Exploring Stimuli Affecting Behavioral Intention and Actual Credit Card Usage: Application of Updated Technology Acceptance Model

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Abstract

This study examined behavioral patterns of plastic money users in the psychographic domain by application of the unified theory of acceptance and use of technology (UTAUT). It further expands the Technology Acceptance Model (TAM). Effort expectancy (EE), performance expectancy (PE), social influence (SI), and perceived risk (PR) have been used as the antecedent of credit card behavior intentions (CCBI) and subsequent use behavior (UB). A well-defined adopted questionnaire was utilized to gather information from 384 credit card users through a field survey. The partial least square structural equation modeling (PLS-SEM) technique has been used through Smart PLS 3 software for testing the depth and primary model of this study. CCBI in the country was essentially impacted by effort and performance expectancy but social influence, and perceived risk were insignificant to predict CCBI. Psychographic factors like price consciousness and self-esteem were found as significant moderators of UTAUT defined antecedents and outcomes. The study contributes towards the enrichment of understanding about the credit card industry in the shape of growth, behavioral reading, lifestyles, and awareness in Pakistan. Raising awareness among the people about the price value and the other offering benefits of the credit card can enhance the credit card usage behavior in the country.

Keywords: Psychographic factors, UTAUT Model, Behavioural Intention, Credit Card Behaviour intentions.

Introduction

With time, people have changed their way of doing business (Sardana & Singhania, 2018). A significant shift towards the usage of technology in business is the evident truth of

the coronate world. Shifting towards technology is never easy, however; it is the need of the hour. Almost all businesses have the incorporation of technology in their business model. This change in way of doing business has also spread across the banking industry. Banking is a mainstream sector dealing with the economic development of a country. Containing various products and services of financial nature it constitutes a big share in economies as well as a focus of research. One of the banking products widely used is the credit card. Quan and Nam (2017) explored expectations to utilize credit cards and associated problems. It is expressed that credit card buys are more affordable than money buys (Alamet al., 2014). It is a helpful system of installment, intended for spending. Credit card owners acknowledge significant consideration assumed for a rising pattern of liquidations because of awful obligations (Khan et al., 2015). Credit cards use saves time because of easy handling through e-commerce and the internet (Almousa, 2011).

In developing markets, consumers are motivated towards purchase behavior by various factors (Khan & Hameed, 2019). Credit card systems based on information technology served not only as a payment system but also acts as a lending tool for the consumers (Quan & Nam, 2017). According to Bukhari (2015), the credit card is termed as a product that provided the customers with the opportunity of credit to be paid back later. Thus, the credit card is a convenient way in which the banks offered credit to consumers. The use of credit cards in the country has depicted slow growth and has been used mainly for the payments bills related to shopping, hotel, fuel filling, etc. (Qureshi et al., 2018). Not only the credit card system has shown slow growth but it has also shown the declining trends in the country (State Bank of Pakistan, 2013; 2016; 2018). The reason behind its declining growth rate is that banks did not issue credit cards to the general public and also the procedure of attaining a credit card was reported to be difficult for the public (Bukhari et al., 2015: Kamil, 2014). There have been about 2200,000 credit cardholders in the country among which 900, 000 have been found as active users (Bukhari et al., 2015).

Credit card utilization offers various advantages and disadvantages subject to consumer performance (Uddin et al., 2020). Users also highly appreciated this product as it made banking transactions far easy (Siddiqui et al., 2018). There is a need to contemplate the degree to which credit cards have an impact on the variables of purchasing conduct of clients (Deepa, et al., 2020). Siddiqui (2018) suggested investigating the dynamics of credit cards and their usage future in Pakistan. The problems related to security and fraud are also stressed in debit and credit cards. In the literature, there are a few adjustments models that explain the acknowledgment of re-installment benefits using credit or debit cards (Kissiet al., 2017). According to a unified theory of acceptance and use of technology (UTAUT), the users of a particular technology have their features and lifestyles which might influence behavioral intentions and behaviors (Foscht et al., 2010). These features may be termed psychographic factors. The use of psychographic variables in this study has strengthened the connection between the UTAUT model's factors such as performance and effort expectancy, social influence, and perceived risk and behavior intentions.

Customer value creation is centered in the services industry (Khan & Hussain, 2017). Despite the wide use of credit card technology, the research is still scarce on credit card behavioral intention, usage, and role of psychographic factors in the acceptance or usage of credit card technology. This study intends to test the CCBI, usage, and effect of psychographic factors in the acceptance or usage of credit card technology under the light of UTAUT. We proposed that psychographic factors like price consciousness and self-esteem of the user encourage user intention and behavior in credit card behavior. These findings will help banks and large financial institutions of Pakistan to sell the products and services by influencing credit card usage.

Problem Statement

In credit card behavior shaping, intention to use plays a significant role. Customers are yet not agreeable to utilize them due to the risk engaged with the leading transaction on the web, unknown fee, absence of confidence, and organizations disappointment. There has been a deficient effort to explain consumers' features in determining their usage of a particular technology. There is a need to test the credit card behavioral intention, usage, and role of psychographic factors in the acceptance and usage of credit card technology as well as its implementation in developing countries like Pakistan.

