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Journal OF
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SIJMB aims to publish cutting edge research in the field of business, economics and management sciences. It accepts original research articles, case studies, reviews, and short comments on diverse issues, problems, unique concepts, hypotheses, and solution oriented findings in interdisciplinary studies of economics and management sciences.

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- Total Quality Management

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Sukkur IBA is mission driven institute and committed to serve towards the socioeconomic development of Pakistan through education and research.

Prof. Nisar Ahmed Siddiqui
Sitara-e-Imtiaz
Director Sukkur IBA
Patron SIJMB

Editorial

Dear Readers,

I am really excited to bring you the latest issue of Sukkur IBA Journal of Management and Business (SIJMB). This issue contains double blind peer reviewed articles which address key business, management and economic issues pertaining to both national and international levels. SIJMB adopts all standard that are prerequisite for publishing quality research work. The Editorial Board of the Journal is having academicians and researchers from technologically advanced countries. Their valuable contribution is crucial in maintaining the quality of the Journal. The findings of the published papers are exceptionally important for the both policy formulation and decision making. Hence, various stakeholders can benefit from it. Moreover, the open access policy of the Journal further increases the readership and grant access to wider audience.

The mission statement of Sukkur IBA clearly demonstrates the importance of research. The research that does not only solve and identify the existing problems but also generate new and innovative ideas. SIJMB is a unique effort of Sukkur IBA towards its commitment to create research based community. The journal provides valuable platform for national and international researchers and publishes their research findings and disseminates it to the largest stakeholders. The journal charges no any fees and also provides complimentary copy (in hard form) to each author also the supplement copies of the journal distributed to HEI and R&D institutions of the country. The journal has been archived by world's renowned scientific repositories. Journal has received recognition from several research agencies, universities and renowned professors. In coming years, the journal aim to improve its current state by attracting more national and international researchers in the field of Business, Management and Economics.

On behalf of the SIJMB, I welcome submissions for the upcoming issues of the journal and looking forward to receive your valuable feedback.

Sincerely,

Dr. Khalid Ahmed
Editor-in-Chief
SIJMB

Contents

Impact of Industrial Revolution on Management Thought

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Abstract:

This theoretical paper traces the discourse of Western Civilization from the agrarian period to industrialization, focussing on impact of industrial revolution on the process of management thought. This paper argues that, how management thought has been influenced the era of modernism when industrial revolution spread across the Europe and the United States as during modernity materialistic ethics were developed.

Keywords: Management, Industrial Revolution, Management thought

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Introduction

Until the early 18th Century, most people survived off the land like they had been lived off for many age group *(Deane & Cole, 1962)*. The era was based on undeveloped subsistence that is agriculture defined by the harvests and the seasons *(Ashton, 1948)*. People in the early 18th century were ruled by political and social leaders. In the next 150 years an extraordinary outburst of novel ideas and new technological innovation came up which shaped a progressively more industrial and urbanised society *(Anderson, 1984; Ashton, 1948; Deane & Cole, 1962)*. The shift of economy from the agrarian period towards the rapid technology and innovations was the Industrial Revolution *(Alford, 1951; Ashton, 1948)*.

Industrial revolution refers to the set of continuous events that took place in the era mid-17th to mid-18th century *(C. I. Jones, 2001)*. These events comprises of not only set of economic and social changes but also the technological ones *(Nicholson, 2011)*. The industrial revolution resulted in a transition of hand work to machines which led to increase in efficiency *(C. I. Jones, 2001; Nicholson, 2011)*. This revolution spread across the eastern parts of society and the economic adoptions accelerated *(Alford, 1951)*.

The industrial revolution not only modernized the British economy but also the rest of the world including Western Europe and North America *(Ashton, 1948)*. According to *(Cowan, 1976; Deane & Cole, 1962; Nicholson, 2011)* industrial revolution brought many adoptions that were not rapid. Industrial revolution marks as a turning point in the history of human kind *(Harley, 1993; Hindle & Lubar, 1986; Musson & Robinson, 1969)* as it shifted the agrarian society towards the machines and technology that swept across the societies.

The effects of industrial revolution extend all over the world *(Gimpel, 1977)*. Industrial revolution gave rise to global reorganization of production, utilization, demographic activities and international relations *(Harley, 1993; C. I. Jones, 2001; Lucas, 2002)*. Three sectors: energy, textile and iron are known for their originality of innovation during the embryonic phase of industrial revolution *(Jensen, 1993; Musson & Robinson, 1969)*. As a result of industrial revolution, lengthy and costly production processes were replaced by swift and cheaper substitutes that served the basis for efficiency *(Cowan, 1976; Lucas, 2002)*.

According to various researchers *(Allen, 2009; Cowan, 1976; Komlos, 1998; Lucas, 2002; Mantoux, 2006; Mokyr, 2009)* for thousands of workers who were engaged in agriculture and other traditional occupations, the new technology made no difference as they were not ready to adopt the new technology. Industrial revolution was not only the era of science, machines *(Von Tunzelmann, 1995)* but also an era in which there was rapid increase in population so a large numbers of mouths had to feed *(Lucas, 2002; Mantoux, 2006)*. More and more industries

were developed and manual work was replaced by massive machinery *(Fores, 1981; Mokyr, 2009)*.

People who lived through industrial revolution era suffered a lot *(Lucas, 2002; Mantoux, 2006)*. Contrary to every successful industrialist such as Richard Arkwright, there is also a list of those who became futile for one or more reasons *(C. I. Jones, 2001)*. During industrial revolution, academic developments were made *(Nicholson, 2011)*. The underlying logic behind industrial revolution was technology *(Crafts, 1995)*.

In the past, management referred to knowing what you want men to do and then to monitor it in the best way *(Drucker, 1998, 2009)*. With the lapse of time the theories of management evolved consisting of two parts as the essential of management, physical and the conceptual part *(Freedman, 1992)*. Management is a combination of various components. According to various researchers *(Alford, 1951; Drucker, 1998; Wrege & Greenwood, 1991)* management is the key to economic progress. The foundation of todays' management is built on the meaningful work of past scholars such as *(Anderson, 1984; Ashton, 1948; Burrell, 1994; Drucker Peter, 1954; Drucker, 1998, 2009; Freedman, 1992)*.

Modernism is defined as a contemporary reflection, nature, or tradition *(Anderson, 1984; R. Cooper & Burrell, 1988)*. In particular, modernism portray the modernist association in the arts *(Armitage, 2000)*, it is a set of cultural propensity and associated cultural arrangements which actually originated from wide-scale and comprehensive changes to Western society in the late 19th and early 20th centuries *(Anderson, 1984; Armitage, 2000; Berman, 1992; Burrell, 1988, 1994)*. There are various factors that play an important role to outline modernism *(Armitage, 2000)*. The factors that shaped modernism include the rapid growth of the industries accompanied by the industrial revolution *(Anderson, 1984; Ashton, 1948; Burrell, 1994)*.

The primary objective of this paper is to review that how the process of management thought has been influenced by industrial revolution during the modernism era. Taking the lead from the concept of evolution of management process, this theoretical paper aims to focus on how industrial revolution has impacted the management thought and in this back drop raises the following research questions.

1- *Why there was a need of management during the industrial revolution?*
2- *How industrial revolution revolutionized the management thought process?*

The next section will encapsulate the discussion on evolution of management thought and impact of industrial revolution on the management thought by entailing the origin of management and its advances during industrialization and modernism.

Literature Review

Origin of Management and Industrial Revolution

The history of management is as old as that of human kind *(Greenwood, 1999)*. Management has been around for thousands of years *(Drucker, 2009)*. The pyramids of Egypt and the great wall of China are the perceptible evidence that projects management *(Argyris, 1965; Drucker, 1998)*. In 1776, the milestone towards the management was laid by Adam Smith who was the first to oversee the efforts of various manufacturing techniques *(Sheldrake, 2003; Van Der Aalst, Ter Hofstede, & Weske, 2003; Wrege & Greenwood, 1991; Wren & Bedeian, 1994)*. According to Adam Smith, society would gain economic advantages, if each work assigned to worker is broken down into various tapered repetitive tasks *(Hofstede, 1994; Lawler III, 1973; Light, Gunderson, & Holling, 1995)*. Adam Smith focussed on the problems and concepts related to management processes to increase the motivation among workers *(Frey & Osterloh, 2002; Sheldrake, 2003)*.

The concept of "division of labour" introduced by Adam Smith gained admiration among the workers very rapidly *(Sheldrake, 2003; Van Der Aalst et al., 2003)*. Adam Smith recognized that division of labour leads to efficient production *(Davis & Naumann, 1999)*. Responsive knowledge regarding tasks enhances the level of productivity *(Rosenberg, 1965)*. In the mid-eighteenth century, the paradigm of time shifted the agricultural economy towards mechanical economy *(Nicholson, 2011)*. The shift of economy began in Great Britain and within a few decades it spread across Western Europe and United States *(Jensen, 1993)*. Economy started to transit from the manual processes towards the new manufacturing processes in the era from about 1760-1840 *(C. Cooper & Kaplinsky, 1989; Crafts, 1985)*.

According to historians, the transition towards the industries, new manufacturing processes was termed as "Industrial Revolution" *(Jensen, 1993; C. I. Jones, 2001; Lucas, 2002; Mantoux, 2006; Nicholson, 2011)*. Literature supports the two views regarding the industrial revolution, but the more traditional view was characterized by T.S. Aston and David S. Landes *(Mantoux, 2006; Nicholson, 2011)*. The historical events that witnessed the industrial revolution comprises a set of technological innovations and social changes that swept across the British economy *(Crafts, 1985)*. The industrial revolution came up with a "modern" economy *(Fraser, 1973)*. In view of various researchers *(Castells & Hall, 2009; De Vries, 1994)* the technological innovation that were brought in contrast to industrial revolution became a unremitting and continuous process *(C. I. Jones, 2001)*. Technology was the basis of industrial revolution *(Stearns, 1993)*. Energy, textiles and iron sectors were among the rapid growing revolutionary innovations *(Tapscott & Caston, 1993)*.

During the industrial revolution people found it more economical to manufacture products in factories rather than at homes *(Armitage, 2000)*. Most of the researchers suggest that industrial revolution serves as a foremost turning point in past *(Sheldrake, 2003; Van Der Aalst et al., 2003; Wren & Bedeian, 1994)*. Industrial revolution nearly influenced every trait of daily life in one way or other *(Berman, 1992; Burrell, 1988)*. It happened for the first time in history that living standards of common people began to experience constant growth *(Sheldrake, 2003; Van Der Aalst et al., 2003; Wren & Bedeian, 1994)*. Following the industrial revolution, need for comprehensive approach towards management thought provoked a journey to modern management *(C. I. Jones, 2001; Wrege & Greenwood, 1991)*.

The Enlightenment period (The age of reason)

Largely positioned around France, the age of enlightenment was the period in which the scientific awakening took place *(Mokyr, 2009)*. In the age of enlightenment, metaphysics started to pose the existence of the objects that cannot be observed *(Mokyr, 2009)*. In specific, the enlightenment period permitted the people to question anything. The effects of French enlightenment spread beyond the borders *(Miller, 2009)*. Enlightenment served as a big stepping stone between the unenlightened world and today's world. The age of reason opened up the gates to novel ideas and thoughts *(Dekker, 2011)*. The age of enlightenment was the time in which drastic changes occurred, that with the reason it has been termed as an Intellectual Revolution *(Breckman, Gordon, Moses, Moyn, & Neaman, 2011)*.

Industrial Revolution in era of Modernism

The period of Modernity is the era that began with the enlightenment and science (about 1687 to 1789) *(Anderson, 1984)*. Researchers suggest that Rene Descartes (1596-1650) and later on, Immanuel Kant (1724-1804), formed the era rationally by their philosophy that through validation they could ascertain a basis of collective truths *(Alford, 1951; Drucker, 2009; Freedman, 1992)*.

Modernism is also referred as the era of science and industries *(Anderson, 1984; Armitage, 2000)*. From the sociological point of view, modernism refers to socio-political and scientific-philosophical realism of the Western societies *(Forman, 1996)*. Political leaders of modernity also mastered rationale as the cause of evolution in social change, believing that logic could create a just and unrestricted social order *(Ashton, 1948; Burrell, 1994; Drucker Peter, 1954)*.

The beliefs of leaders during the era of modernism fed the American and French Democratic revolutions, the first and second World Wars, and the thinking of many today *(Crafts, 1985; B. N. Nelson, 1981)*. The major outcomes of modernity are democratic system, capitalism, industrialization, science, and urbanization *(Allen, 2009; Smelser, 2006)*. The gathering flags of

modernity are liberty and the entity *(Chia, 1995; R. Cooper & Burrell, 1988; Smelser, 2006)*. In the era of modernism, not only the science but industrial development had massive effects economy wide *(Briggs, 2004; Grasmick, 1973)*.

Outcomes of modernity

Although modernity developed alongside the extensive desacralisation of social life, yet it failed to replace the religious convictions with the scientific ones *(Anderson, 1984)*. On one side, science gave the people the possibility of increasing control over their lives, yet it failed to provide values for guidance of people's lives *(Breckman et al., 2011)*. During modernism, privatisations resulted in increasing number of individuals left alone with the task of establishing and maintaining values for guiding their lives *(R. Cooper & Burrell, 1988)*.

Critique of Karl Marx

Karl Marx and Sigmund Freud also undermined the modernist belief that rationale is the basis of reality by classifying monetary services above the face of society and psychological forces below it that are not bound by reason, yet are powerful shapers of society and individuals *(Featherstone, 1990)*. Modernity is inclined by the rationalism of Newton, Descartes, Kant, and others *(Habermas, 1987)*. Modernists always have faith that theory can represent realism *(Beck, 1992; Giddens, 1991)*. According to Marx, a system of capitalism where people are enforced to sell their labour in order to live is unfair *(Somerville, 1934)*. Karl Marx disagreed with the principle of modern capitalistic economy. According to Karl Marx in contemporary modern capitalist economy the people were treated as mechanism instead of human *(Marx, 2012)*. Marx stated that the industrially more developed country shows the less developed image of its own future *(Marx, 1986)*.

Emergence of Modern Management during Industrial revolution

Contribution of Frederick Taylor

In the era of modernism and industrial revolution the economy transit, rapidly towards the mechanical actions and processes *(Ludäscher et al., 2006)*. The rapid increase in the industrialization and the modernist view collectively provoked the need to improving the economic proficiency, focussing especially on labour productivity *(Alford, 1951)*. On the basis of the classical theories of management, the foundation of scientific management was laid by Frederick W. Taylor *(Aufhauser, 1973; Frederick, 1911; Freedman, 1992; Freeman & Louçã, 2002)*.

Frederick Taylor introduced the concept of scientific management that influenced the management thought process in a considerable way *(G. R. Jones, George, & Hill, 2003)*. Taylor found out that by the use of scientific procedures and methods, the proficiency of workers can be increased and economy can gain substantial growth *(Freedman, 1992)*. The principles of scientific management introduced by Frederick Taylor were applied widely across the industries to increase the productivity of the organizations *(Drucker, 1998; Frederick, 1911)*.

Various researchers suggest that Taylor's efforts unlocked the new prospects of management *(Armitage, 2000; Aufhauser, 1973)*. Taylor created a mental revolution between the workers by outlining crystal guidelines for the improvement of production *(Alford, 1951)*.

The principles of scientific management evolved during the embryonic phases of industrial revolution *(Freeman & Louçã, 2002; Habermas, 1987; Harley, 1993)*. Scientific management is considered as one of the most primitive efforts to apply science to the engineering of processes and to management *(Ludäscher et al., 2006)*. Scientific management was one of the earliest accomplishments to analytically treat management and process advancement as a scientific delinquent *(D. Nelson, 1974, 1980; Spender & Kijne, 1996)*. Even though the archetypal application of scientific management was manufacturing, but the objective of scientific management was to create knowledge about how to develop the work processes *(Taylor, 2013; Wrege & Greenwood, 1991; Wren & Bedeian, 1994)*.

Contribution of Max Weber

Following the work of Frederick Taylor, Max Weber worked at the subject of management from the perspective of sociology *(Gouldner, 1954; Locke, 1982; Lutzker, 1982; D. Nelson, 1980; Scaff, 1981)*. The economic development observed by Weber in United States was quite different from those in Germany *(Kilduff, 1993)*. The economy of U.S flourishes rapidly in contrast to Germany with large professionally managed firms during industrial revolution *(Lutzker, 1982)*. The spirit of capitalism stimulated innovation and competition across the United States *(Nassehi, 2005)*. Max Weber approached the phenomenon of management from a sociological perspective *(Ritzer, 1975)*.

