

**FACTORS AFFECTING THE USAGE BEHAVIOR OF  
PLASTIC CARDS CONSUMERS**



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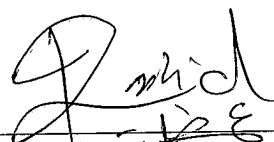


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CERTIFICATE

This is to certify that this thesis entitled “**Factors Affecting the Usage Behavior of Plastic Cards Consumers**” submitted by **Ms. Ramsha Aziz** is accepted in its present form by the Department of Economics and Finance, Pakistan Institute of Development Economics (PIDE) Islamabad as satisfying the requirements for partial fulfillment of the Degree of Master of Philosophy in Economics and Finance.

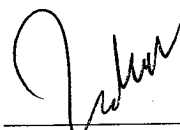
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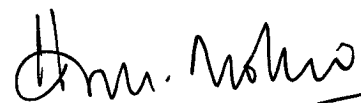
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*Dedicated to my Parents and Teachers*

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**Table 1: Abbreviations**

U.S = Unplanned Shopping
S.L = Security Level
C.S = Convenience and Satisfaction Level
P.A = Awareness through Advertisement
F.I = Role of Financial Institutes
U.P = Usage and Psychological Behavior of consumers for using Plastic Money.

## **ABSTRACT**

Plastic money is the cards made of polymer. There are variety of plastic cards offered by issuance companies. The main plastic cards' issuance companies are Master and Visa. This study is held in three major cities of Pakistan that are Islamabad, Lahore and Faisalabad. For this study, we collected primary data through questionnaire, in which the underlying factors are categorized as research and demographic variables, were involved. Each research variable was calculated by further four dimensional questions. The analysis of the data was done using Statistical Package for Social Sciences (AMOS; SPSS). A sample of 500 respondents was considered. Regression analysis is carried out on the data to see the relationship between dependent and independent variables. The findings of the study provide an over view of how people use their plastic cards and how much its usage impact their psychological behavior regarding satisfaction towards plastic cards. The study found that people feel more satisfied and relaxed by using their debit card instead of credit card, as they do not have to worry about paying later. The independent variables have significant effect on 'Usage and Psychological Behavior' of consumers for using plastic money. The study is concluded with suggestions and techniques to improve plastic cards' business in our society where 'Plastic cards are for elite class' misperception still prevails.

### ***Keywords:***

Consumers, Credit, Debit, Psychology, Plastic Money, Shopping.

### ***JEL Classifications:***

JEL code: M; M3, M30, M31, M37.

### *Commodity Money:*

The kind of money where the valuable resources fulfill the functions of the money like coins, metal, sugar, rice etc. Here the trade is done with the barter system. Fiat Money; Fiat currency is the money that cannot be converted into valuable resources and is issued by the government of the state. Like currency notes or coins. Bank Money; the certificate type money issued by the commercial or central banks like checks, bank drafts and many others (Qayyum, 2005)

### *Electronic or Plastic Money:*

The money which is actually made out of plastic and also called as polymer money. This is the money which is in the form of cards which can be used for payment purposes. The card has a chip strip on it which is swapped on the card scanner by adding the card number on it, and if it shows enough cash on the backhand, the payment is hence, made. For this it is quite easy as we don't need to carry a lot of cash anymore just a single card and you are good to go for business or shopping. But these cards itself have many forms like; Credit Card: the card that is capable of paying the bills on your behalf in over 20 million different locations around the world. In fact the card of one country, if it has the VISA stamp on it can be used around the globe. It makes a receipt and you have to sign it and pay the bank later before the due date. It's kind of credit or loan on you and you are being in-debt until you clear all your credit card receipts. But in case of failing to make the payment you are only charged a specific extra amount on your next bill without being declared as defaulter.

Debit Card: it's more like credit cards but it can only pay as much as you have in your bank account not more than that. Rest is the same as debit card is only applicable at the places where they have electronic swap machines that can deduct payment from your bank

account online. Charge Card: Charge card is more like credit card but if you fail to make the payment before the due date you will be declared as defaulter. Amex Card: this is called the American Express and it does not depend on the network of MasterCard or Visa. It is especially for companies' payment. MasterCard/VISA: it is the global non-profit organization to promote the card business across the world. Smart Card: it is used for small payments. And many more other kinds of cards to facilitate daily life payments (Abid *et al.*, 2006)

This study is basically, based on the plastic money, its concept and its influence on our daily lives. Plastic money really has made our lives magically easy. In this research we have reported the results of the data, collected by questionnaires through random sampling strategies except for few samples that were convenient as 20% of the data was collected by chosen students who uses plastic cards. Rest of the data was collected from professionals and job holders or businessmen keeping in mind that all contributors of research were plastic cards users. This research is based on the psychological patterns and usage patterns of customers about plastic money. Basically, this research is to find out how much plastic cards' users are satisfied with the services and how they want these services to be improved, also their shopping pattern whether it is determined by their income or needs. All these and other queries like gender and educational level effect on plastic cards' usage patterns.

The real question here is whether plastic cards make a consumer spend more and save less or vice versa. To answer this question many papers and articles have been written so far showing different results. According to a research, due to the rising plastic cards' business in 1980's, there came a huge decline in saving rate like from 6-12% rate it falls to zero or close to zero and caused a secular increase in credit card usage (Haflair and Loewenstein, 2009). Plastic money is not that different than paper money but only it is more secured and easy to

use. There are risks associated to the usage of paper and plastic money but plastic money has eliminated the hardship of carrying paper money and many other drawbacks of using paper money. Cards are issued by VISA and Master, companies and are acceptable worldwide (Connie Prater, 2008). In Pakistan plastic money is not getting that much fame as it has all around the world. The main reasons are electricity break downs, theft and fraud scenes. But to make plastic cards more famous and to enhance its business banks are focusing on consumer financing by credit cards and making it more attractive to consumers but this financing is on interest and creates revenue for banks (Warrington, 2005).

It's a common belief that financial innovation increases the demand for money but the real question is to what extent this demand grows. Empirical research shows a link between plastic cards' demand affecting the paper money usage (Amromin and Chakravorti, 2007). The greatest business of plastic cards or electronic money is obtained in Japan as it had more than 73 million cards operating throughout the country by the end of 2007 which is 2/3<sup>rd</sup> of its total population (Fujiki and Tanaka, 2010). The results of similar studies suggest that households are more likely to adopt electronic money if its disposable income is higher and if it's a business family with tertiary education and easy excess to new technology. As plastic money has caused ease for every user but it comes with a price, there is a very thin line between easy money and risky money. We often are attracted towards plastic money as it is very easy and comfortable to use but we forget that plastic money has another face which is called as risky money because plastic cards have hidden charges which are paid by the customers without them knowing. This is happening all around the world but the real question is who can afford such risk. People in Pakistan have a psychological mindset that when we pay from credit cards, its actually the banks who are paying on our behalves we will pay later when we easily can but this is not that simple. All this credit cards payments are

causing financial distress for both parties (the consumer and the plastic cards' issuance companies) and this distress is leading to macro level state problems (Subhani *et al.*, 2011). The state of Zimbabwe is facing crucial scenarios for its banking system due to lack of confidence by its people and high banking rates, low interest rates and poor services. All this added up to flop banking system and the economy became cash state in 1990s but the installation and introduction of plastic money by Standard Chartered Bank, it revolutionized the economy by making it plastic money economy from cash economy resulting the rise in banks' businesses. This was the beginning of the era of electronic money in Zimbabwe (Kaseke, 2012).

## **1.2 History of Plastic Money**

The idea of plastic cards was as old as 1800's era. People in that age used to exchange goods on credit by making valuable assets as mortgage. This concept leads to the invention of credit cards and then debit cards. Banks believed that they can only gain consumers' interest if they offer something that make them feel they are being financially helped out. Because it's a general phenomenon who doesn't like free money. In the whole world a complete science run behind the printing of paper money but this is not the end of money success. Plastic money made its way in the economic world in 1970's and created a whole new trend of payment mode. People started to attract towards plastic money more and more which caused a decline in the usage of paper money. Even now there is a group of economists who believes in caseless society as plastic money is handier but more risky (Guseva, 2014). All the security risks associated with the plastic cards, and unavailability of plastic cards services to, many places like small shops or vendors are the main reason why plastic money has not been taken paper money yet.

However, it is believed that no matter what a cashless society could never be a reality no matter how attractive plastic money becomes. For the first time in Australia it was noticed a fake 10\$ bank note was revolving around the society. That was the time when economists and bankers realized the need of magnetic chip in currency or payment mode. Then again in 1980's in USA plastic cards were introduced as a chip card to make payments on the behalf of banks. Credit cards payments are made by banks at first and then consumers pay but in debit cards consumers pay from their accounts what already had in it (Weatherford, 2009). But if we go a little more in past we can find that in 1946 a banker of Brooklyn for the first time introduced charge card with very limited excess and facilities associated with it but that was the base of plastic cards (credit and debit cards).

### **1.3 Background of the Study**

This research is held in Pakistan, and the data for this study is collected in its three main cities Islamabad, Lahore and Faisalabad, from where data was collected and estimated (details about data are written in chapter no. 3 under heading 3.1 and 3.2 (Data collection and Methodology). There have been written many articles and research papers about the topic credit cards and their financial distress upon users with minor focus on debit cards usage. This study has combined the usage and psychological behavior of plastic cards' users which involved almost all kind of cards being introduced and used in Pakistan. The most common cards that are being used by Pakistani people are credit card, debit card and discount/store-credit cards. In this context this study is being one of its kind also it is based on primary data to clearly its results are not comparable. People tend to express their feelings about plastic money that it has a clear edge over paper money and that in near future plastic money may overcome paper money and will lead to the introduction of cashless society (Fujiki and

Tanaka, 2010). This could be possible and is not the bad thing for any economy but is clearly not practical in Pakistan. As we see there are thousands of vendors and small shops in remote areas who could not afford the equipment, even if equipment is made available to them, to use the cards by both parties i-e the consumer and the shop keeper, it is necessary for them to have a complete know-how about them. Which means they must be literate enough, and if they use it otherwise clearly it will lead to fraud and high rate of crime scenes. So, first of all we have to make plastic cards perfect enough to be used in big cities. That's why this study is being conducted to know the consumers' view and their satisfaction level with plastic cards and what are their concerns and insecurities about plastic cards. How much they enjoy paying from their cards as compare to paper money. We didn't take the data from non-users of plastic cards because we want to know only the users' convenience and how they want plastic cards to be better. Their suggestions to the plastic cards' issuance companies so, if the cards are improved enough and according to their demand they may would not mind a cashless society in near future.

Plastic money however, did save the economies from hyperinflation dilemma. Also making lives easier by laying off the burden of cash keeping in wallet which means it's hard to lose cash. But with any changes in lifestyle causes a little trouble in understanding and adopting it just like the plastic money case (Kaseke, 2012). In the late 1960's plastic cards were considered as an elite class luxury that means only rich people were using plastic cards and at that time research on this topic proved this fact. But with the passage of time and improvements in plastic cards' services made them more popular in all class groups. Researchers believed that usage of plastic cards are highly linked and affected by the psychology of the consumer (Mansfield *et al.*, 2012).



The innovation of plastic money is obvious because people in our society always attract towards new technology and especially when technology is that handy like plastic cards, then it is clear that people will adopt it as soon as it appears in market. Currently, economists believe that plastic money is making its way to the cashless society and people won't even mind if this happens because it will only cause ease and comfort in any economy (Sumi and Safiullah, 2014).

Plastic money is definitely making its way to success as making its consumers lives easy and comfortable which clearly makes it more appealing even to non-users. But this is only one side of the picture. The other side shows how plastic money is causing troubles which need to be solved without any delay otherwise it may lead the economy to crash.

There might rarely be any disease whose cure has not been invented but that does not make us immortal, so does the case of plastic money. All magic comes with the price, so are plastic cards. Although they have made our lives much easier but the thing is, using too much of plastic cards and relying on banks for daily lives payments is kind of stressful because the credit cards are technically the loan or debt on consumer with interest in case of late payments. And what if you have no ready hand cash and only a plastic card, you need to make a payment but the bank server is out of order, well, it's kind of scary in a sense that all your payment is now relying on the server which is not working so, you are out of getting your necessities.

Credit cards are all debt on consumers (Subhani *et al.*, 2011).

- Debit cards are only valid to some extent and as much as you got finance in your bank account.

- A small plastic piece like credit or debit card can be lost or stolen. In both cases, consumer is in great loss.
- Plastic money is opening new ways of fraud and crimes in society.
- Plastic money facility is not globally available but it can only be used in authorized areas.
- The biggest problem faced by consumers regarding plastic money is worn out the magnetic chip. Magnetic chip is the strip that basically, contains all the information in code words and does all the work of plastic money.
- Plastic cards are way more risky than cash money.
- Plastic cards have a specific limit of amount, varying from state to state, for payment to be made.
- The bank service charges for using plastic money are sometimes out of way.
- Plastic money leads to high impulse buying which causes an upset in budget.
- Special offers and discounts on using plastic money are nothing but a trap to influence more and more spending by cards.
- The terms and conditions of banks for using plastic cards are somehow hidden are not clear, causing the consumers to believe, what is not in their favor.

But apart from everything, as far as plastic money has eased our lives, it has also caused many hurdles and problems. But management of spending can eliminate the risk of loss.

This study follows the concept of plastic money in modern era and how much it gained people's interest as they use it. Also what kind of improvements people demand from plastic cards issuance companies so that they will consider plastic money more seriously and will

follow the perception that plastic money will overcome paper money in near future which may lead to a cashless society.

#### **1.4 Purpose of the Study**

The purpose of this study is to establish a ground reasons why or why not plastic cards are appreciated. To do so, the study of behavior and psychology of people/consumers is very essential. For that a keen psychological aspect has been taken care of in this research. A motivational outcome occurred from the previous studies regarding plastic money that examined different views and angles from which plastic cards can secure their future. Researchers have found that plastic cards are useful and are very convenient for people as their mode of payment. But this ease and comfort comes with the price. It was observed that people in Pakistan still prefer paying through cash rather than paying from plastic card and a lot don't even own a plastic card. This is because of the service cost and taxes also due to the theft and fraud crimes. But they are willing to switch their mode of payment from paper money to plastic money if these insecurities are removed.

The previous studies observed as much angles as it comes to light because with every passing day plastic cards' companies are making their services and products better and better which are resolving many aspects but not all of them as it requires a lot of effort, technology and complete know how about the troubles. So every research always leave some space for more observation to enter the study area. So, this study focuses on the determinants of plastic card usage and their psychological impacts on consumers from three different angles that are credit, crisis and psychology. Credit goes with the concept that credit cards are loan or debt on consumers until they get to pay the bill. This credit may have effect on their routine life and can blows a psychological impact on their spending patterns and living style. Also, a debt

on one, is the payment for other so technically, both parties (consumers and plastic card companies) suffer until the payment is made. This scenario causes the crisis for everyone involved in the business. So, this cycle of suffering for everyone can be eliminated by taking reliable and meaningful long lasting practical decisions. Above all the factors, the most prominent is the psychological factor which determines the behavior and attitude of consumers towards plastic cards after facing the financial crisis. Not only is this but crime rate also getting a higher graph with the growing business of plastic cards. This makes the society uncomfortable and restless and make them avoid using plastic cards which can possibly make them suffer from theft or fraud. But in good aspect of plastic cards, psychology refers to the fact that plastic cards make people do a little more shopping than planned. So, combining all these angles, many determinants that affect the plastic card usage, are generated and can be studied to make a better and advance future for plastic cards.

### **1.5 Significance of the Study**

The only reason plastic cards are not having a remarkable success in Pakistan is because lack of awareness in public and less promotional advertisements. This study is a significant endeavor in promoting the usage of plastic cards in Pakistan. This study highlights the facts why people avoid using plastic cards and also how these cards help making lives easier. This study shows that some regions don't even have the access to plastic cards which is shocking and need attention of the financial institutes. This study is also the beneficial for both plastic cards companies and researchers, who are going to proceed research in the same field. This study shows the negligence and the key factors that have been ignored by costumers and plastic cards companies, whose improvements maybe a lot help in making plastic cards more common in common public than ever they were.

This study has a bright scope in future too because many of the banks and companies are working on how to make these cards more than just a piece of plastic for the layman. The solution for many of their questions is in this study by helping them focus on the key factors. Not only this but also for the human resource services this study might be beneficial for them to learn what people really want in their plastic cards, their demands for improvement and how they can make it more efficient. Moreover this study can be helpful for businesses and their payment modes. It might help the plastic cards companies in their strategies and objectives for the advancement of plastic cards and their usage advancement. Plastic cards are not getting the success as they had in other developed countries that is because of the fact that people of Pakistan are insecure about their money due to high crime rate regarding theft and street crime. (Romanullah *et al.*, 2014)

People don't want themselves in any kind of new technological trouble but these issues cannot be ignored and need to be fixed with full attention. However, never the less this study would benefit those who actually consider it on a serious note for their objectives of the research study. One of the greatest reason behind this study is to observe the reasons why industrialists do not prefer plastic cards, although they do need daily transactions and payments and carrying a wholesome amount of cash is neither safe nor easy, but still traders go for cash rather than using a plastic card and making it all easy. We have seen this pattern in daily routine but why is it so. The usability and affordability are different aspects for plastic cards development in Pakistan, but they both affect each other in a way or other. People who want to use plastic cards, cannot afford it and those who afford it don't want to use it, the main task for financial institutions are to fill up these gaps by improving the quality of the product and making it affordable for everyone. (Lanjewar, 2015).

