

**The Political Economy of Regime Switching and Preferences for Inter-temporal Consumption: An Application to Pakistan**

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— *Review of* —  
**Integrative  
Business &  
Economics**  
— *Research* —

**ABSTRACT**

Impulse buying behavior, based on the time- inconsistent preferences theory, has been subject to disastrous personal and societal consequences but still has been in vogue for many years. The paper discusses time inconsistent consumption propensities in Pakistan, primarily impulsive purchasing in relation to two competing regimes, namely democratic regime and military rule. Amnesty International Ratings reported high political imprisonment and terror during military eras in Pakistan, signifying widespread repression. This creates emptiness in people, provoking an environment of distress and anxiety, to overcome which people indulge in consumerism in order to create their own social identity. In the analysis, the interplay of political regime with the intent upon buying behavior has been conferred through the aspect of terrorism that is more rampant in democratic regimes than otherwise as they are viewed as politically unstable. The freedom of media and civil liberties lowers the cost of carrying out terrorism in democracy while creating an environment of uncertainty that induces fear and risk in decision making and discourages purchases. In the study, primary data was collected using unstructured questionnaires from respondents of various social classes across Pakistan. In order to validate the impact of regime, alone and in interaction with terrorism and inflation two competing models, namely Ordered Probit and Median Regression have been estimated. Both models suggest that in democratic regimes, people exhibit less impulsivity in purchases as the risk and incidences of terrorism leads to fear arousal and creates a sense of insecurity therefore a negative relationship is seen among the two. Moreover, the perception of inflation in democracy affects impulse buying negatively as the focus of democratic regimes was on money creation that increases inflation, validating the hypotheses that impulse buying decreases in the democratic regime also because price levels are high. Other factors such as gender, income, social influence, and mood states have also been identified as significant variables.

**KEYWORDS:** *Democracy, Ordered Probit Regression, Terrorism, Time Inconsistent Preference* Part I: Introduction

### **1.1 Socio-economic Characteristics of Consumer Behaviors, Consumerism and Consumption Orientation in Pakistan.**

In the recent years, Pakistan has adopted a neoliberal regime by opening up the economy to global competition that has increased flow of remittances from overseas and consumerism. (N.Tahir & P.Tahir, 2012, p.01). Pakistan is among consumer oriented societies, where people tend to have a high marginal propensity to consume and spend massively on cultural ceremonies and social engagements such as Eid, weddings and occasions of child birth.(Burki & Muhammad, 2008,p.05-06; See Appendix: A, Qs 144,145). Like in other developing economies, a strong middle class has emerged in Pakistan that is based on the based on the status centric orientation.<sup>1</sup>So, in order to demonstrate their affluence and move up the societal ladder they engage in conspicuous and unplanned purchases which later become a major cause of compulsive buying<sup>2</sup>. Pakistan, is regarded as a collectivist society (Shaheen, 2008,p. 224) where one's choices are heavily influenced by the group he or she is a part of therefore they are likely buy those goods( especially apparel) to conform to the expectations of others. Moreover, as shopping is seen as an exciting activity in Pakistan (See Appendix A:Q69), and consumption is said to be associated with happiness for people( Dutt,2006,p.01), impulse buying tendencies exist, mainly for item items and clothing especially among women as they do shop not only for themselves but their family members too.<sup>3</sup> The average households in all provinces of Pakistan spend the highest share of their income on food items as food is mandatory for subsistence. (Iqbal&Jamal, 1992,p.103).

### **1.2 Micro foundation of Consumption Preferences and Macroeconomic Outcomes**

Initially impulse buying and unplanned were used synonymously , later to this definition the element of excitement was added and it was seen as different from the normal buying pattern that led to an immediate urge to buy instantly.(Baumeister (2002), Beatty and Ferrell (1998) , Piron (1991); Rook and Hoch (1985).The classical school of thought views man as a rational consumer interested in maximizing utility but impulse buying behavior is seen as the antithesis of this proposition, but still it is not considered senseless or low involvement behavior,(Rook&Hoch,1985).(Ainslee,1975,p.463-464), identified that

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<sup>1</sup> "Status centric orientation is the orientation that one's status is to be preferred to all others."( Hafeez,1985)

<sup>2</sup> "Conspicuous consumption is extravagant spending on products intended chiefly to display wealth and signal status."(Nunes, Dreze&Han,2010, p.02)

<sup>3</sup> Buying impulsiveness trait can be defined as the extent to which one is likely to make unplanned, instantaneous and unreflexive purchases.(Lee and Yi, 2008, pg 74)

consumers submit to the impulse because they either do not recognize the after effects of their behavior, or they know the detrimental consequences but are provoked by a “lower” principle or they give importance to satisfying their current desires. Impulse buyers are seen to be in a “state of psychological disequilibrium” (Rook and Hoch 1985, p.23), facing a dilemma between their craving for immediate gratification and willpower to defy it ,Baumeister (2002); Rook and Fisher (1995); Piron (1991). Therefore, the weaker the consumers’ self-control resources, the more likely they are to experience strong impulsive urges and to make impulsive purchases, Vohs and Faber (2007,p.540). Continuous impulse purchasing can have disastrous personal and social consequences in the form of destructive character disorder and bankruptcy due to ruthless spending ,Rook&Hoch, (1985).

On a macro level, consumption is an important component of the GDP while from the micro perspective, demand theory is based on individual consumer behavior that forms the foundation of micro analysis<sup>4</sup>. Consumer behavior is profoundly influenced by demographic, economic and social factors, needs, feelings, ethics and traits, decision making along with acquiring behavior. This has a major impact on the regulatory policies and facilitates understanding the impact of consumer’s evaluation of the products on future purchases, Zeb,Rashid,Javed,(2011,p.226).This analysis of behaviors will assist the following of social, cultural, economic, demographic factors along with policy formulation hence studying consumer behavior becomes mandatory.

### **1.3 Government Regimes, Consumer Perceptions and Preferences for Impulse Buying**

While substantial research has been conducted on the demographic, situational factors affecting impulse buying, little focus has been laid on the political regime differential impact on this form of consumer behavior in Pakistan.<sup>5</sup> Pakistan, over the years has experienced incidents of regime shifts, from democratic to military interventions and vice versa.<sup>6 7</sup>

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<sup>4</sup>“Consumer behavior is the study of when, why, how, and where people do or do not buy product.” ( Zeb, Rashid, and Javeed,2011,p.225)

<sup>5</sup>“Democracy is a system of government in which power is vested in the people who rule directly or through freely elected representatives.” ( Iqbal,Khan & Irfan,2008,p.64)

<sup>6</sup>“Military Regime is a form of government in which political power is held by a single person who exercises control over all citizens and every aspect of their lives”. Same as reference .Comparison of the democratic era was made with the Musharaff Regime in the study.