The contribution of Weber was a framework of characteristics which was termed as "Bureaucracy" *(Joerges & Czamiawska, 1998; Swedberg, 2000)*. The contribution of Max Weber towards management thought is totally bureaucratic *(Fine, 1984; Joerges & Czamiawska, 1998; Swedberg, 2000)*. According to Weber, the societies are getting more and more

industrialized *(Käsler, 1988)*. The purpose of industry creation and goals is also getting complex with the rapid innovation *(Rappa, 2003)*. Bureaucracy suggests that the style of management should be hierarchal *(Gareth Morgan, 1989)* and people should obey the order of legitimate authority in order to achieve certain level of work proficiency *(Rothschild-Whitt, 1979)*.

In view of some researchers *(W. G. Bennis, 1969; Ladd, 1970; Mitzman, 1970; Tannenbaum, Kavcic, Rosner, Vianello, & Weiser, 1977)*, it is often believed that bureaucracy is developed as a reaction to personal overpower. Bureaucracy is used as positive label referring to the most modern and competent method of organizing during industrial revolution *(W. Bennis, 1965)*. The world observed by Weber was subjugated by class consciousness and nepotism *(W. G. Bennis, 1966)*. Bureaucratic management is fabricated on the mechanism metaphor of society *(Lakoff, 1993)*. The principles of bureaucratic management represent a similarity connecting the association amongst the division of a motorized device *(Merton, 1940)* and the association among places in a society *(Gareth Morgan, 1982; Tsoukas, 1991)*. The emphasis of bureaucracy is on the legal authority *(Clegg, 1990)*. The straggle behind the legal authority is to ensure the equivalent opportunity and treatment for all *(Handel, 2003)*. Legal authority results in reduction of exploitation of employees *(Trubek, 1972)*.

Organizations as machines acts as rational enterprise *(Argyris, 1965; Satow, 1975)*. Industries are designed and prearranged to achieve predetermined goals as competently as possible, using the one best possible solutions to systematize and linear concept of cause and effect *(Galbraith, 1974; G. Morgan & Videotraining, 1997)*. The accomplishment of and association connecting divisions and places are intended to absolute the employment as efficiently as achievable *(Alford, 1951; W. G. Bennis, 1966; Berman, 1992; Gareth Morgan, 1980)*. This perspective recommends clear hierarchal activities and managerial trainings designed at attaining explicit aims and goals *(Lyon, 2001)*. The hierarchal events consist of traditional places and measures to organize and manage human employment *(Lutzker, 1982)*.

Most of the researchers suggests that Max Weber's theory of bureaucracy has had a massive control on management practice *(Du Gay, 2000; Lutzker, 1982; Lyon, 2001)*. Bureaucracy, in Weber's view acts a model in organizing industries *(Engel, 1970)*. Although the bureaucratic management is struck by various criticisms *(Hodgson, 2004)*, but still it serves to be central feature in modern societies *(Blau, 1956)*. During the industrial revolution the bureaucratic management proposed by Weber was considered as rational and efficient *(Handelman, 1981)*.

Impact of industrial revolution on management thought

As entailed in the previous sections that before the industrial revolution, people were living in the agricultural era. In the agricultural era there was no technological innovation and the living standards were low. With the rapid outbreak of technology, economy shifted towards the machines and a need for management intensified. The living standards of people were raised and a drastic advancement in economy occurred. In the mid-17th to mid-18th century the era of modernism and industrial revolution progressed and changes in management thought processes triggered. Adam Smith positioned the groundwork of classical management before industrialization. Subsequently, the concept of scientific management was acquainted by Fredrick W. Taylor after industrial revolution. Succeeding to the work of Fredrick W. Taylor, Max Weber introduced the bureaucratic style of management afterwards to increase the work efficiency and reduce the exploitation of employees in the industries.

Discussion

Management today is the result of research work done by various researchers over many eras. The historical discourse of management leads us to the time where Adam Smith introduced the principles of division of labour for the first time to upsurge worker's productivity with efficiency. Similar to this line of thought, today the grounded theories of management are being used in various industries to discuss the productivity phenomenon

Management thought which is at the heart of any organizational performance is discussed in this paper. A major step towards the management advancement was taken during the industrial revolution. The history of the transformation of living state of affairs during the industrial revolution has been very argumentative, and was one of the topics that from the 1950s to the 1980s initiated most impassioned discussion among socio-economic researchers. A foremost innovation in the metal industries during the era of the Industrial Revolution was the substitute of woodland and other bio-fuels with coal. The development in field of technology played a vital role in motivating and accelerating the British Agricultural Revolution.

Although the unindustrialized improvement began in the centuries before the Industrial revolution. But industrial revolution served the basis in deliverance of labour from the land to work in the new industries of the 18th century. In parallel to revolution in industry progress, a series of machines became available which amplified worker's productivity and need for managing the workers.

We are of a view that the major contribution to the management thought was brought in result to development of industries during Industrialization and logic during modernism. The

principles of management by Adam Smith posit the basis of management thought process. Later on the scientific theory proposed by Fredrick and Theory of bureaucracy brought forward by Max Weber are still practised today in industries as a model.

Conclusion

Following set of conclusions can be drawn from this study. Industrial revolution was an era in which there was rapid increase in population so a large number of mouths had to be fed. The historical events that witnessed the industrial revolution followed innovations and technology that spread not only in the British economy but also across the world. The industrial revolution originated the "modern" economy and the period of modernity furnished. The most important movements and procedures of modernity were capitalism, industrialization, science, and urbanization. The era of modernism and industrial revolution led not only to technological innovation but also to the new prospects of management. With the lapse of time, the span of management advanced. The principles of scientific management and the style of bureaucracy added significant contributions towards the management thought processes and worker's productivity during industrial revolution.

Limitations

The paper is critically focussing on the influence of industrial revolution on the management thought process in the era of modernism. The research is limited to the extent that it has not critically evaluated any other era in which the management thought is more advanced. The influence of industrialisation on management thought in this paper is also limited with the extent that assumptions presented are not empirically tested.

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Determinants of Inflation: Evidence from Pakistan using Autoregressive Distributed Lagged Approach

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Abstract

Controlling inflation is one of the biggest challenges faced by the macroeconomic policymakers in Pakistan. This research article is aimed at highlighting the main sources of inflation in the economy of Pakistan using an autoregressive distributed lag model for the period from 1980 to 2012. Findings of this study reveal that the one percent rise in the long run money supply, exchange rate, total reserve, and the gross national expenditure change inflation by 0.16, 2.12, 0.36, and 1.78 percent points respectively. The Error Correction model with negative sign remains statistically significant with approximate 81% speed of adjustment to restore the equilibrium in the long run, which shows the quick convergence.

Keywords: Determinants of Inflation, Money Supply, Exchange Rate, Total Reserves ARDL.

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1. Introduction

The continual upward movement in price level in the economy is called inflation. During the inflationary period money loses its value. The problem of soaring inflation has critical significance in Pakistan economy with social implications. According to economics theory, the inflation rate has direct relation to gross domestic product (GDP), fiscal deficit, government expenditure, tax revenue, money supply, exports, exchange rate, prices of imports, interest rate and others.

Many ways have been identified to measure the inflation. In Pakistan, inflation is usually measured either with the proxy of Gross Domestic Product Deflator (GDP Deflator), which shows overall inflation in the economy or with the Consumer Price Index (CPI) that shows the movement in the general price level of basket of goods and services of consumers' products (Asian Bank Report, 2012). Furthermore, according to (Selden 1959), the inflation is categorized as cost-push and demand-pull based on its cause of movement in overall general price level in the economy.

COST-PUSH INFLATION
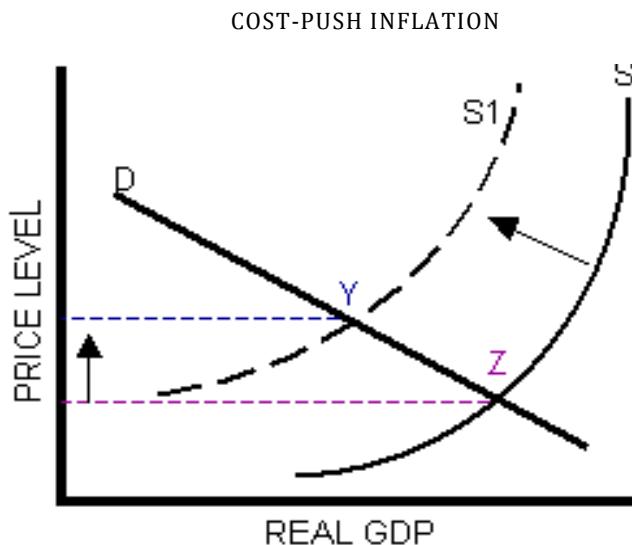
Figure 1

Cost-push inflation prevails when general prices of input factors increase. The rise in the prices of raw material or increase in the rapid wage invites the cost-push inflation. The rise in imported oil's price in year 2012 describes the cost-push inflation (illustrated in figure-1).The rise in energy prices leads to the rise in cost of production and transportation of goods and services in the economy. The higher production cost lowers the aggregate supply (from S_0 to S_1) that causes rise in price level and equilibrium returns back from Z to Y.

DEMAND-PULL INFLATION
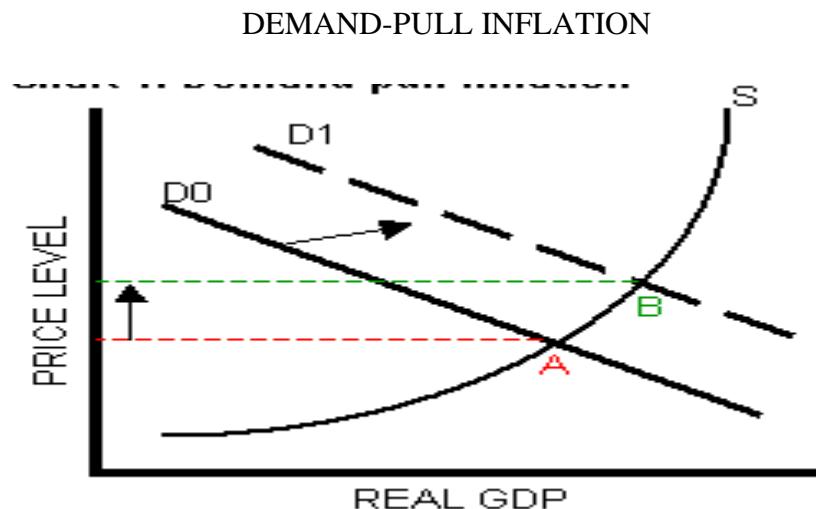
Figure 2

On the other hand, Demand-pull inflation occurs when aggregate demand for goods and services increase more sharply than the production capacity in the overall economy. When central bank increases money supply the aggregate demand might takes a potential shock (Figure-2). The increase in money supply will shift demand curve from D_0 to D_1. Since businesses cannot increase their production and no change in the supply (S) in the short run, the rise in the prices occurs and the equilibrium point shifts from point A to point B.

According to the Pakistan Bureau of Statistics, the recorded inflation rate was 5.13% in May, 2013 and historically averaged to 8.03% from 1957 to 2013. Prices rise slowly in India than Pakistan which is alarming for Pakistan's economy. The most important categories of CPI in Pakistan are described in the Figure-3.It depicts that food and non-alcoholic beverages keeps 35 % of the total weight and holds the highest portion of CPI. Housing, water, electricity, gas and fuels has 29% weight age while clothing and footwear hits to 8%, and transport reaches to 7 %. The figure-3 also reports furnishings and household equipment to 4%, education to 4%, communication to 3 % and health to 2%. The remaining other categories amount 8% which includes culture, hotels, tobacco, alcoholic beverages, and others.
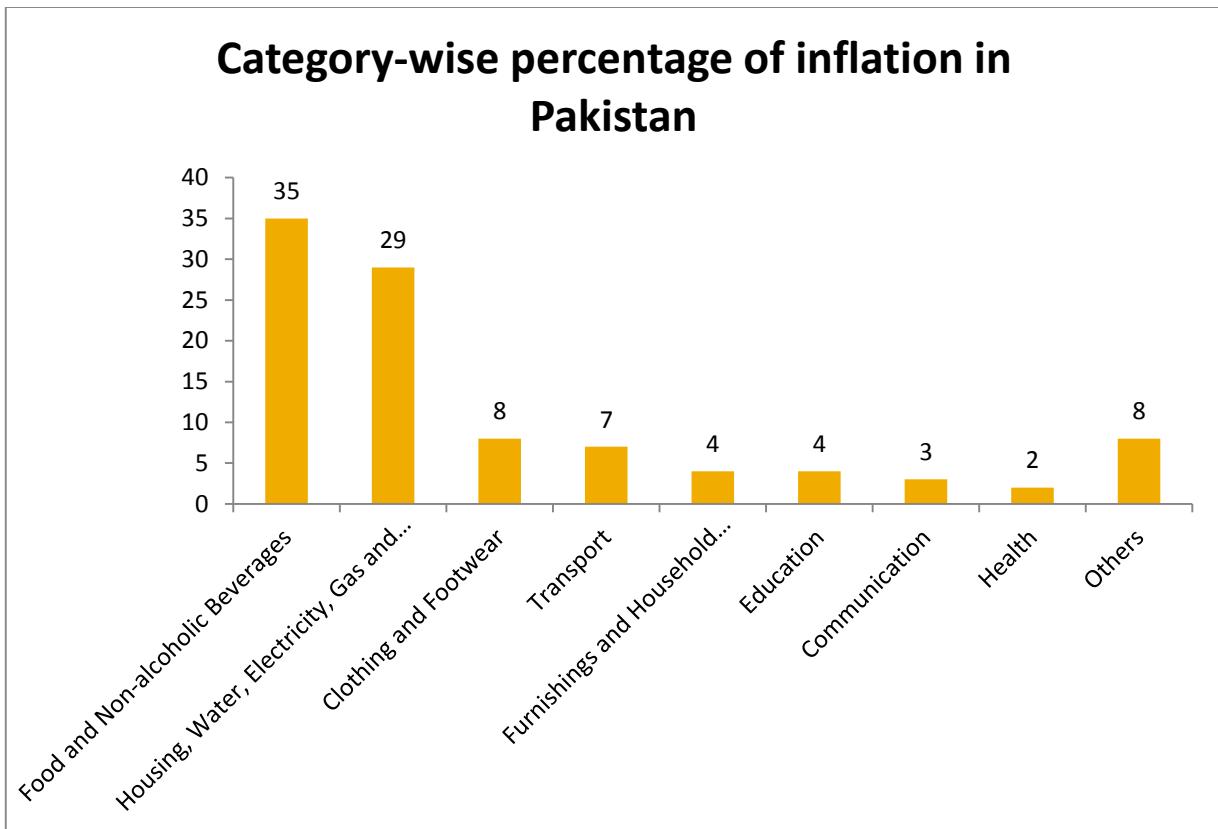
Figure3

Source: Federal Statistical Bureau of Pakistan

The inflation in an economy affects Depositors' real value or purchasing power and savings. Actuarial, financial, fixed value assets and saving account lessen in real value during the time of inflation. Debtors enjoy a lot from the loan of creditors in the time of unanticipated inflation. Particularly, low rates of inflation are prerequisites for the macroeconomic management in developing and under-developed countries.

When prices rise, the inflation in an economy axes depositors by lowering their purchasing power and savings. The inflation has many adverse effects for the economy. Firstly, it smashes peoples' purchasing power, shrinks economic growth, rooms macroeconomic instability, whereas the inflationary environment gives birth to many dubieties. Secondly, it throws a negative effect on the poverty, increases overall prices, and detriments consumption basket of the poor which was significantly abridged in each inflationary round. Thirdly, it can hurt an economy's stability by an over-valuation of the domestic currency and a consequent appreciation in exchange rate has also regressive impact upon exports.

Especially, in developing and under-developed countries such as Pakistan and Nigeria; the households' living cost is soared due to inflation. Due to higher inflation, food consumption

is reduced by households that lead to malnutrition which results productivity loss of about 10 percent in earnings whereas GDP sheds of two to three percent into badly impacted countries (Alderman. H, 2005). "High inflation reduces the benefits of growth and worsens off the poor" (Easterly. W; 2003). More than fifty percent of budget of low wagers is consumed to food. There are ample factors adding inflationary effect in Pakistan such as population growth and per capita income. There is a serious lack of strategic management in the country, due to which the price level rises; if there is shortage in supply or increase in demand. A variety of edible and non-edible items are merchandised illegally on the borders of Pakistan, Afghanistan and Iran, which makes significant financial loss to the country in the form of public receipts that might be accumulated in terms of taxation (Sharif *et al*., 2000).