Research Questions

The main commitment of this exploration considers is to investigate and observe perceived risk on credit card behavior intention. Additionally, the objective of this examination is to research individual intentions of using credit cards by combining the UTAUT model. The findings related to performance Expectancy to Effort Expectancy of credit card that will influence credit card usage in Pakistan.

- What is the effect of Credit Card behavior intentions on user behavior?
- What is the influence of psychographics on the relationship of performance expectancy and Card behavior intentions?
- What is the impact of psychographics on the relationship of Effort expectancy and Card behavior intentions?
- What is the impact of psychographics on the relationship of Social influence and Card behavior intentions?
- What is the effect of psychographics on the relationship of perceived risk and Card behavior intentions?

Objectives of the Study

- To explore the relationship between Credit Card behavior intentions and user behavior.
- To investigate the moderation of psychographic between the relationship of Performance Expectancy and Credit card Behavioural intentions
- To investigate the moderation of psychographic between the relationship of Effort Expectancy and Credit card Behavioural intentions
- To investigate the moderation of psychographic between the relationship of social Influence and Credit card Behavioural intentions
- To investigate the moderation of psychographic between the relationship of Perceived Risk and Credit card Behavioural intentions

Scope of the Study

The extent of the study states the components that will be canvassed in an examination project. It describes the limits of the exploration. The focal reason for the extent of the study is that it describes the scope to which the exploration region will be investigated and consequently indicates the boundaries that will be perceived within the research. This study explores behavioral patterns of plastic money users in the psychographic domain by application of the unified theory of acceptance and use of technology. It supports expanding the technology acceptance model. Performance expectancy and effort expectancy, social influence, and perceived risk have been used as the antecedent of credit card behavior intentions and subsequent use behavior.

Literature Review
UTAUT Model and Credit Card Use

The UTAUT model is a recent and emerged model from various existing models of technology acceptance and has been utilized in numerous comparative examinations on users' innovation acceptance. The model of UTAUT as developed by Venkatesh (2016) has been proven with generating high performance in the shape of 69% value of adjusted R^2 as compared to 17 to 53% of values by the contributing models (Williams et al., 2015). Technological adoption among the users is a continuing quest among management researchers (Schwarz & Chin, 2007). In this regard, research has reached a certain level of exploration through using a wide scope of exploratory methods looking at different frameworks and innovations in various perspectives (Williams et al., 2009). Venkateshet al. (2003) introduced and established a unified model which had brought about different opinions on consumer and technology acceptance which has been called the unified theory of acceptance and use of technology (UTAUT). It explains the people's intentions to use technology and actual use behavior (Kissiet al., 2017) and is comprised of E, EE, SI, and facilitating conditions.

Shin (2009) used UTAUT in the exploration of user acceptance for mobile wallets. Similarly; the UTAUT model has also been used by various researchers in their empirical studies about distinct technologies (Williams et al., 2015). The UTAUT literature did not incorporate perceived risk with credit card factors. Credit card administrations are being utilized in numerous countries and it is imperative to get a superior comprehension of the effect of perceived risk on credit card services appropriation.

Performance expectancy and Credit Card Behavior Intentions

Customer value creation is centered in the services industry (Khan &Hussain, 2017). Customers expect related technology as easy to use and adapt. Performance expectancy has been defined as the perceived usefulness of technological acceptance (Alwahaishi&Snašel, 2013). According to Venkatesh et al. (2003) and Harsono and Suryana (2014), performance expectancy is the degree to which a person accepts that the use of a specific innovation would empower him/her to perform his/her work execution in a better way. Literature confirmed that performance expectancy is a strong predictor of consumers' acceptance and use of information technology in Saudi Arabia (Alwahaishi & Snašel, 2013). Haung and Qin (2011) found the variable as the strong predictor of online virtual room fitting intention. Other researchers like Baptista and Oliveira (2015) also initiate performance expectancy as the significant factor of behavioral intention in the field of mobile banking acceptance and its use. Makanyezaet al. (2018) reported that performance expectancy has been found as the strong predictor of consumers' acceptance and use of plastic money. According to Baptista et al. (2015), the elements of acceptance impact individual behavior in mobile banking is. Performance expectancy was observed to remain the most critical antecedents of behavioral intention. On these bases the following relationship between PE and CCB is proposed:

H_1: Performance expectancy has a positive impact on credit card behavior intentions.