Political environments have differed among the two types but according to Amnesty International Reports, during the military eras in Pakistan, comparatively high political terror and imprisonment were reported signifying repression that made people indulge in consumerism to form their own self identity. Moreover to narrow down the focus, impulse buying behavior has been chosen for analysis in context to political regimes mainly classified as democratic and military. In order to relate political regime to buying behavior, the mechanism of terrorism will be focused on to see how its incidence differs within regime types that creates an environment of uncertainty and instability hence impacting purchase behavior.<sup>8</sup>

#### **1.4 Risk of Terrorism and Inter temporal Preferences for Consumption**

The mechanism works through the channel of terrorism that is more prevalent in democratic as opposed to military regimes. This has been explained by (Wade, 2007, p.331) who proposed that democratic regimes are highly susceptible to suicide terrorism than military regimes. The explanation provided is that the freedom of media in democracies attracts terrorists who are hungry for personal liberty and freedom. Also the cost of accomplishing terrorism is low followed by protection of civil liberties that limit counterterrorism acts. On the other hand, in military regimes it is difficult for terrorists to launch attacks as the strict monitoring and restrictions on movements will make it costly for them to carry out their activities. With this, it can be understood that rampant terrorism in democracies will create an environment of uncertainty and inculcate fear in the people discouraging them from acting as impulse purchasers. Terrorist incidents impact people's memory negatively by evoking evaluation of uncertainty that determines how the person perceives risk. Emotions of fear and panic makes people indulge in avoidance behavior by delaying purchases. Moreover people also have a tendency to overestimate the occurrence of the terrorist incident that has a negative impact on the buying behavior.(Czincota.et.al,2005).

#### **1.5 The Nexus between Government Regimes, Terrorism and Impulse Buying Behaviors**

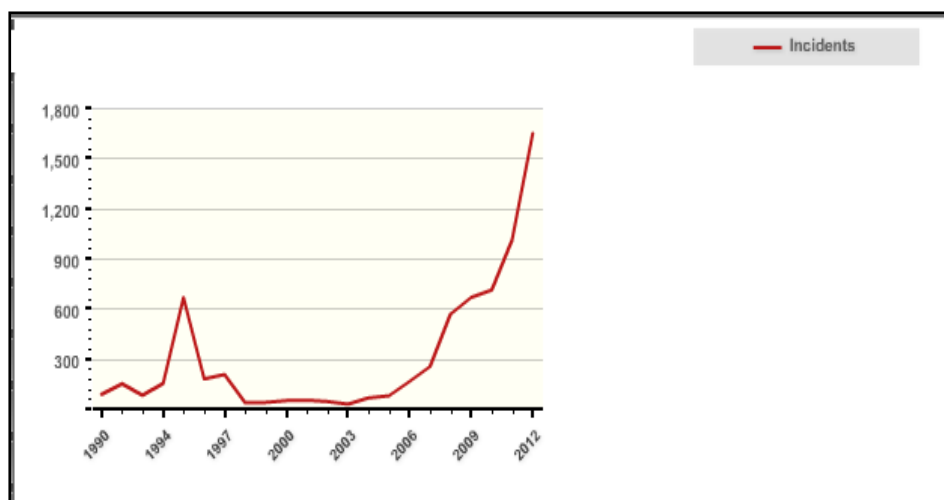
During sixty years, Pakistan has experienced numerous shifts in political regimes with a strong military influence even in a democratic setup. (Ganguly,2009). Economic performance

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<sup>7</sup> "A political regime is the broad institutional framework within which decisions concerning the production and allocation of public resources are made."(Cheibub,1998,p.351).

<sup>8</sup>"Terrorism is the unlawful use of force or violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives."(Malik & Zaman,2013,p.1104).

and other variables including terrorism have differed in the two regime types. As shown in the graph below incidents of terrorism have been high in the democratic era in the early 1990's -1999 followed by later years 2007 onwards



**Source: Global Terrorism Database (GTD)**

Fig. 1. Incidents of terrorism (1990–2012).

The yearly death rate as a result of terrorism in Pakistan has been rising at a distressing rate. In 2003(Military era), 164 people died which accelerated to 3318 in year 2009 when democracy took over. According to Malik & Zaman, (2013) till 2010, 35,000 Pakistani people had died in these incidents. These events exhibit the extent to which terrorism has caused destruction in the country. The reasons for high terrorism in democracies have been highlighted in literature including high inflation, poverty and political instability. Terrorist attacks are intended to pressurize governments to accept terms and grants of terrorists,(Sandler & Enders, 2008). Less political freedom is associated with terrorism compared to high autocratic regimes. (Malik&Zaman, 2013, p.1105). High degree of income inequality generates accusations among different groups in the society and terrorism is used as a foundation of restraining these inequities.( Amjad&Ismail,2014,p.321) .

Haider & Ghani,(2011,p.01), in their article pointed out that during the tenure of autocratic regimes, power macroeconomic fundamentals tend to improve with slowdown in inflation, robust growth, improved consumption and lower corruption as a result of fine governance. But when it comes to democracy, these results are overturned as the governance becomes weak and political instability rises.

After examining the terrorism situation in the two regimes, a link can then be established between the terrorist activities creating a sense of insecurity in democratic regimes leading to a fall in impulse buying as explained earlier.

### **1.6 Managerial and Academic Implications**

Managerial concerns pertaining to the research highlight political instability in democratic regimes that are breeding grounds for terrorism hence discouraging impulse buying by inducing fear into the people and in various eras democratic governments have been unable to cope with this issue. Also, during authoritarian regimes in Pakistan, significant increases in consumption and income per capita were seen with growths in industrial sectors such as manufacturing, service, construction but the increases in real consumption were concentrated only in the hands of the privileged few with growth coming at the expense of high income inequality. Looney, (2008).

The study focuses on establishing an inverse relationship between democracy and impulsive purchasing behavior, through the mechanism of terrorism and fear induction in individuals and by the high inflation rates in democracy that discourage impulse buying. Contradictory studies by Amjad & Ismail (2014) have been found that state autocratic regime to experience high incidence of terrorism than the opposite regime. Moreover, Wade (2007) found little empirical support that democracies are prone to suicide attacks. Also, according to the terror management theory, incidents of terrorism induce existential anxiety in people to cope with which they indulge in compulsive buying. Lee, Kwan & Choi (2007) and Satyanath and Subramanian (2005) established a negative relationship between democracy and inflation. Lastly, the modern approach of LC-PIH theory, (Levhari & Mirman 1977, p.266) stresses on the fact that people prefer to consume more now than later in cases of uncertainty

### **1.7 Purpose of Study and Research Objectives**

The aim of the study is to pretest the proposition that political regime in Pakistan (as analyzed through the aspect of terrorism inducing uncertainty, fear and risk) affects impulse buying behavior, significantly/ insignificantly.

Secondly, the study will also aim at analyzing how price levels differ between democratic and military regimes and the impact they have on impulsive buying. Lastly, the research would also focus on highlighting other factors such as gender, social influence that impact buying behaviors in Pakistan.

## **Part II: The Proposed Framework of Analysis, Methodological Choices and Review of Literature**

This section will talk about the theoretical framework of the research as supported by literature including quantifications of the mentioned variables. Also, it will highlight the questionnaire design, sampling techniques and data collection

procedures. Furthermore, statement of research hypotheses, functional and algebraic form of the model will also be discussed followed by the model specification and modeling techniques.

## **2.1 Framework of Analysis**

### **Micro foundation of Impulse Buying Behavior**

The concept of impulse buying has been popular for a long time with various definitions existing in literature (Jalees, (2009); Stern, (1962); Kollat & Willet, (1967); Clover, (1950).<sup>9</sup> Initially impulse buying and unplanned were used synonymously (Stern, 1962), later to this definition the element of excitement was added and it was seen as different from the normal buying pattern that led to an immediate urge to buy instantly. (Baumeister (2002), Beatty and Ferrell (1998), Piron (1991); Rook and Hoch (1985). Conventionally, consumerism existed in the western countries but today it has seen to cross geographical boundaries. (Saleem & Salaria, 2010 Pg 3). The uncontrollable and immediate urge to buy goods has been increasing in the past few years. Neuner et al, (2005).