According to the report of Asian Development Bank (2012), the reserves declined in first mid of FY2012 and economic situation worsened. Furthermore, both food and general inflation rose after decline of reserve, and imports contracted while exports stagnated. Thus, inflation is expected to rise to a level near to 9 percent.

Given the importance to curbing inflation in the economic development of the country, this present study fills the gap by investigating the impact of total reserves and gross national expenditure on inflation and tracing out causal relations of macroeconomic variables with inflation.

Remaining paper is organized as follows. Second section of this paper discusses the literature review followed by the section three that describes the data and model. Section four deals with methodology and section five discusses results on econometric criterion followed by section six that concludes this study.

2. Literature Review

There are ample research articles determining the factors affecting inflation authored by many scholars at national as well as international level. They are totally different from one another in terms of sampling unit, time period, sample size or variables' selection. In this section, the little account of work done in this area is given.

According to Empirical studies external and domestic factors cause inflation. The determinants of inflation are mainly monetary, demand, cost push, and foreign in nature. (Hasan and Alogeel 2008) analyze that foreign inflation affects inflation in the long run, whereas in short run, inflation is affected by money supply and demand in Saudi Arabia and Kuwait. (Khan and Gill 2010) gestured that world prices affect inflation more than monetary sources in Saudi Arabia. (Taslim 1980) conducts a study to explain the inflationary process of Bangladesh through regression models and finds that money supply with lagged one year has significant positive impact on inflation. However, introducing a new wage variable in the list

of previous independent variables, shows striking fall in statistical significance of coefficients of other variables in the regression model.

(Papi and Lim 1997) analyze time series data from 1970 to 1995 for determinants of inflation in Turkey and apply Johansen Co-integration technique to evaluate the output. The output evidences that wages, money, and import and export prices have significant positive effect on inflation. Moreover, exchange rate shows adverse impact on inflation in Turkey. (Laryea and Sumaila 2001) conduct the study to identify the main factors of inflation for Tanzanian economy for the long and short run. They find that monetary factors and output are short run determinants while exchange rate for long run.

(Hussain 2005) and (Khan 2006) suggest that inflation from three to six percent leaves positive effect on economy, since production and investment are encouraged and growth in wages are allowed. Moreover, when inflation crosses the above limit, negative effects are produced and the medium of exchange, money, decreases in its value. This creates panic in the value of losses and gains of lenders and borrowers as well as sellers and buyers. The investment and savings are discouraged. The discouraged investment lowers the economic growth and saving and invites the inflation that cuts down the return of the financial assets.

(Pahlavani and Rahimi 2009) used ARDL model to find out long run inflationary factors in Iran by adopting time series from 1971 to 2006. This study explores that GDP, money supply, change in domestic prices, exchange rate, and foreign prices affect the economy of Iran and all variables under study have positive significant influence on inflation (local prices).

(Abidemi and Malik 2010) explore the factors of inflation dynamically and simultaneously inter- relationship in Nigeria. The time series data from 1970 to 2007 is evaluated by Johansen Co-integration technique and (ECM) Error Correction Model. The results slates that import, growth rate of GDP, interest rate, first lag of inflation and money supply move positively with the rate of inflation. While other independent variables like exchange rate and fiscal deficit move inversely with inflation. (Bashir *et al*. 2011) argue that inflation has remained main issue and inconclusive for factors in both fiscal policy and monetary policy perspective. This analysis is conducted on the data from 1972-2006 for inflation using four indicators such as CPI, WPI, SPI and GDP deflator. It is traced out that volume of imports and diminishing in ER play positive contributory role for higher inflation. On contrary, Budget deficit (BD) does not play any role to boost up all signals of inflation (CPI, WPI, SPI, and GDP Deflator).in long run

(Arif and Ali 2012) conduct for Bangladesh on the data used from 1978 to 2010 for applying co-integration error correction techniques for inflation. The study explains that the broad money, import, GDP, and government expenditure have positive effect and export and Government Revenue leave adverse effect for inflation in long run. However, inflation poses Money Supply as a main contributing factor for short run. (Ye et al. 2013) adopt different

approaches for inflation in China such as L1-Norm ε-Tin Support Vector Regression (L1-ε - TSVR) which are more powerful than ordinary least square (OLS) and discover the factors of cost-push inflation, where housing sales price index (HSPI) is more significant to others.

There are voluminous studies about the factors of inflation in Pakistan but studies considering total reserves and gross national expenditure as the factors of inflation, as per researchers' knowledge, are lacking. In this way, this paper tries to fill the gap in the literature by additionally considering these two variables.

3. The Model and Data

The data set ranges from 1980 to 2012 taken from the State Bank of Pakistan, Pakistan Statistical Bureau, Pakistan Economic Survey, IFS and WDI CD ROM, 2012 pertaining to IMF and World Bank respectively. All data are expressed in base on local, international ($US) currency and unit less.

(Aljebrin 2006) developed a theoretical model to examine the effect of different macroeconomic variables related to inflation, the model for this study adopts a theoretical frame work as follows:

$$P=(M_t)^{\beta_1}.(ER_t)^{\beta_2}.(GDP_t)^{\beta_3}.P_{t-1}^{\beta_4}.(TRES_t)^{\beta_5}.(GNE_t)^{\beta_6} \quad \text{.... (1)}$$

This model can be transformed as

$$LnP_t=\beta_1 Ln(M_t)+\beta_2 Ln(ER_t)+\beta_3 Ln(GDP_t)+\beta_4 Ln(P_{t-1})+\beta_5 Ln(TRES_t)+\beta_6 Ln(GNE_t) \quad \text{......(2)}$$

Where, this model explains CPI as a domestic price level (P), the dependent variable, the broad money supply (M), the exchange rate (ER), gross domestic Product (GDP), first lag in domestic price level ($\Delta Pt-1$), total reserves (TRES), and gross national expenditure (GNE) as independent variables.

In the coming sections, the ARDL Cointegration approach will determine presence between the factors and inflation for long-run relationship which are defined in Eq. (2).

4. The ARDL Cointegration Approach:

The autoregressive distributed lag (ARDL) approach is a modern cointegration technique for examining long-run relationships between dependent and independent variables under analysis. This approach is appropriate for small sample size and statistically significant for examining cointegrating relationships in the samples, whereas Johansen cointegration approach needs large sample size for valid findings (Ghatak and Siddiki, 2001). All

cointegation approaches follow all independent variables to be of the same ordered integrated but ARDL does not demand so. It cancels all pretesting for standard cointigration tests (Pesaran, Shin and Smith, 2001). Moreover, the ARDL is possible for same number of optimal lags, while it is impossible for other traditional models.

In this paper, it is pondered the nascent empirical procedures for examining sources for inflation analysis (Chaudhary *et al.*, 2011). It is assumed that inflation is examined by explanatory determinants such as broad Money supply (M), the exchange rate(ER), Gross Domestic Product (GDP), one lagged Inflation (P_{t-1}) or expected inflation, (TRES) or total reserve and (GNE) Gross national expenditure annually. All variables under study are described in the form of natural logarithmic notation (Ln). The ARDL model described by (Pesaran *et al.*, 2001) is slated as

$$\Delta LnP = \alpha_0 + \sum_{i=1}^{n} b_i \Delta Ln(M_{t-i}) + \sum_{i=1}^{n} c_i \Delta Ln(ER_{t-i}) + \sum_{i=1}^{n} d_i \Delta Ln(GDP_{t-i}) + \sum_{i=1}^{n} e_i \Delta Ln(P_{t-i}) + \sum_{i=1}^{n} f_i \Delta Ln(TRES_{t-i}) + \sum_{i=1}^{n} g_i \Delta Ln(GNE_{t-i})$$

$$+ \lambda(ECM_{t-1}) + v_{1t}$$

$$………,,(3)$$

The parameter λ_j, where j=1, 2, 3, 4, 5,6 portrays long run multipliers for corresponding variables, meanwhile the b_i,c_i, d_i, and f_i, the indicators of inflation in Pakistan depict, depict short-run multipliers for ARDL model. In ARDL model null hypothesis is stated as (i.e. $H_0: \lambda_1 = \lambda_2 = \lambda_3 = \lambda_4 = \lambda_5 = \lambda_6 = 0$), describing no co-integration) is examined by calculating an F-statistic for all variables expressed in terms of log. Afterwards, one has to compare calculated F- value with the tabulated value prepared by (Pesaran et al. 2001). If calculated F value falls in the right of upper bound the no coinegraiton null hypothesis is rejected, whereas, if it falls below the lower bound it is not rejected. Finally, the result makes indecisive if it is between the bounds.

Eq. (3) has been estimated without the ECM term in start, whereas later it is inculcated in ARDL model as in equation (4)

$$\Delta LnP = \alpha_0 + \sum_{i=1}^{n} b_i \Delta Ln(M_{t-i}) + \sum_{i=1}^{n} c_i \Delta Ln(ER_{t-i}) + \sum_{i=1}^{n} d_i \Delta Ln(GDP_{t-i}) + \sum_{i=1}^{n} e_i \Delta Ln(P_{t-i}) + \sum_{i=1}^{n} f_i \Delta Ln(TRES_{t-i}) + \sum_{i=1}^{n} g_i \Delta Ln(GNE_{t-i})$$

$$+ \lambda(ECM_{t-1}) + v_{1t}$$

…………………… (4)

First data is checked for stationarity due to time series. So, Augmented Dickey Fuller test is applied to examine the stationarity at level and first difference for all the data series in this study. Results are reported in the table-1.

Table1 ADF Unit Root Test Statistics

Variable	Level			first Diff		
	intercept	Trend & intercept	None	intercept	Trend & intercept	None
LP	-2.67	-2.41	-0.49	-4.42	-4.32	-4.49
LM	-1.69	-1.71	-0.24	-4.17	-4.13	-4.24
LER	-1.8	-2.11	3.05	-3.69	-3.73	-1.91
LGDP	1.77	-1.07	3.73	-4.4	-5.52	-2.16
LTRES	-0.72	-1.57	0.94	-3.29	-3.75	-3.18
LGNE	-2.45	-1.54	4.33	-3.93	-5.53	-1.29

The critical values at 1%, 5% and 10% at first difference with intercept, trend & intercept, and none are[-3.59, -4.17, -2.62]. [-2.93, -3.51, -1.95], and [-2.60, -3.18, -1.61] respectively.

The Table-1 depicts that all variables are statistically significant and with clarity about no unit root with intercept term at first difference.

In ARDL model two is the maximum number of lags selected for data containing 31 data points and computed value of F statistic is found to be 4.75 which lies in the right of upper bound critical value at 5 percent level of significance suggested by (Pesaran et al. 2001). So, null hypothesis can be rejected and it is concluded that there is existence of long run relationship.

Table 2 ARDL (1, 0, 1, 0, 0, 1) estimated on the basis of AIC and SBC

Variable	Coefficient	Std Error	t-statistic	p-value
LP(-1)	-0.801125	0.166499	-4.168195	0.0002
LM	-0.061349	0.053206	-1.153058	0.2669
LER	-1.081765	1.266958	-0.853829	0.4066
LER(-1)	-2.461355	1.445513	-1.702756	0.1092
LGDP	1.104839	0.914715	1.207815	0.2458
LTRES	-0.026169	0.192785	-0.135741	0.8938
LGNE	-2.881032	2.331667	-1.235610	0.3256
LGNE(-1)	7.956490	2.647150	3.005682	0.0089
C	-138.3590	39.222225	-3.527563	0.0030
	R^2=0.57	DW=2.5	F=4.75	P=0.005

Now coefficients for long run relationship are estimated into ARDL model. (Pesaran and Smith 2001) argued that SBC is the best criterion for optimal lag selection for the small sample size as given in this study. Each variable is shown with its optimality of lags as ARDL (1, 0, 1, 0, 0, and 1) in the table 2.

Table 3 Estimated long-run coefficients through ARDL model

Variable	Coefficient	Std Error	t-statistic	p-value
LM	0.163361	0.053788	3.037142	0.0068
LER	2.124539	0.765465	2.775488	0.0120
LGDP	1.375609	1.025670	1.341180	0.1975
LTRES	0.363482	0.159051	2.285315	0.0340
LGNE	1.781167	1.848406	0.963623	0.3473
C	-57.52115	35.53562	-1.618690	0.1220
	R^2=0.53	DW=1.95	F=6.53	P=0.001

Table 3 shows coefficients of explanatory variables in the long run under the study of this article. The values of coefficients display money supply, exchange rate, gross domestic product, and total reserves push up inflation in Pakistan. Further, the results reveal that on percent increase in exchange rate leads to 2.12 percent rise in the inflation rate. This presents that exchange rate, plays significant role, and most effective source in the inflation of Pakistan.

The empirical findings gesture that one percent increase in import brings to 0.16 per -cent rise in inflation and one percent increase in the exchange rate leads to 2.12 per cent rise in the inflation rate. Similarly, one percent increase in total reserves leads to 0.36% point increase in the inflation rate at 5% level of significance.

After the birth of coefficients of long run in ARDL model, it is turn to estimate coefficients of short run through Error Correction Model (ECM), a version of an ARDL model. In table 4 ECM shows the style of adjustment speed of restoration to an equilibrium path in dynamic model. Its coefficient should be negative and statistically significant. Banerjee *et al.* (1998) proposes that presence of stable long run relationship is further justifiable with highly significant coefficient of ECM.

Table 4 Estimated short run coefficients in ECM

Variables	Coefficients	Std. Error	t-Statistic	Prob.
LP(-1)	-1.481007	0.367117	-4.034154	0.0024
LM	-0.040604	0.353231	-1.616348	0.1283
LER	-1.979378	1.760685	-1.616348	0.2811
LER(-1)	-3.686655	0.794066	-4.642756	0.0002
LGDP	-0.162275	0.971546	-0.167028	0.8693
LTRES	0.149436	0.156158	0.956951	0.3520
LGNE	-2.485476	2.426640	-1.121142	0.3231
LGNE(-1)	6.879294	1.561277	4.406198	0.0004

C	-155.5231	33.59535	-4.629305	0.0002
ECM(-1)	-0.805061	0.188982	-4.259992	0.0005

R^2= 0.56   DW=2.4   F=5.79   P-v=0.001

The table 4 portrays that the coefficient of ECM with negative sign is a highly significant. The estimated coefficient of the term ECM, is -0.8051, which suggests that deviation from the long-term inflation path is corrected by around 81percent over the following year. This means that the adjustment takes place relatively quickly. Alternatively, 81 percent disequilibrium (in inflation) from the previous year shock (in totally all sources) returns back to the long run equilibrium in this year. The coefficient of ECM in the short run and the value of Durbin Watson are found satisfactory.

Plots of the actual and forecasted values for the level of LP and change in LP.
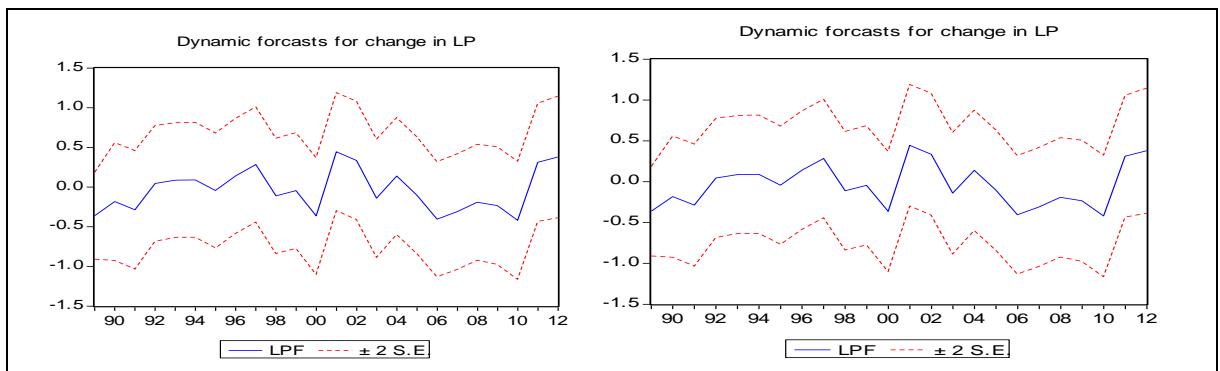
Figure 3

Figure 3 shows the plots of forecasted and actual values for log of inflation rate (LP) and (ΔLP) change in LP. The plots mentioned in Figure 3 display that historical data follow track very well through this estimated model. Diagnostics for normality, serial correlation, functional form, autocorrelation, and hetroscedasticity are passed by estimated model.