Effort Expectancy and Credit Card Behavior Intentions

Effort expectancy is the extent of easiness of using technology or a system (Venkatesh et al., 2003). It is also perceived as easiness or difficulty related to the use of a system (Alwahaishi&Snašel, 2013; Harsono&Suryana, 2014). Effort expectancy in the customers setting is the level of simplicity related to the purchaser's utilization of innovation. Effort expectancy is quite similar to the technology acceptance model's dimension of perceived ease of use (PEOU) (Venkatesh et al., 2012). In the current study, the effort expectancy is characterized by the strength to which debit card services are as simple as to use (Martins et al., 2014). Martins et al.(2014) assessed people's intention to use internet banking and found

the variable as the strong predictor of people's intentions. Purchases and repurchases are important as well to gain brand citizenship for marketers (Khan, Hameed & Hussainy, 2021) Thakur (2013) reported effort expectancy as the strong predictor of consumers' mobile payment services. Similarly, Harsono and Suryana (2014) also endorsed the same fact and found the variable as the positive and significant determinant of behavioral intention in adopting social media. A recent study by Makanyeza and Mutambayashata (2018) has also reported the same fact and found that the variable effort expectancy served as the strong predictor of consumers' acceptance and use of plastic money in Zimbabwe. Hence the following hypothesis is anticipated:

H_2: Effort expectancy has a positive impact on credit card behavior intentions.

Social Influence and Credit Card Behavior Intentions

Customer's sustainable behavior is essential for various products is crucial for business (Hameed and Khan, 2020). The effect of customers' closed opinion to use or accept certain technology is the social influence (Huang& Qin, 2011; Zhou et al., 2010). Jamshidi and Hussin, (2016) defined SI as the perceived opinion of individuals' close ones to adopt the technology. These are comprised of friends, relatives, and colleagues of an individual who are somewhere technology customers (Cudjoe et al., 2015). The social influence (SI) concept of UTAUT has similarities to the *subjective norm* dimension of a theory of reasoned action (TRA) (Venkatesh et al., 2003). This SI is of the previously used models as a subjective norm, image, and social factors (Alwahaishi &Snašel, 2013; Venkatesh et al., 2003). It is found to have a positive effect on people's adoption of technology (Cudjoe et al., 2015; Du et al., 2012; Jamshidi&Hussin, 2016). Likewise, the social influence has been found to positively affect the adoption of social media in Bandung city (Harsono&Suryana (2014). Other studies like the study of Alwahaishi and Snašel (2013) reported that social influence positively affects people's behavioral intention towards the acceptance and use of information technology in Saudi Arabia. Thus this study proposed the following relationship between SI and CCB.

H_3: Social influence has a positive impact on credit card behavior intentions

Perceived Risk and Credit Card Behavior Intentions

This study particularly consolidates the UTAUT factors with perceived risk as a moderator to clarify clients' intentions to use credit cards. Numerous researchers have contended that perceived risk in web-based business affects intention towards web shopping (Almousaet al., 2011). It consumes a typical expansion of UTAUT (Williams et al., 2015) dissimilar to the driving builds involved with UTAUT; perceived risk speaks to a depreciator in the selection procedure. Perceived risk resembles the consumers' perceived usefulness and ease of use towards a certain technology. Jing et al. (2019), perceived risk and knowledge have been added to the theory of planned behavior to assess the factors influencing the acceptance of autonomous vehicles in China.

According to Hamid and Cheng (2013), the financial risk the customer faces while doing transactions is whether the payment will be successful or not. Similarly, arising issues require time and cost for solutions (Fang & Peter, 2007; Hamid & Cheng, 2013). The perceived personal risk was mainly associated with the disclosure of personal information (Fang & Peter, 2007; Pavlou, 2003; Safeena et al., 2011). The customers and their intentions to use or not the credit cards may be affected by the perception of these credit card risks (Quan &Nam, 2017). Thus, these reasons made perceived risk an imperative factor to be included in the technology acceptance model as used in studies conducted on credit card adoption (Laudon &Traver, 2015), hence the same has been proposed in the following association:

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*H*₄: Perceived risk harms credit card behavior intentions.

Behavioral Intention and Use Behavior

Behavioral intention served as an important element of the UTAUT extended model as introduced by Venkatesh et al. (2012). It has been the concept of the technology acceptance models as shown in the literature (Ajzen, 1991; Sheppard et al., 1988; Taylor and Todd, 1995; Venkatesh et al., 2003). Alalwanet al. (2016) have also reported the optimistic and important effect of the behavioral intention of customers on the use of mobile banking in Jordan. Similarly, several studies have also noted the factors affecting behavioral intention like perceived usefulness, price, security, trust, risk, and enjoyment, social influence, gender, income, performance expectancy, effort expectancy, and facilitating conditions (Alrawashdehet al., 2012; Du et al., 2012; Khechineet al., 2014; Liao et al., 2011; Lin et al., 2010; Martíns et al., 2014). Various models and theories have identified the factors which affect the user behavior towards the adoption of certain technology (Attuquayefio& Addo, 2014). Khechine and Augier (2019) also found the facilitating conditions as the main influencing factor of user behavior. The risky credit card use behavior of customers resulted in a higher risk of the decreased emotional and overall well-being of the customers (Benton et al., 2007; Guidolin& Jeunesse, 2007; Hunter & Heath, 2017). Hence, we proposed that CCBI affect use behavior as depicted in the following hypothesis:

*H*₅: Credit Card behavior intentions have an emphatically impact on user behavior.

