

## A Conceptual Framework of Online Purchasing in Pakistan in Perspective of Technology Acceptance Model and Theory of Planned Behavior

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*Received: 3 August 2019*

*Revised: 22 August 2019*

*Accepted: 6 September 2019*

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### Abstract

To integrate model of TPB and TAM in determining online purchasing behavior in Pakistan is the major goal of current research mainly because further research is required since there still lack of investigation on the mediating effects in actual online purchasing in Pakistan, low usage of actual online purchasing, and diverse antecedents in actual online purchasing, inconsistent findings between variables used in past studies low security and high risk, fragmented model, and above all, TPB or TAM were used in isolation in all previous researches.

**Keywords :** Conceptual framework, Online purchasing, Technology Acceptance Model, Theory of Planned Behavior

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## Introduction

Every one of the four corners of the world, according to Delafrooz, Laily, and Khatibi (2016), web-based shopping has been a developing marvel, particularly those countries who have intensively created foundation reachable to promote practices through the web. Currently, in addition to the worldwide method for exchange for buyers' web isn't just a systems administration media anymore. Web now has become an ordinary way for exchanging data as well as administrations. AcNielsen (2017) reported that in excess of 627 million individuals on the planet shopped on the web. It was already foreseen by Forrester (2006) that the internet business market would develop from USD228 billion of 2007 to USD288 billion in 2009. Similarly, specialists knew in 2004 that every four years by 2008, online retail deals in the US would increment to USD117 billion that were USD65 billion out of 2004. According to Jupiter Research Survey, (2005) it was foreseen that by 2010 web based business would represent USD316 billion in deals; in other words, that is 61 percent of online clients in the US would may buy by means of web in 2010, contrasted and only 46 % in 2004 or simply 13 % of by and large retail deals.

Around 9 % web clients tried to acquire elements or administrations through the Internet during first quarter, was reported in a mid-2015 overview by the Pakistani Telecommunication Authority-PTA (2018). Among the web purchases, aircraft passes were the most dominantly (43.8%) taken by calls and embellishments (15.6%) and (6.8%) were beauty care products. Though sum spent on these things was worth less than five hundred with 57.7% of exchanges. Syd Shah and Norjaya (2010) expected normal Pakistani online deals will build each year at a high pace.

Online business is still moderately feeble in Pakistan as revealed by Elieo.com (2009) that Pakistan is in the earliest stages arrange with regards to web based obtaining. Out of the absolute populace of 22 million however the web clients had expanded to 9.4 million till August 2009. The market investigator TRIBUNE (2018) in its an overview demonstrated that online exchanges measuring more than US\$ 1 billion out of 2017 was made by Pakistani Internet clients.

Pakistan is at eleventh position in web clients, in Asia Pacific. Nielsen (2008) stated that on web buying, 39% of Pakistanis have purchased. During the reign of President Musharaff, mechanical progress and headways had propelled the Pakistani chiefs (for example Dr. Atta ur Rehman); which drove the accomplishment of Information Communication and Technology (ICT) industry. To advance the idea of 'one PC one understudy' proprietorship among Pakistan as an end goal to help ICT organizations climb the esteem chain various measures were executed.

The expanded mindfulness towards the web has been found in Pakistan. As an ever-increasing number of individuals are purchasing PCs the figure of web clients continues expanding regularly. The point of guaranteeing of Pakistani Government's is that school understudies ought to be PC wise and PCs and particularly in shrewd schools' PC hardware are given to class and PC research facilities.

The student's understudies are trusted to learn ICT as much as could reasonably be expected while in schools and they will be capable in ICT later on is the main goal. In Pakistan the latest improvement on ICT is that the administration has affirmed the development of broadband web all through the country and the web could be surfed wherever the web clients are. The quantity of web clients would be an increment across the nation, as well as the web-based buying according to an estimate.

The online usage accumulates consumers until the obtaining and mutual functioning is characterizes as web-based acquiring by Davis (1993). Throughout the web, online stores are accessible in various available sites. Web based buying is like web shopping, web buying, or web purchasing, and furthermore incorporates exercises, for example, online sale through web as proposed by Huang, Schrank and Dubinsky (2004). The web through electronic routes and through PCs empowers exchange to happen.