### **Inter-temporal Choices and the Intent of Impulse Buying**

Impulse buyers are seen to be in a “state of psychological disequilibrium” (Rook and Hoch 1985, p.23), facing a dilemma between their craving for immediate gratification and willpower to defy it. Baumeister (2002); Rook and Fisher (1995); Piron (1991). Therefore, the weaker the consumers’ self-control resources, the more likely they are to experience strong impulsive urges and to make impulsive purchases. An impulsive purchase is made immediately, upon the initial exposure to the good or the motivation representing the good and after that they experience an uncontrollable urge to buy. They experience difficulty resisting their impulsive urges immediately after being exposed to the product for the first time since their orientation point changes and they partly familiarize themselves to the belief of owning or consuming the product. As a result, they desire to buy the object as soon as they can to end the flow of deprivation (Hoch and Loewenstein 1991, p.496).

### **Behavior Explanation of Impulse Buying**

Consumerism is seen as means of acquiring happiness, causing people to buy material possessions and consuming in excess of their basic needs. Also, the buyers try to rationalize their buying behavior by searching for reasons to buy that include the need to reimburse for

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<sup>9</sup> Baumeister in 2002 defined impulsive buying as :“Impulsive purchasing involves getting a sudden urge to buy something, without advance intention or plan, and then acting on that impulse without carefully or thoroughly considering whether the purchase is consistent with one’s long-range goals, ideals, resolves, and plan.”



stress and disturbance, low self-worth and loss of liberty in their life through purchasing (Koran et al., 2006, p.1806). These reasons could provide temporary satisfaction but are accompanied by phases of post purchase guilt and problems such as family conflict, nervousness, frustration, and financial liability (Christenson et al., 1994). Besides these functions, results suggest that sentiments and feelings also play a crucial role in buying, activated by noticing the product or seeing a promotional message. In the apparel category, consumers exhibit high interest in buying clothing mainly to fit into a group for which they have been aware of the latest fashions. (See Appendix, Q79,115). Also, in Pakistan, people purchase fashion related products to portray their self image and self concept to others. Furthermore to match the expectations of the reference groups (peers, siblings) whom they compare themselves to, fashion items such as clothing are also purchased. (Zeb, Rashid., Javed.,2011). Factors such as perceived risk, fear arousal and sense of insecurity in political regimes can have effects on buying behaviors that will be studied in the later study.

### **2.1.1 Terrorism Incidences, Risk of Terrorism and Consumption Preferences**

Among the two basic political regimes of democracy and military, democratic regimes experience high tendencies of terrorist attacks as they are viewed as politically unstable, inflationary and the freedom of media makes it easier for terrorists to carry out atrocities who are hungry for attention. These acts of violence induce fear into individuals, creates an environment of insecurity and uncertainty and discouraging buying behavior therefore a negative relationship is expected between political regime (1=democracy, 0, otherwise).

Political regimes have been classified into two broad categories of democracy and autocracy, (Remmer, 1990) with democratic governments being selected on the basis of competitive elections whereas authoritarian governments are based on military power. Authoritarian governments have been more politically stable as they take up coercive powers to enforce structural reforms and firmness, creating internal stability. Remmer, (1978) also found that the performance of military regimes was better than civilian regimes in the poorest countries (p. 21), though the evidence also suggests that in Latin America the military regime performance was fairly better than civilian governments. (Haider & Ghani, 2011), in their article pointed out that during the tenure of autocratic regimes, power macroeconomic fundamentals tend to get better with slowdown in inflation, robust growth, improved consumption and lower bureaucratic dishonesty due to high-quality governance. To study the effect of regimes on buying behavior, policy outputs have to be treated as intervening variables but a major problem in using outcome indicators is that time lags occur between policy decisions and policy outcomes, (Remmer, K, 1978). The mechanism works through the channel of terrorism that is more prevalent in democracy as opposed to military regimes. This has been explained by Pape, (2003) who proposed democracies to be more exposed to suicide



terrorism than military regimes. The explanation provided is that the freedom of media in democracies attracts terrorists who are hungry for personal liberty and freedom. Also the cost of accomplishing terrorism is low followed by protection of civil liberties that limit counterterrorism acts. On the other hand, in military regimes it is difficult for terrorists to launch attacks as the strict monitoring and restrictions on movements will make it costly for them to carry out their activities. B.Lutz& G.Lutz(2010), in their study found that globally democracies exhibit a negative relationship with terrorism, marginally. With this, it can be understood that rampant terrorism in democracies will create an environment of uncertainty and inculcate fear in the people discouraging them from acting as impulse purchasers. Terrorist incidents impact people's memory negatively by evoking evaluation of uncertainty that determine how the person perceives risk. Two components of perceived risk have been identified, Lee&Yi(2008); one being the uncertainty about outcome, second is doubt about the effect of loss,

Supposed risk increases with high level of insecurity and vast probability of pessimistic outcomes (Dowling and Staelin 1994). It causes risk aversion as a result of which people will not indulge in impulse buying. Emotions of fear and panic makes people indulge in avoidance behavior by delaying purchases. Moreover people also have a tendency to overestimate the occurrence of the terrorist incident that has a negative effect on impulse purchasing. (Czincota.et.al,2005).

Regime in the analysis has been quantified through set of questions on an ordinal scale from 1 to 5(1 very safe to 5 very unsafe ) as estimated by questions such as how the sense of security has changed since the Musharaff era till today, whether people go for purchases after terrorist attacks.(1= strongly disagree to 5= strongly agree).

### **2.1.2 Perceived Inflation, Government Regimes and Impulse Buying**

Democracies tend to be linked with high inflation especially in developing countries because they have to satisfy demands of the public in order to remain in office for which they have to rely on seignorage as other sources of taxes and external borrowing are limited to them. That leads to rampant inflation compared to military eras that are less reliant on printing money. Moreover, high prices are associated with less demand and consumption. Therefore a negative relationship is expected between inflation perception in democracies and impulse buying behaviors.

Literature depicts an opposite relationship among price and impulse buying by propagating that high prices discourage people from buying hence generating a negative relationship between both. Moreover, in terms of economics, price indicates that amount that

the buyers have to pay to obtain a specific product hence it is seen as the economic sacrifice that people make. Stern,(1962) identified price as the variable impacting impulse buying most especially for convenience goods. (Haider.et al,2012), in his article pointed out that during the tenure of autocratic regimes, power macroeconomic fundamentals tend to get better with slowdown in inflation, robust growth, improved consumption and less corruption at the bureaucratic level as a result good quality governance. On the contrary, in democratic regimes, these results are overturned as the governance becomes weak and corruption heightens. In the study by Desai, Ozolgard and Yousef(2003) it was said that the institutional features of democratic governments including electoral contest, division of autonomies, membership, and political division, enlarges strains on politicians to employ the inflation tax; inflation is less probable if governments were independent, or autocratic. Also, that the elites of the country use money creation and public expenditure to get private benefits .Moreover<sup>3</sup>, the elected democratic governments tend to depend more on printing domestic money to finance their expenditures with unfavorable consequences for inflation and growth. Democratic governments in developing countries, rely on printing money to meet public demands as their capacity to raise money from sources of tax and borrowing are limited. Also, this printing of money would make it difficult to impose macroeconomic stabilization policies such as trade liberalization that leads to high inflation rates.(Mijiyawa,2008).In Desai.Ozolgard& Yousef(2002)'s study it was found that democracy reduces inflation in low-inequality countries, but raises it in high-inequality countries.