Plots of CUSUM and CUSUMQ statistics for coefficient stability test.
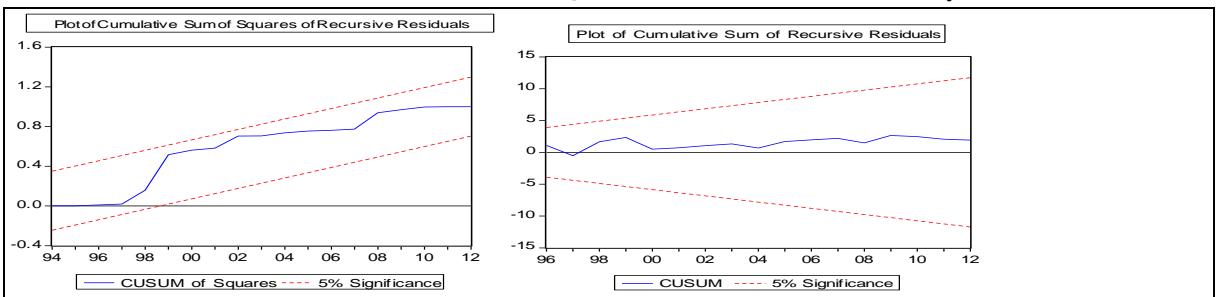

Figure 4

Figure 4 depicts the CUSUM and CUSUMQ for the stability of forecasting through residuals for Eq. (3). It shows clear evidence for the stability of estimated coefficients in the framed model. Both statistics (CUSUM and CUSUMQ) fall in the confidence interval of 95% and provide evidence about the stability of parameters within the critical bounds.

5. Conclusion

This article uses the annual time series data from 1980 to 2012 to examine main sources of inflation in Pakistan. An Autoregressive Distributed Lag (ARDL) approach is followed for model construction to calculate the coefficients for the short run and long run. The empirical findings suggest the presence of cointegration among the variables considered for this study. Based on the results, the exchange rate plays a significant role in determining inflation as one percent rise in exchange rate invites 2.12 percent rise in inflation. The total reserve affects inflation in the long run while in the short run they don't exert impact on it. Gross national expenditure significantly affects the inflation in the short run while in the long run reports no any impact.

The market and policy makers should pay attention for issues like production system and income distribution that they should not be stagnant. After exchange rate, other sources such as money supply, import, and total reserves are pushing inflation up respectively.

According to the results of this study, one percent rise in money supply invites 0.16 percent points increase in inflation. The results state that one percent rise in liquidity invites 0.16% points increase in inflation. Following previous reports in Pakistan, budget deficit invites money supply in excess and inflation rises. So, monetary and fiscal institutions should be independent to control the exchange rate and budget deficit. Moreover, this positive correlation between inflation and exchange rate suggests that instability in exchange rate causes havoc in exchange market and lowers the inflation.

At the end, the ECM part of an ARDL model depicts the coefficient of Error Correction is highly significant and negative in sign. The findings portrays that the deviation from equilibrium in the long run for inflation is adjusted approximately 81percent in the current year. The all diagnostics and plots performance (CUSUM and CUSUMQ plots) posits the stability of coefficients estimated in the model for both short run and long run in the sample of the study.

The main factors of inflation are money supply, total reserve, imports, gross domestic product, and gross national expenditure that can be considered for the large sample size with maximum frequency in the future.

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Consumer Purchase Intentions Affected by Cause-Related-Marketing, Skepticism and Brand Loyalty: A Correlational Analysis

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Abstract:

Cause-Related-Marketing is an emerging strategy which is used to affect purchase intentions of a customer in a very positive way. Purchase intentions may braced by the brand loyalty which can be an outcome of the cause related efforts of marketing. But most of the companies ignore its impact towards skepticism. In this co-relational research, relationship between Cause Related Marketing and purchase intentions have been measured, whereas brand loyalty and skepticism played their role as intervening variables and their effect and nature of relationships are also being measured in this research. Data was gathered from different universities and organizations. Statistical analysis showed a positive relation between Cause Related Marketing, skepticism and brand loyalty. Further impact of both of these Intervening variables was administered on purchase intentions and it demonstrated that relationship between skepticism and purchase intentions was negative and very strong as compared to the positive correlation of brand loyalty and purchase intentions. Regression analysis also revealed very important information. In this research future research directions have also been discussed. This work is significant as achieved results can be helpful for the companies and theoretically it's important as this research filled a gap by studying the important variables together which have been subjects to much of discussion in Pakistan.

Keywords: Brand Loyalty, Cause Related Marketing, Philanthropy, Purchase Intentions, Skepticism, Social Responsibility

1. Introduction

Pairing the altruistic causes with brands has emerged into a very prevalent practice among popular and well reputed brands from the last quarter of the nineteenth century. Usage of such pairing into the marketing communications is known as Cause-related marketing (Lafferty and Goldsmith, 2005). In Pakistan most of the known and unknown brands are involved in such practices. Emergence of the concept of corporate social activities among our domestic as well as international brands is a positive sign. These activities signal towards the betterment of a society if companies fulfil their claims. Recently a very well-known and established milk brand *Olper's* a brand of Engro foods limited started its campaign to help the needy women of far off areas of Pakistan. Among consumers this brand got much of appreciation and acceptance as this issue really needs to be supported by the strong entities of our country, but the fact is that companies always have their specific motives behind these activities (Brønn and Cohen, 2008). Many other brands also have indulged themselves in the welfare campaigns. "Ufone" a known telecommunication network is participating to collect donations for making a new building of a known hospital "Shaukat Khanum Memorial Cancer Hospital and Research Centre" where cancer patients get free treatment. In late 1990s Ariel initiated a campaign "Help the Needy" during the month of Ramadan. As described by (Anghel et al 2011); message conveyed by influential personalities get much positive response. So Ariel used very influential celebrity to convey their message in a more convincing way to help the needy children by providing them education.

Customers are always interested to know that the brand they use is loyal to them and is not misguiding them at all. Questions regarding the fair usage of money keep on pinching the customer's thoughts and give birth to the hundreds of doubts. The fruition of cause-related marketing started from a historic article wrote by (Kotler and Levy, 1969) "*Broadening the Concept of Marketing*." They were of the view that conventional marketing should not have to be restricted to profit generating business; it can be stretched to the promotion of social issues and to support nonprofit organizations. This research has identified the peoples' consent about this strategy as it is very important to know that what others think about this technique. Rationale behind conducting this research is to scrutinize the positive and negative impact of cause related marketing which affects purchase intentions. Positive feelings are in a sense to generate brand loyalty which will finally lead people to buy a product and negative in a sense to generate doubts. Negative thoughts and doubts to question the reality of a campaign is known as skepticism (Anuar and Mohamad, 2012). Advertisements play their role in generating skepticism (Wang and Chien, 2012). Much of the national and international brands are using this strategy as it has become internationally recognized strategy (Kim and Choi, 2005). After analyzing the impact of cause related marketing on brand loyalty and skepticism

their influence will be measured on purchase intentions to specify that to what extent different elements and practices can affect consumer purchase intentions**.**

2. Literature Review
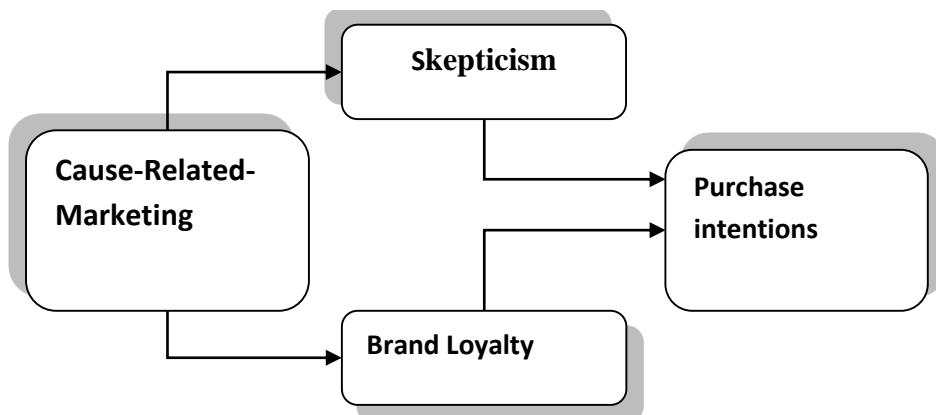
Corporate social responsibility (CSR) in the form of corporate philanthropy has been practiced since as early as the late 1800s (Sethi, 1977). Corporate interest in social well-being began as deliberate responses to social issues, then evolved into a period of directive corporate concerns, and now evolving into a phase in which social conscientiousness is observed as an investment by companies (Stroup and Neubert, 1987). (Friedman 1970); believed that corporations should not be involved in political and social issues "*The social responsibility of business is to increase its profits within the confines of the law*". According to (Anghel, Grigore and Roşca 2009); companies are more fretful about the business partners and investors than the consumers and its employees and very few concerns are for the betterment of the society. It is known to be a kind of campaign through which company decides to donate a specific amount of their revenues on certain product or business in a mentioned time frame for the cause (Kotler and Lee, 2005). The notion of corporate social accountability and the technical way through which companies are using it in their marketing messages, is known as cause- related marketing (Bronn and Vrioni, 2000). Cause- Related Marketing is a marketing stratagem to increase profitability and to make contribution in monetary terms or otherwise to the nonprofit organization (Westberg 2004). There are a number of motives behind using the social initiative activities (Brønn and Cohen, 2008).It helps in gaining competitive advantage by increasing company reputation and it can build loyalty among customers (Papasolomou and Demetriou, 2005). It is fundamentally a marketing agenda that endeavor to realize two goals, one is to improve corporate performance and the other is to facilitate worthy causes (Varadarajan and Menon, 1988). Public understanding of charity is not clear, commercialization of a charitable/voluntary organization could put it in danger for the public approval and it may lead to the skepticism (Gurin, 1987). According to (Williams, 1986) one of the key rationales is that it is an approach for selling, not for producing liberal altruistic offerings. Skepticism is a cognitive component of attitudes, research sample of (Wang and Chien, 2012); were skeptical about advertisements of Cause-related marketing. From the previous studies it is proved that there are two basic motives, intrinsic and extrinsic motives. Extrinsic motives are perceived as egoistic or self-interested so these motives cause high level of skepticism (Cui, et al. 2003). (Bronn and Vrioni 2000); in United States a lot of companies are using Cause-related marketing that it lifts up the skepticism among people. Consumers often examine Cause Related Marketing as a utilization of a cause for a company's self-interest (Forehand and Grier, 2003). Alone charitable intentions of an organization can no longer validate the altruistic giving and expenditures related to philanthropic actions in today's competitive marketplace (Bronn and Vrioni, 2000); and it signals the skepticism among

consumer. Companies should consider their campaigns in order to reduce the level of consumer skepticism (Anuar and Mohamad, 2012). (Brink, Schröder and Pauwels 2006); discussed that this strategy causes a significant increase in brand loyalty. Research findings of (Babu and Mohiuddin, 2008) showed that customers influenced by the companies' cause related marketing programs and tended to be loyal with such companies. (Anghel, Florentina and Rosca, 2011) consumers prefer the products from the companies that are devoted to noble social causes whereas (Barone, Miyazaki and Taylor 2000) said that there is a little evidence to conform that customers are likely to choose the brands that are engaged in Cause-related marketing.

3. Method and Material

A research framework was developed to peruse this research work. In this model Cause Related Marketing was an independent variable and its effect on the purchase intentions was investigated. Skepticism and brand loyalty were considered as intervening/mediating variables and their influence on the purchase decision of consumers was measured after evaluating their relationship under the influence of Cause related marketing. Figure 1.2 below is showing the research framework.
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Figure1- Research Frame work

Few hypotheses have been crafted out for this research work
Hypotheses for the Research:
- *H1: There is a positive relationship between Skepticism and Cause-Related Marketing and has a significant influence on purchase intentions.*
- *H2: There is a negative relationship between Skepticism and Cause-Related Marketing and has a significant impact on purchase intentions.*
- *H3: There is a positive relationship between Brand loyalty and Cause-Related Marketing and has a significant impact on purchase intentions.*

- ***H4:*** *There is a negative relationship between Brand loyalty and Cause-Related Marketing and has a significant impact on purchase intentions*.

For achieving the best results from this research a non-probability sampling technique was used. Total 650 questionnaires were distributed to the different universities, offices, banks and private organizations. Only 570 filled questionnaires were collected back. After analyzing these responses, it was revealed that only 556 questionnaires were properly filled and these 556 responses were used for the statistical tests in SPSS. Thus it showed that total response rate was 85%. It's depicting the sample size. Purposive sampling as a sub type of non-probability sampling was used. It can be said that selection of the different places and people was done on the basis of the selective and subjective observation but no limitation was imposed on the bases of the age, gender, income level and education. Well-structured questionnaire consisting of 16 major items was administered as the data collection tool and in it 5 questions regarding the age, gender, education, occupation and selection of a cause from the given options were also included. Items for the questionnaire were adapted from the previous different researches. Four items related to the skepticism were used from the (Mohr et al, 1998) and other items were taken from (kim and Choi, 2005), (Anghel et al, 2011) and (Cui et al, 2003) for measuring the relation of Cause Related Marketing, brand loyalty and purchase intention, three items were adapted from the (Ellen et al, 2000) and (Stern & Dietz, 1994). Few statements were used after a bit modification for the ease of the respondents. Responses were measured on the Likert scale. Demographics of the Research Sample: In the research sample, people belonging to different occupations were considered; students were also a part of this sample. In the sample of 556, there were 306 females that make a 55% of the total sample. Male were, 250 in number which make the 45% of the sample. Majority of the sample, means 60.4% fall in the group of 26 to 30 years of age, in number they were 336 respondents. 20% of the sample was of the age of 20 to 25 years, whereas 16% of the sample belonged to the age group of 31 to 40. Only 7 respondents were from the age group of 41 to 50 and only one respondent fall in the age group of 51 to 60. No education limit was imposed while choosing the sample of the research. 43.9 % of the sample had the education of 16 years it means that they were 244 out of total 556 respondents. 27.7% had 14 years of education which consist of 154 respondents. 16.5 % respondents had 18 or more than 18 years of education it's depicting that sample was well-qualified which increases the accuracy rate of the research.

4. Results

Results of different statistical tests, were discussed in this section. All the gathered data was highly reliable and normal. First test was administered for checking reliability; value of

cronbach's alpha was .854 which is very close to the ideal value. Values of α for the reliability of internal items scale are provided in the table below.

Table 4.1 Reliability Analysis (Per indicators)

	No. of Items	Cronbach's alpha
Cause-Related Marketing	*5*	*.801*
Skepticism	*5*	*.909*
Brand Loyalty	*6*	*.871*
Purchase Intentions	*5*	*.867*

All these values can be considered highly reliable as values of Cause related marketing and brand loyalty are greater than 0.7 and lower than 0.9 According to the (Cortina, 1993) internal consistency is good if $0.7 \leq \alpha < 0.9$ and excellent when $\alpha \geq 0.9$. Here all values could be known as reliable as all fall in the category of good excellent reliability values.

Analysis of Correlation: First correlation test was administered on three variables skepticism, brand loyalty and Cause Related Marketing. Here two variables were intervening variables, but in casual terms were considered as dependent on Cause related marketing. Results have been described in the table 4.3

Table 4.2 Correlation of CRM, Brand Loyalty and Skepticism

		Skepticism	*Brand-Loyalty*	*Cause-Related -Marketing*
Skepticism	Pearson Correlation	1		
	Sig.			
	N	556		
Brand-Loyalty	Pearson Correlation	-.180[**]	1	

	Sig.	.000		
	N	556	556	
Cause-Related-Marketing	Pearson Correlation	.280**	.737**	1
	Sig.	.000	.000	
	N	556	556	556

In this test it has been proved that these variables are positively correlated to each other. Level of significance of this relation is .000 which showed that the relation was highly significant p< .01 and value of Pearson Correlation between Cause related marketing and skepticism is r = .280. This value is not very close to +1 but is very positive. Its showing that with the increase in CRM, level of Skepticism will also increase. Relationship between the CRM and brand loyalty was significant as p< .01, value of Pearson correlation r =.737 which was positive and strong as it was close to +1. It has been proved that the increase or decrease in CRM will also bring increase or decrease in the brand loyalty. Effect on the purchase intentions due to the brand loyalty and skepticism was analyzed separately by applying the tests of correlation.

Skepticism and Purchase Intention: On the next step impact of these two intervening variables were administered on purchase intentions. Correlation between skepticism and Purchase Intentions has been discussed below.

Table 4.3 correlation of skepticism and Purchase Intention

	Skepticism	**Purchase Intentions**
Skepticism	1	-.444**
Purchase Intentions	-.444**	1
**. Correlation is significant at the 0.01 level , n=556		

Relationship between the Purchase Intention and skepticism was negative as r =-.444 which was also significant as p=.000 which is p< .01. It's showing that when skepticism will increase purchase intentions will decrease and when skepticism will decrease its level then intentions for doing a purchase will increase.