One of the biggest hurdle that appears in the progress of plastic cards' business is that it is normally, taken as status symbol and a luxury for elite class. This concept is totally wrong and people are having doubts about making plastic cards as their regular mode of payment. This misconception needs to be cured in society but the real question is how? This study helps answering such questions by revolving its theme around the society acceptance level for plastic cards. This study helps the plastic cards companies or banks to observe the real problem and maybe, by assuring the insecurities they can attract industrialists towards their product and not only this it will be beneficial for both parties making profit and comfort for everyone.

This study can rebound to the benefit of the society considering that plastic cards can play a vital role in justifying the need for more effective life-changing payment approaches. This study is a helping hand to uncover the real problems that are holding back plastic cards' business, it's not like plastic cards are not good for our society, only by removing the evil associated with the product plastic cards sure can make their way in comforting people's lifestyle.

Whenever any new product launches in market, the main goal of the producers are to make it a big success by making it to fulfil maximum requirements or needs of its customers. Same is the case with plastic money, companies of plastic cards want their product to become the need of their customers. This could only be done if plastic cards are customized according to the need of common people. Currently plastic cards are facing many misconceptions that these are only for elite class this is because of the fact that plastic cards possess high interest rate and service charges, also plastic card facility is not available in remote areas of Pakistan, therefore the people of these areas do not even know about these cards not only this but one

can not avail the plastic cards facility at every shop especially small shops do not even have plastic cards swap machine or ATM machines with them. By removing the insecurities of customers regarding their plastic cards, banks can really promote their product also make plastic cards a big success in money market. Not only highlighting the troubles and problems created by plastic cards in society, this study can also try to give the best of solutions regarding my own understanding, which can further be implemented and modified by seniors.

### **1.6 Problem Statement**

Plastic money can have a bright future to overcome other modes of payment, over the years in Pakistan, if strategies are adopted according to the influential determinants of plastic card usage by removing the fraud, interest-rate and other risks associated with plastic cards. Banks that issue plastic cards, do want to enhance their business by taking over paper money, and eliminate paper money from market as much as possible. But this is not as easy as it seems, people in Pakistan are not ready for this big change. There are lot of reasons like security, high charges/taxes etc on plastic cards, by which a layman prefer paper money over plastic money. Even if these factors and other determinants vanish, still people want paper money as their mode of payment because plastic cards companies are not offering as much variety of their product as in the rest of the world.

Consumer debt which is made due to the excessive use of credit cards, is a main reason for financial crisis of an individual. Consumers of credit cards do not feel comfortable about using their credit card more often due to the interest rate or hidden charges applied by banks on their bills. This does not mean that debit cards come without any burden, as there are also charges applied on the use of debit cards. Therefore, people might consider to stick with paper money rather than exploring new advancement of technology in the science of

money. Hence, this study shows the reasons and strategies to eliminate those reasons and insecurities related to plastic cards, in order to enhance plastic cards' usage in Pakistan.

### **1.7 Objectives of the Study**

The basic purpose of this research is to highlight the determinants that affect the usage of plastic money in Pakistan. Plastic money does serve the comfort and ease to its users but this satisfaction can only be maximized by creating an economic society with no paper money i-e the cashless society. It is hoped that thousands of rupees could be raised on the behalf of plastic money but only if it's pure and clean. The objective is to determine the facts that how plastic cards can be made more useful and common for everyone. For now plastic cards are considered as a status symbol for elite class which has to be mistaken as it can be used and benefited by everyone who lives within the state that provides plastic cards' services. This study revolves around the facts that plastic cards' users tend to attract towards their own benefits that come along the product. If they find anything that is not in their interest or feels like costly, they will discontinue the use of plastic cards without a second thought because for Pakistan to become cashless society, it's way too far in future. But this study suggests to avoid these facts and follow the suggestions of consumers to make plastic cards' better and more useful for everyone.

The main reason why plastic cards are not getting their way in our society as much as they are in other states, is because of the less know-how and knowledge about the product. Also people are afraid of the hidden charges imposed by the issuance companies. To avoid these reasons companies need to improve their advertisement and promotion strategies so that people will have enough knowledge to use and adopt plastic cards more. But the real question



occur what strategies should be adopted, this study answers this by fulfilling the following objective:

- To investigate the promotion strategies preferred by plastic cards' users.

One thing that attracts consumers more than anything is when they are believed that the product is in their benefit. Before using any product, price is the main factor observed by the consumers, if consumers are given less prices by using plastic cards, there is no way that they would not use plastic cards more enough. For that the study focuses:

This study is going to determine that how much reliability and security level contributes in the satisfaction level of using plastic money and does it make consumers prefer plastic money over paper money by:

- Examining the consumers' level of concern towards reliability and security of associated with plastic money usage.

The main attribute of any product is its psychological impact over consumer, as how much plastic money gives satisfaction and convenience to its users. The study wants to gather the information regarding suitability of plastic money to its users that shows the users satisfaction level and for that the study will:

- Determine the convenience and satisfaction level offered by plastic money.
- Determine the role of financial institutes and government on plastic cards usage.

The one another thing regarding plastic money usage that will be observed in this research is the influence of financial institutes in promoting the plastic money usage and adoption. As Pakistan is a developing country not a developed one, so majority of the population belongs to middle-class or below average income level which clearly shows that they don't even have a bank account for which a plastic card could be issued. This leaves plastic cards only for rich community. But with some productive amendments and evaluation, plastic cards could be for everyone and could become one of the most easiest and comfortable mode of payment. (Fujiki and Tanaka, 2010).

The purpose of this study is to establish some ground reasons why or why not plastic cards are appreciated. To do so, the study of behavior and psychology of people/consumers is very essential. For that a keen psychological aspect has been taken care of in this research. A motivational outcome occurred from the previous studies regarding plastic money that examined different views and angles from which plastic cards can secure their future. Manivannan, (2013) has found that plastic cards are useful and are very convenient for people as their mode of payment. But this ease and comfort comes with the price. It was observed that people in Pakistan still prefer paying through cash rather than paying from plastic card and a lot don't even own a plastic card. This is because of the service cost and taxes also due to the theft and fraud crimes. But they are willing to switch their mode of payment from paper money to plastic money if these insecurities are removed. (Mehta and Fasieh, 2004)

### **1.8 Research Questions**

Every study follows some questions that are desired to be answered after research. In my research work the main questions are as follows.

- *What are the main factors that are affecting the usage of plastic money and its pattern in daily lives of rational people?*
- *What are the promotional strategies to enhance the adoption rate of plastic money?*
- *How much importance is given to security level by consumers of plastic money?*
- *How people want the financial institutes and government to play their role in making plastic money more convenient to use?*

These questions are justified by testing the hypothesis of the study in methodology chapter.

### **1.9 Structure of the Thesis**

The thesis is divided in five distinct chapters with clear purpose for each. First chapter is about introduction, this chapter introduces the research topic. The aims, significance, problem statement, research questions and significance of the study are included in this chapter. Second chapter is Literature Review; the literature review includes the definitions, background and impact of Age, Gender, Marital Status, Education Level, Occupation, Income Level, Shopping Trips, Spending each Trip, Promotion Strategies, Unplanned Shopping, Security Level, Convenience and Satisfaction Level, Awareness through Advertisement and Role of Financial Institutes on Usage and Psychological Behavior of Consumers towards Plastic Money. Third chapter is about the methodology of the research and explains how the research is conducted. Forth chapter includes the statistical results of the hypothesis testing. Fifth and last chapter discuss the findings in the light of the literature reviewed and detailed critical analysis of the findings is made and the conclusions drawn from the findings of the research.

## Chapter 2

### LITERATURE REVIEW

#### 2.1 Introduction to Plastic Money

Plastic money is same as paper money but different is that, plastic money is made of plastic and it is more secured as compare paper money. Due to risks, plastic cards are introduced worldwide. The usage of plastic money has increased because huge payments are made in short time. Cards are accepted worldwide known as visa and master card. In credit card you spend bank money and in debit card you spend your own money (Connie Prater, 2008). The major change in banks which has been brought in by technology is through introducing products those are alternative to cash or paper money. Plastic cards are one of those types of innovations through which the customers can make use of banking services just by owning the card issued by bank and that too without restricting himself in the official banking hours. Plastic money mainly represents debit and credit cards that allow cash to be drawn from an ATM booth or shopping to be done on credit. Both these modes eliminate the need to have actual cash at hand during purchase (Mishra, 2007). A credit card is a card made of polynomial plastic. It allows consumers to make payments on the behalf of banks and later they can pay to bank. Credit cards have made their way in any economical society because new technology is always welcomed by people. An intensive care is needed to enhance the role of credit cards in society. These were the main points of focus for the research by Deviranjhitham and Thamilarasan (2014).

### 2.1.1 Usage of Plastic Money

There have been very few attempts to measure the connection between plastic cards usage and levels of spending, perhaps because plastic money has not made its success in money market of Pakistan, as it has succeeded in other developed countries of the world. Although prior cross-sectional research has found that consumers generally tend to spend more with plastic cards than with cash (Hirschman 1979). There are many reasons why this might be the case, including that plastic card users are different than users of cash. Similarly, although the very limited prior experimental research examining the impact of different factors (like gender, shopping trips time, and spending on each trip etc.,) on the usage of plastic cards has found some evidences of a positive impact, most of this research is vulnerable to the possibility that cash users may have spent less due to liquidity constraints and security issue for carrying along bundle of cash amount. There have, however, been several empirical and theoretical investigations exploring closely related issues (Ramasamy *et. al.*, 2006).

There have been very few attempts to measure the connection between credit card usage and levels of spending, perhaps because the endogeneity problem is so difficult to solve. Although prior cross-sectional research has found that consumers generally tend to spend more with credit cards than with cash (e.g., Hirschman 1979) there are many reasons why this might be the case, including that credit card users are different (e.g., more affluent) than users of cash. Similarly, although the very limited prior experimental research examining the impact of credit card use on spending has found some evidence of a positive impact, most of this research is vulnerable to the possibility that cash users may have spent less due to liquidity constraints. There have, however, been several empirical and theoretical investigations exploring closely related issues. Lanjewar (2015) states the changing attitudes

of consumers towards plastic cards. Consumers are keen to change their payment patterns from paper money to plastic money. As banks are offering more and more products to satisfy the needs of their consumers by improving the electronic money by advancing the technology and making it easier and secure to use. This study focuses the features and types of plastic money.

### **2.1.2 Factors Affecting the Plastic Money Usage**

Money is always regarded as an important medium of exchange and payment tool but over the years, money has changed its form from coins to paper cash and today it is available in formless form as electronic money or plastic card (Ramasamy et. al., 2006). Hence, the major change in banks which has been brought in by technology is through introducing products those are alternative to cash or paper money. Plastic cards are one of those types of innovations through which the customers can make use of banking services just by owning the card issued by bank and that too without restricting himself in the official banking hours. Plastic money' mainly represents debit and credit cards that allow cash to be drawn from an ATM booth or shopping to be done on credit. Both these modes eliminate the need to have actual cash at hand during purchase.

According to a survey in Pakistan, 130,200 new unit of global ATM were installed during one year and the total number of ATM has cross almost 2.4 million. This increase indicates that people preferred to use Plastic ATM card than cash transaction (Economy Watch, 2010). The reasons for low literacy rate includes poverty, population expansion, political instability and low allocation of budget for education. According to a report only 2.2 % of GDP was allocated for education but UNICCO recommend minimum five percent. In 2006, was decided to increase the budget for education sector (Bader Munir Khan, 2009).

According to online fraud report 2000 which is major source of credit card payment get way; there is average 3.6% loss of sale due to stolen or fraud of credit card. But this figure become down in 2007. Only 1.4% losses were recorded (Online fraud report, 2008). In the early days, when Auto teller Machine was not introduced, accounts holder had no option accept they go to the bank and get cash. A bank ATM can hold almost Rs 3 million. It is enough in a normal day but in special day like Eid due to more usage, ATM it is not enough to meet the needs of customers (Shams ul Islam, 2011). In 2011, payments through debit and credit card were made standardized in America and average 4 cards were hold by one person in 2010 and some people have almost ten cards of different institution. They can make transaction very quickly but worth technical problems (Hoffman & Brinker, 2011).

### **2.1.3 The Impact of Independent Variables on Dependent Variable from Literature**

- Income to be negative and insignificant variable, where gender was significant and males tend to use more plastic cards as females, education, employment and age were insignificant. Plastic card usage variable was positive and significant (Fujiki and Tanaka. 2010).
- Age, Gender, Occupation, Education level, Awareness level, Role of financial institutes, spending through plastic cards, security level and usage of plastic cards variables were significant and with positive sign. Whereas, income, interest rate (cost of using plastic cards) and crime (fraud rate) were negative in their signs (Sumi and Safiullah. 2014)
- Gender, convenience level, security level and discount offers variables were with positive signs but risk with using plastic cards and cost of using plastic cards variables were negative in signs (Lanjewer, 2015)

- The Consumers' Perspective by the variables education, income and usage of plastic money are significant variables also with positive signs. Age is significant but is negative in sign. Whereas, convenience level, marital status and occupation appeared to be insignificant variables. (Rui Jin. 2014)
- There were evidences that income could be both negatively or positively related to the usage of plastic money variable. It depends on the sample. (Sumi and Safiullah, 2014)

#### **2.1.4 Plastic Money as New Innovation in Money Market**

Plastic money is cash-less payment system. After the study of the results of literature about the electronic money and its rapid growth in current society, it was seen that in beginning when plastic cards were just recently introduced, considered as the luxury but with time and a major decline in cash payment methods it became necessity which is perhaps a good thing. Except for the fact that it has also raised the transaction costs on daily basis but also caused a lot of help in routine life (Manivannan, 2013). The cash is working on its own by serving the economic society a yard stick of payment but it is and will always be revolutionized by IT gradually. Electronic money can only replace paper, coin money if it fulfils the whole characteristics and have some advanced ones too. From the analysis, with or without online verification, in both cases electronic money is pretty much costly than paper money. In UK, other European countries and USA, electronic money is making its space and getting people's attention towards it with positive response (Goodhart and Krueger, 2001). Researchers worldwide have worked on the various aspects of Plastic Money and have provided a base for further research. Most of previous findings suggest that Demographics highly affect the usage of Plastic Money. Some of the valuable findings about the use of Plastic Money studied from other Research work are presented in following section. Modigliani and Brum berg (1954) investigated that plastic money articularly credit cards are



dynamic and simply accessible mean of funds and a useful payment tool for buying. Plastic Money is useful to keep life standard in times when consumers are faced much income scarcity conditions. According to Mandel (1972), & Kinsey (1981), identified that income played a vital role in the acceptance and usage of credit card and families having placed in different income ranking show different attitude for Plastic Money. Same findings can be traced from another research by Peterson (1976). He identified an affirmative connection between credit card usage and earnings, which simply means that people having high income levels have relatively high motivation for using Plastic Money.

### **2.1.5 Role of Financial Institutes in Plastic Money Growth**

Cost of transaction through Plastic Money produce complication and difficulty in choosing and using Plastic Money Products. Most of Customers prefer only those means of payment that reduce the cost of making transactions. Interest rate is a cost of Plastic Money. The effect of interest rates on the adoption and usage of credit cards was identified by Gan, Maysami, and Koh, (2008) which concluded that interest rate was an important factor in the credit card usage which negatively influenced. Brito & Hartley (1995) suggested that using credit cards involves borrowings, paying high interest rate but it was attractive instrument in case of lowest transaction cost.

Lunt (1992) has said that adoption criteria of credit card depend on high credit limit, quality customer services, fair fees and fair interest rates. An amount of annual fee is charged on Plastic Money. Annual fee is the amount charged by the issuer Organization. It is usually charged annually at the end of every financial year. Fee amount is deducted directly from bank account of card holder or through direct payment. Chan (1997) investigated in a study conducted in Hong Kong, that Plastic Money users demand low annual fee and long payment periods free of Interest. Chirapanda and Yoopetch (2008) indicated that bank marketers

should adopt low annual fee for domestic as well as worldwide credit cards. Shannon and Yoopetch (2002) found that premium cards have more annual fee (almost twice) as compared to regular credit cards and they concluded negative relationship between the annual fee and card usage.

Incorrect Refuming has also been recorded that many consumers spend higher amount than their credit limit which result in higher amount of interest charges and they fail to pay back the amount so issues arise. Feinberg's (1986) observes that when consumers use plastic money, they spend more frequently and do not consider their budgets. As when a person has cash on hand, he spends more wisely and according to the limit at hand but when he has the plastic money, then customers spend unnecessarily without even estimating the actual budget. Educational level of customers also affects the usage of Plastic Money. Worthington, Stewart and Lu (2007), quoted that as the education level of consumers of China increases, they are more attracted towards credit cards. The recent studies have considered the use of plastic money/credit cards most important factor followed by expenditure on fashion goods and routine buying behavior. It has made life easier to a certain extent for compulsive buying but it also gives rise to unnecessary spending (Hogarth, Hilgert, & Kolodinsky, 2004).

