, and Anderson (2010).

Table 1: Kaiser-Meyer-Olkin (KMO)&Barlett's test

Kaiser-Meyer-Olkin Sampling Adequacy	.856	
Bartlett's Test of Sphericity	Approx. Chi-Square	4354.754
	Df	
	Sig.	.000

The estimations of the accompanying Table 2 demonstrate the affiliation of the things to a factor.

By and large, the factor is the common fondness of a Thing for a gathering. The higher stacking (factor) shows the more grounded connection of a thing to a particular factor. The discoveries of this examination demonstrate that each of the five measurements (financial risk, product risk, convenience risk, non-delivery risk, and return policy) was homogeneously stacked to the diverse elements. That implies each of the things that stacked into five unique factors, all has demonstrated as altogether identified with the client loyalty.

Table 2: Result of Exploratory Factor Analysis (EFA)

	Component						
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	
Financial risk (FR)							
FR1	.841						
FR2	.742						
FR3	.687						
FR4	.852						
Product Risk (PR)							
PR1		.896					
PR2		.748					
PR3		.685					
PR4		.874					
Convenience risk (CR)							
CR1			.784				
CR2			.867				
CR3			.789				
CR4			.854				

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Non-delivery						
risk (ND)						
ND1				.758		
ND2				.885		
ND3				.745		
ND4				.821		
Return policy						
(RP)						
RP1					.856	
RP2					.762	
RP3					.874	
RP4					.754	
Attitude						
towards online						
shopping (AS)						
AS1						.754
AS2						.685
AS3						.765
AS4						.825

Extraction method: principle components analysis.

B. Evaluation of the Structural Equation Model

The after effect of the model revealed that the model is sufficient as it finished the required qualities for each of the records as takes after: root mean square error approximation (RMSEA) = .085, comparative fit list (CFI) = .915. Normed $\chi 2 = 2.784$ (Figure 2).

C. Results of hypothesis testing

As showed up in Table 5, it can be watched that all the five theory ways were enormous at p value< .05. Web composition of the business banks in Bangladesh has a colossal effect result on client faithfulness on business online banks, exhibiting that the H1standardized relapse weight = .354, standard mistake = .098, basic proportion = - 2.137, level of noteworthiness for relapse weight = critical at .024. H2 of the audit has in like manner been recognized, demonstrating that confirmation of the web based shopping framework in Bangladesh has an immense useful result on assurance propelled shopping dispositions towards web based shopping on the business shopping framework in Bangladesh as the institutionalized relapse weight = .235, standard mistake = .085, basic proportion = -2.137, and level of hugeness for relapse weight = .001. H3 of this examination has additionally a tremendous effect that implies push towards web based shopping states of mind in Bangladesh was similarly ends as the institutionalized relapse weight = .214, standard mistake = .154, basic proportion = - 2.916, and level of essentialness for relapse weight = .003. In this way, propensity for the clients workplaces are exceedingly considered by the Bangladeshi online based clients to choice their exchange essentially online based shopping framework in Bangladesh web based shopping;. H4 is in like manner recognized as the institutionalized relapse weight = .326, standard mistake = .126, basic proportion = - 3.901, and level of hugeness for relapse weight = .023. Thusly, notoriety is significantly broad to take choice the establishments for Bangladeshi web based shopping buyers' dispositions. H5 of this survey is similarly recognized as the institutionalized relapse weight = .256, standard mistake = .188, basic proportion = 2.411, and level of

Centrality for relapse weight = .000. In this way, valuable ones effects are play a significantly more basic part for the internet shopping dispositions of the Bangladeshi customer's.

Table 3: Fitness Assessment of the Structural Model.

Name of category	Required value	Obtaine d Value	Comments
Absolute fit	RMSEA ≤ 0.08	0. 085	The required value is attained
Incremen tal fit	CFI ≥ 0.90	0.915	The required value is attained
Parsimon ious fit	χ2/df≤ 3	2.784	The required value is attained

Source.Byrne (2010); Hair, Black, Babin, and Anderson (2010); Kline (2011); Sarwar (2013); Zainudin (2012).

Note. RMSEA = root mean square error approximation; GFI = goodness-of-fit index; CFI = comparative fit index.

D. Validity testing

Alongside the base line model, the review needs to consider the general estimation model to test the validity of the investigation. To affirm develop validity of the review, it requires evaluating convergent, discriminant, and facing validity. The majority of the element loadings for each factors (more than .70), normal chi-square value (AVE; more than .50), and construct validity (more than .50) demonstrate the convergent validity, while discriminant validity is affirmed with the positive contrast amongst AVE and squared correlation (r2) of the builds. AVE is viewed larger that squared multiple correlation and provide the sign of elegancy of every variable. Furthermore, academic support of research oriented work gives the basic observation of variables.