Brand Loyalty and Purchase Intention: Results of correlation among brand loyalty and purchase intentions are given below.

Table 4.4 correlation of Brand loyalty and Purchase Intention

	Brand Loyalty	**Purchase Intentions**
Brand Loyalty	1	.237**
Purchase Intentions	.237**	1
**. Correlation is significant at the 0.01 level , n=556		

Relationship between the Purchase intentions and brand loyalty was also positive as Pearson correlation is .237**. But value was not too close to +1 so it's not a very weak relationship as compare to skepticism and purchase intention which was comparatively a very weak relation.

Results of Regression Analysis: Here values are given of two intervening variables that were brand loyalty and skepticism and independent variable as CRM.

Table 4.5- Regression Analysis

	R	**R²**	**F**	**P**
Brand Loyalty	.737	.544	659.685	.000
Skepticism	.280	.078	47.003	.000

For the goodness of the model, regression analysis had been used .Here the R= .737 and its R²= .544 that is 54%. Table is depicting that 54% variation in Brand Loyalty was due to the Cause related marketing. F value was 659.685 which showed that greater the possibility to use this prediction. It was also significant as p=.000. So there are 0% chances to reject these outcomes. In the case of Skepticism R=.280 which was low and R²=.078 it means that 07% variation in skepticism was due to Cause related marketing. Its showing that relation between these two variables was low as Cause Related Marketing had a very low role in generating skepticism. Value of F-test was 47.003 which are very significant as value was .000. Result of regression analysis for skepticism and purchase intentions as dependent variable is given below.

Table 4.6- Regression analysis for Skepticism and Purchase Intentions

	R	**R²**	**F**	**P**
Purchase Intention	-.444	.197	135.954	.000

Its showing that how skepticism that was actually generated by CRM, will affect purchase intentions R= -.444 its showing negative relation of these two variables whereas R²=.197 that is 19% variation in purchase intention was due to skepticism and it must be reminded that this relation was negative and P< .01 so it's showing that values are significant.

Table below is presenting the results of purchase intentions affected by brand loyalty

Table 4.7 Regression analysis for Brand Loyalty and Purchase Intentions

	R	**R²**	**F**	**P**
Purchase Intention	.237	.056	32.963	.000

This table is showing the extent to which brand loyalty instigated by CRM can affect purchase intentions. Value of R=.237 and R²=.056 it means that only 05% variation in purchase intentions was due to Brand loyalty. It showed a clear picture that brand loyalty had a very poor role in building consumer purchase intentions. People show sympathies towards such campaigns but don't go for actual purchase. Equation by using the values of unstandardized coefficients can be used, first analysis presented the results obtained by assuming Cause related marketing as an independent variable and brand loyalty and skepticism as intervening dependent variables.

Skepticism= $b_o + b_1$ CRM → 15.549+ .288 CRM

b_o= 15.549 it is significant as t(35.018), Sig =.000, p<.01

b_1= 0.288 it is significant as t (6.856), Sig =.000, p<.01

It's sowing that when there was no change in CRM, then skepticism value was 15.549, but 1 unit change in CRM brought 28% change in skepticism.

Brand Loyalty = $b_o + b_1$CRM → 3.038+ 0.990 CRM

b_o= 3.038 it is significant as t (7.467) Sig =.000, p<.01

b_1= 0.990 it is significant as t (25.684) Sig =.000, p<.01

This equation is showing that when there was no change in CRM then Brand Loyalty value was 3.038 but when there was 1 unit change in CRM it brought .990 change in Brand loyalty. So it's supporting that Cause Related Marketing is valuable for generating brand Loyalty. Now considering the next half of the research framework we examined the influence of two intervening variables "brand loyalty and skepticism" over dependent variable "Purchase Intentions".

Purchase Intentions $= b_o + b_1 \, Skp + b_2 \, BL \quad \rightarrow \quad 3.267 + 0.225 \, Skp + 0.055 \, BL$

$b_o = 3.267$ it is significant as t(8.097) Sig=.000, p<.01

$b_1 = 0.225$ it is significant as t (10.502) Sig =.000, p<.01

$b_2 = 0.055$ it is significant as t (3.357) Sig =.001, p<.01

These values show that there were 3.26 values of purchase intentions when there was no change in independent variables. But when skepticism increased by 1 unit, it brought 22% variation in purchase intentions. So when Brand loyalty changed by 1 unit it caused only 05% change in purchase intentions.

5. Discussion

This section is to discuss the results achieved by this research. Here it can be argued that Cause-related -marketing has a strong positive relation with brand loyalty, and weak, but positive relation with skepticism as well. But results showed that both of these variables have different effects on the purchase intentions of consumers. As brand loyalty has the fragile ability to influence consumer purchase decisions, it definitely shows that sometimes positive attitude may not have great power to mold the decisions. Skepticism showed a strong influence upon the consumer purchase intentions. It has also been identified in literature as investigated by (Nedungad, 1990) and (Friel, 2004) that negative views and doubts can affect people's reactions. Results indicated that due to the increase in skepticism, consumer's intentions will decrease. Further discussion is done in terms of acceptance and rejection of the research hypothesis. It can be discussed that through this research the basic purpose or the objectives have been achieved by identifying the relationship between all the mentioned variables. It can be argued in terms of final status of our hypothesis, whereas four out of six hypotheses were accepted. Detailed discussion of each hypothesis is given in this section. H1 *" There is a positive relationship between Skepticism and Cause-Related Marketing and has a significant influence on purchase intentions"* results of correlation supported this hypothesis as (r=.280) it's highly significant because p<.01 that is (p=.000). So to consider this result seriously, evidence can be taken from literature as in different continents CRM has been used enough by the brands that it laid the seeds of skepticism and had circled people with uncertainties

(Bronn and Vrioni, 2000). Correlation between skepticism and purchase intentions is (r= -.444) it's negatively and strongly affecting the purchase intentions. It depicted that with the increase of skepticism (due to cause related marketing) will also affect the purchase intentions of the customers and decrease it. It is a disturbing situation as element of skepticism is a threat for the businesses as it also had a positive relation with CRM but weak as compare to brand loyalty as (r=.280) yet its presence is very much disturbing as it negatively and strongly affect the purchase intentions as (r= -.444). (Forehand and Grier, 2003) showed their concerns that people take company's support to causes with doubts, so the same has been proved by the results of this research.

Hypothesis H2 " *There is a negative relationship between Skepticism and Cause-Related Marketing and has a significant impact on purchase intentions"* was not supported by the results of statistical techniques so it cannot be considered for the effectiveness of this research. Need of next hypotheses was felt due to the fact mentioned by (Westberg, 2004) that academic and practitioner research have shown strong consumer support for this concept but there is a limited evidence till the date regarding the effectiveness of this strategy in terms of purchase while comparing it with other strategies. H3 was about brand loyalty that "*There is a positive relationship between Brand loyalty and Cause-Related Marketing and has a significant impact on purchase intentions"* and it had been proved by the results as (r=.737) its depicting that relationship is very strong and positive as well as P values also help to consider this hypothesis true as p<.01 that is .000. Past researches showed that to build a strong and positive image, a company needs a lot of efforts in terms of time and energy. In return, these efforts give enough fruit back to the company in terms of "Loyalty" by giving a sturdy prologue to the new products. To build demand for new and existing product lines it brings a great boost (Markwick and Fill, 1997). Second half of the hypothesis can be discussed by the results as indicated that there exists a very positive and a strong relation (r=.737) among the CRM and brand loyalty but this loyalty has further positive but weak relation with the purchase decision (r=.237) and all these results are significant as for all values p<.01 as p=.000. So it is showing that there are less than .01 chances to reject these results. Results of this hypothesis brought major twist in this research. On the bases of the results H4 can be rejected.

From this study it can be said that this happens due to the fact that may be there is something wrong that stops consumers to go for a product even when there were positive feelings for a company. May be type of cause, type of message and message source are the few things that not helping the customers to fulfill their loyalty towards the companies in terms of purchasing.

6. Limitation and Conclusion

Cause Related Marketing is a marketing strategy that can help the companies to generate loyalty among customers but small element of skepticism has much power to stop the customers from purchasing the products of that companies. Results of this research can be used in future researches to identify the influence of advance factors. Data and results are very helpful for the companies to indicate that only by adopting this strategy cannot produce the desired results; in addition to this technique company should have to focus on different aspects that can influence consumer. Many other factors also have strong impact on consumer purchase intentions which can even affect loyalty. This research can open ways to identify the influence of some other important variables on purchase intentions such as brand image, past experience, skepticism, company history, brand presence in relation to the brand loyalty and skepticism. Limitation has been imposed by the fact that it was not possible to collect data of specific companies and similarly it was not possible to describe the relationship of skepticism and brand loyalty with demographics and psychographics in this research due to the type of objectives and research limitation.

Finally it can be said that Cause-Related Marketing is an excellent way for the companies to boost their image and to get fame along with the betterment of a community where it operates (Westberg, 2004), so it should not be ignored or underestimate. The only thing that matters a lot is the way of implementation of such strategies, which should always be according to the ethical and legal values.

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What Determines Balance of Payments: A Case of Pakistan

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Abstract:

Distortion in balance of payments is one of the dominant causes for the sluggish economic condition of Pakistan. The present article has focused to scrutinize the relationship of the balance of payments to its certain determinants that are actually blamable or not for its distortion. The robust ARDL structure has been utilized to develop the bound testing approach to co-integration and error correction models on data set for 1972-2013.The bound test declares that there exists stable long run relationship of balance of payments to its determinants. The upshots indicate that real exchange rate inversely influences the balance of payments not only in the long run but also in the short run. Interest rate inversely affects the balance of payment in the long run but positively affects in the short run .Fiscal balance affects the BOP   negatively in the long and short run simultaneously. As regards the real GDP, it moves the BOP in the positive direction in both long and short run. The money supply cast positive influence on the BOP in the short run but negative effect in the long run. So the need of the hour is that the real GDP of Pakistan should be increased by the deliberate policy of the government. Because it is the GDP that can increase our savings consumption and government expenditures and exports and can improve balance of balance of payment.

Keywords: Balance of Payments (BOP), Money Supply, Real Exchange Rate, Real GDP, Interest Rate and Fiscal Balance.

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1.   Introduction

There are so many factors that are responsible for the horrendous economic condition of developing economies. Balance of payment of a country manifests how much a country is advanced and technologically developed. The stability in balance of payments accounts is related to the economic growth of the country. Equilibrium in balance of payments indicates a sound economic position of a country distortion in it indicates unsatisfactory economic position of a country. Many countries of the world including Pakistan are experiencing the phenomenon of deficit in BOP.

The trend analysis shows that most of the times overall balance of payments has remained in deficit in case of Pakistan. This arises many questions on the potential of the economy of Pakistan and as well as causes of imbalance in BOP. The international financial organizations like IMF and World Bank reiterate to stabilize BOP situation in Pakistan.

In 2008, Pakistan deterred a balance of payments problem by securing amount of $11 billion IMF loan package. The IMF suspended the program in 2011 when economic targets were missed. Some analysts warned about the prospect of a new balance of payments crisis. Hence they anticipated that Pakistan would have to go back to IMF for another bailout to avoid a new crisis. The ADB, along with IMF, has been pushing Pakistan's government to accomplish politically-sensitive reforms to fortify the economy and broaden the country's revenue base. At the moment, Pakistan is indebted to IMF just over $6.2 billion. It has to make big repayment in the first six months of 2013, a schedule that will pressure reserves and may fast-track the slide of Pakistani rupee. This crisis in BOP is the very justification for the present study. What does affect the BOP in Pakistan and in what direction remains the focus of the study?

Balance of payments is a record-keeping book which shows the international transaction of the resident country with the rest of the world any transaction payments to the foreigners are entered into the balance of payments account as a debit with negative sign whereas a receipt from the foreigners is entered into the balance of payments accounts as a credit with a positive sign (Krugman 1998). Every transaction automatically enters the balance of payments twice, once as credit and second as debit. So, balance of payments is called a double entry bookkeeping record.

There are three approaches to analyze the balance of payments. First is, Elasticity Approach: presented by (Robinsen 1937). It states that devaluation in the currency improves the balance of payment if the price elasticity of domestic and foreign demand of imports is greater than one. Marshal- Lerner condition and J-curve effect are used in this approach.
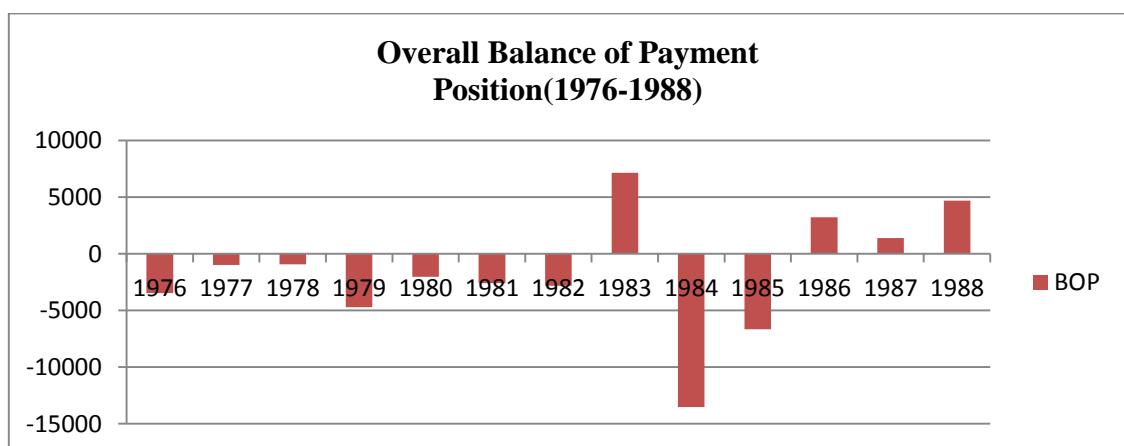
 Second is Absorption Approach presented by (Alexander 1952); this approach is used to look at the balance of trade account from the point of view of national income accounting. So, this approach is a difference of national income receipt and domestic absorption as depicted in equation Y = A+(X-M) where A=C+I where (X-M) is exports minus imports, C and means consumption and investment respectively. (Mundel 1971); Points out that balance of payments is a monetary phenomenon and the disequilibrium in the balance of payments can be corrected with the help of international reserves. This approach implies that there is a negative relationship between domestic credit and foreign reserves.

Despite the fact there are mainly three approaches for balance of payments but   the present study is an empirical effort to take the determinants of balance of payments with General Approach (an approach that includes monetary absorption and elasticity approach variables simultaneously but no particular approach out of three). For this purpose new econometric technique autoregressive distributed lag model (ARDL) is used. In this research, money supply, interest rate and real gross domestic product are set as main determinants of BOP.

Plan of the study is as follows: The first part is regarding the background of the study and statement of the problem, has already been done. The rest of the plan of the study is as follows: The second part reviews the earlier studies on determinants of balance of payments. The third part describes the data and methodology to be used to find the empirical results. The fourth part carries the general approach to balance of payments, its estimation and results following policy implication.
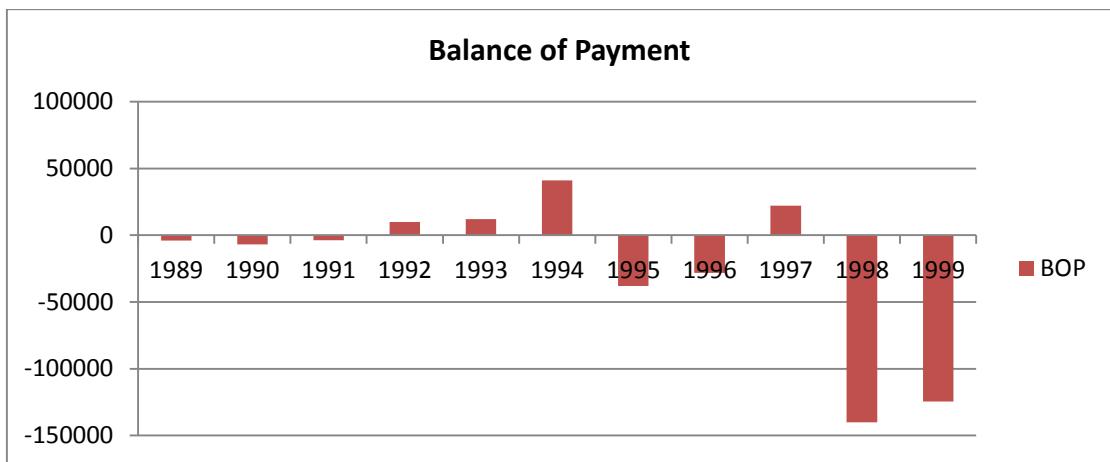
Several studies have worked on the balance of payments and economic growth. These studies show that equilibrium in the balance of payments is a key component in economic growth.