Credit cards also serve as an open-ended, easily available credit source (Lee and Kwon 2002). When consumers use credit cards as a mode of financing, credit cards compete with bank loans and other forms of financing (Brito and Hartley 1995). The behavior and the attitude of the consumer towards the use and acceptability of credit cards differ for psychographic reasons (Yang, James and Lester 2005). Automatic Teller Machine may not be used as a plastic card with its pin code (Personal Identification Number) but its services of the bank in which the customers obtain from the ATM card and liquid cash withdrawals with its view account balances etc. Keeping in view the new knowledge also referred to technological

or local market knowledge, processes and techniques which go into products or services. ATM is also reviewed revolutionary innovation. This has dramatic changed people attitude in order to gain faster and more convenient banking services (De Younger ET, 2007).

#### **2.1.6 Plastic Money in Pakistan**

Fareed *et al.* (2015) discussed the awareness of electronic banking system in Pakistan. The convenience, awareness, security and satisfaction are the key factors of how students in Pakistan tend to use credit and debit card through electronic banking system. Sumra *et al.* (2011) investigated the impact of e-banking on the profitability of banks in Pakistan. Due to so much advancement in internet and IT, banks are taking their system to whole new level. Of course, making huge investments do come out with sweet fruits. This is the same case with e-banking in Pakistan.

It's been 20 years since credit cards are introduced in Pakistan's financial market, but the growth rate is remarkably slow because of the fact that banks initiated the credit cards specifically, for elite class or it was easier for them to get and afford the credit card but the elite class of Pakistan is just 10% of the total population. But with the passage of time all the banks are running in the same race of advancing their payment patterns for the satisfaction of their customers. On consumers' side, they are preferring credit cards debt as compared to loan from banks (Ahmed *et al.*, 2009).

General public consider price, convenience and trust as most important factor for online shopping. Internet has made lives so much easier as all you have to do is place your order just by the click and your purchase will reach you at your doorstep within a defined time. The payment for online shopping is mostly done by plastic cards, the costumer put their card number on the order of the product and an automatic transaction is made in the name of

the consumer (Nazir *et al.*, 2012). The issues of non-users of credit cards are they lack information about them and unreasonable interest rate and high service charges (Khalid *et al.*, 2013). For the relationship between credit card usage and the incentive offers by plastic cards companies, credit cards' companies offers different discounts or star points against the usage of their plastic card. This is to enhance the business and to promote the credit cards use. But on the other hand they do not reveal hidden charges or interest rate (Salman and Munir, 2015).

The laws related to the modes of payments in Pakistan like; through cash, bank drafts, checks and plastic money etc. The financial government has declared some ground rules regarding modes of payments and that how much of the tax would be imposed on each mode separately. But these legislations are not clear enough and does not provide a yard stick to implement these laws. Credit limit, interest rate, service charges and other costs imposed by banks on their customers must be undertaken in a clear, brief and simple laws reforms which can easily be understandable even by a layman. The State Bank of Pakistan Act 1956, Financial Institutions ordinance 2001, The Code of Civil Procedures 1908 and many other legislations are there for banks to act according to law but they are pretty complex to be implemented (Hafeez, 2014). The spending behavior of youth in Pakistan, where there is collectivism society and kids even when they become adults, is supposed to live with their family (parents) regardless they get married and settled. So, in a culture like this normally, kids are financially dependent on their parents. But from the past few years these kids are tend to grow like the western coast where they are supposed to earn for themselves (Hasan *et al.*, 2012).

Sharma (2011) contributed his study to the bankers' perceptive on e-banking. Today e-banking is promoting banks and its annual revenue very much because of the fact that it has made bankers as well as customers lives so much easier and convenient. The field of IT is becoming so much successful that it has covered almost 80% of the World's network. Banks have adopted the same channel to promote their business. The various alternative monies such as prepaid cards, cash cards electronic purse, smart cards etc and their demand for media of exchange with the help of Baumol-Tobin Model. It was found that range of asset use decreases as household income falls, usage patterns of media of exchange differ and households with the same income but different allocation of income among consumption goods and households tend to use the higher interest medium of exchange to buy the good that constitutes the largest share of its income etc (Sentomero, 1996).

#### **2.1.7 Students using Plastic Cards**

In college students, their usage patterns of credit cards vary according to their institutes and their educational needs, studied by Staten and Barron (2002). College students tend to transform their behavior towards credit cards with time because credit cards are clearly making them believe that they are under financial distress and that debt is not easy to lay off. Bisht *et al.* (2015) researched their study towards the concept that whether plastic money is boon means good or bane means bad (what spoils people) and according to the survey which was conducted on the sample of 200 plastic money users, these users were students, professionals and senior citizens. The objectives of the study were to check whether these people are well aware of plastic money uses and why they prefer it over cash.

Bisht *et al.* (2015) researched their study towards the concept that whether plastic money is boon means good or bane means bad (what spoils people) and according to the survey which was conducted on the sample of 200 plastic money users, these users were students, professionals and senior citizens. The objectives of the study were to check whether these people are well aware of plastic money uses and why they prefer it over cash.

## **2.2 Methodologies & Outcomes of Previous Studies**

Primary data was taken through a technique in which samples were given two different coupons one with credit card offer and the other with cash payment offer for analysis of this study. The group of people belonged to different age, education and salary levels. The results were pretty clear that credit cards do increase spending surprisingly (Hafalir and Loewenstein, 2000). On the qualitative data collected for the research, judgments and convenient technique was used to investigate the actual reasoning. The main reason why people hesitate to use plastic cards is unavailability of its facility also high rate of fraud cases and more importantly hidden terms and conditions of these cards. There can be many suggestions to promote the usage of plastic cards like bank staff must be friendly and open about their policies. Also banks and government of Pakistan should make it confirm that plastic money facilities are available equally to all customers.

The data for the survey of Mehta and Fasieh, (2004) study, was taken from the Central Council for Financial Services Information. The survey used the stratified two-staged random sampling method as an analysis technique. The empirical model of their research is based on Baumol-Tobin model of the transaction demand for money. The results were very clear about the usage of electronic money in Japan i-e people with high income and education level are more likely to adopt modern ways of transaction and payments. Also average cash

balance increases with the adoption of electronic money by households. (Fujiki and Tanaka, 2010).

Subhani *et al.* (2011) proposed the hypothesis that people tend to be influenced by others to use plastic money as its usability is clearly handy and easy. To prove the hypothesis multiple linear regressions was applied as an econometric technique. The F-statistics results showed the variables and model was significant. The data was collected from South Asian countries i-e Pakistan, India, Bangladesh, Sri Lanka. It was revealed that the rate of preference to use plastic money with its usability and affordability is very high in near future. Debit card is more likely to be preferred over credit card and usage of credit card is highly associated with high income. Plastic money raises the impulse buying. Whereas, not all plastic money is good but credit card type plastic is way too risky money.

A descriptive sample design survey on random sample of people of different ages with different education levels was conducted. The research focused on retailers and financial institutions and the functions of ATMs and Point of Sale (POS). The results showed higher usage of plastic cards in male gender and in educated people (Kaseke, 2012). The statistics shows a great deal of credit card in our society since 1960 till now. Almost 77% of USA nationals own at least one credit card with total of 1.4 billion cards in circulation. Economic concerns have risen that caused the file of personal bankruptcy. Attitude, behavior and impact of these credit cards on people is very much positive even though after all the debt and bankruptcy situation due to these cards. The literature goes through the age, education level gender etc factors to study the increase popularity of credit cards in society (Mansfield *et al.*, 2012). Their results are pretty amazing and in great favor of plastic money. They collected the primary data for his research by questionnaire and interview techniques. The study was

taken by non-probabilistic convenience sampling method in Dhaka. The study shows banking system to be the fastest growing than any other businesses. Plastic money is replacing paper money rapidly specially in developing countries. ATMs and POS have been installed everywhere to promote this banking system more and more. Both primary and secondary data was used in research. It was clearly viewed that there was a strong correlation among people using credit/debit cards and their satisfaction level (Sumi and Safiullah, 2014).

The results of Rehman *et al.* (2014) investigation showed many misperceptions' regarding plastic money like it is considered only for the use of elite, it has hidden terms and conditions and it has extra charges. To avoid all these misperception and promote the usage of plastic money banks need to focus on their services and lower down the cost of using plastic money. And rural residents should also be reached for the use of plastic money by giving them the full and maximum quality and facilities of the plastic product.

The banking sector has visibly approved the new technology of plastic money for payment purposes. The basic need of this study is to analyze the factors for adoption of plastic money and future plans of banks regarding plastic money. Secondary data was taken to apply the non-probabilistic convenience sampling method. The results showed that payment through plastic money has increasingly rising especially online payments are made through plastic cards and this rise is due to the fact that costumers of plastic money feel secure and it's easy to carry around (Patil, 2014).

According to the survey of Bisht *et al.* (2015) which was conducted on the sample of 200 plastic money users, these users were students, professionals and senior citizens. The objectives of the study were to check whether these people are well aware of plastic money uses and why they prefer it over cash. Primary data was collected through questionnaire.



Suitable statistical tests were applied to establish the correlation among variables. The results showed that the plastic money has a bright future and its own its way to overcome the cash payment method but on the other hand people do feel insecure due to the increased transaction costs. Also in near future the concept of Digital signature along with the use of plastic money has been lightened. A questionnaire was fulfilled for the research of Bazmi *et al.* (2015), by different people of different cities and they were asked questions related to their usage of plastic cards. The results were equally likely for both methods i-e transaction through ATM or through cheques. The high growth rate of banking system has affected the fiscal policies too.

From the study of Goodhart and Krueger (2001) and their results, they observed that cash itself is a very competitive mode of payment and people are not willing to switch their mode of payment right away. The variables involved to analyze the data were, volume and value of cash, no. of ATMs, internet hosts, inflation, GDP, interest rate etc. From panel data, specification tests were applied to the significance of the variables. The findings were crime rate rose with the usage of electronic money instead of cash. The tax revenue of government over GDP deflated and small changes in interest rate alter the daily transaction pattern.

This study of Lanjewar (2015) focused the features and types of plastic money. From the sample of 150 consumers primary data was collected. And the results showed; male businessmen and public officers between the ages of 35-45 with the income of 21000-35000 tend to be the majority group of plastic cards users. Most consumers have debit card and they feel plastic money to be 42% secured. But paper money is more risky than plastic money and online shopping is only made by plastic card payments. The case study was taken by Harrison and Bond (2001) in Melbourne, Australia, where almost 42.5\$ billion debt of credit cards is

due on costumers, with 30% of interest in bills. The researchers scanned the promotion letter and checked the texts which was in different colors, fonts and design. The letters were scanned by adobe acrobat and then by Leximancer to identify the key themes and concepts. It was appeared that the word 'debt' was often perceived to be a negative reference and 'choice' was altered by benefit. The results showed that such letters were complete psychological manipulation with least revealing of the interest-rate and debt situations in future. These letters of unsolicited credit card limit encouraged costumers to increase their plastic card limit or in some cases make it limitless.

The research made by Adepoju and Alhassan (2010) employed the research study on three banks each with 50 ATM machines and noted their crime types and fraud cases and their security measures against such disliked act of evil. Civil servants and businessmen, age of 21-40 are more likely to use plastic cards and ATM machines and hence, making them more likely to be robbed in or near the ATM machine by different techniques. Location of ATM and students are on the highest risk of being the victim. As it's easy to manipulate youngsters near a place where no one is around. ATM crimes are equally likely to occur both in day and night. 61% males and 28% females were being victimized by plastic cards crimes. Despite all the threats, people do feel convenient to use plastic cards instead of cash and the transaction through ATM machines are also very comfortable as the ATMs have been installed everywhere. But to prevent these situations, banks have to focus more on the security measures for the satisfaction of their consumers' needs.

Indian people are using more and more plastic cards in order to pay their utility bills, and this is the main reason, why plastic money growth rate is so fast and is showing rapid increase. 81% of the total respondents in the case study were using plastic money more often,

whereas, 41% have never faced any difficulty using their cards, like reduction in balance without payment, blockage of cards and no printing of statement nor any fraud or crime case. But there is a majority of plastic card users who have faces any such crimes or system technicality problem which caused a frustration for the customers, studied by Kaur (2014).

Lotz and Zhang (2013) studied the choice of payment mode between paper and plastic money. Credit card growth rate is currently measured as 7.9% per year which is a great increment. But this dropped the rate of ATM transactions through debit cards, which showed more debt on consumers. This showed the effect of consumer credit card usage on credit card payment receivers (merchants or banks). The main concern of the study is to understand why people are changing their pattern of payments towards credit cards and how central banks are playing their role in policy making. Through mathematical and graphical illustration, the study concluded that the market where payment modes are: credit card or cash can only be in equilibrium if there is a good co-ordination between credit limit and payment time limit. Payment innovations are easy to create but it brings credit irregularities in market which results in high inflation. That makes the consumer default and make the payments more costly.

A primary data from convenience sampling technique of 200 samples, was collected through questionnaire. The results showed more than 55% of the students were well aware and satisfied with e-banking i-e easypaisa, Upaisa, Omni, Tameer bank etc. these facilities were collaborated with the commercial banks and telecommunication companies of Pakistan like UBL, Telenor, MCB, Ufone etc. 53% students mentioned that it is easy to access these centers as the companies have installed their booths everywhere even in remote and rural areas. These attributes have a significant correlation between them. The main concern of

students were the security issue and the marketing strategies of the companies and banks. (Fareed *et al.*, 2015).

The study by Sumra *et al.* (2011) was conducted by gathering panel data of 12 different banks and analyzed their profit margin before and after introducing e-banking to public and private sector. The results showed, e-banking have almost took over manual system and now costumers feel ease in SMS banking i-e payments and account inquiry from sending a simple text. This qualitative study proved that e-banking have increased profit and output for banks and has completely changed banking system in a positive way. The study focused of Ahmed *et al.* (2009) demographical attributes of consumers in order to test how much consumers are willing to accept credit cards and replace it with other mode of payments. Approximately, 2 million credit cards are being in function by consumers in Pakistan. 56% sample replied in negative that they don't have or need credit card even in future. The demographic attributes like age, income, gender, occupation, education etc are highly correlated with each other. Consumers prefer more security and less cost on usage of credit cards.

Nazir *et al.* (2012) took a random sample and was given the questionnaire to investigate the study and the results were 70% males and 30% females between the ages of 20-35 feel ease in online shopping and are a regular online costumer 47% sample has never bought anything online. The increasing trend in online shopping is indirectly making credit cards more popular. Khalid *et al.* (2013) used descriptive statistics, the study examined over 150 banks' costumers in Pakistan in terms of their demographic background. The results from the survey analysis showed that high income, educated (minimum master's degree) and

married people are tend to be more regular credit card user. But banks have to eliminate the gap between expectation and demand of credit cards from consumers to promote its use.

From the results of research made by Salman and Munir (2015) by taking the data which was collected from questionnaires, it was observed that instead of hiding, revealing the charges on credit card will rise its demand more. Also people level of awareness needs to be highlighted to make sure that they know what they are using and how it can be used properly. Adeoti (2011) suggested a way out in her research that, from the ATM's crime rate in Nigeria. She mentioned the ways how people get through such fraud, like shoulder surfing, Lebanese loop, stolen cards etc. to prevent these frauds by providing more security to ATMs or by enhancing ATM cards technology. Also banks can generate software to make sure that the cards are being used by those to whom they are issued. On the other hand the customers must make sure that their personal information regarding their plastic cards is safe with them.

An investigation by Hafeez (2014) stated the laws related to the modes of payments in Pakistan like; through cash, bank drafts, checks and plastic money etc. The financial government has declared some ground rules regarding modes of payments and that how much of the tax would be imposed on each mode separately. But these legislations are not clear enough and does not provide a yard stick to implement these laws. Credit limit, interest rate, service charges and other costs imposed by banks on their customers must be undertaken in a clear, brief and simple laws reforms which can easily be understandable even by a layman. The State Bank of Pakistan Act 1956, Financial Institutions ordinance 2001, The Code of Civil Procedures 1908 and many other legislations are there for banks to act according to law but they are pretty complex to be implemented. A questionnaire was circulated by Hasan *et al.* (2012) in age group 16-30 years youth. From the results, it was

confirmed that no matter where they belong to but they want freedom and there is a great influence of friends on them. This generation is wise but spontaneous on the other hand so, they are impossible to predict specially, their goals and decisions.

From the results of research made by Sharma (2011), middle age (30-40 years) people tend to attract more towards e-banking because it's fast and easy. E-banking actually, highlights the relationship between costumers and banks. But due to lack of awareness people are not sure about e-banking and its frequent usage. But in order to make e-banking more popular, banks must separate their costumers demographically and then spread awareness through discount offers and seminars or advertisements to promote it. A TRA (Theory of Reasoned Action) model was used by Ali and Raza (2015) to measure the determinants that affect the intentions to use or select Islamic credit card. The cost of credit cards is often considered as interest rate which is not acceptable in Islamic state of Pakistan. This concept and belief lead to the failure and much difficulty in selecting Islamic plastic cards. Perceived financial cost is negatively associated to the intentions of selecting Islamic credit cards. For this factor to be eliminated, banks need to educate people about their believes and let them feel the clear credit cards' charges.