Psychographic factors and credit card usage

The term psychographic refers to the sociological, psychological, and anthropological factors related to the lifestyle (Saha& Kumar, 2016). Psychographic factors have also been studied along with the demographic factors to obtain specific strategies for the promotion of a product. Many investigations have been undertaken in establishing a connection between the psychographic factors and credit cards usage among various types of consumers. Kissiet al. (2017) reported that university students were the prime targets of the financial institutions to use plastic money in the shape of mostly debit cards due to their positive attitude and behavior towards its use. Koparal and Çalık (2014) found that compulsive buying behavior led to more use of credit cards among customers of all age and income groups due to seeking power, low self-esteem, anxiety, depression, and materialism.

It has been acknowledged that it affects the customers' behavior towards the use of credit cards (Kissiet al., 2017). The effect can be obvious in certain dimensions which need to be mentioned. Kissiet al. (2017) have mentioned the three dimensions of psychographic factors which affect the behavior towards the usage of a debit card as well as the use of plastic money (Baptista & Oliveira, 2015). The performance expectancy can be linked to the time consciousness and price consciousness has assumed a significant role in the utilization of credit cards in a certain country (Makanyeza & Mutambayashata, 2018). Besides price consciousness; psychographic dimensions also include self-esteem and time consciousness which affect the customers' intentions towards their purchasing through credit cards or debit cards (Koparal&Çalık, 2014).

Price Consciousness

Price consciousness states to the extent to which the customer efforts solely on giving a low cost (Lichtenstein et al., 1993). People have to maintain a certain lifestyle for which they use their credit cards more thus increasing the credit card debt as well (Bukhari et al., 2015;

Cheng et al., 2006;). In this regard, Kiyici (2012) reported that credit card holders have been found more price-conscious and thus have positive attitudes toward credit. Koparal and Çalık (2014) found that the price-conscious customers were using their credit cards less as compared to the price-insensitive customers. While, the price-insensitive customers can be usually trapped in compulsive buying behavior which led to credit card debt and thus increases their financial risk as well (Hao et al., 2019). Therefore, this study conceptualized the moderating effect of price consciousness between UTAUT antecedents and CCBI as shown in the following hypothesis:

H_6: Price consciousness moderates the relationship between performance expectancy and credit card behavior intentions.

H_7: Price consciousness moderates the connection between effort expectancy and credit card behavior intentions.

H_8: Price consciousness moderates the association between social influence and credit card behavior intentions.

H_9: Price consciousness moderates the association between perceived risk and credit card behavior intentions

Self-Esteem

Self-esteem is the self-evaluation or the value of one's self as a person. It is also a positive degree of self-idea (Omar et al., 2013; Rosenberg 1995). Customers with low self-esteem have been found more anxious about money. Most consumers release their anxieties in the form of compulsive buying and using their credit cards (Hao et al., 2019). The high self-esteemed customers have been found more responsible in terms of their financial spending and financial management through the responsible usage of their credit cards (Koparal&Çalık, 2014). Moreover, the customers with high self-esteem have also been found to be more time and price-conscious and thus use their cards efficiently and responsibly (Hao et al., 2019; Koparal&Çalık, 2014).

The buyer having this kind of buying attitude usually has low self-esteem as compared to the non-compulsive buyer (Kothari & Mallik, 2015). Customers with high self-esteem tend to buy more usually through credit cards because it enhances their purchasing power by providing a certain credit limit (Simanjuntak&Rosifa, 2016). Low self-esteem has been reported more among women and thus they have been increasingly involved in compulsive buying (Liu et al., 2014; Verheij, 2014). The majority of working women have high self-esteem, and thus they use their cards in a responsible way (Simanjuntak&Rosifa, 2016). The same fact has been endorsed by Hafez et al. (2013) and Pettit and Sivanathan (2011) state that most people with low confidence tend to purchase exclusive extravagant goods and items using their credit cards to fix their self-esteem. Thus, we proposed the following hypotheses:

H_{10}: Self-esteem moderates the connection between performance expectancy and credit card behavior intentions.

H_{11}: Self-esteem moderates the association between effort expectancy and credit card behavior intentions.

H_{12}: Self-esteem moderates the association between social influence and credit card behavior intentions.