Figure 1: Overall Balance of Payment Position of Pakistan (Million Rs)

Sources: State Bank of Pakistan, International Financial Statistics, Pakistan Economic Survey.
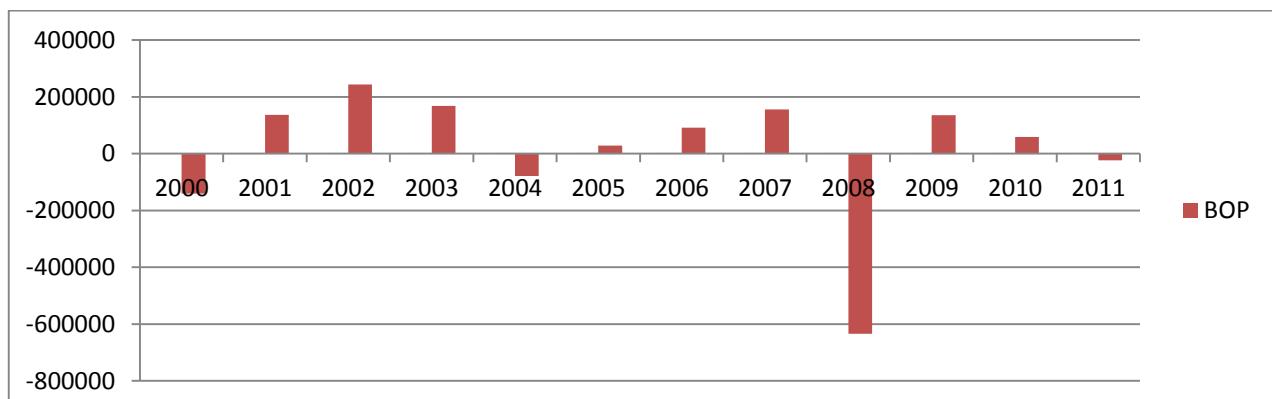
Figure 2: Overall Balance of Payment Position of Pakistan (Million Rs.)

Sources: State Bank of Pakistan, International Financial Statistics, Pakistan Economic Survey

Figures 1 and 2 and 3, have depicted different periods. Every government adopted many different fiscal and monetary policies as far as its international transaction was concerned. But, every time, Pakistan balance of payment remained in deficit except these years 1947-48, 1950-51 and 1971-72. The deficit not only caused a domestic debt but also foreign debt. This total debt remained a big hurdle in the way of economic development. Overall balance of payments position deficit was highest in 2008.

Figure 3: Overall Balance of Payment Position of Pakistan (Million Rs.)

Sources: State Bank of Pakistan, International Financial Statistics, Pakistan Economic Survey.

2.   Review of Literature

In order to find the determinants of balance of payments, a host of studies have already been done. Some of the studies are related to Pakistan while others to rest of the world. Various economists have worked on the determinants of balance of payments and they have used different approaches like absorption approach, elasticity approach and monetary approach in order to observe the effect of the determinants of balance of payments in case of Pakistan.

(Chaudhary and Shabbir 2005); found that price level and real income were positively related whereas interest rate, inflation rate, money multiplier and domestic credit were negatively related to foreign exchange reserves and significant. They found that fiscal deficit financing through domestic credit creation was harmful and would cause the reduction in foreign reserves. They concluded that monetary approach to the balance of payments was not a good approach. (Khan 2008); found that income and real exchange rate were positively whereas interest rate and domestic credit were negatively related to foreign reserves and significant in short run. But in the long run income and exchange rate positively related to foreign reserves and interest rate and domestic credit were negatively related to foreign reserves. (Felipe et.al 2009); using ARDL model found that real effective exchange rate and money supply were negatively related to imports whereas Income and Real effective exchange rate were positively related to imports and significance in case of Pakistan.

(Fida et.al 2009); found that during 1955-1980 and 1955-1989 import elasticity in Pakistan was increased by 1.31% whereas in 1975-1995 and 1975-2005, when economy was more open, elasticity was increased by 3.30%. Umar et.al (2010) used the monetary approach in case of Pakistan. They used the co-integration and error correction modeling (ECM) and found that coefficients of interest rate and domestic credit were negatively related to foreign assets and significance. GDP was found to be positively related to foreign assets and significant. But the co-efficient of inflation rate was statistically insignificant and had no effect on balance of payments.

(Waliullah et.al 2010); using the bounds testing approach to co-integration and error correction model developed in ARDL framework found that coefficients of income and exchange rate were positive and significant both in short as well as long run. Whereas the coefficient of money supply was found to be negative both in short and long run. (Mohammad 2010); found, as far as foreign income increased it lessened the trade deficit. The coefficient of real effective exchange rate (REER) was positive and significant as REER depreciated it increased the balance of trade. The co-efficient of foreign direct investment (FDI) was positive and statistically significant. The co-efficient of household domestic spending was negatively and statistically significant.

(Ali 2011); using co-integration and error-correction modeling observed that net foreign assets, exchange rate and inflation rate positively whereas money supply and domestic credit were negatively related to balance of payments and significant. Interest rate was found to be insignificant and negative. He further declared that balance of payments as a monetary phenomenon was not the good criteria because other factors also affected the balance of payments.

(Baluch and Bukhari 2012); explained the price and income elasticity of imports in case of Pakistan by using the ARDL model and found that 1 percent increase in income caused the 1.22 percent increase in imports whereas as 1 percent increase in prices caused the 0.53 percent decrease in imports.

(Dhliwayo 1996); found that income and price level were positively related to international reserves inflow and significance whereas interest rate and domestic credit were positively related to international reserves outflow and significance in the long run in Zimbabwe. The study found that income, interest rate and domestic credit were negatively related to international reserves inflow and price level were found to be positively related to international reserves and significance in the short run.

(Hernan 1998); found that GDP and exchange rate positively affected the trade balance and significant whereas money supply was negatively related to trade balance in the long run in case of Colombia. In the short run GDP and exchange rate positively whereas money supply negatively affected the trade balance and significant in the short run.

(Fleermuys 2005); concluded that monetary approach would not be the appropriate approach for balance of payments in case of Namibia. It was found that coefficients of log of GDP and inflation rate were positive and significant and coefficients of interest rate and log of domestic credit were negative and significant.

(Duasa 2004); utilized the bound-testing approach to co-integration and error correction modeling developed within the ARDL framework in case of Malaysia. It was found that in the long run money supply was negatively but income was positively related to trade balance. Marshall Lerner condition did not hold in case of Malaysia .It showed that in short run increase in income worsened the trade balance with the increase in imports.

(Rano et.al 2008); worked on the import-export demand functions and its effects on Nigerian balance of payments, utilizing the co-integration and error correction modeling (ECM). It was found that coefficients of GDP, foreign reserves and index of openness positive and significant. Whereas the coefficients of exchange rate and import capacity were negative and insignificant. As far as export demand function was concerned, it was found

that coefficients of exchange rate, index of openness were positive and significant, whereas coefficient of GDP was negative and significant.

(Alvarez-Ude et.al 2008); found the empirical evidence of the balance of payments constrained growth in Cuba using the Co-integration multivariate test and proved the Thirlwall's model in case of Cuba with exports and imports related positively to GDP.

(Falk 2008); working on panel data, using fixed effects and linear mixed models , found that real foreign GDP per capita was positively related whereas domestic GDP per capita was negatively related to trade balance and significance. It was also seen that devaluation in real effective exchange rate and foreign direct investment improved the trade balance.

(Trunin 2012); using the vector auto regression model has found that GDP, exchange rate, inflation rate, money supply and portfolio investment were positively related to capital inflow and significant.

(Korsu 2009); empirically worked on fiscal deficit and external sector performance of Sierra Leone. He used the three stages least squares (3SLS) method and found that exchange rate and income were positively related to balance of payments and significant. Whereas price level and interest rate were negatively related to balance of payments and significant.

(Adamu and Itsede 2010); used the monetary approach to the balance of payments in West African Monetary Zone, by taking panel data, using the generalized methods of moments (GMM) estimation technique within the country and cross country effects. It was found that GDP was positively related to net foreign assets. The co-efficient of domestic credit was negative and statistically significant. Interest rate was found to be negatively related to net foreign assets and inflation rate was found to be insignificant and negligibly affected the balance of payments.

(Eita 2012); found that fiscal balance, GDP growth rate and interest were the main determinants of balance of payments in Namibia. The co-efficient of exchange rate found to be insignificant. The co-efficient of GDP, interest rate and Fiscal balance were positive and statistically significant.

The above literature has disclosed that bank credit, nominal exchange rate, foreign direct investment, foreign exchange reserves, growth rate, inflation rate, money supply, External debt, interest rate, domestic credit, trade openness and real GDP growth rate were used as the determinants of balance of payments outside Pakistan whereas in case of Pakistan money supply, net foreign assets, exchange rate, inflation rate, interest rate, foreign direct investment were used as the main determinants of balance of payments.

The previous literature tackled the determinants of balance of payments with Absorption approach or Monetary approach or Elasticity approach but none of the study was done on general approach ,that does not refers to any particular approach stated above rather utilizes mix set of variables of all approaches to see their effect on BOP. As it has been proved by various studies that monetary approach was not good. Similarly every approach uses specific set of determinants of balance of payment explicitly ignoring the other approach's factors. So present study is an effort to use some combination of factors so that effect of such determinants can be observed in a unique way. In order to cover this gap we have found out five major determinants namely real exchange rate, interest rate, money supply (M1), fiscal balance and real gross domestic product.

 Different researchers utilized different econometric techniques e.g. (Johansen Jeselius 1990), OLS, (Engle-Granger 1987) etc. The present study has an edge over the previous studies in that new econometric technique autoregressive distributed lag((ARDL)) model has been utilized in order to analyze the determinants of balance of payments under general approach to the determinants of BOP. Furthermore, this study has been done on the up to date available data (2011).

The major determinants of balance of payments to be used in the present study would be real exchange rate, interest rate, money supply (M1), fiscal balance and real gross domestic product. If these variables are efficiently managed by any country its overall balance of payments will be improved.

3.   Methodology and Data Sources

In this study annual time series data is used for the period of 1972 to 2013. The data has been collected from Hand book of statistics on Pakistan economy, 50 year of statistics on Pakistan economy, Economic survey of Pakistan, International Financial Statistics and International Monetary Fund.

Empirically exploring the main determinants of balance of payments in Pakistan by estimating the model that may help the long run and short run behavior of such determinants is set as the objective of the present study. The three different theories mentioned earlier demonstrate that a country's   balance of payments may be affected by changes in the GDP, money supply, and exchange rate etc. Making use of all three theoretical background, the present study is an effort to develop a model that integrates all three approaches simultaneously and uses it to analyze Pakistan's balance of payment. The justification for including all three approaches in a single equation model is to verify their empirical implication and validity and minimize the residual unexplained variation in the balance of payments model.

Model for General Approach to BOP will be formed and presented by the following equation is as

$$BOP = \alpha_0 + \alpha_1 M1 + \alpha_2 RER + \alpha_3 IR + \alpha_4 FB + \alpha_5 RGDP + \varepsilon_t \qquad (1)$$

Where

(α_1, α_2, α_3, α_4 and α_5 are coefficients), BOP = Balance of Payments., α_0 is the intercept term

M1 = Money Supply(is the sum of currency held by people, held by banking departments of SBP, deposits with SBP, scheduled bank demand deposits, scheduled bank, net foreign assets of SBP etc. are included in the definition of money supply (M1).RER = Real Exchange Rate(is the nominal exchange rate adjusted for differences in prices or inflation rates)

$$RER = Nominal\ Exchange\ Rate\ \times\ \frac{US:\ CPI\ (2005=100)}{PAK:\ CPI\ (2005=100)}$$

IR = Interest Rate (simply defined as interbank rate that scheduled bank charge with other banks. FB = Fiscal Balance (the difference of Government revenues and Government expenditures).RGDP = Real Gross Domestic Product (Measures the output produced in any one period or any one year at the prices of some base year. ε_t is the error term of the model.

All the estimation procedure has been done through a computer software E-Views 5.1 version. The estimation procedure consists of number of different steps like checking the stationarity of data, Bound test to check whether the long run relationship among variables exists or not and long run and short run coefficients estimation. All these steps have to be done in a systematic way. These are as follows:

In order to avoid spurious regression results, we will perform the unit root test whether the time series data is stationary or not. If data is stationary at level then we will apply simple OLS method otherwise some other econometric technique e.g. cointegration approach through autoregressive distributed lag (ARDL) model which was developed by (Pesaran et.al 2001).

Co-integration refers to the existence of long run equilibrium relationship between two or more time series variables which are individually non-stationary at their level form Gujrati (1995). A number of co-integration techniques are available to test the existence of long run relationship among variables. The most popular co-integration technique is (Johensen and Jeselius) approach to co-integration (Johansen, 1990) and (Engle-Granger 1987); two-step residual based co-integration. But the new technique with ARDL model has got much

attention in the recent literature. In this research, ARDL approach is used because of its robustness and general applicability.

ARDL approach is consisted of two stages. In the first stage, the long run relationship between variables is tested using F-statistics to determine the significance of the lagged levels of the variables in the unrestricted error correction model. In the second stage, the coefficient of the long run and short run relationship will be examined. Bounds test approach is used to find the long run relationship among the variables. To do this error correction model will be developed which is applicable when variables are integrated of order I (0), I (1) or combination of both. The unrestricted error correction model for general approach to determinants of balance of payments in the present study will be as:

$$
\begin{aligned}
\Delta BOP_t &= \alpha_0 + \sum_{i=1}^{k_1} \alpha_{1i}\Delta(BOP)_{t-i} + \sum_{i=0}^{k_2} \alpha_{2i}\Delta(M1)_{t-i} + \sum_{i=0}^{k_3} \alpha_{3i}\Delta(FB)_{t-i} + \sum_{i=0}^{k_4} \alpha_{4i}\Delta(IR)_{t-i} \\
&+ \sum_{i=0}^{k_5} \alpha_{5i}\Delta(RGDP)_{t-i} + \sum_{i=0}^{k_6} \alpha_{6i}\Delta(RER)_{t-i} + \beta_1(BOP)_{t-1} + \beta_2(M1)_{t-1} \\
&+ \beta_3(FB)_{t-1} + \beta_4(IR)_{t-1} + \beta_5(RGDP)_{t-1} + \beta_6(RER)_{t-1} + \varepsilon_t \qquad (2)
\end{aligned}
$$

Where Δ shows the first difference operator and ε_t is the residual of the model which assume to be normally distributed and white noise. In our model, we will use the lagged value of first difference dependent variable and independent variables for short run and first lagged values of dependent and independent variables for long run. So, this model is consisted of both long run and short run coefficients of variables as well. Where α_{1i}, α_{2i}, α_{3i}, α_{4i}, α_{5i} and α_{6i} are the short run coefficients of variables and β_1, β_2, β_3, β_4, β_5 and β_6 are the long run coefficients of variables and α_0 is the intercept term.

We will apply Wald coefficient test or joint significance F-test on lagged level variables on the above two models. The computed F-statistics will compare with the Tabulated F-statistics. The table is developed by (Pesaran et.al 2001). The tabulated F-statistics has two critical bounds, lower bound I (0) and upper bound I (1). If calculated F-statistics is larger than upper bound it means long run relationship existed among the variables. If calculated F-statistics is less than lower bound long run relationship does not exist and if calculated value is between two bounds the result is inconclusive.

After declaration of the long run relationship among the variables, the next step is to find out the long run coefficients. We will use Akaike Information Criteria (AIC) and Schwartz-Bayesian (SBC) to choose the optimal lag, the former select maximum and later selects minimum possible long-run.