A cross-section data was collected by Zaidi and Ali (2006) through questionnaires and World Wide Web resources. They used both primary and secondary data for their research. More than 30% of respondents, were plastic card users and they had gold debit card. They were highly satisfied with the services the plastic card companies are offering them but remaining 70% were less satisfied and tend to avoid using plastic cards. From the banks perspective, they believe, they are providing the best services in the regard and benefit of their customers. But still there is always a room for improvement. The most demanded

determinants, by customers, were security and complete awareness without any hidden charges. People are appreciating the new modes of payments as they are making their lives easier.

In the year 2000-2005 the plastic cards were not much famous in Pakistan, observed from the results of primary and secondary data collected from the sample size of only 250 by Ali and Raza, (2015). The main reason why their results of research were not accurate and reliable is small sample size from a limited region. But still the results were little helpful. As it said, age and income were two of the most important variables affecting the usage of plastic cards with great ratio. Mostly people above age of 25 and with income level of 20000-60000 use plastic cards for daily life payments. But within this group people tend to prefer debit/charge card more than credit card because of the fact that credit card is debt on customers. Other two most important variables were education and occupation. The results were simple as higher the education higher the plastic card usage by the person. Profession involves too in plastic card usage as some companies offer their employees' free issuance of plastic cards on their own name so it becomes kind of mandatory to use plastic cards. The variable of gender has a vital role in this case study as males tend to use more of plastic cards than females. In fact majority of the females don't even have plastic cards and they don't even feel the need to have one.

### **2.3 Concluding Remarks**

The most adoptive way of payment in the past two decades in money market is credit cards, which has increased the loan market and made consumers fall into financial distress. This was all caused by search behavior of cardholder. No doubt credit cards have

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revolutionized the money market and created ease and comfortable for its consumers. But what comes next are the hidden charges in form of fees and interest rate. The research concluded that high rejection does not affects the search propensities (Kerr and Dunn, 2002).

After studying the usage behavior of college students regarding their credit cards, it was concluded that students have lower balances and lower credit limit and lower level of pay back as compare to non-students. This depends on their educational institutes and also their course of study and its fees and all other expenses they bear for their studies. But recently opened account of students are very much similar to non-students' credit accounts which means students will become more reliable and long term customers of credit cards. (Staten and Barron, 2002). There are many demographic attributes that affect the usage of plastic cards. They are like age, gender, educational level, profession, income level, marital status and many more. But the real thing is no one can specify the fix number of these attributes and unlimited attributes can be focused for the study of plastic money usage behavior (Mansfield *et al.*, 2012).

It is observed that old age people usage behavior is lower as compare to households with children specifically taking into account the debit cards in the research. Debit cards serves as cash but with more ease as consumers do not have to keep cash in their wallet which causes less theft chances. The likelihood towards PIN debit card is more relevant than signature debit card as because consumers feel memorizing PIN code is easier than digital signature. But debit card usage is highly affected by income level of the household (Borzekowski *et al.*, 2016).

Normally, it is believed that credit cards promote spending and indulge consumers into impulse buying. But according to a controlled survey it was observed that credit cards



did not promote spending it was quite a surprise to the researcher but sooner it was realized that this is because of the fact that people with maximum know-how about the credit card usage make them do minimum payments through credit cards. Because they know payment from credit cards are easy on time but will come back in few days by banks in the form of debt/loan. This kind of debt causes financial distress for individual as well as on state level (Haflair and Loewenstein, 2009).

#### **2.4 Gap in the Literature**

The previous studies observed as much angles as it comes to light because with every passing day plastic cards' companies are making their services and products better and better which are resolving many aspects but not all of them as it requires a lot of effort, technology and complete know how about the troubles. Every research always leave some space for more observation to enter the study area. So, this study focuses on the determinants of plastic card usage and their psychological impacts on consumers from three different angels that are credit, crisis and psychology. Credit goes with the concept that credit cards are loan or debt on consumers until they get to pay the bill. This credit may have effect on their routine life and can blows a psychological impact on their spending patterns and living style. Also, a debt on one, is the payment for other so technically, both parties (consumers and plastic card companies) suffer until the payment is made. This scenario causes the crisis for everyone involved in the business. So, this cycle of suffering for everyone can be eliminated by taking reliable and meaningful long lasting practical decisions. (Mansfield *et al.*, 2012)

Above all the factors, the most prominent is the psychological factor which determines the behavior and attitude of consumers towards plastic cards after facing the financial crisis. Not only is this but crime ratio also getting a higher graph with the growing

business of plastic cards. This makes the society uncomfortable and restless and make them avoid using plastic cards which can possibly make them suffer from theft or fraud. But in good aspect of plastic cards, psychology refers to the fact that plastic cards make people do a little more shopping than planned. So, combining all these areas, many determinants that affect the plastic card usage, are generated and can be studied to make a better and advance future for plastic cards.

There have been much research done on the topic of plastic money throughout the world because of the fact that plastic cards are becoming the alternate for cash money which is a game changing period in the money market. This research is done differently as it considers the scenario of Pakistan where plastic money is failed to make its success. This study can help future researchers to focus on the solutions of the problems raised by the usage of plastic money. In previous studies, the main focus is made on the success of plastic money and its benefits rather than showing the drawbacks and restrictions of plastic money usage. The literature is filled with other developed countries scenarios where plastic cards are now used as a daily life necessity but that cannot state the situation is perfect for Pakistan too. In Pakistan due to lack of awareness and complete knowledge about the plastic cards cause too much trouble for its users for which it results in failure. This study highlights the problems as well as the solutions on how to make plastic cards an easy way to make payments in daily routine. Normally, researchers have chosen either credit cards or debit cards but this study has chosen both in one research so that the scenario can easily be comparable about what people want more in their payment modes needs. So, this study is the advancement of the previous studies made by other researchers. And it's a try to cover up all the important and major variables with large sample size and also data to be collected from variety of regions through questionnaires.

## Chapter 3

### DATA AND RESEARCH METHODOLOGY

Research methodology deals with the process in which a researcher goes for the techniques to answer the questions raised in his study. This chapter is a very important part of any research. The methodology follows the theoretical and empirical framework of previous studies to make it more strengthened. The techniques used in this process are based on facts and logic.

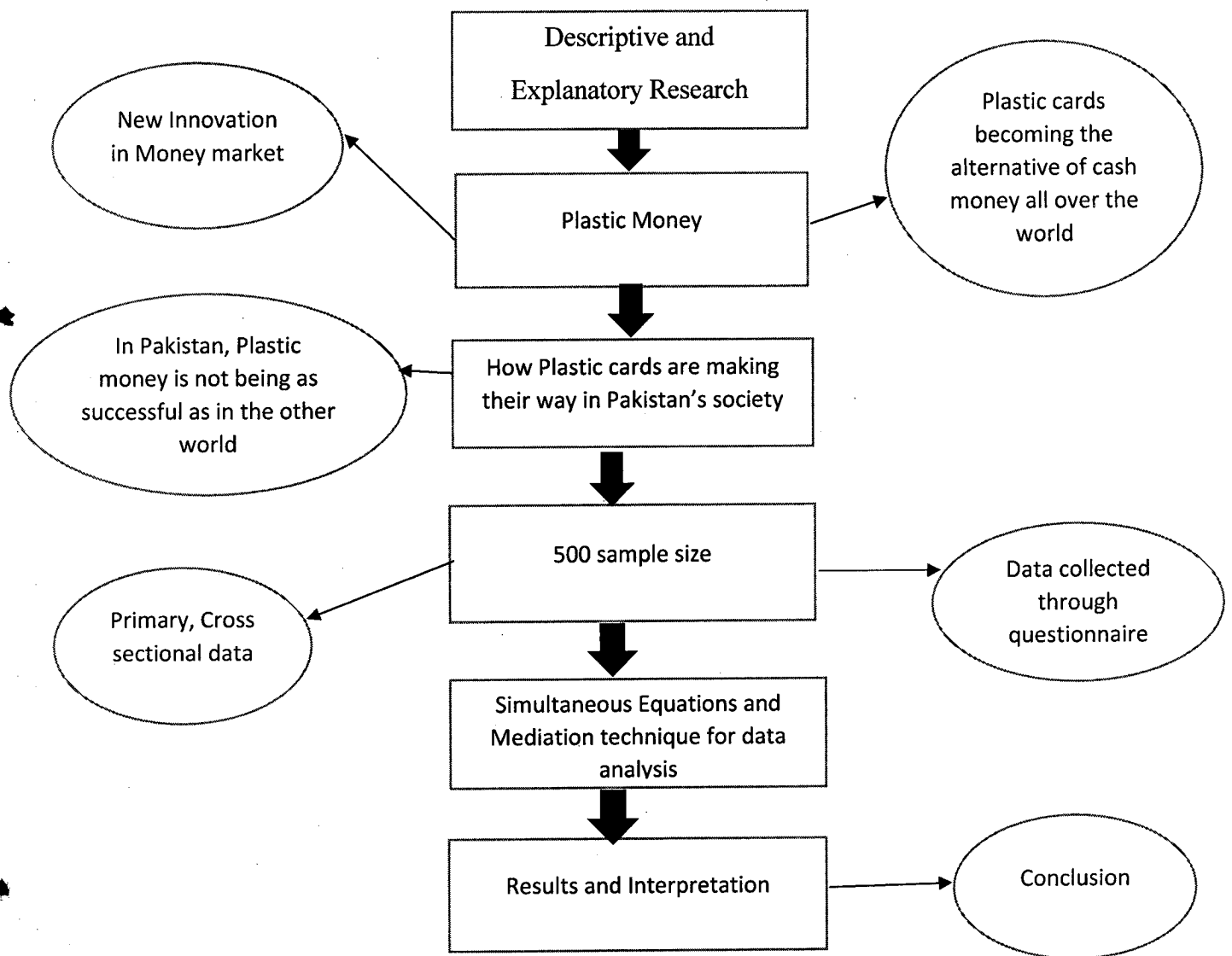
This chapter is going to cover the methods and techniques used to establish the grounds of this research. The techniques which are used in this research are best fit for this study, in order to justify and test the hypothesis formed by the queries raised by this research. This chapter dictated the method of how the techniques were used as such the sampling process, data collection method, data ordering and coding, and data analysis techniques.

This research is quantitative and it followed the analysis of plastic money and its consumers' behavior and psychological pattern. It is commonly observed that people using plastic money throw major shades over their consumption (usage) differently in paper money payment and in plastic money payment. This pattern of behavior is affected by numerous other factors in their surroundings but this study is observing few of those factors. Those factors are the independent variables of this study making the usage and psychological pattern of plastic money, dependent variable of the study. The independent variables are: unplanned shopping through plastic cards, security level of plastic cards, convenience and satisfaction level by using plastic cards, awareness of plastic cards through advertisement, role of financial institutes.

### 3.1 Research Design

The following figure chart shows the outline of the research, showing what the topic was and why it is chosen also what we already know about the topic and what is new that will be researched under this study. It gives a slight idea of how the research is done by collecting data through instruments and how the data is analyzed and then in the end conclusion will be made through the results.

Figure 3.1: Research Design



## 3.2 Variables

The study observed demographic variables and research variables. The demographic variables are considered as observed whereas research variables are unobserved. This is because the answers for demographic variables are clearly obtained by simple choices without any scale or index. In research variables, to collect data for them, further questions of same dimensions were made which cannot give accurate results and involve an error term with it which means there are other dimensions too, for this variable that are not added.

The variables are as follows:

### 3.2.1 Independent Variables

#### Demographic:

- Gender; the sex of the person matters a lot as it is a common believe that females tend to shop more than males.
- Marital Status; the spending of a married person is comparatively higher than the unmarried as he/she has to feed a household.
- Educational Level; the more the education, it's easier to understand the terms and conditions of using the plastic money.
- Occupation; there are some private and government organizations that offer their employees complementary plastic cards as part of their income package. This and the fact that people from government and private sector tend to use plastic cards more easily as compare to students and not employed people.
- Monthly Income; the main factor that affects the usage of plastic money is income level. There are different views about the income level affecting the usage of plastic cards. As it may be possible that people with low income level use more credit cards

because they rely on this debt and feel ease to pay later or may be higher income level group can afford credit cards more easily. Debit cards are used just as much as they have in their accounts.

- Shopping Trips' Timings; this variable states the shopping trips especially for groceries as groceries are one essential and common spending of any household. But the time span is different for every household like daily, weekly, monthly or whenever it's needed.
- Spending on each Trip; same is the case with this variable as it shows how much one usually spend on their groceries.
- Promotion Strategies; the advertisement ways to attract consumers of plastic cards to enhance their usage by showing their cards as magical and beneficial.

#### Research:

- Unplanned Shopping; impulse buying shows that plastic cards especially credit cards make consumers believe that they can buy whatever they want even if they don't need it, because they are showed the fact that banks are paying on their behalf and they can pay later.
- Security Level; how much plastic cards are secure for a person to use and how much it is safe from theft and fraud as compare to paper money.
- Convenience and Satisfaction Level; this states the consumers' satisfaction level that whether they are satisfied and feel plastic cards convenient to use.
- Awareness through Promotion and Advertisement; the more consumers' are aware and know the details about their product the more it will make them use it.

- Role of Financial Institutes; the plastic cards come from the financial institutes, they are responsible for all the comfort and offers regarding plastic money.

### **3.2.2 Dependent Variable**

#### *Usage and Psychological Behavior:*

This study is focusing on the fact that how these independent variables affect the usage and psychological behavior of consumers. This factor is dependent on all the research and demographic variables combine.

### **3.3 Sampling Technique**

The population of this study was the people who use plastic cards (credit, debit, store/discount cards) regularly. The regions were selected specifically, from the province of Punjab, for the data collection were Faisalabad, Islamabad and Lahore city. These cities were selected on convenience basis. These cities have infinite population and these are the biggest with majority of the richest population, thus choosing these cities make it obvious and easy to collect the data for the study as well as for the researcher, as due to some financial barriers the survey could only be taken out in the areas which were easily accessible for the researcher. Before selecting the sample one of the most important fact that came in front was plastic cards that were used to people does not imply that they are plastic cards regular user. So to avoid any wrong sample we decided to perform a convenient sampling. This is the type of sampling in which researchers themselves decide or pick the sample by knowing if they are suitable for the research. So, in this study we only picked those who use their plastic cards in routine. But the sample size was decided by the formula and the standard table of sample size according to the size of population. Before selecting the sample-size, the population was

determined. As plastic cards users in these three cities are numerous so, in that case we consider population to be infinite. In that case we have the following formula;

The sample was decided through the following formula;

As we have infinite population, we will refer to the formula:

**Sample Size - Infinite Population** (where the population is greater than 50,000)

$$SS = \frac{Z^2 \times (p) \times (1 - p)}{C^2}$$

SS = Sample Size

Z = Z-valueA (e.g., 1.96 for a 95 percent confidence level)

P = Percentage of population picking a choice, expressed as decimalB

C = Confidence interval, expressed as decimal (e.g., .04 = +/- 4 percentage points)



Table 3.1: The standard table for calculating the sample size is given below

Required Sample Size <sup>†</sup>								
Population Size	Confidence = 95%				Confidence = 99%			
	Margin of Error				Margin of Error			
	5.0%	3.5%	2.5%	1.0%	5.0%	3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	196	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1067	427	636	827	1119
1,500	306	515	759	1297	460	712	959	1376
2,000	322	563	869	1655	498	808	1141	1785
2,500	333	597	952	1984	524	879	1288	2173
3,500	346	641	1068	2565	558	977	1510	2890
5,000	357	678	1176	3288	586	1066	1734	3842
7,500	365	710	1275	4211	610	1147	1960	5165
10,000	370	727	1332	4899	622	1193	2098	6239
25,000	378	760	1448	6939	646	1285	2399	9972
50,000	381	772	1491	8056	655	1318	2520	12455
75,000	382	776	1506	8514	658	1330	2563	13583
100,000	383	778	1513	8762	659	1336	2585	14227
250,000	384	782	1527	9248	662	1347	2626	15555
500,000	384	783	1532	9423	663	1350	2640	16055
1,000,000	384	783	1534	9512	663	1352	2647	16317
2,500,000	384	784	1536	9567	663	1353	2651	16478
10,000,000	384	784	1536	9594	663	1354	2653	16560
100,000,000	384	784	1537	9603	663	1354	2654	16584
300,000,000	384	784	1537	9603	663	1354	2654	16586

Here, we had the 1.96 z-value as 95% confidence level, 50% population to be chosen, 7% confidence interval. So, we have  $z = 1.96$ ,  $c = 0.07$ ,  $p = 0.50$  after calculations;

### 3.3.1 Sampling Frame

The total population under our research was infinite so its sample size is 493.87 ~ 500. We need approximately 500 sample to get the best results of our research, but in order to collect the exact 500 amount we are supposed to send out more than 500 questionnaires because it's not necessary that we get back all of them or maybe we need to

discard some of them while entering data as they won't be fit for study. So, keeping this in mind we managed to distribute 750 questionnaire among the sample. The people were 20% students (150 questionnaires), 40% professors (300 questionnaires) of different universities and 40% private or government employees and businessmen (300 questionnaires). This distribution is made according to the theory by (Mehta and Fasieh, 2004) that mentioned students are the part of population that have the least possibility of using a plastic card because students of Pakistan are dependent on their parents or guardians and don't earn for themselves, students normally don't even have a bank account and plastic cards are considered as a luxury for students in Pakistan's society. Rest both groups that are employed people and professors of universities, were given equal sample size and equal number of questionnaires were distributed among the two groups. We got back 573 filled questionnaires back, out of which we selected exact 500 and discarded rest of them. The questionnaires that were discarded were those which lacked information and had missing data.

