Factors Affecting Consumers’ purchasing Decision through E-Commerce

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Abstract — the rapid changing Internet environment has formed a competitive business setting, which provides opportunities for conducting businesses online. Availability of online transaction systems enable users to buy and make payment for products and services using the Internet platform. Thus, customers’ involvements in online purchasing have become an important trend. However, since the market is comprised of many different people and cultures, with diverse viewpoints, e-commerce businesses are being challenged by the reality of complex behavior of consumers. Therefore, it is vital to identify the factors that affect consumers purchasing decision through e-commerce in respective cultures and societies. In response to this claim, the purpose of this study is to explore the factors affecting customers’ purchasing decision through e-commerce (online shopping). Several factors such as trust, satisfaction, return policy, cash on delivery, after sale service, cash back warranty, business reputation, social and individual attitude, are considered. At this stage, the factors mentioned above, which are commonly considered influencing purchasing decision through online shopping in literature, are hypothesized to measure the causal relationship within the framework.

Keywords: E-commerce; Considering Factors; Affect; consumers’ online purchasing decision

I. INTRODUCTION

Electronic commerce over the Internet or online shopping has started for the first time in 1994[1]. Since then, Internet usage is no longer limited as a networking media, but it also has a role as marketing and transaction medium for many people. E-commerce nowadays can be constructed easily as cheaper Internet access than ever before and there are many banks that provide the features of Internet Banking (e-banking) that can help support the payment process in e-commerce so that it can be developed quickly. Advances in technology also lead to the development of e-commerce with ease, because at this time there are a lot of free applications to build e-commerce sites. Retailers tend to establish online storefronts as an online retailing method when the product brand names and reputations are well established and widely known among consumers. In line with this, Shopping on Internet becomes an alternative for consumers since it is more comfortable than conventional shopping which usually attributed with anxious, crowded, traffic jam, limited time, parking space, etc. So Internet retailing is one of the fastest growing sectors in the world, and is having significant effects on traditional retail provision [1]. Cross cultural comparison study by [2] revealed that, consumers from a different culture exhibit a distinction in conducting e-commerce. This cultural difference is only evident among consumers with no prior e-commerce experience but disappears among consumers with prior e-commerce experience. Two barriers identified to consumers’ adoption of e-commerce in an international setting: low trust and lack of experience. The cyber market is also comprises of many different people and cultures, which have diverse viewpoints concerning trust [3]. Therefore, it is important for electronic businesses to design their websites with all essential services to gain trust from their target customers.

The main objective of this study is to identify the most important factors that affect consumers’ purchasing decisions through e-commerce from literature and develop framework through which the hypotheses can be tested for causal relationship. Verification of the hypotheses using empirical data is beyond the scope of this conceptual stage.
A. E-Commerce

Electronic commerce (e-commerce) is buying and selling using an electronic medium. It is accepting credit and payments over the net, doing banking transactions using the Internet, selling commodities or information using the World Wide Web and so on. Turban et al. [4] define e-commerce as the process of buying, selling, transferring, or exchanging products, services, and/or information via computer networks, including the Internet. Some researchers see e-commerce in terms of Internet applications, such as intranet, extranet, website and email. Others view e-commerce as combination of business processes and Internet technologies such as interactions with customers and suppliers. Even though there is no consensus on definition of e-commerce, there is general agreement among researchers that the main components of e-commerce include: website, email, intranet, extranet, LAN and wireless area network (WAN). We have adopted the above definitions and descriptions of e-commerce. Moreover, online shopping and e-commerce are also being used interchangeably throughout paper.