H_{13}: Self-esteem moderates the association between Perceived risk and credit card behavior intentions
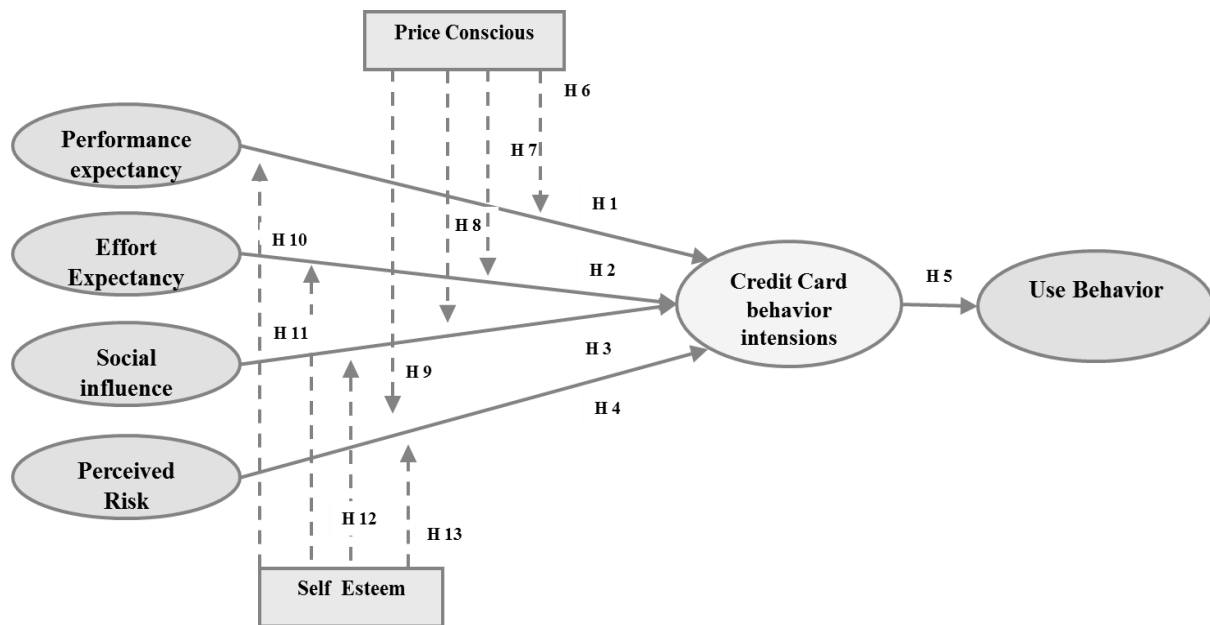
Figure 1 Theoretical framework

Methodology

Sampling & Data Collection

This study employed a convenience sampling technique. Convenience sampling is adapted to unknown audiences from the whole population as it should be used when you want to contact a specific subset of the population (Saunders et al., 2018). The purpose is to gather data from users and non-users of credit cards frequently therefore, convenient sampling will be adopted and they will be selected intentionally and purposely. The information was gathered in 7 months from major cities of Punjab, Pakistan through online and personal approaches from universities and banks

The past research tried to allow the basic variables encouraging credit card requirements, the sample of the examination focused on customers who had the resources and chances to utilize charge cards as installment tools buyers (Alamet al., 2014). A sample of 384 people was taken (N=384) from government and private university students, employees, business professionals, and households of cities like Lahore, Sialkot, Multan, Gujarat, and Islamabad.

Respondents' Profile

The demographic profile of respondents showed that in respondents 53.9% respondents were males and 46.1% respondents were females. It also showed that 26 % of respondents were highly qualified i.e.Mphil/Ph.P, 39% have 16 years of education, 27% have Graduation and 8% were below than graduation. The 4% of respondents have under 20 years and 55% have between 21- 30 and 25% of respondents are above 30 and 16% were above 40 years old. The findings showed that 21% of respondents were students, 33% are employees in different organizations, 21% were business professionals and 25% of respondents were household.

Instruments used

The instruments used to measure factors of this study were measured by using 5 points Likert scale in which the responses range from 1 (strongly disagree) to 5 (strongly agree). Seven constructs were adopted from relevant research papers and dissertations according to the factor

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and were merged to make a single sufficient questionnaire. The outline of these individual instruments is as under:

Psychographic Factors

The psychographic degree was measured named as "time consciousness" by using the scale of 3 items used by Ailawadiet al. (2001). Psychographic degree named as "price consciousness" and self-Confidence was measured by using scales of 8 items developed by Kinnear and Tylor (1976).

Performance Expectancy: Performance Expectancy was measured by using a scale of 4 items adopted by Venkatesh et al. (2003). This scale estimated workers' confidence in their ability to be imaginative.

Effort Expectancy: Effort Expectancy was estimated with the worker's imagination scale adopted by Venkatesh et al. (2003). It consisted of four items. Sample item included "Figuring out how to utilize credit card is easy for me".

Social Influence: Social Influence was measured by using a scale of 4 items adopted by Venkatesh et al. (2003). This scale estimated workers' confidence in their ability to be imaginative.

Perceived Risk: Perceived risk was measured by using a scale of 6 items adopted by FeathermanvàPavlou (2003). Sample item was "Credit card use for billing purposes would be failed".

Behavioral intentions: Behavioural intentions were measured by using a scale of 4 items Adopted by Venkatesh et al. (2003). This scale estimated workers' confidence in their ability to be imaginative.

Use Behaviour: Use Behaviour was measured with the consumer's behavior scale developed by Worthington et al. (2007). It consisted of three items. Sample item included "Paying for goods and services".

ANALYSES AND RESULTS

Data Analysis techniques

This study uses PLS-SEM to examine and interpret collected data suggested by Hair et al., (2017) and Wong (2013). Smart PLS 3 software, the most recent version has been used for applying the PLS-SEM system Ringle (2014). PLS-SEM was presented by Herman World in 1974.PLS is a flexible displaying way to deal with SEM without any anticipations about data circulation (Vinzi, Trinchera& Amato, 2010).

Measurement Model Using PLS

In structural equation modeling, evaluation of the model is the initial step of investigation after the gathering of the information. The internal model shows the connections between the indicators being assessed. The external model named as measurement model is utilized to assess the connections between the construct factors and their comparing indicators (Hair et al., 2014).