### **3.4 Data Collection Instrument: Questionnaire**

In questionnaire, a researcher has to take the risk by believing that the information given by the respondent is true and genuine. But there are some techniques in designing the questionnaire that minimize this risk and make it possible to get real information.

#### ***Ethical Consideration:***

The ethical norms are very necessary to be taken in account before conducting the survey, a researcher must ensure all the insecurities of the public before asking them to give personal information. The ethical norms that were considered in this research were;

- The data collected was completely confidential

- The questionnaire is filled anonymously without asking any private detail
- The public was given the researcher's contact information just in case they want to clear out something.
- The data shall only be used for research purposes.

### *Questionnaire*

The items of the questionnaire were both adaptive and adoptive. The adoptive variables are those which are picked from the base research papers as it is without any changes, while the adaptive variables are those, in which researcher do a little changes according to his study (Stone, 1993).

In our questionnaire, the demographic variables (there are some dummies) are all adoptive while the research variables are adaptive nature. Each research variable further consisted of four components/items on closed ended with a five point Likert scale (strongly agree, agree, neutral, disagree and strongly disagree).

The questionnaire is meant to collect 33 items. We made short names for the components of each research variables to make it easier to interpret the components separately. The independent research variables in the questionnaire are labeled as:

Q9. Unplanned Shopping components are;

Unplanned Shopping 1 (U.S1) = The store/brand credit point card make me do a little more unplanned shopping.

Unplanned Shopping 2 (U.S2) = While going on shopping, I carry a list and stick to it.

Unplanned Shopping 3 (U.S3) = With credit card, price of the product is the least concerned objective for me.

Unplanned Shopping 4 (U.S4) = A discount offer for using credit card, make me buy the stuff I don't even need.

Q10. Security Level components are;

Security 1 (S.L1) = I consider plastic money more reliable and secured than paper money.

Security 2 (S.L2) = I have stopped using plastic card because of being victimized by theft or fraud.

Security 3 (S.L3) = Banks are responsible to provide complete security on ATMs' booths.

Security 4 (S.L4) = I will be willing to pay extra service charges to enhance the security level for plastic cards.

Q11. Convenience and Satisfaction Level components are;

Convenience 1 (C.S1) = It is difficult for me to memorize my plastic card's PIN code.

Convenience 2 (C.S2) = The daily transaction limit bothers me.

Convenience 3 (C.S3) = I am completely satisfied with the services of Plastic cards.

Convenience 4 (C.S4) = I think making payments from plastic cards is more expensive than any other mode of payment.

Q12. Awareness through Advertisement components are;

Advertisement 1 (A.P1) = Plastic cards' advertisement enhance my willingness to use plastic cards more in daily routine.

Advertisement 2 (A.P2) = In my opinion, social media promotions for plastic cards attract more customers.

Advertisement 3 (A.P3) = In my opinion, Electronic-banking is the most efficient promotion strategy for plastic cards' business.

Advertisement 4 (A.P4) = I visit my bank's internet website regularly, for new offers & products.

Q13. Role of Financial Institutes components are;

Financial 1 (R.F1) = Banks should minimize the interest-rate on credit cards.

Financial 2 (R.F2) = If the cost of plastic cards (i-e interest & service charges by banks) is eliminated, then I would completely shift my mode of payment to plastic cards.

Financial 3 (R.F3) = Banks are responsible for the crimes associated with plastic cards.

Financial 4 (R.F4) = There should not be any limit on credit cards usage.

The demographic variables are; Age, Gender (dummy), Marital Status (dummy), Education Level, Occupation (dummy), Income Level, Shopping Trips, Spending on each Shopping Trip and Promotion Strategy.

Dependent Variable Usage and Psychological Behavior have components;

Usage Psychology 1 (U.P1) = Plastic cards have made my life comfortably easy

Usage Psychology 2 (U.P2) = Credit cards feel like debt/loan to me.

Usage Psychology 3 (U.P3) = A little risk always comes with new technology, so, I will still take the risk and keep using plastic money.

Usage Psychology 4 (U.P4) = I would recommend plastic cards to my non-user fellows.

These variables were adoptive/adaptive from following researchers.

**Table 3.2: Variable Adopted from Research Papers**

<i>VARIABLES</i>	<i>RESEARCH PAPER CITE</i>
Age	Khalid <i>et al.</i> (2013)
Gender	Lanjewar (2015)
Marital Status	Khalid <i>et al.</i> (2013)
Education Level	Fujiki and Tanaka (2010)
Occupation	Fujiki and Tanaka (2010)
Income Level	Sumi and Safiullah (2014)
Shopping Trip	Bazmi <i>et al.</i> (2015)
Spending on each Trip	Sumi and Safiullah (2014)
Promotion Strategy	Sumi and Safiullah (2014) and Lanjewar (2015)
Unplanned Shopping	Hafalir and Loewenstein (2000)
Security Level	Adeoti (2011)
Convenience and Satisfaction Level	Bisht <i>et al.</i> (2015)
Awareness through Advertisement	Sumi and Safiullah (2014) and Fareed <i>et al.</i> (2015)
Role of Financial Institutes	Kaseke (2012) and Roman Ullah <i>et al.</i> (2014)
Usage and Psychological Behaviour	Mansfield <i>et al.</i> (2012)

All the data was collected through questionnaires and the questionnaires were distributed among the sample by hand. This is the reason for high response rate.

### 3.5 Reliability and Validity

Reliability and validity tests are for testing the quality of the questionnaire. Reliability tells whether the questionnaire covers all the aspects of the research in its items/questions. It shows the internal consistency of the test so that a researcher would know that the results are trustworthy. This is the first test used before the actual estimations.

To check the reliability we have Cronbach's Alpha test. The value of alpha ranges between 0-1 and any value higher than '0.7' means the component is reliable and can go further with the estimations but if alpha falls below 0.7 it means there is deficiency in the components of the study and the observed items do not calculate all the aspects of research that is under consideration. To get a perfect value of alpha, the components of the research must have two qualities that are internal consistency and homogeneity. Internal consistency shows that all the components of the test measure the same construct or idea and focus on same goal. Homogeneity refers to the correlation among the components of the study. There must be similarity among all the items so that they will measure the same prospect of research. (Tavakol and Dennick, 2011)

We begin our tests with Cronbach's alpha by using SPSS 20.0 software. For ideal results, first we should use alpha on a small amount of sample. The questionnaire was distributed in three different batches. We first applied alpha on first batch just to know that the questionnaire is fine and can further be proceeded and at the end applied the alpha test on all the data collected from questionnaire. It turned out alpha was almost same both times.

The results of Cronbach's Alpha were as follows:

**Table 3.3: Reliability Statistic of Cronbach's Alpha**

	<b>Variables</b>	<b>Cronbach's Alpha</b>	<b>No of Items</b>
1	Unplanned Shopping	0.962	4
2	Security Level	0.546	4
3	Convenience & Satisfaction Level	0.927	4
4	Awareness through Advertisement	0.891	4
5	Role of Financial Institutes	0.838	4
6	Usage & Psychological Behaviour	0.779	4

The above results show that the alpha of all components is above 0.7 which is perfect for testing except for the alpha of Security Level variable. It has the value 0.5 which is less than the standard mark of alpha acceptance. We shall not consider its results significant but shall keep it in our estimations.

### **Validity**

The validity of a questionnaire shows the logic and strength of the concepts in the study. It means that the questionnaire fulfils the desired requirement of the study and correlate it with the past studies. A good questionnaire must be constructed in such a way that it covers all the aspects of the study and correspond with the literature of research. The validity can be of four different types that are

Face validity predicts the quality of the questionnaire only by looking at it, means the first impression shows that all the aspects of study are being considered and added, this kind



of validity is normally checked by experts. Content validity refers to the material of the questionnaire whether it represents the course of study or not. While constructing the questionnaire, researcher must focus on all the main contents and check that the results must be concurrent (that means repeat in nature and resemble the past results). A good questionnaire must fulfill the criterion of its construct that is, it must be predictive about the results and convergent towards the center (Carmines and Zeller, 1979).

The validity of the questionnaire is measured by the correlation among the variables. Correlation varies among negative one to positive one i-e ( $-1 \leq r \leq +1$ ). The co-efficient of correlation is represented by small 'r'. So, if the value of r is negative it means the variables are in opposite relationship that shows the increase in variable cause the decrease in other. If 'r' is positive it means the variables move in the same direction. The correlation is checked with its significance level that shows the strength of its value. The correlation tells two things about the relationship between two variables i-e direction and strength. Direction can be interpreted by the sign of the value and strength is considered by estimate coefficient (Graham, 2010).

Now, we shall estimate the validity for the questionnaire through the tests recommended for testing questionnaires.

Validity is the attribute that shows the consistency in the results computed from a questionnaire. A good questionnaire must be valid that means it must give the same results even after repeated estimation and even after changing few factors like adding or deleting some. The correlations of the variables involved in this study are as follows:

**Table 3.4: Correlation between Variables**

<b>Variables Relationship</b>	<b>"r" estimate</b>	<b>P-value</b>
U.S & S.L	0.211	(0.00)
U.S & A.P	0.021	(0.03)
U.S & F.I	-0.079	(0.00)
U.S & C.S	0.203	(0.671)
S.L & A.P	-0.186	(0.00)
S.L & F.I	0.166	(0.827)
S.L & C.S	0.271	(0.00)
A.P & F.I	-0.207	(0.02)
A.P & C.S	0.068	(0.04)
F.I & C.S	-0.204	(0.00)

Here, these abbreviations stand for as following:

U.S = Unplanned Shopping, S.L = Security Level, A.P = Awareness through Advertisement, F.I = Role of Financial Institutes, C.S = Convenience and Satisfaction Level.

The correlation between two independent variables are checked for two reasons; one is to make sure there is no multi-collinearity and the other is to check the validity of data collected through questionnaire. In this study we can see that all the variables are significantly correlated with the other that shows the validity of the data to be perfect. All independent variables are close to zero or slightly correlated with the other which shows lack of multi-collinearity in independent variables. This is the best case scenario now, we can easily move forward towards other techniques and statistical tests, necessary for this study. The correlation of all research variables with dependent variable shows the validity of the

questionnaire, all these variables are correlated with the dependent one, and shows their impact on it.

**Table 3.5: Correlation of Independent Variables with Dependent Variable**

<b>Variables Relationship</b>	<b>"r" estimate</b>	<b>P-value</b>
U.S & U.P	-0.011	(0.04)
S.L & U.P	0.089	(0.00)
C.S & U.P	-0.010	(0.00)
A.P & U.P	0.302	(0.02)
F.I & U.P	0.925	(0.04)

The correlation between 'Unplanned Shopping' and 'Usage and Psychological behavior' is negative and statistically significant. This indicates that both 'Unplanned Shopping' and 'Usage and Psychological behavior' are negatively correlated. 'Security Level' and 'Usage and Psychological behavior' are positively correlated with each other and are also statistically significant. The correlation between 'Convenience and Satisfaction Level' and 'Usage and Psychological behavior' is negative and statistically significant. 'Awareness through Advertisement' and 'Role of Financial Institutes' have positive and statistically significant correlation with 'Usage and Psychological behavior'.

### **3.6 Descriptive Frequencies**

Descriptive statistics is a representative view of given data in which the main features or variables of the data are summarize in a form that one can easily predict the general information or pattern about the data.

The variable 'Age' 203(40.6%) samples were between the age of '30-40', 187(37.4%) lies in '41-60' category, only 10(2.0%) falls in '18 & below', 62(12.4%) samples were of age between '19-29' and 38(7.6%) samples were those who were '61 & above'. 207(41.4%) participants were females and rest 293(58.6%) were males, making it almost same percentage of both gender in sample. 312(62.4%) participants were unmarried and 188(37.6%) were married. 2(0.04%) participants were matric or below, 8(1.6%) were intermediate, 82(16.4%) were bachelors, 211(42.2%) were masters and 197(39.4%) were M.phil or P.hD in education. 43(8.6%) were unemployed and 457(91.4%) were employed in private or government sector. 15(3.0%) participants earned 10000 & below salary, 25(5.0%) ranged between 11000-30000, 179(35.8%) ranged 31000-60000, 224(44.8%) ranged 61000-99000 and 57(11.4%) were those who earned 1 lac and above. 264(52.8%) participants used to shop daily for their groceries making payments through their plastic cards, 133(26.6%) go for shopping weekly, 59(11.8%) shop fortnightly, 38(7.6%) shop monthly, 6(1.2%) shop whenever they need to. 159(3.0%) spend rs 1000 on each shopping trip, 25(5%) spend 3000, 179(35.8%) spend 5000, 224(44.8%) spend 7000 and 57(11.4%) participants spend 10000 plus on their groceries.

The most appealing promotion strategy is discount offer on plastic cards as 172(34.4%) participants are attracted to it, 159(31.8%) go for tv/radio ads, 150(30.0%) prefer security increment, 10(2%) prefer brochures and less service charges is least attracted strategy preferred by only 9(1.8%).

#### Unplanned Shopping;

The feedback of questionnaires from respondents showed, 149(29.8%) participants do impulse shopping due to store credit card (discount card), 166(33.2%) of the participants do a little impulse shopping, 38(7.6%) of the participants are neutral about impulse

shopping, remaining 30% participants don't do impulse shopping due to store credit card. 31% participants carry list while going on shopping and stick to it, 62% of the participants don't. 6% of the participants are neutral about carrying a list for shopping. 63% of the participants do not bother price while paying with plastic card, 29% of the participants consider price and 8% of the participants are neutral. 64% of the participants avail discount offers on the things they don't even need, 28% of the participants do not avail discount offers on random things, 8% of the participants are neutral.

#### Security Level;

The feedback of questionnaires from respondents showed, 66% of the participants consider plastic money more reliable than paper money, 27% of the participants disagree with it and 7% of the participants feel neutral. 43% participants stopped using plastic money due to being victimized by its fraud or theft, 57% of the participants never met with a fraud crime of plastic money. 39% consider banks to be responsible for plastic money security, 20% of the participants are neutral and 40% of the participants don't blame banks. 65% of the participants are willing to pay extra charges just to make their plastic cards more secure to use, 27% of the participants are not.

#### Convenience & Satisfaction;

The feedback of questionnaires from respondents showed, 57% of the participants feel difficulty in memorizing their PIN code for plastic cards, rest 36% are fine with their PIN code. 60% of the participants are bothered with the daily transaction limit on their cards, 40% of the participants does not mind the limit fixed from banks. 36% participants are completely satisfied with the services offered by banks on their cards. 60% of the participants believe that making huge payments (like for electronics etc) is more expensive as it adds up extra

charges and taxes. 40% of the participants feel easy about making payments through their plastic cards.

#### Awareness through Advertisement;

The feedback of questionnaires from respondents showed, Advertisements of plastic cards enhance the participants' willingness to use their plastic cards more in routine life by 64% rest 36% of the participants are indifferent in using plastic cards without being bothered by advertisement. 61% of the participants are attracted more towards social media promotions for plastic cards. 63% participants' opinion is electronic-banking is the most efficient promotional strategy for plastic cards' business. 39% of the participants visits their banks' official website very often for new products and promotions.

The feedback of questionnaires from respondents showed, 73% of the participants wants banks to minimize the interest-rate on credit cards, 75% of the participants wants to switch their payment mode to plastic cards payment only if banks reduces their charges, 66% of the participants wants no limit on credit cards usage.

#### Role of Financial Institute:

The feedback of questionnaires showed, majority of the participants claim that financial institutes of the state are responsible for the security of ATMs machines and plastic cards services. They want financial institutes to take control over the products of banks and regulate the services that comfort the customers.

#### Usage & Psychological Pattern:

The feedback of questionnaires from respondents showed, Plastic cards have made 70% participants' lives easier, 30% of the participants feel credit cards as debt on them, 69% of the participants wants to keep updated with new technologies and do not want to lay off

plastic cards usage. 60% of the participants recommend plastic cards to their non-users fellows.

### **3.7 Multiple Linear Regression Analysis**

The study of Kutner, (1996) represents, regression is the relationship between dependent and independent variables. It shows the effect of one on the other that means how much change in one cause the change in another. Regression is commonly used for forecasting and prediction in every field of study. Regression is used to infer causal relationship which predicts the cause and effect of two variables. Regression basically measures the unknown parameter in any model. The model could be linear or non-linear (although there are different techniques for both). The linear model is that in which the power of the parameter is one. Linear regression model describes a continuous response as a function of one.