II. LITERATURE REVIEW

Enormous studies have been conducted to ascertain the factors affecting consumers' online buying behavior. Lee et al. [5] found that perceived value, perceived ease of use, perceived usefulness, firm's reputation, privacy, trust, reliability and functionality have a significant linear relationship to online repurchase intentions. Trust and consumer attitudes have the strongest direct effect on buying online intention; while the convenience, price, broader product selection, and earnings have also strong indirect effect on online shopping intentions through attitudes toward online shopping as mediator [6]. Impulse buying intentions, consumer orientation to quality, customer orientation to brands, online trust and online purchasing experience are positively related to prior purchase intention of online customers [7]. According to [8] site design, site reliability, customer service sites, and site safety are the four dominant factors that influence consumer perceptions of online purchases. Using two different perspectives, namely the technology oriented perspective and trust oriented perspective [9] conducted a survey on online purchase intentions. The outcome of it revealed that, the perceived risk, which is part of the trust perspective and part of the technological perspectives, and perceived ease of use have direct impact on online purchase behavior. Empathy and trust are the factors that most directly influential in predicting online purchase intentions [10]. Findings from [11] showed that, online consumers are more concerned with the quality attributes associated with the resulting quality and customer service rather than the attributes associated with web transactions. There are six perceptions of the quality perceived by customers: (1) information ease of use; (2) quality; (3) consumer service; (4) websites design; (5) process controllability; and (6) outcome quality. Based on the results of their study [12] noted that the confidence in the brand affect decisions to buy online and it may be necessary to increase online sales. Influence of trust in the seller's beliefs varies with confidence in the brands, products and services confidence to be influenced by faith trust in brands. Quality of system and information feature as well satisfaction influenced the use of e-commerce website [13]. As per the Saudi Arabian internet users and online shoppers, perceived usefulness, enjoyment, and social pressure are determinants of online shopping continuance [14]. Promotion and security are the most influential factors on customer purchase decision through Internet [15]. Perceived enjoyment, perceived usefulness, firm reputation and social influence have an impact on a customer’s behavioral intentions [16]. The results from [17] suggested that information quality, perceived ease of payment, benefits of online shopping, and trust affect online purchase decision significantly. Sinha and Kim, 2012[18] Also attempted to identify factors affecting consumers’ online purchase behavior considering perceived risks and service and infrastructure concerns. They have also included culture-specific factors such as shopping and leisure habits, credit card penetration rate, Internet related infrastructure, reliability of postal carriers, etc. Convenience risk was found to be the only factor affecting consumers’ online buying behavior.

III. CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

In this research framework (as shown in Fig 1) eight independent variables namely Trust, satisfaction, return policy, cash on delivery, after sale service, cash back warranty, business reputation, and social and individual attitude, are illustrated. In preparation to test the influence of each factor on consumers’ online purchase decision, within the framework, we generate eight hypotheses drawn from literature. In the context of shopping through e-commerce, three types of risk are said to be predominant: financial risk, product risk, and information risk (security and privacy) [19]. This study is based on these three predominant risks. Therefore this framework can be considered as consumers’ risk mitigation model in the e-commerce setting.

This model is unique and comprehensive for the following reasons: (1) It comprises of the basic factors, affecting consumers’ decision to purchase through e-commerce, such as cash back warranty, return policy, after sale service and cash on delivery. (2) It embraces trust and firm reputation to understand the perception of consumers’
perception towards IT infrastructure and e-venders (3) contain individual and social attitude to take account of individual’s predisposition or a tendency to respond positively or negatively towards an entity; and the acquired tendency of societal attitude to evaluate social things in a specific way, which will enable to capture the effects of attitude on e-commerce participation (4) satisfaction is integrated to draw conclusion on the expectation-confirmation process of consumers through which their satisfaction level for future loyalty is formed.

Generally, Customers in the e-commerce environment must feel certain that they will receive what they pay for and that their financial information is protected. Therefore, it is important that e-commerce not only convince consumers that the product or service will satisfy their needs but also gain the consumers' trust so that they feel confident and secure enough to share personal and financial information to actually make a purchase. At this conceptual stage, considering the eight variables as key factors in the engagement of virtual economic activity among e-commerce users, this study attempts to examine hypothetically which factors affect consumers purchasing decision through e-commerce most. The next section discusses the hypotheses development.

A. Trust

In online environment, [20, 21] conceptualized trust as the belief that allows customers to willingly become vulnerable to web retailers after having taken the retailers’ characteristics into consideration. Trust is important because it helps customers overcome perceptions of uncertainty and risk and engage in “trust related behaviors” with vendors, such as sharing personal information or making purchases [20]. In online shopping, users feel fearful to transact with e-venders in that transaction are conducted through Internet. Hoffman et al. [22] indicated that the critical obstruction in e-commerce was the fear, including the lack of standards for secure payment, the lack of profitable business models, and consumers’ fear of distributing their personal data. Trust helps decrease this fear and facilitate transaction in e-commerce by reducing fraud, uncertainties and potential risks. According to the evidence by [2], the e-commerce market is comprised of many different people and cultures, which have diverse viewpoints concerning trust; hence a study of trust conducted in one cultural society could not be generalized for others.

H1: Trust of e-commerce customers has an effect on their online purchasing decision.

B. Cash on delivery

Firms engaging in e-commerce activities must develop websites that are not only useful and secure, but also trustworthy with respect to security and privacy [3, 23]. In the case of Web shopping, three types of risk are said to be predominant: financial risk, product risk, and information risk (security and privacy) [19]. The use of encryption technology can reduce the fear of fraud which is the reason most people are hesitant to provide their personal information and credit card numbers. For this reason, although Internet users may be interested in purchasing a product or ordering services over the internet, nearly 67% of customers terminate transactions by abandoning the website when asked to provide personal information and credit card details [24]. Therefore, Cash on delivery is one of the solutions that customers may prefer to mitigate the perceived security risk.