Remmer,(1978) also suggested that military and noncompetitive regimes were more successful in curbing high price levels and stimulating economic expansion, especially in the industrial sector; however, environmental factors, mainly reliance on overseas capital, support, and trade, were more significant in understanding performance differences than regime form.Gupta.S,2013 stated that lower prices provoke compulsiveness by stimulating arousal.

This has been quantified through the ordinal scale from 1 to 5 by asking people about the price level being higher in the democratic(1 = strongly disagree , 5= strongly agree) as opposed to military era and also rating the importance of low prices when making purchases.<sup>10</sup>

### **2.1.3 Experimental Econometric Modeling Preferences and Other Key Determinants of Impulse Buying Gender**

Gender norms are evident in relation to impulse buying behavior as in various studies conducted by Gąsiorowska(2008); Inman, Winer and Ferraro 2009), where it was confirmed that women exhibited stronger tendency to buy impulsively.Generally,women tend to make

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<sup>10</sup> As supported by Tinne,2011

more unplanned purchases as opposed to males as they have a strong desire for material things that results in self control failure and motivates them to buy.

Workman&Paper,(2010);Lee & Mysyk,(2004),stated that for females, shopping is among the primary free time activities which also gives them an occasion to socialize. To compare, the difference lies in the reasons why both shop. Men act as quick shoppers because they use less time searching for things and ignore the things they had not planned to buy.In their view, shopping is considered to be a source of time wastage unless it is practical so they give importance to the utilitarian reason for shopping whereas females see it as a pleasurable activity hence they stress on the hedonic aspect o shopping.

Lee.S, Mysyk.A, (2004); Fischer and Gainer (1991), saw shopping as an element of women's job in their responsibility as housekeepers. On the other hand, females are the dependent ones in their relationships and in society too therefore they use buying as a means to express them and improve their image. Gupta,(2013) elaborated that uncontrollable buying gives an exhilarating boost and provisionally maintains one's self esteem particularly in a consumer oriented society. Therefore, at an international level, compulsive buying may be seen as a behavior aimed at enhancing self-worth (Roberts, & Pirog, 2004). Gender in the analysis was coded as a dummy 1 for female and 0 for males to estimate a positive association between gender and impulse buying.<sup>11</sup>

### **Income Bracket**

Current Income as proposed by Keynes(1936) is seen as the main determinant of consumption, exhibiting a positive relationship with it. Milton Friedman (1957) further elaborated by proposing consumption to be a function of current and permanent income rather than current disposable income.

(Mai et al., 2003; Ali,2013), suggested that money facilitates the process of impulse buying and people in the high income bracket are more free and capable of make purchases hence making them spendthrifts. In (Ghani,2011) it was quoted that Abratt & Goodey (1990) in their study also supported a positive association between income and impulsive purchasing. Lin (2005) also supported the preceding argument by proposing a positive link between the monthly pocket money of adolescents and impulse spending. Also, according to Amiri etal, ( 2012) , an increase in buying power and income will result in increased impulse purchasing. People in the upper income bracket face fewer restraints to act according to their urges; as they face little complexity in paying for their purchases. As a result of this they are able to buy impulsively and more frequently than others. People who lie in the low income bracket often face an income block that hinders their impulse buying tendency (Mai et al,2003). Stern, (1962), proposed that when heavy expenditure of resources is needed in buying, it becomes a hard task and requires planning .on the contrary, when there is availability of time and money

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<sup>11</sup> The coding is supported by the study conducted by Inman, Winer& Ferraro(2009)

and minimal mental effort is required, impulse buying process is triggered expansively. Virvilaite, Saladiene, Zvinklyte, (2011); Lee, & Mysyk, (2004) stated that remarkable high disposable incomes and a credit availability has caused impulse buying to become a widespread phenomena.

In (Bong, S., 2010) it was validated that that the high income adolescents in Rawalpindi and Islamabad exhibit high impulse buying tendencies compared to people in general. Money and time were identified as vital factors for consumers to achieve their self-actualization and also to stimulate impulse buying. Income was quantified directly by asking respondents about their monthly incomes.

### **Mood State of Consumer**

Mood and psychological condition of the individuals also impacts what people buy and how they evaluate their purchases. (Gardner, M., 2002) refers to mood as conditions that are temporary and particular to definite times and situations and may be compared with those that are comparatively constant and permanent. Pleasure and arousal result in various emotional states and one of the combination of these two is referred to as mood. (Beatty and Ferrell, 1998) signified mood as an internal factor that triggers impulse buying behavior.

(Amiri et al, 2012) identified that buying experience of impulsive consumers is based on high emotions. Generally, positive emotions at the time of purchase can lead to increasing of customers impulse purchase and play important role in their intention to purchase.

It also biases judgments of products in that direction hence increasing the probability of impulse buying. Woodruffe, Eccles & Elliott, (2002) recognized mood to have a significant influence on shopping behavior. Good mood encourages people to overspend since impulse buying gratifies various hedonic desires for fun, originality and diversity, especially for highly impulsive shoppers. Jalees, (2007) pointed that the degree of impulse buying would be higher in people who are in a happy mood as compared to the opposite. In the analysis, the variable of mood was quantified on an ordinal scale from 1 to 5 (1 = strongly disagree, 5 = strongly agree) by asking respondents whether they shop more or not when being in a pleasant mood.<sup>12</sup>

### **Social Influence**

Impulse buying satisfies hedonic purposes for most individuals and motives why people shop include social experiences and interpersonal interaction. Some situational factors are beyond the characteristics of the person that influence buying. The 'ratchet effect' phenomenon proposed by Duensberry is based on the act that individual's consumption behavior is not independent of the behavior of every other individual so this hypothesis postulates that one's consumption behavior is influenced by that of his neighbor or his environment.

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<sup>12</sup> Similar quantifications have been used in studies conducted by Jalees, (2009), Weinberg & Gottwald (1982)

Neuner, Raab&Reisch.(2004,)stated that the chances of consumers being impulsive in purchase depends on both their impulse buying tendency and their vulnerability to interpersonal influence, his urge to meet the expectations of the superior others .Indeed, consumers' decisions are strongly influenced by their reference group (Childers and Rao 1992), which is defined by (Park and Lessig 1977, p.102) as an "individual or group visualized of having significant relevance upon an individual's evaluations, aspirations, or behavior."<sup>13</sup>Indeed, reference groups are more likely to influence behavior for individuals who identify strongly with the group (Terry and Hogg 1996). For instance, when shopping with their children, consumers are more likely to purchase less than they initially planned to.

Muruganatham &Bhakat,(2013) also proposed that peer pressure and the influence of media in industrialized countries is quite strong due to which , teenagers are likely to engage in consumerism. Luo (2005) further elaborated that shopping with peers boosts impulse purchasing as it reduces risk sensitivity and doubt. Moreover,Kiecker & Hartman, (1993) ,in their study concluded that people are subject to unfavorable social comparison therefore they want things similar to their peers and are reluctant to wait. To assess the degree to which social influence impacted buying behavior of people, questions quantified on a likert scale from 1 to 5 (1= strongly disagree, 5= strongly agree) were used that ranged from asking them about buying things recommended by others, the degree to which their friends influenced their purchases or expenditure by others having an impact on their buying behavior.<sup>14</sup>

### **Degree of Brand Loyalty**

Kressman.et.al, defined brand loyalty as appositively prejudiced propensity that has various dimensions. Consumers assess a brand by linking the brand-user image with their actual self which is termed as self congruity. The higher the self congruity, the more people feel that the brand meets their self-esteem as this self congruity minimizes inconsistency between their actual and ideal self and boosts self worth.