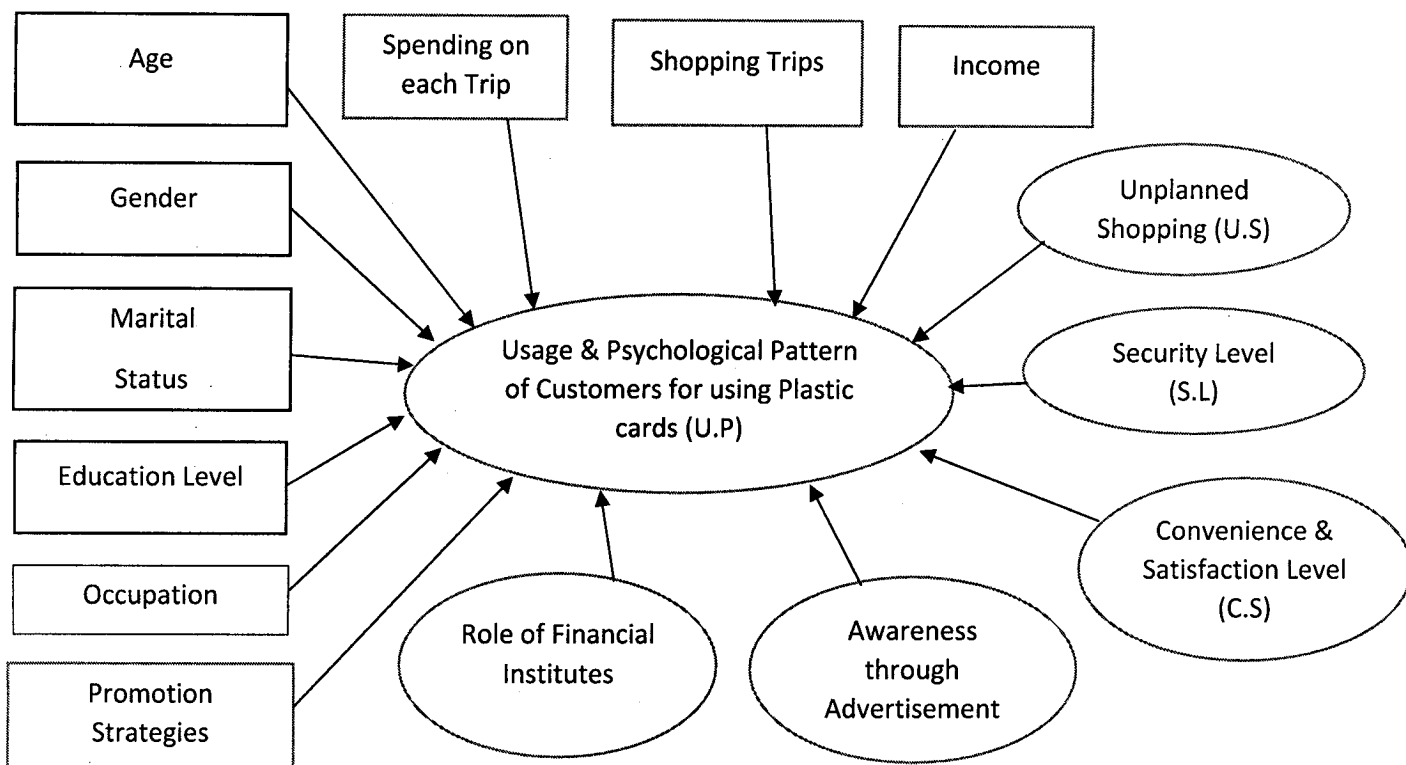
#### **3.7.1 Theoretical Framework**

The theoretical framework of this study can be drawn as follows:

The variables are divided into two categories, i-e demographic variables and research variables. Demographic variables contain: age, gender, marital status, education level, occupation, income level. Research variables are: unplanned shopping, security level of plastic money, convenience and satisfaction through using plastic money, awareness of plastic money through promotion and advertisement, role of financial institutes. These factors have their different impacts on dependent variable that is; usage and psychological pattern of costumers. In the figure 3.1 given below, it is clearly seen that some variables are put in oval shape and some in rectangle shape. In AMOS, SPSS; the observed variables are given rectangle shape as the observed variables are those which can be elaborated in a definite

number. The unobserved variables are given in oval shape which shows that these variables are not calculated in quantitative way rather they are qualitative.

**Figure 3.2: Variables Path Diagram**



### 3.7.2 Hypothesis Construction

To test all the objectives of this study, we need to create hypothesis to be tested by econometrics techniques.

#### Hypothesis No 1

H<sub>a</sub>: 'Unplanned Shopping' has a positive and significant impact on 'Usage & Psychological behavior' of plastic cards.

H<sub>b</sub>: 'Unplanned Shopping' has a mediated effect on 'Z', the components of 'Y' (indirect effect) and on 'Y' dependent variable (direct effect).



## **Hypothesis No 2**

H<sub>c</sub>: 'Security Level' has a positive and significant impact on 'Usage & Psychological behavior' of plastic cards.

H<sub>d</sub>: 'Security Level' has a mediated effect on 'Z', the components of 'Y' (indirect effect) and on 'Y' dependent variable (direct effect).

## **Hypothesis No 3**

H<sub>e</sub>: 'Convenience & Satisfaction Level' has a positive and significant impact on 'Usage & Psychological behavior' of plastic cards.

H<sub>f</sub>: 'Convenience & Satisfaction Level' has a mediated effect on 'Z', the components of 'Y' (indirect effect) and on 'Y' dependent variable (direct effect).

## **Hypothesis No 4**

H<sub>g</sub>: 'Awareness through Advertisement' has a positive and significant impact on 'Usage & Psychological behavior' of plastic cards.

H<sub>h</sub>: 'Awareness through Advertisement' has a mediated effect on 'Z', the components of 'Y' (indirect effect) and on 'Y' dependent variable (direct effect).

## **Hypothesis No 5**

H<sub>i</sub>: 'Role of Financial Institutes' has a positive and significant impact on 'Usage & Psychological behavior' of plastic cards.

H<sub>j</sub>: 'Role of Financial Institutes' has a mediated effect on 'Z', the components of 'Y' (indirect effect) and on 'Y' dependent variable (direct effect).

These hypotheses are tested by econometric techniques called regression and correlation which show the relationship and how much one factor affect the other.

To test our hypothesis we are going to use different econometrics techniques to get the accurate results and answer the questions that has been raised in the research. Our main finding is to elaborate the mechanism of the relationship existing among dependent and independent variables that is whether the change in one independent variable affect the dependent variable or not also this would be checked in both ways i-e direct and indirect effect. To find the relationship among variables we have the Regression technique which we will run graphically in AMOS; SPSS. The question is how much one independent variable affect the function of dependent, to answer this query we have correlation.

To analyze the regression, the techniques are Simple linear regression, which involves only one dependent and one independent variable whereas multiple linear regression includes one dependent and multiple (more than 1) independent variables that predicts the causal effect of theirs, on dependent variable. Basically, one or more independent variables in each case, dependent variable is defined by the estimations of independent variables and their error terms (residual values) in the model. A combination of dependent and independent variables form an equation which includes error terms, this becomes an econometric model to be tested. To check the model goodness of fit, we have the r-square.

### **3.7.3 Limitations in Research**

There is no research has been made which is perfect and that meets all the ends of each and every possible aspect. Because technically, it is impossible for someone to cover everything in one research which may cause troubles with data handling, so is the case with this study. As such there is nothing wrong with it and the results are completely accurate but

the thing is there are many sides of this topic that could be covered but are out of reach from this study. So, whoever is seeking their attention towards doing the research on same topic can follow these aspects to overcome the shortcomings of this research.

Different population; by changing the area of the population one can get very different results and can conclude variety of suggestions in this field. Remote areas can be covered to know the views of those who are unable to enjoy the plastic cards' facilities.

New factors; different new factors can be added while collecting the data to check their influence or impact in promoting plastic cards. There are still many aspects that could be covered in other researches to make a master piece that truly shows the plastic cards' situation among people who use it and even those who do not use it also to be able to answer why and why not they are using or not using it.

Non-users in sample; one of the most important side of this research is to add those who do not use plastic cards or are unaware of its benefits. This study did not involve them but new studies can and should. This will help us know the reasons why they are avoiding plastic cards, is this because there area is remote or maybe many shops or stores do not hold plastic cards facility. Or is this because they just do not want to use it and do not understand how to use as it is a little more technical to use.

#### **3.7.4 Model**

The estimation results for the model; there will be two types of models to be examined by the software to test the hypothesis. These are as follows:

1. Structural Regression Model
2. Measurement Model Scale.

These models can be written in mathematical equation form as follows. The Variables included in the model are:

**Table 3.6: List of Variables**

Observed Variables	Unobserved Variables	Dependent Variable
Gender (X <sub>1</sub> )	Unplanned Shopping (U.S) (X <sub>9</sub> ),	Usage & Psychological Behavior (U.P) (Y <sub>0</sub> ).
Marital Status (X <sub>2</sub> )	Security Level (S.L) (X <sub>10</sub> ),	
Education Level (X <sub>3</sub> )	Convenience and Satisfaction Level (C.S) (X <sub>11</sub> ),	
Occupation (X <sub>4</sub> )	Awareness through Promotion & Advertisement (A.P) (X <sub>12</sub> ),	
Income Level (X <sub>5</sub> )	Role of Financial Institutions (F.I) (X <sub>13</sub> ).	
Shopping Trip (X <sub>6</sub> )		
Spending each Trip (X <sub>7</sub> )		
Promotion Strategies (X <sub>8</sub> ).		

Here is how we generated the equations for each unobserved variable separately.

Each unobserved variable is calculated via 4 dimensional questions such as,

$$U.S = \beta_1 \text{shopping } 1 + \beta_2 \text{shopping } 2 + \beta_3 \text{shopping } 3 + \beta_4 \text{shopping } 4 + \mu_1$$

$$S.L = \beta_1 \text{security } 1 + \beta_2 \text{security } 2 + \beta_3 \text{security } 3 + \beta_4 \text{security } 4 + \mu_2$$

$$C.S = \beta_1 \text{convenience } 1 + \beta_2 \text{convenience } 2 + \beta_3 \text{convenience } 3 + \beta_4 \text{convenience } 4 + \mu_3$$

$$A.P = \beta_1 \text{advertisement } 1 + \beta_2 \text{advertisement } 2 + \beta_3 \text{advertisement } 3 + \beta_4 \text{advertisement } 4 + \mu_4$$

$$F.I = \beta_1 \text{financial 1} + \beta_2 \text{financial 2} + \beta_3 \text{financial 3} + \beta_4 \text{financial 4} + \mu_5$$

$$U.P = \beta_1 \text{usage psychology 1} + \beta_2 \text{usage psychology 2} + \beta_3 \text{usage psychology 3} + \\ \beta_4 \text{usage psychology 4} + \mu_6$$

*Structural Regression Model;*

$$Y_o = \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \beta_7 X_{7i} + \beta_8 X_{8i} + \beta_9 X_{9i} + \beta_{10} X_{10i} + \beta_{11} X_{11i} + \\ \beta_{12} X_{12i} + \beta_{13} X_{13i} + \beta_{14} X_{14i} + \epsilon_i$$

### **3.7.5 Total Effect Model (Mediation Path)**

Direct and indirect effects show the causation (cause & effect) between dependent and independent variables. Total effect appears by adding up direct and indirect effect. These effects are calculated by mediation analysis. Mediation was conducted through AMOS software auto calculation by making a command. The effects are calculated as;

Direct effect shows the effect of the predictor on total outcome in case of absence of mediator whereas, indirect effect shows the effect of predictor on total outcome in the presence of mediator. Mediator is the third party that affect the total effect.

Suppose, Y = dependent variable, X = independent variables, Z = mediators

Path a = direct effect, Path b = Indirect and Path c = Total effect.

'Y' = dependent variable which is Usage and Psychological Behavior of Plastic cards' Customers.

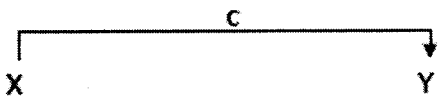
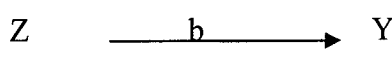
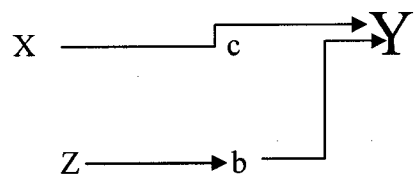
Mediators are the sub-components of the dependent variable presented by Usage Psychology

1, Usage Psychology 2, Usage Psychology 3 and Usage Psychology 4.

The following paths are as follows,

1. X variable predicting Y → Path 'a'
2. X variable predicting Z → Path 'b'
3. X and Z variable predicting Y → Path 'c'

**Table 3.7: Mediation Path Analysis**

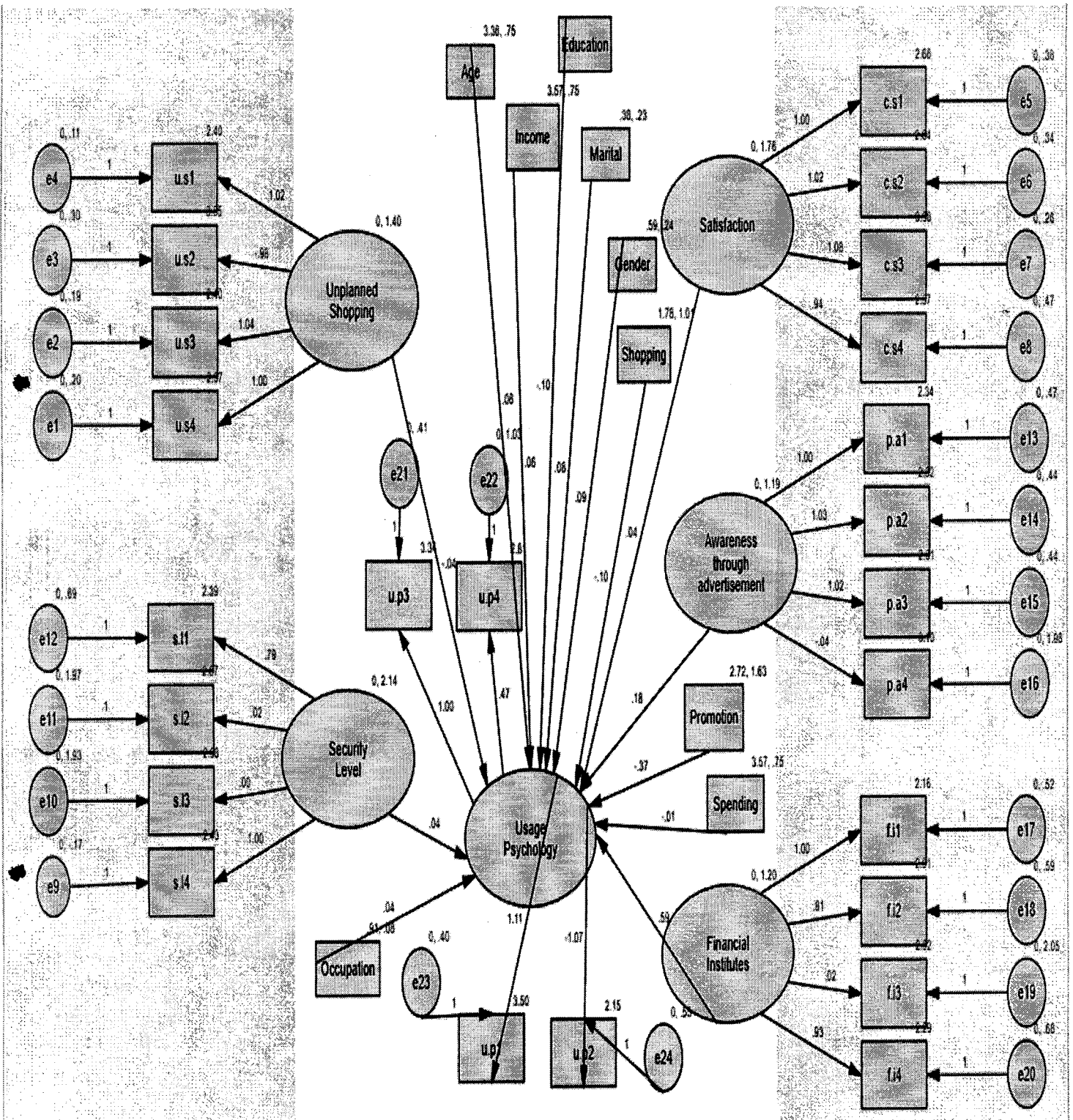
Steps	Analysis	Equations	Paths
1	Analysis with X Predicting Y = path c.	$Y = \beta_0 + \beta_1 X + e$	
2	Analysis with Z predicting Y for path b.	$Y = \beta_0 + \beta_1 Z + e.$	
3	Analysis with X and Z predicting Y.	$Y = \beta_0 + \beta_1 X + \beta_2 Z + e$	

# Chapter 4

## EMPIRICAL RESULTS

### 4.1 Path Analysis of Structural Equation Model

Figure 4.1: Path Analysis Graphical Presentation



Graphical representation of AMOS regression diagram. Where the value on the arrow show the standard deviations and values on boxes and circles show the co-efficient of the variables. All the Unobserved variables are presented in oval box whereas Observed variables are presented in rectangle box.