To sum up all this discussion web-based shopping and web shopping will be utilized reciprocally. The focal point of this examination is to decide the web based acquiring conduct through the use of Theory of Planned Behavior (TPB) and Technology Acceptance Model (TAM) collectively. The fairly low web-based buying in Pakistan which is around 19 % of the web customers is the principle inspiration for the investigation.

## Literature Review

Through the integration of TPB and TAM to examine the real online buying attitude is the aim of present research. From the analysis of the issues discussed in the introduction, there are six problems identified and are subsequently summarized in the following paragraphs. Empirically the causes of low usage of actual online purchasing in Pakistan are have not been verified so far., Nielsen (2008) in the latest development reported that internet purchasing had increased to 39% since 2015, which according to Matrade (2015) were 28.4%. From these statistics which are discussed above still low usage of online purchasing is indicated. One possible reason as to why internet purchasing continued to be low according to Pierce (2017) is that during online purchasing, levels of concern about the security of credit and information are very high. With reference to Pakistan, Haque, Khatibi, and Mahmud (2009), said that the dealings where payment is entailed are very less for online purchasing being something new. The online purchase might be related with customers being unsure regarding the security of deals on the Internet as showed by the findings of these studies. The main objectives of the deals and safety are the real focus therefore customers may not yet (or may not ever) be ready for it. Due to security reason Pakistani customer still are mentally afraid of doing online transactions. The online deals can't be trusted regarding protection of method of payment such as through debit/credit cards and also leakage of data is as what they believe.

The security and high risk are concerned with the image of online purchasing. According to Swaminathan, White and Rao (1999); and Zellweger (1997) the safety of online deals is major issue that exerts pressure on buyers. These online agreements of payments and deals demand serious attention to be solved for online payment is an important part of an online deal that includes the online sale/purchase of items or services because of being influential on clients' online sale and purchase (Odlyzko, 2013).

According to Swaminathan, et al. (1999), some limitations regarding transfer of private data through internet are bore by consumers despite the convenience provided by online payment processes. These limitations according to Lee, Park, and Ahn (2011) and Swaminathan, White, and Rao (1999) includes the exposure of credit card information. Paynter, and Lim (2011) reported that online purchasers claimed that provided the billing details of an individual is protected from unknown trespasser or interloper, they would frequently shop online. As supported by various studies like (Hoffman, Novak, and Peralta, 1999; Jarvenpaa, and Todd, 1997; Lee, Park, and Ahn, 2011; Swaminathan, White, and Rao, 1999) if the procedure of online deals is transparent and the transparency increases, buyer's confidence level regarding safety of the online payment agreements will also increase accordingly. Szymanski and Hise (2000) therefore described that safety of online payment is a critical indicator that demands to be considered by businesses specifically when online purchases via internet is involved.

In attempting to understand the high-risk aspect, however, Samadi, and Yaghoob-Nejadi (2009), said that the reason which is mostly considered by the buyers is the risk of internet and online dealings that brings considerable change in the attitude of buyers. The buyers are not interested to have business deal online because of an anticipated high risk regarding the standard of the produce, method of payment that is new for them, options for delivery, and informative data, is reported in a survey result of Graphics, Visualization and Usability Center (GVU).

Fragmented model and diverse antecedent of intention and actual online purchasing were used in past studies. In his study, he analyzed the integrated model of customer satisfaction with online shopping, developed by Lee and Joshi (2006), Abduldayem (2017), found that the researches in this field were fragmented somehow and were very vast. The customers' behavior and intentions about online purchases in the United Arab Emirates (UAE) are influenced by the facility of usage, being useful, and joy besides some other factors like perception about characteristics of Web-store, channel and customer as revealed by the analysis of these surveys. Tarkiainen and Sundqvist (2005), study is also to some extent fragmented whereby they used six predictors (intention, subjective norm, attitude, high consequence, and perceived availability) compared to the original model of TPB by Ajzen (1985), which used only four predictors. Likewise, studies are also fragmented whereby

seven predictors (subjective norm attitude, perceived behavioral control, normative structure, trustworthiness, efficiency and unauthorized used belief) of actual online purchasing were used.