We want to see the effects of explanatory variables on balance of payments in case of Pakistan both in the short run and long run. So, to find out the long run and short run coefficients of explanatory variables we have to estimate the model which are given in equations (3 and 4) with OLS (Bound test approach to co-integration) technique and then normalize the resulting values. The ARDL model for the long run coefficient of general approach to determinants of balance of payments will be as.

$$
\begin{aligned}
BOP_t = \eta_0 &+ \sum_{i=1}^{k_1} \eta_{1i}(BOP)_{t-i} + \sum_{i=0}^{k_2} \eta_{2i}(M1)_{t-i} + \sum_{i=0}^{k_3} \eta_{3i}(IR)_{t-i} + \sum_{i=0}^{k_4} \eta_{4i}(RER)_{t-i} \\
&+ \sum_{i=0}^{k_5} \eta_{5i}(FB)_{t-i} + \sum_{i=0}^{k_6} \eta_{6i}(RGDP)_{t-i} + \varepsilon_t
\end{aligned} \tag{3}
$$

Now we will find the short coefficient of the model with error correction term. We will use the short run error correction estimates of ARDL model. The difference between actual and estimated values is considered as error correction term. Error correction term is defined as adjustment term showing the time required in the short run to move toward equilibrium value in the long run. The coefficient of error term should be negative and significant. If the value of error term is negative and significant it means that there is existence of relationship among variables in the model. The short run error correction model of General Approach to balance of payments is as follows:

$$
\begin{aligned}
\Delta BOP_t = \rho_0 &+ \sum_{i=1}^{k_1} \rho_{1i}\,\Delta(BOP)_{t-i} + \sum_{i=0}^{k_2} \rho_{2i}\,\Delta(M1)_{t-i} + \sum_{i=0}^{k_3} \rho_{3i}\Delta(IR)_{t-i} \\
&+ \sum_{i=0}^{k_4} \rho_{4i}\,\Delta(RER)_{t-i} + \sum_{i=0}^{k_5} \rho_{5i}\,\Delta(FB)_{t-i} + \sum_{i=0}^{k_6} \rho_{6i}\,\Delta(RGDP)_{t-i} + \lambda(ECM)_{t-1} + \varepsilon_t
\end{aligned} \tag{4}
$$

ECM_{t-1} is lagged error correction term of the model and λ is the coefficient value of ECM which is the speed of adjustment.

To interpret the results correctly stability of the parameters we will conduct the test of Cumulative sum of recursive residuals (CUSUM) and cumulative sum of recursive residuals of square (CUSUMS). After that we will conduct some diagnostic tests like J-B normality test to check whether residuals of the model are normally distributed or not. Breusch-Godfrey Serial Correlation LM test is conducted to see the autocorrelation problem in the model. Ramsey reset test is conducted to check whether the model is correctly specified or not.

It has been decided that autoregressive distributed lag (ARDL) model will be used for estimation.

4.   Results and Interpretation

We have found five determinants of balance of payments that are responsible for fluctuations in the balance of payments. These are money supply, interest rate, real exchange rate, real gross domestic product and fiscal balance deficit. We will examine the effects of these variables on balance of payments by using autoregressive distributed lag model (ARDL)

Since the data is time series therefore unit root test will be conducted in order to check the stationarity in the data and to determine the order of integration whether the variables are stationary at I (0), I (1) or combination of both. Augmented Results of the unit root test by applying ADF test are given in table (1).

Table.1: Stationarity of Variables

variables	*Intercept /Intercept &* **Trend/None**	Level	First difference	Order of Integration
BOP	Intercept Intercept and trend none	-4.787592* -4.710110* -4.830843*	6.649123* -6.537514* -6.759216*	I(1)
M1	Intercept Intercept and trend none	-2.424801 -1.318956* -1.612064	-6.793139* -6.710323* -6.829215*	I(1)
RER	Intercept Intercept and trend none	0.752134 -2.259905 2.154084	-3.716451* -4.272189* -2.484152**	I(1)
IR	Intercept Intercept and trend none	-2.358265 -2.260721 -0.357609	-4.348620* -4.528627* -4.417672*	I(1)
FB	Intercept Intercept and trend none	-1.194055 -2.306238 -0.703910	-3.6422** -4.2605* -3.6344*	I(1)

RGDP	Intercept	0.211074	-3.708639*	I(1)
	Intercept and trend	-1.122830	-3.980442**	
	none	0.904638	-3.459283*	

*, **, *** indicate 1%, 5% and 10% level of significance.

It shows BOP at I(1), M1 at I(1), RER at I(1), IR at I(1), FB at I(1) and RGDP at I(1) are stationary at these order of integration. Our finding of time series data shows that our variables are stationary with the combination of I (1). So, in this case Johesan co-integration technique can be applied but we will handle the issue by some advanced technique: the Bounds testing approach or autoregressive distributed lag (ARDL) model which was developed by (Pesaran et.al 2001) because it is suitable for smaller sample. These results of the model are given in annexure table (1) by estimating the equation (1) of determinants of balance of payments by using OLS. The results of our model show most of the variables are significant and few are insignificant. After confirming the order of integration of variables we have conducted the Bound test or Wald test to see whether the long run relationship among the variables exists or not. We will follow the Bound testing approach and restrict all long run coefficients equal to zero in our null hypothesis.

The Bound test result is given in the following table.

Null Hypothesis: $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = 0$ (No Co-integration Exist)

Alternative Hypothesis: $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 \neq 0$ (Co-integration Exist)

Table 2: Bound Test Result

Variables	F-statistic	Critical Value I(0) & I(1)	Probability	Co-integration
Determinants of BOP	17.38	I(0)=3.636, I(1)=4.267	0.000	Co-integration exist

The F-statistics value is greater than upper bound value I (1)= 4.267 and this indicates that we can reject the null hypothesis. So, it is found that there exists long run relationship among the variables used in our model.

Table 3: Diagnostic Tests

Test	Statistics	Probability
JERQUA-BERRA NORMALITY TEST	1.25	0.53
BREUSH-GODFREY SERIAL CORREALTION LM TEST	0.69	0.51
ARCH TEST HETEROSKEDASTICITY	2.23	0.14
RAMSEY RESET FOR MISSPECIFICATION TEST	0.69	0.41

The absence of divergence in CUSUM and CUSUMS graphs confirms in our ARDL estimation, short run and long run estimates are stable.
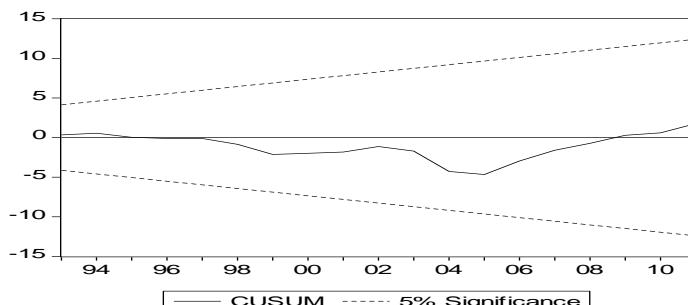
Figure 4: Stability Test: Cumulative Sum of Recursive Residuals (CUSUM)
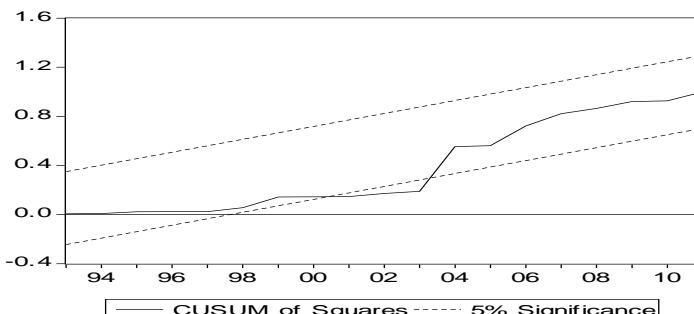

Figure 5: Stability Test: Cumulative Sum of Squares of Recursive Residuals (CUSUMSQ)

In order to determine long run co-efficient we use the normalization process in which all lagged co-efficient of all explanatory variables are divided by co-integration vector after multiply it (-1). The results are reported in the table below.

Table 4: Normalized Long run Estimates (Dependent Variable: ΔBOP)

Variables	Co-efficient	P-value
M1(-1)	(0.297987)**	0.0229
RER(-1)	(-242.878)	0.8941
IR(-1)	(-20107.8)**	0.0467
FB(-1)	(-0.61017)	0.1628
RGDP(-1)	(0.09686)**	0.0582

Note: (*, ** indicate significant at1% and 5% level respectively).

The results in table 4 indicate that the long run coefficients show that money supply (M1), real gross domestic product and interest rate are the main determinants of balance of payments. Coefficient value of money supply is 0.297987 which means that in the long run a one million rupee increases in money supply will cause a 0.297987 million rupees increase in the overall surplus of balance of payments. The value of money supply coefficient is positive and significant. This result matches with that of (Duasa 2004), (Eita 2012) and (Trunin 2012) .The monetarist argue that money supply is positively related to overall balance of payments and sustainable growth rate of money supply is beneficial for the overall betterment of macroeconomic variables

Real exchange rate is found to be insignificant and negative although the sign of real exchange rate variable is contrary to the theory. A decrease in the exchange rate or devaluation in the currency makes the export cheap and imports expensive and hence overall trade balance will be improved in the long run. But in this study real exchange rate is found to be negative and insignificant in the long run. Although it is contrary to economic theory but being a developing country it is justifiable. The justification of this result is that the exchange rate is found to be negative and insignificant in case of developing countries like Pakistan because Marshal-Lerner condition does not fulfill in developing countries. Further the phenomenon of J-curve is hardly seen in developing countries. Developing countries are supply oriented rather than demand oriented. This result is matched to that of (Khan 2008), (Felipe et.al 2009), (Umer et.al 2010) and (Eita 2012). This is confirmation that our result in this regard is not unexpected and novel.

Interest rate is found to be negative and significant in the long run. A one percent increases in the interest rate will cause the 20107.8 million rupees decrease in the overall balance of payments .The negative sign of interest rate matches with economic theory. Interest rate and investment are negatively related as interest rate increases the cost of capital increases or investment is discouraged hence domestic production will become more expensive to produce resulting in its reduction. Lower domestic production leads to lower exports revenue which in return causes deficit in current account and consequently overall balance of payments will be distorted. Furthermore, if high interest rate is unable to attract portfolio investment then the situation is worsened. It is what Pakistan is facing in the last or so decade due to spate of terrorism. . This result is harmonized with that of (Dhliwayo 1996), (Choudhary and Shabbir 2005), (Fleermuys 2005), (Adamu and Itsede 2010), (Umer et.al 2010) and (Ali 2011).

Fiscal deficit is found to be negative and insignificant. It means that it has negligible impact on the balance of payments in the long run. Government spending has no effect on real macroeconomic variables in the long run (Classical School of Thought). So, the insignificance of government spending in the long run is quite understandable.

 Real gross domestic product is found to be positive and significant in the long run. A one million rupee increase in the real gross domestic product will cause the 0.09685 million rupees increase in the overall balance of payments. Real gross domestic product is positive and significant which justifies the economic theory that increases in real income will increase the exports and better will be the balance of trade account (absorption approach). This empirical result is matched with that of (Dhliwayo 1996), (Hernan 1998), (Choudhary and Shabbir 2005), (Fleermuys 2005), (Duasa 2004), (Felipe et.al 2009), (Korsu 2009), (Adamu and Itsede 2010), (Umer et.al 2010), (Eita 2012), (Trunin 2012).

In order to determine the short run estimates, we first develop data for error correction term which is the difference between actual and estimated values. Then we have estimated the model applying the least square method, considering all desirable lags. So, after applying OLS on model equation (4), results are depicted in table (5).

Table 5: Short Run Estimated Model (Dependent Variable: ΔBOP=D(BOP))

Variable	Coefficient	Standard error	T-value	P-value
C	115565.7	17417.02	6.635216	0.0000
D(RER)	(-1674.543)	3361.730	-0.498119	0.6229
D(IR)	(9361.921)**	4492.861	2.083733	0.0480
D(IR(-1))	(14176.33)*	4634.967	3.058560	0.0054
D(M1(-1))	(-0.948045)*	0.100874	-9.398353	0.0000
D(RGDP)	(0.111883)*	0.016659	6.716066	0.0000
D(FB)	(-1.265959)*	0.147488	-8.583462	0.0000
D(FB(-1))	(2.586887)*	0.217345	11.90224	0.0000
D(BOP(-1))	(0.896037)*	0.081345	11.01529	0.0000
ECM(-1)	**(-0.766886)***	**0.083886**	**-9.142013**	**0.0000**

Note: (*, ** indicate significant at 1% and 5% level respectively).

R-squared	0.976265	Adjusted R-squared	0.967364
AIC	24.15567	SBC	24.60460
F-statistics(Probability)	109.6828(0.000)	Durbin-Watson statistics	2.025178

The results in table (5) show that real exchange rate is found to be negative and insignificant which means it has negligible impact on overall balance of payments. Although it is contrary to the theory because the expected sign of real exchange rate should be positive and significant as the increase in the exchange rate or devaluation in the currency improve the trade balance account as the exports become cheap and imports become expensive. It is without exaggeration to announce that exchange rate is found to negative and insignificant in case of developing countries like Pakistan because Marshal-Lerner condition is not satisfied in developing countries. Developing countries are supply-oriented rather than demand oriented. So, this result is justifiable and not unexpected and matches with that of (Khan 2008), (Felipe et.al 2009), (Umer et.al 2010) and (Eita 2012).

Interest rate is found to be positive and significant in the short run. Its coefficient value is 9361.921 which means that one percent increase in the interest rate will improve the balance of payments by 9361.921 million rupees and is significant. The first lag value of its coefficient is 14176.33 which means one percent increase in the interest rate will improve the balance of payments by 14176.33 million rupees after one lag period. The value of interest rate's coefficient also matches with economic theory because balance of payments is consisted of three accounts current account, capital account and financial account. Although

increase in the interest rate will distort the current account as increase in the interest rate reduce the domestic production and hence current account will be distorted. But on the other hand as the interest rate increases it will attract the capital inflow and overall balance of payments will be improved. So, the positive sign of interest rate is reasonably understandable.

Money supply is found to be negative and significant. Its coefficient value is -0.948045 which means that a one million rupee increases in the money supply will adversely (negatively) affect the balance of payments by -0.948045 million rupees. This result matches with economic theory. Monetary base is equal to the sum of international reserves and domestic assets holding of monetary authorities. A change in the international reserves will change the money supply. If in any case, people demand for money is greater than its supply then excess demand will be met by the inflows of money from abroad and overall balance of trade will be improved. On the other hand, if supply of money is greater than the demand for money the excess supply will outflow to other countries and overall balance of trade will be distorted. This result tallies with the result of (Dhliwayo 1996), (Hernan 1998), (Choudhary and Shabbir 2005), (Fleermuys 2005), (Duasa 2004), (Felipe et.al 2009), (Adamu and Itsede 2010), (Umer et.al 2010), (Waliullah 2010), (Ali 2011).

Real gross domestic product is positive and significant which matches with economic theory. The value of its coefficient is 0.111883 which means that a one million rupees increase in the real gross domestic product will improve the balance of payments by 0.112 million rupees and is highly significant. Hence, RGDP is declared as major determinant of balance of payments. Increase in real income will increase the exports and better will be the trade balance account (Absorption approach). Real gross domestic product is found to be positively related to BOP and significant (Dhliwayo 1996), (Hernan 1998), (Choudhary and Shabbir 2005), (Fleermuys 2005), (Duasa 2007), (Felipe et.al 2009), (Korsu 2009), (Adamu and Itsede 2010), (Umer et.al 2010), (Eita 2012), and (Trunin 2012).

Fiscal balance deficit is found to be negative and significant. The coefficient value of fiscal deficit is -1.27 which means that a one million rupees increase in the fiscal deficit will adversely(negatively) affect the balance of payments by -1.27 million rupees and its coefficient value is significant which this indicates fiscal deficit as major determinant of balance of payments. Deficit financing through credit creation/foreign debt is harmful because increase in money supply will cause outflow and overall balance of payments will be in deficit (Choudhary and Shabbir 2005) and (Korsu 2009). Many studies have found the phenomenon of twin deficit (simultaneous deficit in current account and fiscal budget). So, budget deficit is negatively related to overall balance of payments, this result matches with that of Hashemzadeh (2006).

The error correction term is negative (-0.76) and statistically highly significant i.e. having right sign (negative). This indicates the presence of cointegration among variables which means in each year determinants of balance of payments will be corrected by 76% with high speed of adjustment to equilibrium following short run shocks i.e. it Points out a high rate of convergence to equilibrium, which denotes that deviation from the long-term equilibrium is corrected by 76% over each year.

5.   Conclusion and Policy Implication

This study has been an attempt to find out the determinants of balance of payments. Money supply, real exchange rate, interest rate, fiscal balance and real gross domestic product are found to be major determinants of balance of payments. The analysis was done by taking annual time series data for the period of 1972 to 2013, using ARDL or Bounds testing approach. The study has proved that the balance of payments and its determinants keep both long run and short run relationship.

As far as General Approach (including monetary and other variables) to balance of payments is concerned, it is found that coefficient of money supply is found to be positive in the short run but negative in the long run. So, money supply is most important because it has its impact on BOP. A sustainable growth rate of money supply is required for the improvement of BOP. As Real exchange rate as a determinant of BOP is found to be positive in the short run whereas in the long run, it is negative. It actually indicates that in the short run increase in the interest rate will attract the capital inflow and as a result BOP will improve because it works through NFA (net foreign assets) channel. So exchange rate will improve and BOP will be positively affected. As the time passes on, the exports become expensive and imports cheaper, the graph of exports (earning of a country) decreases and graph of imports increases which emerges as the cause of BOP deterioration. Hence in the long run it has adverse effect on overall balance of payments. In a developing country like Pakistan the increase in the interest rate will inversely affect its balance of payment. As interest rate increases the new investment will decline and hence domestic production will decline.