#### 4.2 Goodness of Fit Indices

Now, we will check the results for model goodness of fit. It is measured by several model-fit indices like Comparative Fit index, RMSEA index and others. These are chi-square based indices.

**Table 4.1: Baseline Comparisons for Model-fit**

Model	NFI	RFI	IFI	TLI	CFI
Default model	0.332	0.233	0.435	0.321	0.408
P-value	0.000	0.000	0.000	0.000	0.000

These indices are inter related with each other. The value of NFI, RFI, CFI and TLI must be round about 0.90 to make model fit accurately. TLI must be less than NFI & CFI. This criterion is not fulfilled here. But this happens sometimes due to the large sample size and involvement of latent variables in model (Schumacker & Lomax, 2004). To remove this problem, we have another criteria that can be checked for model-fit that is Parsimony-Adjusted measures, this criteria adjusts the constraints associated with large sample size model.



**Table 4.2: Parsimony-Adjusted Measures**

<b>Model</b>	<b>P-Ratio</b>
Default model	0.871
P-value	0.000

After adjustments of constraints, we can see that the overall value of P-ratio is 0.871 which is near to 0.90 (the standard criterion) hence considering the model to be a good-fit.

**Table 4.3: Root mean square error of approximation**

<b>Model</b>	<b>RMSEA</b>	<b>P-value</b>
Default model	0.060	0.000
Independence model	0.073	0.000

RMSEA is the Root mean square error of approximation. This is the most popular and standard model-fit estimation. Its criterion is RMSEA must be less than 0.08 (Andrich, 2007). Here, the value for 'RMSEA' is 0.06, fulfilling the standard criterion of model goodness of fit, means the model is perfect for further statistical estimations.

### 4.3 Multiple Regression Analysis

**Table 4.4: Regression Weights (Default Model)**

Dependent Variable	Independent Variables	Estimate	S.E.	P-value	Standardized Regression
Usage & Psychology	→ Unplanned Shopping	-0.040	0.017**	0.02	-0.051
Usage & Psychology	→ Security Level	0.048	0.014***	0.00	0.074
Usage & Psychology	→ Financial Institutes	0.586	0.030***	0.00	0.699
Usage & Psychology	→ Awareness through Advertisement	0.187	0.021***	0.00	0.222
Usage & Psychology	→ Promotion	-0.368	0.018***	0.00	-0.512
Usage & Psychology	→ Shopping	-0.098	0.020***	0.00	-0.107
Usage & Psychology	→ Education	-0.010	0.025***	0.00	-0.088
Usage & Psychology	→ Income	-0.271	0.024***	0.00	-0.256
Usage & Psychology	→ Marital	0.080	0.041*	0.05	0.042
Usage & Psychology	→ Gender	0.093	0.041**	0.02	0.050
Usage & Psychology	→ Age	0.060	0.023***	0.00	0.057
Usage & Psychology	→ Occupation	0.040	0.071	.571	0.012
Usage & Psychology	→ Convenience	0.038	0.015**	0.01	0.055
Usage & Psychology	→ Spending	0.327	0.025***	0.00	0.309

The above table shows the regression estimation of all dependent variable with independent variable. The p-value shows whether the effect of independent variables on dependent variable is significant or not. So, according to the p-values given in the table, all variables have significant effect on 'Usage and Psychological Behavior' except for independent variable 'Occupation'. So 'Occupation' variable cannot be considered significant but it does not mean that it has to be excluded from model, it will still be considered and interpreted but its results would not be reliable. The three stars probability shows significance

at 99%, two stars means significance at 95% and one star means significance at 90% level. These three stages of significance are acceptable for a variable to be reliable.

The variables age, gender, marital status, occupation, spending per shopping trip, security level, convenience & satisfaction level, financial institutes, awareness through advertisement have positive relationship with usage & psychological behavior (dependent variable) means they move in the same direction i-e "Usage and Psychological Behavior" of consumers towards plastic cards, rises due to the increase in these independent variables. Unplanned shopping, promotion, shopping trips, education level and income are negatively related with 'Usage and Psychological Behavior', means increase in these variables cause decrease in 'Usage and Psychological Behavior' of consumers towards plastic cards.

According to the estimations:

The estimated coefficient of 'Unplanned Shopping' is -0.04 and appears statistically significant. This implies that 'Unplanned Shopping' has a negative and significant impact on 'Usage and Psychological Behavior' of consumers towards plastic cards. This proves that when people do impulse shopping, they get temporary satisfaction which later gets dissolved when they get to pay the bills if shopped by credit card or when their bank accounts get emptied if shopped by debit card. This led to the discomfort in the lives of plastic cards' consumers and make them use less of the plastic cards and pay cash while doing impulse shopping, so they would know how much they are spending and how much is left with them or led them do less impulse shopping while paying the bills with plastic cards.

Factor analysis results of 'Security Level' regression measure value is 0.048 which means 1 unit rise in it, causes 4.8% increase in 'Usage & Psychological Behavior' where regression line falls out 0.014% as the standard error of the regression. The 'Unplanned

Shopping' is significant at 0.01(1%) level. This shows the direct relationship between 'Security Level' and 'Usage and Psychological Behavior' of consumers towards plastic cards because lessen the risk associated with plastic cards usage will higher the comfort level by using plastic cards. Here, comfort level is referred as psychological impact of independent variable.

The 'Role of Financial Institutes' regression measure value is 0.586 and has a statistically significant and positive impact on 'Usage and Psychological Behavior' of consumers towards plastic cards. This implies that active policies and their implementations by the government of the state may cause increase in the use of plastic money with complete satisfaction of the consumers regarding the insecurities related to the usage of their plastic cards. Financial Institutes are regulated by the government and consumers of plastic cards believe that it is government's job to make sure the plastic money is being safe and easy to use by anyone. Any institute that issues plastic cards must make sure that it is obeying the laws and regulations imposed by the government so, that there would be a uniformity and minimum risk for using plastic money.

As expected the variable 'Awareness through Advertisement' regression measure value is 0.187 which is positive and statistically significant. These results show that to promote the usage of plastic money, the institutes must make sure to let people know each and everything about the product. The main concern of consumers of plastic cards was, they sometimes witness hidden charges over the usage of plastic cards which is very discomfoting and frustrating. This could be removed by proper advertisement as it is seen that advertisement is the fastest way to promote a product but these ads must be very brief

and clear about the product without any exaggerations about plastic cards or their issuing institute's services.

The 'Convenience and Satisfaction Level' has an estimated coefficient 0.038 which is statistically significant and positive. This implies that 'Convenience and Satisfaction Level' has a positive impact on 'Usage and Psychological Behavior'. This is because the more a consumer feels satisfied and relaxed by using his/her plastic cards, the more he/she will use it in the future. Although the effect of 'Convenience and Satisfaction Level' is only 3%, which is very low, but this is because plastic money has not been much successful in the money market, but with time and proper strategies, the consumers of plastic cards will be able to adopt plastic money more conveniently.

Factor analysis results of 'Spending on each Shopping Trip' regression measure value is 0.327, which is statistically significant and positive. This shows that the higher the 'Spending on each Shopping Trip', the higher the usage of plastic cards. This is because consumers want their lives to be easy; they don't want to carry lots of cash all the time. Plastic cards have made their lives easier by laying off the burden of cash in their pockets.

The estimated coefficient of 'Promotion' is -0.368, which is statistically significant and negative. The choice of wrong promotional strategies may lead to a negative impact. Banks or any other plastic cards issuance company must make sure to advertise their product through a channel which is most viewed, whether its bill-board ads or TV commercial or on social media. The channel with most viewers must be the best choice, also the ad must be brief and clear for every layman to understand without any exaggerations and hidden terms or conditions which may not attract much public.

'Shopping Trips' is statistically significant and negative with regression measure value of  $-0.098$ . This implies that 'Shopping Trips' has a negative effect on 'Usage and Psychological Behavior'. This is because the more regular and consecutive trips the lesser the use of plastic cards. This pattern shows that consumers tend to use plastic cards often for large payments and the short period for shopping trips (mostly for groceries) are of small bills which consumers preferably pay with cash.

The regression measure of 'Education' is statistically significant and negative with the value  $-0.01$ . This measure is supposed to be positive but here the estimations are showing alternate results. This is maybe because 'Education Level' does not really effect the 'Usage and Psychological Behavior' of consumers towards plastic cards, that's why the effect of 'Education Level' is very low.

Regression coefficient of 'Income' is  $-0.271$  and it is statistically significant. This states that level of income has a negative effect on 'Usage and Psychological Behavior' of consumers towards plastic cards. Consumers of earning high income tend to be more careful about their bills and spending. They don't want mental burden of loan by using more of credit cards. Debit cards are seen to be more used among high income group but overall consumers with high income level avoid using credit card. Here the data was collective about credit and debit cards that's why the estimated results have a negative value which basically, represents the credit cards usage.

'Marital Status' regression measure value is  $0.080$  which is statistically significant and positive. But we can see the low effect rate which means 'Marital Status' does not have a powerful impact over 'Usage and Psychological Behavior'. This is because this variable is helpful in household data collection but not in individual data survey.

The estimated coefficient of 'Gender' is 0.093 which is statistically significant and positive. But it has a minor impact on 'Usage and Psychological Behavior' of consumers towards plastic cards. The reason behind this is, no matter male or female, consumers of plastic cards tend to be equally satisfied with plastic cards. Both genders follow the same pattern of plastic cards usage and both have same insecurities towards the services of plastic cards.

The estimated value of 'Age' coefficient is 0.060 which is positive and statistically significant. But the low effect rate tells us that there is no specific age group for using plastic cards. Plastic cards are being used by all age groups. So, 'Age' does not really have an impact over the 'Usage and Psychological Behavior'. Also the data was only collected from plastic cards users, and they all have almost the same concerns and insecurities towards the plastic cards. One thing that was specifically, noticed was that all students who participated in survey were using debit card and not credit card.

Factor analysis results of 'Occupation' regression measure value is 0.040, which is positive but statistically insignificant. This implies that 'Occupation' has a positive but insignificant impact on 'Usage and Psychological Behavior' of consumers towards plastic money. Although 'Occupation' is insignificant but it has very minor effect rate so it does not count if it's significant or insignificant.

The standardized regression weights which is known as Beta ' $\beta$ ' coefficients, standardized regression weight is observed when the variance of dependent and independent variables are considered as '1' which shows no divergence. In multiple regression analysis, standardizing the variables help a lot in making comparisons easy due to the same scale unit.

In the above table, the signs of the variables estimates are same as the simple regression weights.

**Table 4.5: Means: (Default model)**

<b>Variables</b>	<b>Estimate</b>	<b>S.E</b>
Age	3.362	0.039***
Education	4.186	0.035***
Shopping	1.778	0.045***
Spending	3.566	0.039***
Promotion	2.724	0.057***
Income	3.566	0.039***

The above table shows the general frequency table for mean and standard error of demographic variables. Showing the probability value where all variables are significant at 0.01 level of significance. The standard error gives the statistical accuracy of the estimates showing how much the variable deviates (standard deviation) from its mean. For a standardized normal distribution, the mean must be zero and variance must be equal to 1 of all variables, but this data is not normal that's why it has assigned different means to each variable showing in the above table along with their standard error (square root of variance).



#### 4.4 Total Effect = Direct and Indirect Effect

Table 4.6: Total Effects (Default model)

T.E	A.P	S.L	C.S	U.S	F.I	O	Age	Gender	Marital	Income	Education	Shopping	Promotion	Spending	Use Psych
U.P	0.187***	0.04**	0.038***	-0.040***	0.586***	0.040***	0.060***	0.093***	0.080***	-0.271***	-0.102***	-0.098***	-0.368***	0.327***	.00
u.p1	-0.199***	-0.052***	-0.041***	0.042***	-0.625***	-0.043***	-0.064***	-0.099***	-0.085***	0.288***	0.109***	0.104***	0.392***	-0.348***	-1.0
u.p2	0.208***	0.054***	0.043***	-0.044***	0.653***	0.045***	0.067***	0.104***	0.089***	-0.301***	-0.114***	-0.109***	-0.410***	0.364***	1.1
u.p3	0.089***	0.023***	0.018***	-0.019***	0.278***	0.019***	0.029***	0.044***	0.038***	-0.128***	-0.048***	-0.046***	-0.174***	0.155***	.4
u.p4	0.187***	0.048***	0.038***	-0.040***	0.586***	0.040***	0.060***	0.093***	0.080***	-0.271***	-0.102***	-0.098***	-0.368***	0.327***	1.0

The above table shows the direct and indirect effects which combine to total effect. The first line (U.P) states the direct effect of independent variables (X) on dependent variable (Y). The below lines (u.p1, u.p2, u.p3, u.p4) states the indirect effect of independent variables (X) on the sub-components (Z) of dependent variable (Y).

Here, in the above table the result estimates show that;

#### 4.4.1 Total Effects

The regression results of simple mediation showed that Awareness through Advertisement ( $\beta = 0.187, p \leq 0.01$ ) has a significant and positive affect on Usage and Psychological Behavior. This shows positive direct mediation of 'Awareness through Advertisement' on 'Usage and Psychological Behavior'.

The regression results of simple mediation showed that 'Security Level' have ( $\beta = 0.048, p \leq 0.01$ ) where it is significant and positive which shows positive direct path towards 'Usage and Psychological Behavior'. The simple mediation results of Convenience and Satisfaction Level showed ( $\beta = 0.038, p \leq 0.01$ ) which is significant and positive which states 'Convenience and Satisfaction Level' has positive direct effect on 'Usage and Psychological Behavior'. The regression results of simple mediation showed that Unplanned Shopping ( $\beta = -0.040, p \leq 0.01$ ) is significantly related to Usage and Psychological Behavior by affecting it negatively this is because 'Unplanned Shopping' has an indirect effect on 'Usage and Psychological Behavior'. The mediation result showed that 'Role of Financial Institutes' has coefficient ( $\beta = 0.586, p \leq 0.01$ ) which is significant and implies a positive and strong direct causal relationship with 'Usage and Psychological Behavior'

'Occupation' has mediation coefficient as ( $\beta = 0.040, p \leq 0.01$ ) which is significant and proves a positive direct but weak causal relationship with 'Usage and Psychological Behavior'. The estimated mediation coefficient of 'Age' is ( $\beta = 0.060, p \leq 0.01$ ) which is

significant and gives a positive direct but weak causal relationship with 'Usage and Psychological Behavior'. Gender has the estimated coefficient of mediation as ( $\beta = 0.093$ ,  $p \leq 0.01$ ) which is significant and shows a positive direct but weak relationship with 'Usage and Psychological Behavior'. 'Marital Status' has direct but weak causal relationship with 'Usage and Psychological Behavior'. Its mediation coefficient is ( $\beta = 0.080$ ,  $p \leq 0.01$ ). The mediation path relationship of 'Gender', 'Age', 'Occupation' and 'Marital Status' has weak causal effect on 'Usage and Psychological Behavior' because these variables have strong impact over household data survey not on individual data.

The regression results of simple mediation showed that 'Income Level' is ( $\beta = -0.271$ ,  $p \leq 0.01$ ) which is significantly related to Usage and Psychological Behavior by affecting it negatively. Whereas, 'Education Level', 'Shopping Trips' and 'Promotion Strategies' also have a negative indirect causal effect on 'Usage and Psychological Behavior' with mediation coefficient as ( $\beta = -0.102$ ,  $p \leq 0.01$ ), ( $\beta = -0.098$ ,  $p \leq 0.01$ ) and ( $\beta = -0.368$ ,  $p \leq 0.01$ ) respectively.

The regression results of simple mediation showed that 'Spending' on each trip is ( $\beta = 0.320$ ,  $p \leq 0.01$ ) is significantly related to 'Usage and Psychological Behavior'. Which shows a positive direct causal relationship with the 'Usage and Psychological Behavior' of consumers towards Plastic cards.

#### 4.5 Hypothesis Testing

The following hypothesis are accepted as,

Table 4.7: Hypothesis

Accepted Hypothesis
$H_b$
$H_c, H_d$
$H_e, H_f$
$H_g, H_h$
$H_i, H_j$

whereas, Hypothesis ' $H_a$ ' is being rejected by the results of the study.

Only 'Unplanned Shopping' is negatively related with 'Usage & Psychological Behavior' yet significant but still the hypothesis stating it has a positive relationship with dependent variable, the hypothesis cannot be accepted.

All other research variables were positively and significantly related to the dependent variable, making it to accept the hypothesis  $H_c, H_e, H_g, H_i$ . Which are,  $H_c$ : 'Security Level' has a positive and significant impact on 'Usage & Psychological behavior' of plastic cards.  $H_e$ : 'Convenience & Satisfaction Level' has a positive and significant impact on 'Usage & Psychological behavior' of plastic cards.  $H_g$ : 'Awareness through Advertisement' has a positive and significant impact on 'Usage & Psychological behavior' of plastic cards.  $H_i$ : 'Role of Financial Institutes' has a positive and significant impact on 'Usage & Psychological behavior' of plastic cards.