In Bong,(2010.)'s study, consumer segment was very impulsive in buying decisions and the empirical analysis shows that they were loyal to the store they visit to enjoy shopping as a simple means of recreation So, people who have a strong brand commitment, eventually develop brand loyalty towards their favorite brands as a result of which they act as impulse purchasers when their most preferred brand is seen. In the study, brand loyalty was quantified on a likert scale of 1 to 5, as mentioned earlier with questions measuring the degree to which

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<sup>13</sup> Park, C. W., & Lessig, V. P. (1977). Students and housewives: Differences in susceptibility to reference group influence. *Journal of Consumer Research*, 102-110.

<sup>14</sup> Similar Likert Scale used in studies by Kacen&Lee,(2002);

people preferred to buy the same good even when others brands were available.<sup>15</sup>

## **2.2 Questionnaire design, Sampling and Data Collection Procedures**

For the study, primary data in the form of a pooled interview administered questionnaire was preferred because it allowed gathering information on the various factors within the two political regimes (prices, sense of security etc) in Pakistan and helped in establishing the relation to impulse buying behavior. With tailored questions to satisfy the needs, data that helped in the study was gathered. Further, the data on multiple other factors such as demographic, cultural, ethnic factors that affect consumer behavior and are hard to gather using secondary data were also studied using primary data collection technique. Also, different variables such as age, income, gender were compared at the same time. The results gathered and based on the sample can be a pilot for future studies and also can generate hypotheses for future studies.

A questionnaire incorporating the pooled cross section element of two political regimes in Pakistan was designed and conducted among 36 respondents in two weeks time period. Sampling technique used was stratified random sampling, where the population was divided into strata of social classes and people were then drawn from the group. The sample distribution was based upon quintile divisions in accordance with the Pakistan Bureau of Statistics publications of 2011-2012 on population divisions into quintiles. The main sample division into quintiles was based on social classes. In order to incorporate cross section into the analysis, respondents of different age groups, educational background, gender, occupations and provinces were selected. (See Appendix). The questionnaire was decomposed into various sections, each highlighting the various factors that affected impulse buying in Pakistan. Major classifications for the independent variables sections were demographic, economic, political, cultural, ethnic, personal, social factors. Various scales and question types such as likert scale, impact scale, dichotomous questions, and few categorical questions were used to quantify the independent variables. For the dependent variable, a separate section was added to quantify various consumer behaviors on an ordinal scale with (1 equivalent to strongly disagree, 5 equivalent to strongly agree) such as impulse buying behaviors, conspicuous consumption, brand loyalty, price consciousness etc. The questions ranged from general questions about how exciting shopping is, the products the respondents enjoyed buying the most, to more specific questions about rating themselves as an impulse buyer on a scale of 1 to 5 (5 signifying high impulsive behavior), Rook & Hoch. (1985).<sup>16</sup> For the independent variables

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<sup>15</sup> Studies by Zeb, Rashid & Javeed (2011) used similar scales for quantifications.

<sup>16</sup> Various studies measured impulse buying on Likert scale: Yeng, Huang, Feng, (2011) Kacen & Lee, (2002), Jalees, (2009)



such as political regime, questions on a likert scale ranging from 1 to 5 were for the change in sense of security between the two periods. For inflation perception in regimes, question specifying high inflation in democratic regimes opposed to military were asked on a likert scale (1= strongly disagree to 5=strongly agree). Gender was coded directly as 1 for female and 0 otherwise. Incomes were coded directly as the monthly household incomes for the respondents. To assess degree of brand loyalty, impact of mood on buying behavior and degree of social influence, likert scale questions were most preferred. The mode of conducting the survey was unstructured personal and telephonic interview to register the valid information of how their behaviors differed between the two kinds of political regime of Military and Democracy and to test the hypotheses of how and why do Military regimes and other variables impact Impulse Buying behavior significantly in Pakistan. After data collection, results were coded into Microsoft Excel- with coding of likert scale questions from 1 to 5, 1 for strongly disagree, 5 for strongly agree. Numerical variables such as income, age were coded directly for further analysis.

### 2.3 Statement of Research Hypothesis

The two core variables that will be part of the hypothesis in assessing their relationship with impulse buying: Political Regime type and Perception of inflation in the Political Regime.

#### 2.3.1 Functional Form of the Model

*Impulse buying behavior = f( Political Regime Type, Perception of Inflation in Political Regime, Other determinants)*

#### 2.3.2 Statement of Research Hypotheses

The aim is to pretest the proposition that political regime if democracy( as estimate quantified by question referring to the sense of security difference between the two regimes)affects impulse buying tendency ( as quantified on a likert scale from 1= strongly disagree to 5= strongly agree through question on how strongly do people identify with themselves as impulse buyers).In democratic regimes as opposed to Military, the tendencies of terrorism are high as they are seen as politically unstable which causes fear in the people hence causing delays in their purchases. Thus a negative and significant relationship is expected between Political Regime (democracy) and Impulse Buying Behavior in Pakistan.

$$H_0: \Omega_1 = 0$$

$$H_1: \Omega_1 \neq 0$$

The second core hypothesis to pretest that inflation perception in a political regime (as quantified on a likert scale of 1 to 5 by question on price levels being more in democracy



regime) has a significant or insignificant impact on impulsive buying (as quantified on a likert scale from 1= strongly disagree to 5= strongly agree through question on how strongly do people identify with themselves as impulse buyers) In a Military regime, inflation is perceived to be low as compared to a democratic regime and low inflation perception is associated with high impulse buying tendency hence a negative and important relationship is depicted between Impulse Buying and Inflation Perception in Democratic regime.

$$H_0: \Omega_2 = 0$$

$$H_1: \Omega_2 \neq 0$$

## 2.4 Model Specification and Modeling Choices

For the final estimation, Impulse buying was selected as the consumer behavior type with 2 core independent variables. The quantification of dependent variable was done using likert scale measuring impulse buying on a scale from 1 to 5 with 5= ‘strongly agree’ signifying high impulse buying and 1= “strongly disagree “as low impulse buying. For the independent variables, quantification was also done using likert scale for all variables.