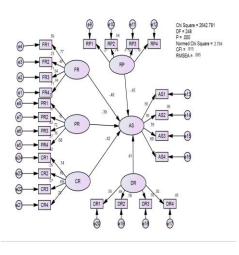


Figure 2:Full-fledged model of measuring online services in commercial bank in Bangladesh

Table 4: Validity Testing

Construct	Cronbach'sa	CR	AVE
Financial risk	.789	3.057	0.578
Product risk	.775	4.521	0.545
Convenience risk	.687	3.125	0.654
Non-delivery risk	.725	5.789	0.585
Return policy	.831	4.224	0.635

Table 5: Result of hypothesis testing

Structural path		Estimate	SE	CR	P
Attitude online shopping	Financi al risk	.354	.09	-2.137	.024
Attitude online shopping	Produc t risk	.235	.08	-3.022	.001
Attitude online shopping	Conve nience risk	.214	.15	-2.916	.003
Attitude online shopping	Non- deliver y risk	.326	.12	3.901	.023
Attitude online	Return policy	.256	.18 5	2.411	.032

shopping			

V. CONCLUSION & SCOPE OF FURTHER RESEARCH

This investigation was embraced to look at and comprehend the customers' states of mind in choosing the online based shopping in Bangladesh to end up habituated to the worry web based shopping offices. As a general thought, shoppers' states of mind broadly shifts as per the affecting or the measuring factors like money related hazard, item chance, accommodation chance, non-conveyance hazard, and merchandise exchange and so forth. Likewise, frame the specialist organizations' point of view; the organizations have understood that there is a tremendous online business advertises in Bangladesh. In this manner, each especialist organization, give assortment of offers to make their administrations more exceptional and dependable for their potential clients in an aggressive web based shopping. It has been obvious frame distinctive contemporary research that online business shopping administrations in Bangladesh are more famous now than any time in recent memory. Cash has been contributed by the organizations not just to update online based administrations or system extension yet in addition offering various types of immediate and roundabout items or standard administrations to their potential new clients and for holding the rest of the clients too. Applications improvement, site planning, online client mind, this are a standout amongst the most vital elements of general online e-keeping money administrations system. As indicated by our investigation, it has been obvious that monetary hazard, item chance, comfort chance, non-conveyance chance are one of the major unequivocal components to execute as negative impact towards the clients states of mind client on internet shopping in Bangladesh among numerous web based shopping administrations. The discoveries of this examination can help web based shopping divisions particularly the heating which is working on the web premise benefits in their operation and vital arrangement of advertising and in addition to gauge the elements which is most essential to steadfast client to their administrations. In this investigation, we have endeavoured to relate a few factors that may impact the state of mind online buy conduct. We additionally conceptualized a model with the goal that we can decide the impacts of the free

factors. The Outcome that we got from speculations testing demonstrates that budgetary hazard and nonconveyance chance has negative effect on our reliant variable which is state of mind towards web based shopping conduct. So we can state that e advertisers should make their site instalment framework more secure and put more accentuation on item conveyance. The present investigation has considered only couple of measuring elements of online business managing an account administrations criteria, for example, web composition, put stock in affirmation, propensity and last one notoriety despite the fact that there might be numerous more critical parts of web based shopping in Bangladesh. Then again, past analysts considered an excessive number of measuring variables of shopping, just a few pointers of those have been considered in this examination. In this way, future research on the linkages of the rest of the parts that address all the more extensively will contribute towards a more noteworthy comprehension of what really are the explanations for of the different decision criteria. Thus, future research should be done on the general measuring factors end up noticeably faithful to comprehend it better.

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Author Profile:



Happy Mitro has completed her B.Sc. and M.Sc in Statistics from Jahangirnagar University (Bangladesh) in 2008 and 2009 respectively. She is now doing her M.Phil in the field of Financial Econometrics in the same

university. Now she is serving as Assistant Professor of Business Administration Department of Institute of Science Trade & Technology, Dhaka, Bangladesh (Affiliated with National University, Bangladesh). She has been working as a question setter and examination script evaluator of different public examinations of National University from 2012. Her research interest

covers financial market risk analysis, Analyzing the applicability of different Prediction Techniques of share price.



Golam Mustafa Chowdhury has completed his MBA (Major in Finance) and BBA (Major in Finance) from East West University, Dhaka, Bangladesh, in 2008 and 2006 respectively. Currently he is working as an Assistant Professor in Business Administration Department

of Institute of Science Trade & Technology, Dhaka, Bangladesh (Affiliated with National University, Bangladesh). He has been working as question setter and examination script evaluator of different public examinations of National University from 2010. His research interest includes Share Market, Credit risk, Microfinance and Green banking.