Convergent validity

Convergent value is surveyed by outer loading values, internal values and average variance extracted (AVE) criteria given by Fornell and Larcker(1981). The reliability of inner items named as the factor loading value of the construct ought to be greater than 0.5 and 0.7 is a perfect worth for the agreeableness of the convergent validity. The AVE qualities ought to be more than 0.5 (Ringle, 2012; Wong, 2013). Composite reliability and Cronbach's alpha are used to assess the validity of data collected for different constructs. The acceptability criteria for Cronbach's alpha is the value should be greater than 0.7 and for Composite reliability, the value should also be greater than 0.7 (Leguina, 2015).

Table 1 describes all the values of AVE, Cronbach's alpha (α), and composite reliability for all the constructs. The outer loadings values above the ideal level 0.70 are good and some values are disturbing the results. According to Hair et al. (2014), the value of AVE should be more than 0.5. All the variables are above the acceptability criteria which means that the data collected for all the constructs are reliable.

Table 1: Measurement Model

Constructs	Items	Factor Loading	Average Variance Extracted	Cronbach's alpha (α)	Composite Reliability
Effort Expectancy	EE1	0.797	0.628	0.804	0.871
	EE2	0.816			
	EE3	0.835			
	EE4	0.717			
Performance Expectancy	PE1	0.805	0.616	0.790	0.865
	PE2	0.815			
	PE3	0.809			
	PE4	0.705			
Perceived Risk	PR1	0.660	0.522	0.817	0.867
	PR2	0.709			
	PR3	0.728			
	PR4	0.769			
	PR5	0.692			
	PR6	0.771			
Social Influence	SI1	0.871	0.731	0.817	0.891
	SI2	0.842			
	SI3	0.852			
Credit Card Behavior	CC1	0.888	0.778	0.905	0.933
	CC2	0.886			
	CC3	0.882			
	CC4	0.872			
Use Behavior	UB1	0.819	0.741	0.827	0.896
	UB2	0.889			
	UB3	0.874			
Price Conscious	PC1	0.808	0.612	0.787	0.863
	PC2	0.817			
	PC3	0.804			
	PC4	0.694			
Self Esteem	SE1	0.828	0.725	0.873	0.913
	SE2	0.824			
	SE3	0.889			
	SE4	0.862			

Discriminant Validity

Discriminant Validity is defined as how much the pointers of latent variables are not at all like one another (Urbach and Ahlemann, 2010). In other words, it is a degree up to which one variable discriminates from another variable. There are two criteria for the measurement of discriminant validity in PLS. Cross loadings and Fornell and Larcker criterion. Fornell and Larcker (1981) proposed that the square root of AVE in each latent indicator can be utilized to build up discriminant legitimacy if this worth is bigger than the relationship esteems among the idle factors (Wong, 2013). The values above 0.70 show the significant discriminant validity of the constructs.

Table 2:Fornell&Larcker Criterion

	CCB	EE	PR	PE	SI	UB	PC	SE
CCB	0.882							
EE	0.651	0.792						
PR	0.540	0.667	0.723					
PE	0.545	0.740	0.622	0.785				
SI	0.555	0.619	0.591	0.529	0.855			
UB	0.507	0.553	0.542	0.500	0.710	0.861		
PC	0.542	0.739	0.619	0.999	0.525	0.497	0.783	
SE	0.615	0.629	0.597	0.567	0.721	0.663	0.563	0.851

Table 2 depicts the different results according to Fornell & Larcker criteria. The slanting values of the table show the AVE of every factor. The correlation of diagonal values with the values of different values portrays that the AVE of variable is more prominent worth with that specific variable when contrasted with the AVE with different factors. The values more than 0.7 in the table show valid results.

Moderation

In this section, the moderating effect of psychological dimensions like price consciousness and self-esteem. To test the moderation in Smart PLS, we put the moderation test on each dependent variable.