Since the dependent variable was quantified using an ordinal scale with values ranging from 1 to 5, ( 5 reflecting high impulse buying), the Ordered Probit Model was used for estimation.<sup>17</sup>

Ordered probit is represented as :  $Z_+ = \Omega X_i + \epsilon_i$

$Y_+$  is the primary hidden variable that ranges the rank of impulse buying,  $X_s$  is a vector of constraints that are to be anticipated with  $\epsilon_i$  as the residual term that has a mean and variance between 0 and 1.  $Y^{\wedge}$  demonstrates itself in ordinal categories, which are coded as 1, 2, 3, 4, 5. The measurement equation can be demonstrated using the dependent variables of the present research, "Are you an impulse buyer" , which has five levels in the Likert scale.<sup>18</sup>

$$Z_+ = 1 \text{ when } \prod_0 -\infty < Z_+ \leq \prod_1$$

$$Z_+ = 2 \text{ when } \prod_1 < Z_+ \leq \prod_2$$

$$Z_+ = 3 \text{ when } \prod_2 < Z_+ \leq \prod_3$$

$$Z_+ = 4 \text{ when } \prod_3 < Z_+ \leq \prod_4$$

$$Z_+ = 5 \text{ when } \prod_4 < Z_+ \leq \infty$$

Where  $\prod_i$  ( $i= 0$  to 5) are the unobserved constraints that will be anticipated along with other constraints of the model. After the inclusion of the intercept coefficient,  $\prod_0$  is

<sup>17</sup> Ordered Probit Regression was used in studies with dependent variables quantified on a Likert scale Jauregui,(2007)

<sup>18</sup> The following derivation of the Ordered Probit Model has been used from the article “Role of Rural Women in Farm Management Decision Making Process: Ordered Probit Analysis” by Damisa, M. A., & Yohanna, M Published in *World Journal of Agricultural Sciences*, Volume 3(4) from page 543 to 546 in the year 2007.

standardized to a value of zero and only n-1 added constraints are anticipated with  $\Omega$ s. Once these unknowns are estimated, the probabilities for each Likert score can be derived as indicated below

$$\begin{aligned} \text{Prob}[z = 1] &= \text{Prob}(-\infty < X\Omega + \epsilon \leq \Pi_1) \\ &= \text{Prob}(-\infty - X\Omega < \epsilon \leq \Pi_1 - X\Omega) \\ &= \text{Prob}(\epsilon \leq \Pi_1 - X\Omega) - \text{Prob}(\epsilon < -\infty - X\Omega) \\ &= \Phi(\Pi_1 - X\Omega) - \Phi(-\infty - X\Omega) \end{aligned}$$

Since  $\Phi(-\infty - X\Omega) = 0$  letting  $\Phi$  represent the cumulative normal distribution, then:

$$\text{Prob}[z = 1] = \Phi(\Pi_1 - X\Omega)$$

The probabilities for the rest of the values immediately follow where:

$$\text{Prob}[z = 2] = \Phi(\Pi_2 - X\Omega) - \Phi(\Pi_1 - X\Omega)$$

$$\text{Prob}[z = 3] = \Phi(\Pi_3 - X\Omega) - \Phi(\Pi_2 - X\Omega)$$

$$\text{Prob}[z = 4] = \Phi(\Pi_4 - X\Omega) - \Phi(\Pi_3 - X\Omega)$$

Since the scores are exhaustive and mutually exclusive (i.e.,  $\Phi(\infty - X\Omega) = 1$ ), the last value is predetermined:

$$\text{Prob}[y = 5] = \Phi(\infty - X\Omega) - \Phi(\Pi_5 - X\Omega)$$

$$\text{Prob}[y = 5] = 1 - \Phi(\Pi_5 - X\Omega)$$

The final equation derived is presented in the form

Impulse buying  $\Omega_1$  Democratic regime +  $\Omega_2$  Inflation Perception in Democratic Regime +  $\Omega_3$  Female Preferences +  $\Omega_4$  Income Bracket +  $\Omega_5$  Degree of social influence +  $\Omega_6$  Mood state of buyer +  $\Omega_7$  Brand loyalty.

To further strengthen the analysis, Median Regression was used to estimate a competing model and both yielded corresponding insights. Employing the Quantile Regression Technique with the Ordered Probit Regression would give a better understanding of the buying patterns in Pakistan.<sup>19</sup>

### Part III: Estimation, Analysis and Conclusion

This chapter will discuss the model estimates, findings of the study in context to Pakistan, limitations and conclusions of the study.

<sup>19</sup> Supported by Sweetney, Davenport & Grace (2012)

### 3.1 Estimates of Ordered Probit and Median Regression for Impulse Buying Behavior

**Table: Final Estimated Regression Results in Tabular Form**

Ordered Probit Model			Competing Model( Median Regression)	
Impulse Buying Behavior	Coefficient	Z-Statistics	Coefficient	T-Statistics
Political Regime	(1.28)	(2.46)* *	(0.54)	(6.44)*
Perception of Inflation in Regime	(2.05)	(2.54)* *	(0.25)	(1.80)* **
Female Preferences	2.20	2.24**	0.32	2.73 *
Income Bracket	0.01	3.04*	0.00	4.38*
Social Influence	0.80	2.25**	0.12	1.99**
Mood State of Buyer	1.20	2.47**	0.26	5.44*
Degree of Brand Loyalty	0.84	2.17**	0.25	3.78*
Constant	—	—	3.23	4.61

*Note: \*, \*\*, \*\*\* represent significance of variables at 1%, 5 % and 10% correspondingly.*

**Impulse buying behavior= -1.28Political Regime-2.05 Perception of Inflation In Regime+2.20Female Preferences+0.01Income Bracket+0.80 Social Influence+1.20Mood state of Buyer+0.84 Degree of Brand Loyalty.**

The estimates show all variables to be significant at the respective significance levels as shown in the above table. The competing model estimated using Median Regression, showed consistent results with the Ordered Probit Regression depicting Political Regime and Inflation Perception in Regime to be significant variables affecting consumer behavior of impulse buying in Pakistan.

### 3.2 Analysis of Findings

#### 3.2.1 Political Regime, Sense of Security and Impulse Buying

The z stat of 2.46 and low p value of 0.014 signifies political regime to be significant at the 95% confidence interval. The negative coefficient shows that in a democratic regime, the probability of high impulse buying decreases significantly compared to the military regime, *ceteris paribus*. In context of Pakistan, it has been justified through the incidence of terrorism that has been rampant in case of Pakistan also supported by the questionnaire. When people were asked on scale of 1 to 5 the degree to which the sense of security had changed since Musharaff regime, they replied that it had worsened. As supported by literature earlier too, democratic regimes have been associated with poverty, high incidence of inflation, income inequality that is breeding grounds for terrorists. The widespread terrorist attacks have grown in the last few years when democracy has been in power ( See Fig.1) and they create an environment of uncertainty and fear arousal. This creates anxiety and discourages people from going to market places as supported by the survey results. People avoided going to markets after unfortunate events of bomb blasts as quantified in the questionnaire. Moreover in the survey results it was understood that democracy in Pakistan was less credit induced and consumer oriented as opposed to the military rule of Musharaff. In the democratic era, people decreased their spending because things had become comparatively expensive, owing to sales tax increase. This led to a fall in purchasing power decreasing their impulse buying tendency. This trend was more prominent among people belonging to the lower classes whose demand was price elastic (due to sales tax increase) as opposed to the members of the richer class whose buying behavior was more consistent. People who relied on loans for cars, purchase of durables could get easily obtain it and make payments easy installments as a result of which purchase of cars on loan installments increased.

Also, it was found that the sense of security had worsened overtime compared to the Musharaff era with multiple incidents of terrorist attacks and some bad experiences while shopping were also narrated by respondents to show how the sense of security had deteriorated that discouraged them to make trips to the markets. Incidents such as mobile snatching, bomb blasts in the nearby store, pick pocketing were experienced by a few respondents in the recent years that inhibited them from going to markets regularly and reducing the chances of impulse buying. Respondents of the Peshawar and Quetta area concluded that they avoided going to markets at night due to bad sense of security in the democratic era with situation worsening with sectarian violence, deteriorating law and order and political instability. During the Musharraf's era, which is known as the Era of consumption boom (2002-2007), increase in wages, salaries and household rents were seen which increased incomes, inflow of remittances was massive, spending on apparel increased due to branding and changes in consumer

preferences as a result of which encouraged high impulse buying that validates the hypothesis.