In various past studies is inconsistent finding of the linkages between variables have been shown. One of a few examples is George (2004). Who found that the relationship of subjective norm and actual online purchasing not significant on the other hand the significant relationship was found by Wen (2008)? Also, the relationship of attitude and intention is found insignificant by Yu, Chieh and Ling (2015) while significant by Hsi, Chin and Hsi (2005).

On the mediating effects of attitude and intention, there is inconclusive empirical finding. The mediating effect of attitude or intention have been investigated so far and no findings on attitude and intention as mediating effects as the present study has done. Muthaly and Huang (2009), has carried out studies on the mediating effects of attitude. The research was on four attitudinal constructs of online buying behavior in region of Asia-Pacific; on acceptance of online apparel shopping by Cho and Fiorito (2009); and on the youth market for internet banking service, expectations, aptitude and intentions by Chau and Ngai (2017). As for as in Pakistan, the mediating effects of intention in online purchasing, only one study investigating mediating effects in online purchasing was conducted (Nik Kamariah and Ilham Sentosa, 2008) in the past. Where only one mediating effect that is, intention, for their study was used. Therefore, present research tries to close this hole by analyzing mediating effect of attitude and intention empirically since there was lack of studies in examining mediating effect on attitude and intention simultaneously.

Baron and Kenny (1986) mentioned three conditions on the method of identifying the mediation effect in online purchasing: firstly, a relationship between the dependent and independent variable that is significant; secondly, a significant relationship between the independent variable and mediator variable; and thirdly, statistically analyzing the simultaneous link in between dependent variable and the independent variable and the mediator variable. If relationship between mediator and the dependent variable is found significant then full mediation is obtained if the relationship between the independent and the dependent variables also ceases to be significant, whereas partial mediation is obtained if the latter relationship decreases but remains significant.

The studies using the integrated model of the TPB and TAM on online shopping had been very few as most of the past studies on online purchasing using TPB or TAM had been done in isolation using one model only. In literature review only a few studies using the integration of TPB and TAM on online purchasing are found. In Pakistan three studies were conducted: on purchase intentions through the internet: a comparative study of two models; on the integration of TPB and TAM in internet purchasing: A SEM method, regarding factors influencing purchase will in online shopping was employed by Jasman, Osman, and Ramayah (2015), Nik Kamariah and Ilham Sentosa (2008) and Yuliharsi, Md Aminul, and Ku Amir (2011), respectively. A few studies like, on explaining

the adoption of transactional Business to Consumers (B2C) mobile communication at Hong Kong by Khalifa and Shen (2008); on prediction regarding intention of buyer related with self use and return system of self service in library at Taiwan by Chang and Chiou (2009), and on predicting e-procurement adoption in a developing country which was conducted at United Arab Emirates by Aboelbaged (2010), were conducted outside Pakistan.

## **Operationalization of Variables and Theoretical Model**

### **Perceived Risks**

The buyer attitude regarding risk that any step taken by buyer can result in such circumstances that are not anticipated by him or her with surety, and can be unlikeable is defined as perceived risk by Bauer (1960). Whereas perceived risk can also be defined as a customers' anticipation of uncertain and adverse endings related with purchasing a product (or service) by Cunningham (1967). And perceived risk is also defined as the degree to which an uncertainty and adversity of using an online application service is realized by the consumer specifically in the fields of financial risk, physical risk, functional risk, social risk, time-loss risk, opportunity cost risk, and information risk by Hsi, Chin and Hsi (2005).

### **Perceived Security**

The degree of trust to which customers think of internet to be a safe and sound way for transferring sensitive informative data for business agreements is conceptualized as perceived security by Kim and Shim (2002).

### **Perceived Usefulness**

Perceived usefulness is defined as the probability of a prospective person about his/her service efficiency would be increased within an organization as a result of utilizing any particular system of application Davis et al. (1989) and as to how much a service can be incorporated into daily routine of individuals by Kleijnen et. al. (2004).