All the 'Z' components of dependent variable mediates a significant relationship among 'Usage & Psychological Behavior' (Y) and independent variables (X) making it to accept the hypothesis 'H<sub>d</sub>', 'H<sub>f</sub>', 'H<sub>h</sub>', 'H<sub>j</sub>' which are; H<sub>d</sub>: 'Security Level' has a mediated effect on 'Z', the components of 'Y' (indirect effect) and on 'Y' dependent variable (direct effect). H<sub>f</sub>: 'Convenience & Satisfaction Level' has a mediated effect on 'Z', the components of 'Y' (indirect effect) and on 'Y' dependent variable (direct effect). H<sub>h</sub>: 'Awareness through Advertisement' has a mediated effect on 'Z', the components of 'Y' (indirect effect) and on 'Y' dependent variable (direct effect). H<sub>j</sub>: 'Role of Financial Institutes' has a mediated effect on 'Z', the components of 'Y' (indirect effect) and on 'Y' dependent variable (direct effect).

#### 4.6 Discussion

The results discuss the prospects of this study. Following are the major findings. The main purpose of this study is to determine the factors that affect the usage and psychological behavior of consumers who use plastic cards. People who uses any product want their maximum satisfaction after using it with maximum benefits in their own good. Any product that launches in market follow these patterns to make sure it becomes a success. Same is the case with plastic cards (credit, debit and store discount/credit cards), which are issued by companies (Master & VISA) to the banks of the country and then are provided to the customers, making sure it fulfils the demands and expectations of customers.

The main factors that were considered to be most effective for changing the patterns of demand of plastic cards are,

Research variables:

'Unplanned Shopping', 'Security Level', 'Convenience & Satisfaction Level', 'Awareness through Advertisement', 'Role of Financial Institutes'.

Demographic variables:

Age, Gender, Marital Status, Education Level, Occupation, Income Level, Promotion strategies, Shopping trips (times), Spending on each trip.

These variables were both adoptive from previous literature and adaptive nature.

After regressing these variables on dependent variable (Usage & Psychological behavior), it was analyzed that all variables (except for Occupation) are significant. And shows their effect on dependent variable. The literature of these variables shows their impact as following;

#### **4.6.1 Research Variables**

The results of this study does not vary from literature, the results follow mostly the facts that we learnt in previous studies. The purpose of this research states that plastic cards need improvement to the same level in all areas of the country no matter from where the sample is chosen. This proves the following found outcomes:

‘Unplanned shopping’ is negatively related to Usage and Psychological Behavior which shows that impulse or spontaneous buying cause people to use their plastic cards less. This is maybe because of the reason that people do not want huge bills of their credit cards and clearly do not want their bank balance to vanish in a blink of an eye by swapping debit card. Unplanned shopping refers to the random stuff that people buy even though they don’t need but as a matter of moment attraction they want to buy it. This cause a huge rise in their bills causing dissatisfaction, people believe that when they pay from paper money, they are very conscious about what they buy but once they shift to plastic cards, it make them shop more and making them psychologically relaxed that they can pay later and get what they want now. This psychology is causing the discomfort towards plastic cards. ‘Unplanned Shopping’ may have positive impact on ‘Usage and Psychological Behavior’ of consumers

towards Plastic cards in case if data was collected only from elite class or the class whose least concern is price.

'Security Level' is positively related to Usage and Psychological Behavior, which shows that the usage and psychological behavior related to plastic cards is highly affected by the security measure associated with plastic cards. Customers want their mode of payment to be maximum secured where they feel relax about their payments and are not afraid of being victimized of any kind of theft or fraud. Plastic cards are easy to hack and once it's stolen or even if its PIN code is leaked all the money in bank account of the customer is gone also in case of credit card, customers may find their bills abnormal due to its misuse. But on the other hand it's easier to block the card and save the money in case of plastic cards, but once paper money is stolen, it's gone forever.

'Role of Financial Institutes' including the banks, the cards issuer companies and government of the country, are obligatory to provide the best of their product to their customers that satisfy their need and fulfils their demands. That's why positively and highly related to usage of plastic cards. Once financial institutes understand their duties and customers' demand it will become very easy to make plastic cards more popular in market and attract more people to use it. The interest rate on credit cards creates so much discomfort for the customers and people actually want the interest rate to be minimum. Also the service charges on these plastic cards should be minimum with maximum services and facilities regarding plastic cards. People actually want to change their mode of payment but these cards look fancy and expensive which cause them to keep on using paper money.

'Awareness through Advertisement' shows a positive relationship with the Usage and Psychological Behavior. People with complete know-how of plastic cards and how to use them, are more likely to prefer plastic cards over paper money. People who lack

understanding still believe it's a product for elite class. The best way to educate the customers is through advertisement and its different means of approach. These advertisements promote more usage and psychological satisfaction of customers which lead them to use their cards more often. To introduce more people to plastic cards, advertisement is the best technique to attract them and make them understand the product and its usage more clearly. Social media advertisement is observed to be on peak and most attractive of all.

'Convenience & Satisfaction Level' is positively related to the psychological impact of using plastic cards. The survey observed that the more the people are satisfied by using plastic cards and by its services, the more they tend to feel convenient and ease. Customers who use plastic cards in their routine lives, feel discomfort in memorizing their PIN code because it's a random number and is not of their own choice. Also the daily transaction limit on debit cards and credit limit on credit cards creates distress for them. If these hurdles would be removed they might feel completely satisfied with plastic cards.

#### **4.6.2 Demographic Variables**

Occupation is the only insignificant variable in the study so its results are not reliable or trustworthy. In some literature occupation is appeared as insignificant but positive in sign. This study measured occupation in two ways i-e, (i). in which sector of employment (private/business or government) was observed. (ii) in which occupation was measured as dummy like (employed, not employed) but in both scenarios the results remained insignificant that's why it shall not be considered any further and also not be excluded from study.

All other demographic variables were significant.



Middle age (30-40 years), unmarried people and males tend to use more plastic cards in their daily lives and feel more satisfied with it than married people and females. Higher education (Masters and Ph.D) leads to awareness and clear understanding of plastic cards usage. Higher income (50000 and above) earners feel more secure and relax about their spending through plastic cards rather than lower income level group. This is why income is negatively related to the psychological impact of plastic cards. people who go for shopping regularly like daily or even weekly are less likely to use plastic cards showing their negative relation with usage, than those who shop monthly or less often. Plastic cards make their customers spend more.

## Chapter 5

### CONCLUSION

Plastic cards have made their way to the economy of Pakistan and now is trying to make its position stronger than ever. The main reason why banks and companies want 'cashless' society is that plastic money is providing the edge of benefit to everyone. Both parties, the seller and the consumer are getting their satisfaction from plastic money, so, if it takes over the other monies there would be no harm. Plastic cards serve as a gateway to the world of economics. But still there is a long way for plastic cards to go before it can take over the money market.

It is seen that many of the bank costumers do not even have the knowledge about plastic cards. And from the people who do know about it, they are too afraid to use it because they do not want any trouble especially with credit cards they do not want to get into debt-trap. Credit cards are not all the debt and is not something to be scared of but the point is people lack information or in other words proper information about credit cards that's why they are reluctant to use it or even adopt it. The credit cards increase the spending letting people buy more and more stuff but debit cards have made it easier for its consumers to make the payments but only as much as they have in their accounts. This helps in controlling the spending. Everyone wants to increase their business, so the stores' owners tend to give costumers discount to attract them more towards shopping. There have been seen many shopping areas who offer discount on plastic cards' payments which means costumers use more plastic cards. Also some stores offer their own plastic card which help costumers gain store credit points and those points could be cash at any time. All these strategies are adopted

to attract people more towards plastic cards and make them use it more by manipulating their psychology. But the point is what consumer actually wants.

## **5.1 Policy Recommendations**

At the end of every research the conclusion is a chapter where researcher suggests his/her own words of wisdom according to his findings. This chapter helps a lot to the readers in defining the main work under done by the research. Each research study makes policies according to its results. These policies suggest the strategies and ideas to innovate more aspects of similar fields. In this research there are also few policies recommendations after the results. These are as follows;

Keeping the payment system efficient and reliable is much needed for increasing the plastic cards adoption and usage rate. If consumer finds payment through plastic cards difficult every time he uses it, definitely he is going to avoid plastic cards in future and would never recommend it to anyone. Payment system must be easy and available to maximum places like from small shops to big shopping malls. The choice of paying through plastic cards must be available everywhere. Not just making the payment system efficient, but also keeping it improving day by day is the real challenge.

There are some issues faced by the customers that when they use their plastic cards at ATM, there is a chance or risk of it getting stuck in the ATM machine. This is horrible and so frustrating like if it happens it means you are stuck at the booth and can't move because the card can come outside anytime but it can take hours. For this banks must use some technology through which if ATM machine is unavailable to read the card it should just simply give back the card rather than getting it stuck into it.

Sometimes while paying at the stores through plastic cards, the machine couldn't read the magnetic chip and hence, causing the embarrassment and trouble for the customer (in case he doesn't have cash, and is completely relying on plastic cards). The main reason of this happening is the card reading machine is out dated and is not functioning properly, stores do not bother to replace it in time. So, it must be considered obligatory for stores to replace the machine after a specific time and banks should take a check and balance wherever they have provided the machines. Providing the machines is not the one time job it must be replaced when it's needed.

Customers often complaint that the banks' recovery system of credit card payment is often offensive and they find it embarrassing the way banks treat them afterwards. For that banks must teach their staff to not to misbehave with their clients and use proper ethical ways to recover their bills.

The other main issue with the plastic cards are, the magnetic chip that operates the complete plastic card system. Customers often complaint that their chip goes scratchy after consistent use and then they have to go through all the trouble to get a new one. First of all the chip must be made of such a material that could not be ruined easily, second the cards must be automatically replaced by the banks over a specific time period.

Hidden charged are one of the biggest reason why people hesitate to adopt plastic cards. It's a normal belief of people that banks hide their terms and conditions, which are later discovered by customers as they get into the trap. Banks need to gain trust of their customers by coming clean in front of them and making them realize that there is nothing that is hidden, everything, and every charges are crystal clear.

Interest rate is another hurdle that come between the plastic cards and their customers. People are fine with the cards but they are not accepting the interest rate charges over it. So, the interest rate must be according to the standard government fiscal policy and must be same for every product. Credit card limit often bothers the customers. Although it is not possible to allow unlimited debt on the credit card. Banks need to drive a way out of it and make their customers feel free about their plastic cards.

*Suggestions:*

The suggestions of the survey clients are focused. The consumers who were taken as the sample in this research were asked about their suggestions to improve the strategies for promoting the plastic cards. Here are the following;

1. Low interest rate and service charges would definitely attract more customers towards using plastic cards.
2. Advertising is the most effective way of attracting people towards any product. Plastic cards' issuance companies can use different techniques of advertisement to promote plastic cards in common public by giving them enough know-how of using plastic cards.
3. Security level of plastic cards usage must be improved not only by plastic cards' issuance companies but also by the government authorities to make sure people feel safe about their finances.

By taking into account the above suggestions, one can interpret that plastic money has a bright future and has the capability to overcome paper money. But believing in cashless society is simply darn concept that has no chance of prevailing. Also the main concern of

By taking into account the above suggestions, one can interpret that plastic money has a bright future and has the capability to overcome paper money. But believing in cashless society is simply darn concept that has no chance of prevailing. Also the main concern of people are security. So, first of all the security level must be enhanced before applying any other strategies.

*Implications of the research:*

This research is very useful in the aspect that banks and plastic cards' companies could use it for their new strategies and can get the data about their costumers' psychology what they think about their product. It can also help the students of research who tends to go further in the similar study with some new extensions. There is always space for innovation and no could ever be perfect or the last word to that topic. Also keeping in mind these suggestions and results, plastic cards' users can get more information about their card. And those who are unaware of many aspects possessed by these cards can take advantage of them by undergoing this study. This is actually a brief study on how people feel about their plastic cards, if someone using a plastic card does not imply that he/she is enjoying it too and vice versa this is because there are hidden attributes of plastic cards that people do not know and when they have already used it then they come to know about these facts. Like hidden charges or taxes.

The three main cities of Pakistan were the focus of this study which clearly states that in these cities the population is literate and rational mostly. Also these cities possess largest businesses throughout Pakistan. The population's only minor portion is under poverty line so technically, this study chose the best population to be examined. Plastic cards are not being famous yet in Pakistan that's why we need to first focus on the class who regularly use plastic

cards and are aware of its benefits and disadvantages, rather than those who are new for this technology. Because we want to rise the adoption rate and this could only happen when we study the group who are using it and learn why they are preferring or rejecting it.

Keeping all these aspects in mind this study has been researched. So, now for organizations or institutes who are seeking to learn what could be done to rise plastic cards' business can grant help from this research. For the people who are unaware of plastic cards' uses and are confused whether they should change their payment mode or not can get their answers from this study.

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## QUESTIONNAIRE

The study is being conducted by RAMSHA AZIZ, student from PIDE ISLAMABAD. The primary objective of this study is to determine the level of application of the PLASTIC MONEY. I assure you that any response you make will be strictly confidential.

Age: 18 & below  19-29  30-40  41-60  61 & above

### Section: 1

Q1. Gender: Male  Female

Q2. Marital Status: Unmarried  Married

Q3. Educational Level: Matric & Below  Intermediate  Bachelors  Masters  M.Phil/Ph.D

Q4. Occupation: Private sector employee  Government sector employee  Not employed

Q5. Monthly Income: 10,000 and Below  11,000-30,000  31,000-60,000  61,000-99,000   
100,000 and Above

Q6. How often do you go shopping for groceries (via plastic money)?

(i) Daily  (ii) Weekly  (iii) Fortnightly  (iv) Monthly  (v) Whenever you need

Q7. How much do you spend on each shopping trip usually (via plastic money)?

(i) 1000  (ii) 3000  (iii) 5000  (iv) 7000  (v) 10000 & above

Q8. Banks can promote plastic cards' business through?

(i) TV/Radio ads  (ii) Broachers  (iii) Security services  (iv) Discount offers  (v) Less service charges on Plastic cards

## Section: 2

Strongly Agree = S.A; Agree = A; Neutral = N; Disagree = D; Strongly Disagree = S.D

Please Tick (✓) your responses using the following scale:

	Variables	Ratings				
		S.A1	A2	N3	D4	S.D5
<b>Q9</b>	<b>Unplanned Shopping</b>					
<i>U.S1</i>	The store/brand credit point card make me do a little more unplanned shopping.					
<i>U.S2</i>	While going on shopping, I carry a list and stick to it.					
<i>U.S3</i>	With credit card, price of the product is the least concerned objective for me.					
<i>U.S4</i>	A discount offer for using credit card, make me buy the stuff I don't even need.					
<b>Q10</b>	<b>Security Level</b>	<b>S.A1</b>	<b>A2</b>	<b>N3</b>	<b>D4</b>	<b>S.D5</b>
<i>S.L1</i>	I consider plastic money more reliable and secured than paper money.					
<i>S.L2</i>	I have stopped using plastic card because of being victimized by theft or fraud.					
<i>S.L3</i>	Banks are responsible to provide complete security on ATMs' booths.					
<i>S.L4</i>	I will be willing to pay extra service charges to enhance the security					

	level for plastic cards.					
<b>Q11</b>	<b>Convenience and Satisfaction Level</b>	<b>S.A1</b>	<b>A2</b>	<b>N3</b>	<b>D4</b>	<b>S.D5</b>
<i>C.S1</i>	It is difficult for me to memorize my plastic card's PIN code.					
<i>C.S2</i>	The daily transaction limit bothers me.					
<i>C.S3</i>	I am completely satisfied with the services of Plastic cards.					
<i>C.S4</i>	I think making payments from plastic cards is more expensive than any other mode of payment.					
<b>Q12</b>	<b>Awareness through Promotion &amp; Advertisement</b>	<b>S.A1</b>	<b>A2</b>	<b>N3</b>	<b>D4</b>	<b>S.D5</b>
<i>A.P1</i>	Plastic cards' advertisement enhance my willingness to use plastic cards more in daily routine.					
<i>A.P2</i>	In my opinion, social media promotions for plastic cards attract more customers.					
<i>A.P3</i>	In my opinion, Electronic-banking is the most efficient promotion strategy for plastic cards' business.					
<i>A.P4</i>	I visit my bank's internet website regularly, for new offers & products.					
<b>Q13</b>	<b>Role of Financial Institution</b>	<b>S.A1</b>	<b>A2</b>	<b>N3</b>	<b>D4</b>	<b>S.D5</b>
<i>R.F1</i>	Banks should minimize the interest-rate on credit cards.					
<i>R.F2</i>	If the cost of plastic cards (i-e interest & service charges by banks) is eliminated, then I would completely shift my mode of payment to					

	plastic cards.					
R.F3	Banks are responsible for the crimes associated with plastic cards.					
R.F4	There should not be any limit on credit cards usage.					
Q14	<b>Usage &amp; Psychological Behavior</b>	<b>S.A1</b>	<b>A2</b>	<b>N3</b>	<b>D4</b>	<b>S.D5</b>
U.P1	Plastic cards have made my life comfortably easy					
U.P2	Credit cards feel like debt/loan to me.					
U.P3	A little risk always comes with new technology, so, I will still take the risk and keep using plastic money.					
U.P4	I would recommend plastic cards to my non-user fellows.					

- Which Type of security measurements you expect the government to take for stopping the misuse of Plastic Money? *(optional)*

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- Where do you see the future of Plastic money over Paper money?

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----- Thank you for your participation-----