PLS Structural Model

In this approach, moderation is applied separately from mediation to get better results of the study. The criteria for moderation are the same as the path coefficient value more than 0.30 shows that moderation exists. The sign of path coefficient value positive or negative depicts whether the moderation strengthens the relationship or weakens the relationship of latent variables (Hair et al., 2014). Figure 1 depicts the path coefficient values and T statistics values for the acceptance or rejection of the hypothesis of the study. Firstly, the direct relationship of PE impact on CCB, the path coefficient value is 0.182and T value is 1.972it means Performance Expectancy strengthen the relationship of CCBI by 18.2%. Next, the direct relationship of EE and CCBI, the path coefficient value is 0.190 and T value is 7.805, which means EE's positive impact on CCBI by 19.0%. The impact of Social influence on CCBI, the path coefficient value is -0.021 and T value is 0.325 it mean SI negative impact on CCBI by 2.1%. Next, the direct impact of PR on CCBI, the path coefficient value is -0.059 and T value is 0.983, these values don't meet the acceptance criteria, PR negative impact on CCBI by 5.9%. Next the direct relationship of CCBI and Use Behavior, the T value is 2.338 and P-value is 0.507, it's mean CCBI explains and predict UB by 50.7%.
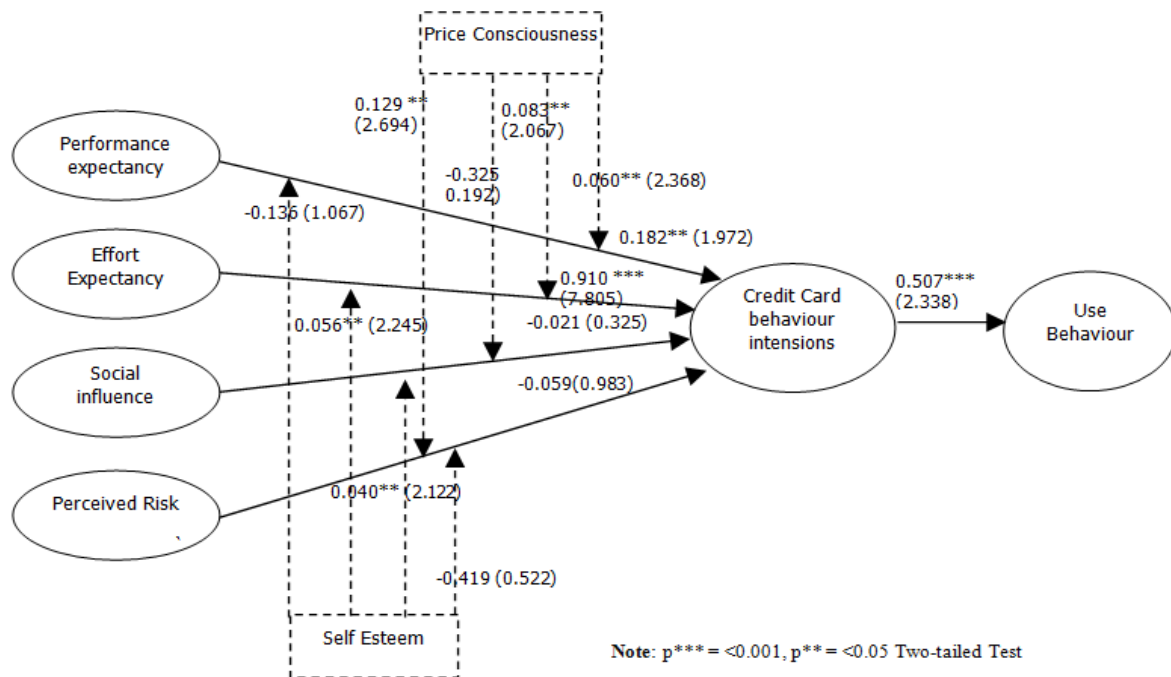
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Figure 2 PLS-SEM Structural Model

Next to test the moderating effect of Price consciousness on the relationship of PE and CCB, the path coefficient value is0.060 and T value is 2.368 which means price consciousness strengthens the relationship of PE and CCB by 6%. Next is the moderating effect of price consciousness on the relationship of Effort Expectancy and credit card behavior, the path coefficient value is 0.083, and T-value is 2.067 which means negative moderation exists. It shows price consciousness strengthens the relationship of EE and CCB by 8.3%. Further from the path analysis, the moderation of price consciousness on the relationship of social influence and credit card behavior is checked. The path coefficient value is-0.325 and the t value is 0.192; it means price consciousness weakens the relationship of SI and CCB by 32.5%. Next is the moderating effect of price consciousness on the relationship of perceived risk and credit card behavior, the path coefficient value is 0.129 and the T value is 2.694, which means price-conscious strengthen the relationship of PR and CCB by 12.9%.

Table 3: Moderation and Other Relationships

Construct	Original Sample (O)	Sample Mean (M)	(STDEV)	T Statistics	P Values	Supported
PE -> CCB	0.182	1.012	0.930	1.972	0.020	YES
EE-> CCB	0.910	0.889	0.117	7.805	0.000	YES
SI-> CCB	-0.021	0.020	0.065	0.325	0.745	NO
PR -> CCB	-0.059	0.065	0.060	0.983	0.326	NO
CCB -> UB	0.507	0.506	0.045	2.338	0.000	YES
PE*PC -> CCB	0.060	0.344	0.136	2.368	0.018	YES
EE*PC -> CCB	0.083	-0.383	0.199	2.067	0.039	YES

SI*PC CCB	->	-0.325	0.017	0.109	0.192	0.848	NO
PR*PC CCB	->	0.129	0.481	0.104	2.694	0.031	YES
PE*SE CCB	->	-0.136	-0.100	0.190	1.067	0.081	NO
EE*SE CCB	->	0.056	0.118	0.099	2.245	0.025	YES
SI*SE CCB	->	0.040	-0.116	0.057	2.122	0.034	YES
PR*SE CCB	->	-0.419	-0.034	0.067	0.522	0.602	NO
PC -> CCB		-0.634	-0.623	0.094	6.725	0.000	YES
SE -> CCB		0.225	0.232	0.069	3.280	0.001	YES

Subsequently, the path coefficient value of moderation of self-esteem on the relationship of PR and CCB is -0.419, and the T value is 0.522. It means antagonistic moderation of self-esteem on the relationship of PR and CCB by 52.2%. The path coefficient value of Self-esteem on the relationship of SI and CCB is 0.040 and the T value is 2.122. It means positive moderation of self-esteem on the relationship of SI and CCB by 4.0%. The next is the moderation of self-esteem on the relationship of PE and CCB. The path coefficient value is -0.136 and the T value is 1.067. It means negative moderation of self-esteem on the relationship of SI and CCBI by 713.6%. The path coefficient value of self-esteem on the relationship of EE and CCB by 0.056 and the T value is 2.245. It means self-esteem strengthens the relationship of EE and CCBI by 5.6%.