### **Perceived Ease of Use**

Davis et al. (1989) defines the perceived ease of use as what the prospective user anticipates from the target system to be free of effort and easy to utilize and to which extent.

### **Subjective Norms**

An individual's perception of other people who are important to him/her think of what behavior should be performed is considered as subjective norms as defined by Ajzen (1991).

### **Perceived Behavioral Control**

Pavlou and Chai, (2002) defined perceived behavioral control as the consumer perception of control over a potential transaction, drawn from facilitating conditions that render such control.

Ajzen (1991) defined that perceived behavioral control is informed by beliefs about the individual's opportunities and resources needed to engage in the behavior possessed by the individual.

### Attitude

The individual's affirmative or otherwise feelings about showing a particular behavior are defined as attitude by Ajzen (1991).

### Intention

Vijayasathy (2000) describes intention as will of an individual regarding shopping and individual's behavior about to use either print or Internet catalogues to buy items. Davis, Bagozzi, and Warshaw, (1989) purpose of a person is reflected in behavioral intention to buy particular items or services.

### Actual Online Purchasing

The use of online stores by consumers up until the transaction stage of purchasing and logistics, according to Davis (1993) is the actual online purchasing. Suh and Han (2003) stated that real buying attitude refers to the number of buying, time spent on purchasing, and money devoted by the person for online shopping actually.

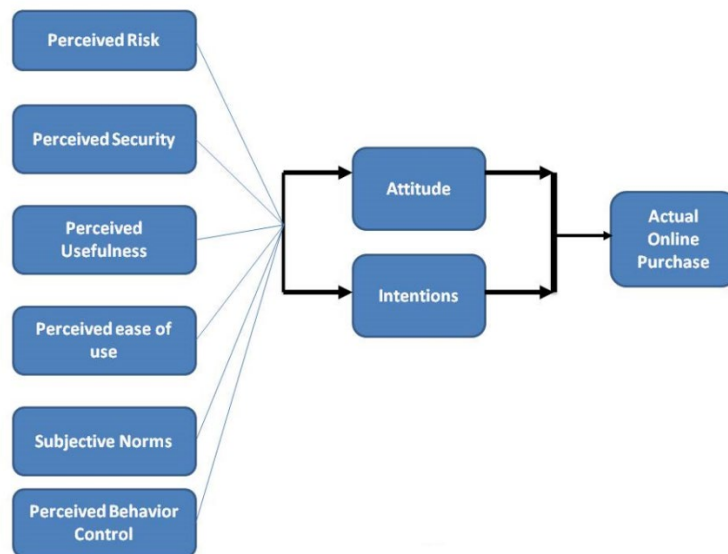


Figure 1 Theoretical Model

### Significance of Study

Through the integration of TPB and TAM determining the internet purchasing behavior in Pakistan is the aim of this research. It is hoped that study will benefit the government, academics, the practitioners and the general public (the internet users) equally well. Being among the first

empirical studies on internet purchasing using the integrated TPB and TAM to be conducted using quantitative methods in Pakistan, present study will be a beneficial contribution.

As in the past most of the studies on online purchasing in Pakistan were using either TPB or TAM alone and if the studies on the integration model of TPB and TAM were done, these were not in the context of Pakistan and were done outside the country.

## Conclusion

Most of the studies as discussed earlier, on online purchasing, particularly in the Pakistani context, were done either using TPB or TAM alone. The integrated model of TPB and TAM was used by only a few studies as mentioned above. The integration of TPB and TAM being the suggested model of this research, to study the online buying attitude in Pakistan would enrich the conceptualization of actual online purchasing in the context of Pakistan by its findings. The empirical literature in marketing and related discipline will be increased by the results of direct and indirect impacts of antecedents of actual online purchasing. The direction of the relationship is hoped to establish the theoretical inconsistency that exists in the previous literature by this study. The number of Pakistani empirical researches in actual online purchasing setting by using the integrated TPB and TAM in future will also be increased by this research. It will benefit the marketers through new insights into actual online purchasing factors most obvious to internet purchasers. Perceived risk, perceived security, perception of usefulness and ease of use, subjective actions behaviors and intentions are used as factors in this study.

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