### **3.3.2 Perception of Inflation in Different Government Regimes and Impulse Buying:**

The perception of inflation in political regime variable shows a significant z stat of 2.54 and p value of 0.011 thus showing that it is a significant factor affecting impulse buying in Pakistan. The negative coefficient shows that the perception of inflation in democracy is on the higher side as (democracy=1) as opposed to military which is (military=0) therefore the probability of high impulse buying falls significantly if regime is democratic as opposed to military.

In case of Pakistan, when a comparison was drawn between the Musharraf's military rule with the post Musharraf democratic governments of PPP and PML-N, it was seen that price levels were perceived to be higher in democracy than otherwise. According to the survey, prices were considered to be very important when making purchase decisions therefore the high prices in democracy discouraged people from acting as impulse buyers in the democratic regimes as opposed to military thus supporting the fact that consumers tend to be impulsive when price levels are perceived to be low which in case of Pakistan was seen in the military era rather than democracy. Democratic governments relied on printing money, creating high inflation in the economy that discouraged people from making unplanned purchases as things were unaffordable for them.

### **3.2.3 Other Cross Sectional Determinants of Impulsive Buying**

#### **Gender**

The positive coefficient for gender depicts that females tend to be more impulsive in purchases as opposed to males as females are coded as 1 while male gender has been assigned the value of 0 in coding. The z stat of 2.24 and p value of 0.025 shows high significance of the variable at 95% confidence interval. For interpretation, when the gender is female rather than male, the probability of high impulse buying increases significantly. The reason for high significance has been found through the survey results that in case of Pakistan, females consider shopping to be an exciting activity and do not take time to shop vigilantly for the finest buys. Majority of the female respondents answered that they have an urge to buy something immediately which also supports the theory of instant gratification proposed by David Laibson hence they are act as unplanned shoppers as opposed to males. It was also found that females who are mainly housewives go to the market more often, mostly on a daily basis to shop for grocery and they make quick purchases and most of the times end up buying more than what they had initially planned, if they find items on discounts making them impulse shoppers. Female impulsivity is also depicted by the fact that they are more particular about the

latest trends and fashions and are keen to try new products when they are available hence when they go to make purchases they are not able to keep a record of how much they spend as most purchases are made on credit cards if they are short of money. Males on the contrary, are less likely to go to markets on a regular basis and their main focus while buying is the product quality therefore they wait till they find the best buys rather than achieving instant gratification.

### **Income Bracket**

The Z-stat of 3.04 and p-value of 0.002 shows monthly household income to be a significant variable at the 99 % confidence interval in the regression. It has a positive relation to impulse buying and the coefficient illustrates that when an increase in income is seen, the probability of high impulse buying increases, significantly. Current Income as proposed by Keynes is the major determinant of consumption in general and in Pakistan, it has been seen according to the survey results that answers of respondents with high monthly household incomes differed from those who had low monthly household incomes of Rs20000 or less. High incomes give people purchasing power provided that prices do not increase in the same proportion. People in the high income bracket carried a lot of money when going to stores and ended up making unplanned purchases Respondents of the lower class such as drivers and cooks whose incomes are barely enough to meet their basic needs think twice before purchasing products. They face an income constraint hence they are less likely to be impulse buyers and them only make planned purchases because with they have to survive on their limited budget for the entire month. Even supported by literature, money acts as a facilitator of impulse buying process and people in the high income bracket are freer and capable of make purchases hence making them spendthrifts which can also be applied to Pakistan.

### **Mood State of Consumer**

The z stat of 2.47 and p-value of 0.013 depicts a significant and positive relationship between the mood state of people and degree of impulse buying at the 95% confidence interval. When the mood state of consumers is positive or people are seen to be in a good mood, the probability of them making impulse purchases increases significantly. From the survey results, it was established that mood had a strong impact on people making spontaneous and more purchases. Most people answered that they did not make impulse purchases when they were in a bad mood but when they were in a pleasant mood they tended to recompense themselves more bigheartedly and ended up buying impulsively. This is also in line with literature, (Beatty and Ferrell, 1998) signified mood as an internal factor that triggers impulse buying behavior. Positive mood makes people happy and gain pleasure from shopping. Most of the respondents even said that positive mood states makes them buy for others such as their family members or acquaintances so anything that appears attractive to the eye is purchased keeping in view the budget they have for shopping.

### **Social Influence**

The z-stat of 2.25 and low p-value of 0.024 is significant at the the 95% confidence interval and a positive coefficient also shows a significant positive relationship between social influence and impulse buying behavior. For interpretation when people are under social influence, the probability of high impulse buying increases, significantly, *ceteris paribus*. From the survey results it could be inferred that purchases made by others had a strong impact on the spending patterns of different individuals. Also, many respondents answered that they usually bought things recommended by their peers and preferred to have the similar items—such as shoes and clothes as their friends had. Therefore, whenever they went for shopping trips they would buy things that they had seen their friends possessed. Also some respondents when accompanied by their friends bought more impulsively as opposed to when they went alone. This behavior was seen because people felt the need to match to the expectations of others. An urge to buy may happen due to this because the individual feels pressurized by network members who want him/her to buy the product. To summarize, in accordance with the survey results it can be inferred that under social influence of peers or reference groups' peoples' behavior tends to change and they react an impulse buyers in order to live up to the expectations of others.

### **Degree of Brand Loyalty**

The coefficient for degree of brand loyalty appears positive in this case which shows a positive and significant relationship between degree of brand loyalty and impulse buying behavior ( $z$  stat=2.17, p-value of 0.030). When consumers are brand loyal towards products, the probability of high impulse buying increases, significantly, *ceteris paribus*. In case of Pakistan, this is also relevant because through the survey results the preferential behavior in the direction of one or more options out of a better field containing rival alternatives majority was established. Most of the respondents agreed to the fact that even in the presence of numerous brands that are available they always chose the one that was their favorite. When they saw their desired brand on the shelf, most of the times they would purchase it even if they had not initially planned to buy it. People had become brand loyal to a particular brand because of its superior quality as opposed to others .The idea of commitment provides an essential basis for evaluating the relative levels of brand loyalty. So, in case of Pakistan, people who have a strong brand commitment, eventually develop brand loyalty towards their favorite brands as a result of which they act as impulse purchasers when their most preferred brand is seen.

### **3.3 Post Estimation Criteria and Model Consolidation Tests**

The pseudo R<sup>2</sup> of 0.6163 in the Ordered Probit Model and 0.5651 for the Median Regression depicts an overall goodness of fit for both models with the included variables.(Refer to (Appendix 1a). In the Ordered Probit Model, the significant relationship



between Political Regime( $z$ -stat=2.46) and Perception Inflation in Regime( $z$ -stat=2.54) can be explained by the good explanatory power of the model. In the Breusch-Pagan test of heteroskedasticity, the probability  $> \chi^2$  was greater than 0.05 that predicted the model to be free from the problem of heteroskedasticity. (See Appendix 1b).