H2: Cash on delivery has an effect on consumers’ online purchasing decision.

C. Return policy

The availability of a return policy and its return management offers the psychological benefit for overcoming buyer's remorse, which is a type of security awareness. Additionally, a return policy suggests itself into the minds of consumers as an increase in the service quality of a company, and the perceived quality of a company influences consumption decisions. Consumers' needs that create barriers in trust vary in scope in different purchasing venues. Results from the cross cultural study by [3], between Anglo and Hispanic, revealed that, both groups ranked two factors as the most important security factors: (1) data encryption and (2) the availability of a return policy. This result indicates that, in order to gain trust from customers, e-businesses must first render a clear message making customers aware that the website is equipped with encryption technology to protect information provided by customers, and second, offer an easy return policy. Confidence in the brand also affects decisions to buy online [12].

H3: Availability/Management of return has an effect on consumers’ online purchasing decision.

D. Cash back warranty

Availability of a service guarantee is an important factor that can be leveraged in offensive and defensive marketing initiatives [25, 26]. Three different categories of warranties are identified in the literature: extended warranty, extended maintenance contract, and money back guarantee [27]. A money back guarantee has been shown to be an important risk reduction strategy for consumers [27, 28]. Therefore consumers’ feel secure to shop online if they are sure that they will get their money back in case of discrepancy with the item they have purchased.

H4a: Cash back warranty has an effect on consumers’ online purchasing decision.
E. After sale service

Consumers use extended maintenance and warranty contract in the context of e-commerce. A Consumer is using some else’s product temporarily or purchases some product but is not sure if she/he is going to own the product after the return policy or warranty expires. Hence after sale service is one of the factors affecting consumers’ online purchase decision.

H5: After sale service has an effect on consumers’ online purchasing decision.

F. Firm reputation

Hess [29] defined the company's reputation as the perception of customers how well a company takes care of customers and really concerned about their prosperity. It is likely that a company with good reputation have more online shopping. Several studies have shown that perceived corporate reputation is a determining factor in trust to Internet shopping [30, 31]. When the perceived reputation of the company is positive, consumers will have more confident to company advertisement.

H6: Firm reputation has an effect on Consumers’ online purchasing decision.

G. Satisfaction (with e-commerce)

A model of consumers’ trust and satisfaction has been synthesized by [32] in the context of e-commerce. Their study considers not only how consumers formulate their pre purchase decisions, but also how they form their long term relationships with the same website vendor by comparing their pre purchase expectations to their actual purchase outcome. The results indicated that trust directly and indirectly affects a consumer’s purchase decision in combination with perceived risk and perceived benefit, and also trust has a long term impact on consumer e-loyalty through satisfaction. The understanding of consumers Internet transaction behavior can be seen as a threefold (pre repurchase, purchase, and post purchase) process.

1) Pre purchase Phase

Unlike the Traditional commerce, which focuses primarily on interpersonal trust, an e-tailer’s website, enabled by IT artifacts (i.e., hardware/ software, combined systems, and networks), replaces a salesperson’s functionalities. In this stage Perceived risk, trust, expectation, and perceived benefits will come into effect.

2) Purchase Phase

At this stage Willingness to purchase and completion of purchase are considered. The former refers to the degree to which a consumer intends to make a transaction from a certain e-retailer, and the later is a consumer’s actual transaction decision, which is measured with a single dichotomous (purchase or not purchase) indicator.

3) Post purchase Phase

After completing a transaction, consumers confirm their expectation through a post purchase evaluation process and form their satisfaction level, which affects their future e-loyalty, including repurchase decisions. Thus, the post purchase process is very different from the pre purchase process primarily because in the post purchase phase the consumer has substantial and direct prior experience to draw on. This is to mean, in the post purchase evaluation process, the product or service from the e-retailer will be evaluated in the context of the consumer’s prior expectations and the actual performance of the product/service as perceived after its consumption. In this post purchase process, the confirmation, performance and satisfaction come into existence by comparing ex ante expectation versus ex post perceived performance across two different time periods [32].

H7: Satisfaction has an effect on consumers’ online repurchasing decision.