Discussion and Conclusion

The current research study employed the UTAUT model to examine credit card usage behavior and its affecting factors in Pakistan. The general usage and awareness between people are rising regarding plastic money usage (Customs, 2020). The results are compared to the literature. Some were contrary to the previous research studies where various scholars have found the PE as the positive and significant determinant of CCBI and debit card behavior intentions as well (Kissiet al., 2017; Makanyeza & Mutambayashata, 2017). The reason behind the contrary results to the previous literature may be that the people did find the credit card system useful which can boost their performance in their current work. Moreover, less awareness about credit card usage in the improvement of people's job efficiency. Similarly, other researchers have also found the variable EE as the significant determinant of technological acceptance and its use (Harsono&Suryana, 2014; Martins et al., 2014).SI has been found as the positive influencing factor in the technological adoption studies affecting the behavioral intention of people to use a certain technology (Harsono&Suryana, 2014; Kissi et al., 2017). However, literature has also indicated that the SI did not positively affect technological adoption like a credit card (Foon, 2014).

PR has a positive relationship with CCBI has also been not supported in the current research study. Foon (2014) found the variable PR as the insignificant factor in the determination of CCBI. However, other researchers have found it as the strong predictor of enhancing behavioral intentions of people towards the acceptance of various technologies (Jing et al., 2019; Tanakinjal 2012). CCBI has been positively associated with user behavior and thus increasing credit card usage in the country. These results are in similarity with the previous studies which had also found use behavior as the influencing factor towards enhancing various technological behavioral intentions (Attuquayefio& Addo, 2014; Khechine& Augier, 2019). Price

consciousness moderates the association of PE and CCBI and entails that acceptance in the current research study. The past literature has confirmed this result and showed that in turkey people are more price-conscious and thus had a positive credit card behavior which improves their performance expectancy as well (Koparal&Çalık, 2014).

By reviewing the past literature, price consciousness has been tested as the influencing factor in credit card behavior (Bukhari et al., 2015), however, its moderating effect with the variables EE and CCBI has not been tested. Price consciousness has been identified as the vital influencing factor of CCBI (Bukhari et al., 2015; Cant et al, 2006). SE moderates the association of EE and CCBI has been supported by the results of the current study. Literature showed that SE as the important influencing factor of CCBI (Omar et al., 2014; Simanjuntak&Rosifa, 2016). However, its moderating effect on both the variables of effort expectancy and credit card behavior has not been tested in the literature but explored by the present study.

Limitations and Implications

The current research study has contributed significantly towards the enrichment of the credit card industry in Pakistan and also finding of the factors which can enhance the credit cards growth in the country. However, it has some limitations as well which are worthwhile to be mentioned. In this regard, a few limitations concerning the current research study have been noted. First, due to the constraints associated with time and finances, the sample size has been kept small. The data have been collected from the selected respondents of the study and thus the results can be generalized only for the people having the same socio-economic conditions as the sample respondents. The data have been also limited to some geographical areas of the country; therefore, the results cannot be generalized for the whole country except if the country has the same geographical conditions. The current study focused only on Pakistan, not the developing countries. Therefore, the countries that have the same demographic and socio-economic conditions can infer results.

Various moderators like price consciousness and self-esteem have been found significant in terms of moderating association between UTAUT predictors on CCBI and UB. Therefore, the inclusion of such moderators in future research work is desirable so that in-depth analysis and policies regarding the increased credit card usage in the country can be developed and employed to reap the fruits. Mass level awareness towards the credit card usage benefits along with its appropriate use is needed which will effectively increase the CCBI in the country.

Future Directions

The current research study focused on identifying the factors which influence credit card usage in Pakistan. More studies are called to express these dynamics across various developing countries. Mass level awareness towards the credit card usage benefits along with its appropriate use is needed which will effectively increase the credit card behavioral intentions in the country. Moreover, people should be made aware of the appropriate use of credit cards and thus the misuse and debts cases will not have existed and people at large will benefit from the credit card system in the country. The banks should also focus on the advancement of an easy credit card system so that credit cards usage can be increased in the country. Academicians can explore further with a larger sample size and diverse respondents.

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**Exploring Stimuli Affecting Behavioral Intention
and Actual Credit Card Usage: Application of
Updated Technology Acceptance Model**   **175**   **Amina Idress, Dr. Rabnawaz
Lodhi, Dr. Sajeela Rabbani
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