The Variance Inflation Factor Test was also conducted to assess the degree of multicollinearity, and resulted for all regressors ( $Vif < 2$ ) confirmed that multicollinearity was not a matter of concern in the presented model. For further detail refer to Appendix 1c

### **3.4 Conclusion:**

In conclusion, the study focused on the political economy and regime switching behaviors in context to consumer preferences in Pakistan. Significant results were obtained for all variables in the original mode which were further supported by the competing model. Democratic regime had a significant negative impact on impulse buying behavior ( $z = -2.46$ ,  $p$  value  $< 0.05$ ), through the high incidence of terrorism that dominates the regime and creates a negative sense of security hence inculcating fear into the people followed by delayed buying. Negative sign has been justified in case of Pakistan as democracies have been found to be politically unstable compared to authoritarian where it is costly to conduct terrorist attacks. The terrorists have been pressurizing democratic governments to accept their demands in retaliation of which they launch attacks and create uncertainty. Prices in democracy have been high compared to military ( $z = -2.54$ ,  $p$  value  $< 0.05$ ) that have served as breeding grounds for terrorism and also a high general price level serves to reduce impulse buying intuitively. Following these were other demographics, social and behavioral variables that impacted impulse buying behavior, significantly.

### **3.5 Limitations of the study:**

The restricted sample size of 36 respondents was the basic limitation pertaining to the study followed by the various response biases. Extremity bias was encountered in questions concerning impact scales where some respondents gave extreme answers while others responded centrally, slightly distorting the results. Deliberate falsification and misrepresentation of facts existed to some extent when some respondents tried to agree with every statement that was put forward creating an acquiescence bias. Moreover, some were reluctant to disclose their incomes, visits to foreign countries during regimes, ethnicities while others inflated their incomes to gain prestige. Furthermore, there were apprehensions of administrative errors and loss of information caused by discrete scaling.

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<http://www.politicalterroryscale.org/countries.php?region=Eurasia&country=Pakistan>

### APPENDIX:

#### A: Post- Estimation Criterion

##### a) Pseudo R-squared of Regression Results

	<b>Ordered Probit</b>	<b>Median Regression</b>	
<b>Pseudo R2</b>	<b>0.6163</b>	<b>0.5651</b>	

##### b) Tests for Heteroskedasticity

<b>hetttest</b>	
Breusch-Pagan test for hetroskedasticity	
H0: constant variance	
chi2(1)	2.77
Prob>chi2	0.0958



**c) Variance Inflation Factor Tests**

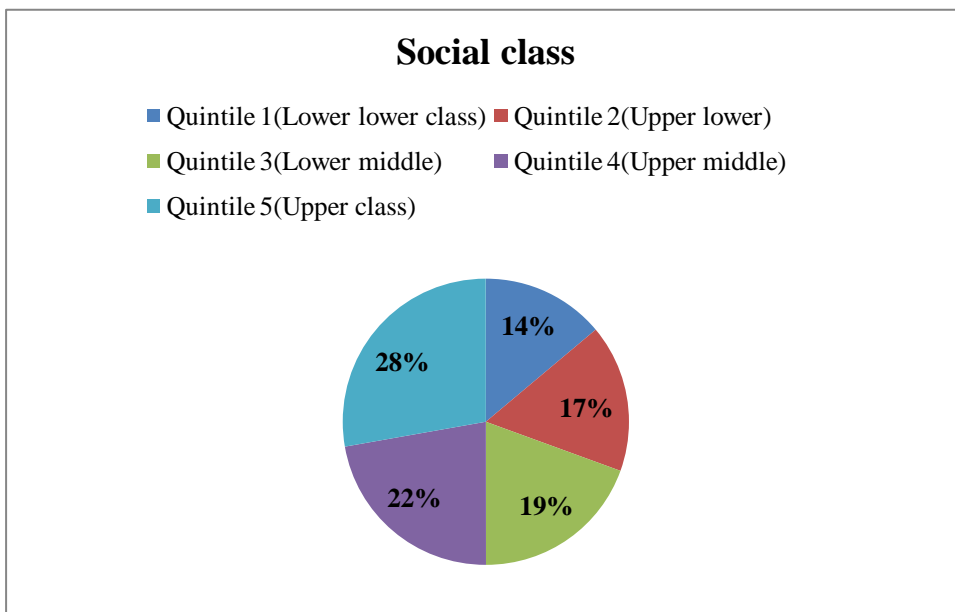
<b>VIF TEST</b>		
<b>Variable</b>	<b>VIF</b>	<b>1/VIF</b>
Dummy for Political Regime	1.21	0.826
Perception of Inflation in Regime	1.17	0.855
Female Preferences	1.36	0.735
Income Bracket	1.33	0.749
Social Influence	1.28	0.784
Mood State of Buyer	1.4	0.716
Degree of Brand Loyalty	1.69	0.592

**B: Sample Divisions for Questionnaire****Division based on social classes:**

Out of 100%, 15.7% belonged to the 1<sup>st</sup> quintile, 17.33% were of the 2<sup>nd</sup> quintile, 18.95% were of the 3<sup>rd</sup>, 21.52% were of the 4<sup>th</sup> quintile and lastly 26.49% belonged to the 5<sup>th</sup> quintile.

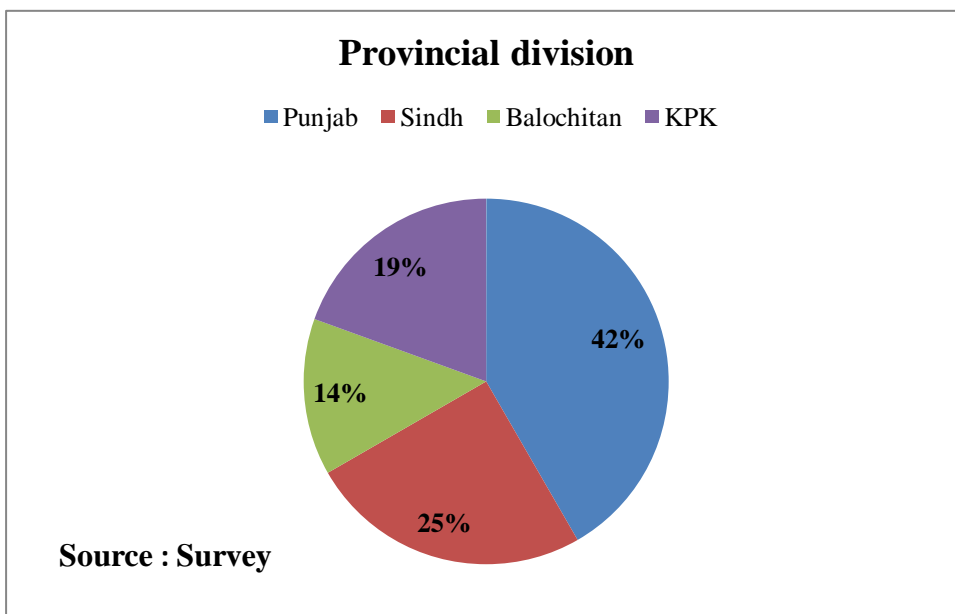
**Based on this division**

<b>Quintiles</b>	<b>Percentages</b>	<b>Sample size → 36</b>
Quintile 1(Lower class)	15.7	5
Quintile 2(Upper lower)	17.3	6
Quintile 3(Lower middle)	18.9	7
Quintile 4(Upper middle)	21.5	8
Quintile 5(Upper class)	26.4	10



**Provincial Division:**

Out of 100%, 42% of the respondents belonged to the Punjab area since it was easier to gain access to them. 25% were from the Sindh area, 19% from Khyber Pakhtunkhwa while 14% were from the Balochistan area.



**Gender Classification:**

Out of 36 respondents, 18 were males and the remaining 18 were female. Later, dummy for gender was incorporated as an important independent variable to see how impulse buying behavior differed between males and females.