H. Individual and social attitudes

1) Individual Attitude

Individual attitude is a predisposition or a tendency to respond positively or negatively towards a certain idea, object, person, or situation. Attitude influences an individual’s choice of action, and responses to challenges, incentives, and rewards (together called stimuli). Four major components of attitude are (1) Affective: emotions or feelings. (2) Cognitive: belief or opinions held consciously. (3) Conative: inclination for action. (4) Evaluative: positive or negative response to stimuli [20,33].

2) Social attitude

A social attitude is an acquired tendency to evaluate social things in a specific way. It’s characterized by positive or negative beliefs, feelings and behaviors towards a particular entity. Social attitude has three main components: emotional, cognitive and behavioral. There are explicit and implicit attitudes. The emotional component is the feeling experienced on evaluation of a particular entity. The cognitive aspect implies thoughts and beliefs adopted towards the subject, while the behavioral component is the conduct that results from a social attitude. An individual...
with an explicit attitude is aware of it and how it dictates his behavior and beliefs. On the other hand, a person may not be conscious of his implicit attitude, although it still may influence his beliefs and behavior. People pick social attitudes from personal experiences or observation. Likewise, social roles and norms can dictate formation of attitudes. Social roles determine the behavior an individual occupying a particular position or context in the society is expected to demonstrate, while social norms define the conduct that’s acceptable to the society [20,33]. These, individual and social, attitudes are expected to affect antecedents that influence consumer trust and consumers' perceived risk towards e-commerce entities. The four categories of trust antecedents [20, 34, 35, 36] through which these attitudes come into effect comprises of the following:

(1) The cognition-based antecedents are associated with consumers' observations and perceptions (e.g., concerning information quality, perceived privacy protection, security protection, brand image, fancy design) regarding the features and characteristics of the trustee entity.

(2) The affect-based antecedents are related to indirect interactions with the trustee such as inputs from others (reputation, third-party seal, review comments, recommendation, buyers' feedback, word-of-mouth, etc).

(3) The experience-based antecedents are related to the personal experiences of consumers with the vendor and Internet shopping in general.(familiarity, Internet experience, e-commerce experience, etc.)

(4) The personality-oriented antecedents are related to consumers' dispositional characteristics and shopping habits, which by their nature are quite stable and therefore difficult for Internet vendors to manage. (Disposition to trust, shopping style, etc.)

H8: Individual and social attitudes have an effect on consumers’ online purchasing decision.

IV. METHODOLOGY

In the next version of this paper, i.e. the verification stage, data will be collected from cities of selected country(s). As of now it is open to be conducted anywhere but informants must be from those who have completed online shopping at least once. Structured questionnaire-based survey was developed. Then, we plan to send it through Google link (online) and manual distribution. The questionnaire consists of two parts: part one is helping to get the biography and their experience in online shopping; Part two of the questionnaire asks for responses on the key constructs of the research variables namely trust, return policy, after sale service, firm reputation, social and individual attitude, cash back warranty, cash on delivery and satisfaction. Brand and private level products related questions are also included. Data will be examined using structural equations modeling (SEM) which is basically a combination of confirmatory factor analysis (CFA), and linear regression, to find out the causal relationship between the factors considered and consumers’ purchasing decision through e-commerce.

Structural equation modeling is a general term that has been used to describe a large number of statistical models used to evaluate the validity of substantive theories with empirical data. Statistically, it represents an extension of general linear modeling (GLM) procedures, such as the ANOVA and multiple regression analysis. One of the primary advantages of SEM (vs. other applications of GLM), for which we prefer to employ it, is that it can be used to study the relationships among latent constructs that are indicated by multiple measures. SEM takes a
confirmatory (hypothesis testing) approach to the multivariate analysis of a structural theory, one that stipulates causal relations among multiple variables. In SEM, a variable can serve both as a source variable (called an exogenous variable, which is analogous to an independent variable) and a result variable (called an endogenous variable, which is analogous to a dependent variable) in a chain of causal hypotheses. This kind of variable is often called a mediator [37]. Therefore, this method is suitable for this study in which we expect some variables such as satisfaction and trust may have a moderating role.

V. CONCLUSION

We illustrated different factors that basically affect consumers online purchase decision. We then give propositions that seek to find the causal relationship between the factors and consumers’ online purchasing decision. From literature we argue that, among the eight factors, return policy, trust, cash back warranty and cash on delivery are factors that affect consumers purchase decision strongly. Therefore, e-commerce businesses can be benefited from further understanding of these factors and can direct their efforts to develop features that satisfy the needs of their target markets. They are advised to pay more attention to factors such as: trust, after sale service, cash back warranty and management of return in order to attract more consumers to transact on their site. Since this study is not winded up at this stage, the complementing part will continue to the next version to test the propositions with empirical data.

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