Fiscal balance negatively affects the balance of payments in short run. But lag value of fiscal balance is found to be positive and significant. In the history of Pakistan, fiscal balance always remained in deficit. In short run increase in expenditure improves the output and overall balance of payments also improves but in the long run fiscal balance is found to be negative.

Real gross domestic product is also one of the most important determinants of balance of payments. Its effect on BOP is positive and significant both in short run and long run. As we

know RGDP (Real Gross Domestic Product) is the value of all final goods and services which are produced in a year by taking prices of some base year. As the value of real gross domestic product increases, exports increases and current account will be in surplus and consequently overall balance of payments will be improved.

It is here by suggested that measures should be taken to improve the balance of payment of Pakistan. The government of Pakistan should design such policies that its exports should increase.

Central bank of Pakistan has to be vigilant towards its monetary policy and has to take some favorable measures to control the money supply. It has to keep an eye on interest rate and charge low interest rate to encourage the new internal investor

Attainment of balance of payment surplus is difficult but not unreachable. It can be reached through installing import substitution and export promoting industries. Government should control the foreign exchange and ban or at least minimize the import of luxuries.

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Annexure

Table.1: Dependent variable: ΔBOP
(General Approach to BOP)

Variables	Coefficient	Standard Error	T-value	P-value
C	149646.0	93181.64	1.605961	0.1248
D(RER)	(-1553.023)	3925.128	-0.395662	0.6968
D(IR)	(10242.55)	6469.509	1.583204	0.1299
D(IR(-1))	(19136.22)**	8080.467	2.368207	0.0286
D(M1(-1))	(-1.184591)**	0.430209	-2.753528	0.0126
D(RGDP)	(0.104942)*	0.023440	4.477069	0.0003
D(FB)	(-1.114954)*	0.260952	-4.272640	0.0004
D(FB(-1))	(2.720763)*	0.472847	5.753999	0.0000
D(BOP(-1))	(0.862111)*	0.191356	4.505273	0.0002
BOP(-1)	(-0.717437)*	0.213362	-3.362538	0.0033
RER(-1)	(-174.2507)	1292.162	-0.134852	0.8941
IR(-1)	(-14426.16)**	6781.384	-2.127318	0.0467
M1(-1)	(0.213788)**	0.086392	2.474628	0.0229
RGDP(-1)	(0.069493)**	0.034474	2.015829	0.0582
FB(-1)	(-0.437758)	0.301447	-1.452188	0.1628

*, ** are indicating coefficient is significant 1% and 5% level respectively.

R-Squared	0.977175	Adjusted R-Squared	0.960357
AIC	24.41067	SBC	25.08406
F-statistic(probability)	58.10192(0.000)	D-W statistic	2.068406

Twin Deficit Hypothesis: A Case of Pakistan

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Abstract:

The prime motive of this study is to scrutinize the twin deficit for annual time series data over the period 1990-2010 for Pakistan. Twin deficit hypothesis expressed that an expansion in budget deficit will ground for rise in current account deficit. To diagnose affiliation amongst couple of variables, applied Unit root test (ADF-test), Johansen cointegration technique, Impulse response function and Granger causality test. The Granger causality demonstrate that the causality direction travel from current account deficit to budget deficit. When current account deficit occurs it leads to budget deficit. So the finding proves that there is a positive connection among both variables. Investigations are most reliable for Pakistan economy. Finally, this study confirms the rapport amid current account deficit and budget deficit.

Keywords: Budget deficit, Current account deficit, Pakistan

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1. Introduction

The problem of twin deficit hypothesis was explored in 1980's for first time. At that time there was a record existence of deficit in current accounts along with the budgetary account deficit in the United States economy. Both the budgetary and current account deficit demonstrate that an extension in fiscal deficit direct to a balanced augment in deficit of current account. Similar problem is seen in USA (Normandin, 1999; Mann, 2002), similarly, Germany and Sweden faced the twin deficit problem in early 1990s (Ibrahim and Kumah, 1996) and Edwards, 2001) Similarly the results can vary even by using different models specification and econometric techniques for the data of a same country. Economic literature shows the budget deficit is a big problem for economy of both developed and developing states. It increases from 5.4 to 8.7 percent the previous both decades. In accordance with further arguments, there is an increase in current account deficit from 2.7 to 7.2 percent in the similar time period in Pakistan[1]. Most importantly, changes in fiscal deficit lead to a predictable development in current account balances, this issue is controversial. The significant aspect of this problem is named as twin deficit hypothesis. Current account deficit and budget deficit are interrelated and emerged together. Due to this, the emerging budget deficit The both deficits are an emerging topic and basic reason for all economic diseases of developing economies generally and particularly in Pakistan. So it is significant to quantify the rapport stuck between hypotheses of twin deficits. This study particularly focuses with reference to Pakistan economy.

Financial system of Pakistan is facing a stern dilemma of twin deficits because imports of Pakistan are continuously increasing especially the group of petroleum product moves a new higher imports bill which would affect the budget deficit badly. Over the period of 1991-2000 trade terms of Pakistan were normal, but after 2000 these terms reduced to an alarming sign (federal bureau of statistics). Since, economic scholars are trying to determine either current account will be rebalanced or not in coming decade. In the era of present globalization it is too important rapid growing and big democratic economy like as Pakistan should be aware by any increasing crises of balance of payments. However it is most important to understand the association amid deficit of current account and budget balance deficit for effectual policy implementation. So the prime objectives of the study are to find the systematic relationship between both of deficits (budgetary and current account deficits) and to check the causality direction and long run link among both deficits.

Second section is based on literature review. Section three presents theoretical grounds of twin deficits which are discussed in detail. Fourth section describes data methodology and empirical findings through using different statistical and econometric techniques. While in the last section concluding remarks and also policy implications are expressed.

2. Literature Review

(Mukhtar et al 2007); analysed twin deficit hypothesis by using quarterly time series data over the period 1975:1-2005:4 for Pakistan. He applied co integration test, error correlation model

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[1] See Economic Survey of Pakistan 1992-2008

(ECM), and Granger causality analysis and concluded that there exist bi-directional connection amongst these two variables.

(Bagheri et al 2012); estimated the twin deficit in Iran economy by using annual data ranging from 1971-2007, taking deficit and current accounts deficit as dependent and independent variables respectively. They used SUR regression and Granger causality test and investigated the existence of long run equilibrium connection amongst twin deficits.

(Lam 2012); adopted the unit root investigation, vector error correlation model, Granger causality-Wald test and Johansen co integration techniques and used time series data over period 1990-2011. The results revealed that in Vietnam economy connection holds among two deficits in a long run time period.

(Merza et al April, 2012); analysed the relationship between two variables by applying the quarterly data consisting the period 1993:4-2010:4. Impulses response function and Granger Causality test confirms that there is no existence of both deficits in Kuwait economy.

(Zamanzadeh and Mehrara 2011); confirmed the liaison among twin deficit in Iranian economy during the period 1959-2007 through application of vector error correlation model and co integration analysis. They found so as to the subsistence of optimistic affiliation among non-oil two deficits, and also the Granger causality analysis exhibit deficit of budget account balance and current account balance granger cause to each other.

(Yanik 2006); investigated the twin deficit hypothesis for Turkey while using quarterly data from 1988:1-2005:2 periods by applying Granger causality test and VAR model, and concluded that budget deficit and current account deficit move simultaneously in long run.

(Waliullah et al 2010); analysed the determinants of budget deficit and trade deficit on secondary data over the period 1970-2005, taking trade balance as dependent variable and income (GDP) as independent variable. They applied the bound testing approach of co integration, established autoregressive distributed lag frame work and error correction model. Their obtained results exhibited the existence of link among trade account balances and budget deficit.

(Azgun and Ozdemir 2008); adopted Johansen cointegration technique and Engle Granger causality analysis by using quarterly time series data over the period of 1980:1-2004:2. Their adopted variables were budget deficit and current account deficit in case of Pakistan economy. The results exhibited the link between budget deficit and current account deficit. (Vyshnyak 2000); employed Cointegration technique and Granger causality test to enquire the causality amongst variables in Ukraine economy taking quarterly data for the period 1995:1-1999:4. Empirical findings exhibit that both variables are co integrated and fiscal negativity grounds for negative balance of current accounts.

2.1. Theoretical Basis for Twin Deficit

In the literature of economics there are two main approaches which are used to explore a connection among the fiscal deficit and current account deficit. One is known as Ricardian

equivalence hypothesis and other is Keynesian conventional proposition. These both approaches are inversed to each other.

The Ricardian equivalence, the first approach denies that there is not any relationship among both deficits. Both terms are not interrelated to each other, because people think rationally, they know that increase in taxes is not on permanent basis it is just for short time period. That is why they save the money which is received due to reduction in taxes, for the payment of higher taxes imposed by the government in future. There would not be effect on national savings. So, there would be effect of budget deficit on current account deficit (Thomas & Abderrezak, 1988).

On the opposite side of Ricardian equivalence hypothesis (REH), the Keynesian economic theory assures the existence of long run positive relation among two of deficits. Particularly, the swot of both deficit hypotheses assures that negative fiscal account balance cause for negativity in current accounts. Similarly the surplus in budget account balance leads a proficiency in current accounts. Due to the budget deficit the government becomes borrower (Alkaswani; 2002).

Economic reasoning of affiliation among fiscal-current deficit can be found by the identity equation of national income.

$$Y = C + I + G + (X_E - M_P) \qquad (1)$$

Here Y representing national income, C denotes consumption by the private sector, I represents real investment spending in the economic sector of country as some spending on infrastructure, equipment and plants etc., G shows the spending by the government for the purchase of goods and services at final shape. X is exports of goods and services, while M stands for the imports of different commodities and services. Current account can be expressed in the following terms.

$$CA = (X_E - M_P) + F_T \qquad (2)$$

Here F_T denotes net income and transfer flows.

While in addition to goods and services account balance, the income received from abroad, paid to abroad and unilateral transfers are also included in current accounts. So, here just for the sake of simplicity we suppose that net income received from abroad and unilateral transfers is not a big element in current accounts. However, it is worthy to mention that if a country has a large foreign debt and a high debt service payment, so of the income paid abroad by that country should be a big negative element.

The size and direction of foreign borrowings is shown by current accounts. When imports of country exceed from its exports, it leads to the current account deficit. This is financed by foreign borrowing (international institutions, foreign government) or by the domestic private sector. Private sector firms may borrow by selling land, equity and some other physical assets. So, the state having current account deficit must increase its own net foreign debt or by taking

down its foreign wealth through the deficit amount. The country having current account deficit is importing the consumption at present and/or investment (if the goods of investment are imported) and is exporting consumption of future and/or investment spending.

In accordance of national income identity, in open economy national savings equal:

$$S = I + CA \qquad (3)$$

Or we can write the above expression alternatively as below:

$$S = Y - C - G + CA \qquad (4)$$

In this expression $(Y - C - G) = I$ is the investment function.

It is most important to see national savings closely and differentiate among the decision for savings made by the government sector and also the decision of private sector. So, we have;

$$S = S_{Pvt} + S_{Gvt} \qquad (5)$$

Here in equation (5) S_{Pvt} is to as the part of disposable income Y_{dp} which can be saved rather to consume. Generally we have;

$$S_{Pvt} = Y_{dp} - C = (Y - T) - C = Y - T - C \qquad (6)$$

In this above expression, T denotes the tax collection by the government. Government savings are the difference among expenditures made by government and revenues collected by the government, which is in form of government purchases (G), and also the government transfers (R_T), mathematical function is expressed as;

$$S_{Gvt} = T - G - R_T = T - G - R_T \qquad (7)$$

Now, we can write the equation (5) as follows;

$$S = S_{Pvt} + S_{Gvt} = (Y - T - C) + (T - G - R_T) = I + CA \qquad (8)$$

Now to analyse the effect of government savings in an open economy (exports and imports oriented economy), we can write identity (8) as;

$$S_{Pvt} = I + CA - S_{Gvt} = I + CA - (T - G - R_T) \qquad (9)$$

In alternative form it can also be written as follows;

$$CA = S_{Pvt} - I - (G + R_T - T) \qquad (10)$$

Here the identity $(G + R_T - T)$ consolidates the public sector, budget deficit (BDF) that is, as savings by the government preceded by the negative sign. Deficit of government measures the

volume at which the government is borrowing to cover its expenditures. Identity (9) shows the private savings of country take three different forms; investment made in domestic capital (I), wealth purchases from foreigners by domestic government (CA), and purchase made by domestic government newly issued debt $(G + R_T - T)$.

Examining the macroeconomic identity (equation 10), we can see that two different cases are possible. If we suppose that the difference between investment (I) and private savings (S_{Pvt}) is stable over time, then the fluctuations in public sector deficit will also be completely translated to current account and the twin deficit hypothesis exists. The public sector economy consists of whole government (central and local) and also non-financial public sector enterprises (the state enterprises like as railways, air ports, and some other nationalized industries).

On the other hand, an extreme case is known as Ricardian equivalence hypothesis, which supposed that changes in fiscal deficit are fully offset through changes in savings (S). Ricardian equivalence hypothesis can be explained as a reduction in taxes does not affect the life time wealth of households, because in future taxes may go up to compensate that future increase in taxes with this present decrease. So, at present private savings will increase when taxes reduced or in accordance budget deficit rise. The households will save their income received from tax cut in response to pay for the increase in future taxes. So, budget deficit would not cause for current account deficit.

2.2. Facts and Figures with respect to Pakistan

This portion is related to empirical investigations of both of deficits hypothesis for Pakistan. The time series annual data is used over the period of 1990-2010. The data is collected from website of World Bank data bank.
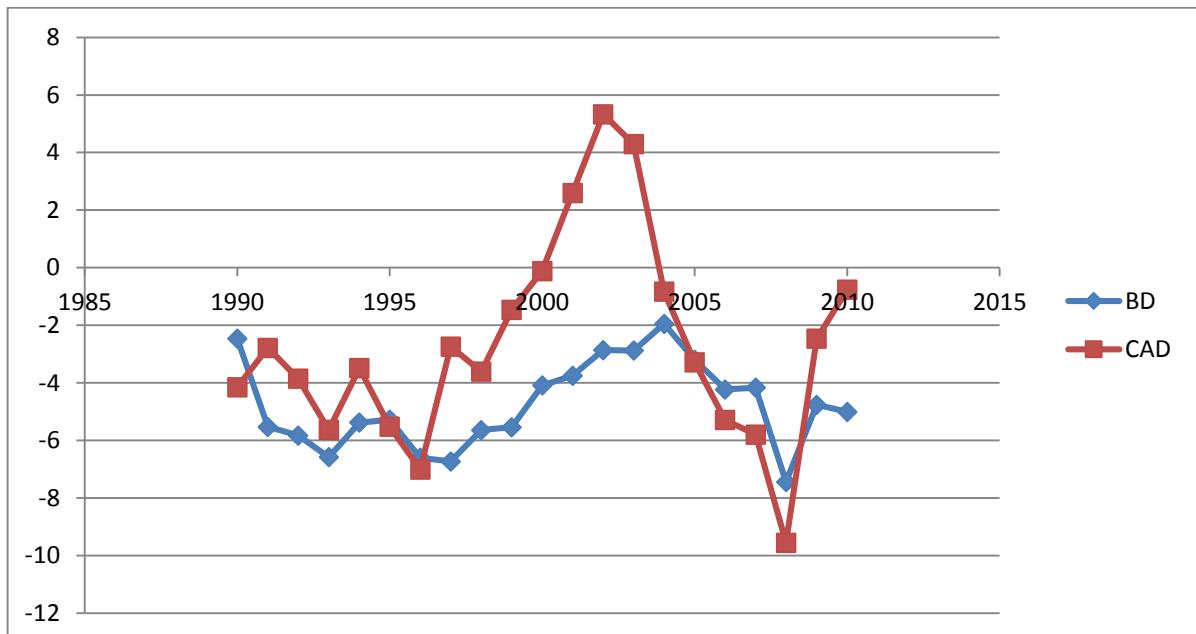

Figure 1: budget deficit and current account deficit in Pakistan

Data is as the percentage of GDP i.e. BD/GDP and CAD/GDP. Most of the time series of current accounts have witnessed deficits and in minute years show a surplus balance. Overall it represents enormous fluctuations during the study period. At beginning of the sample period, current account deficit during the 1990 was -4.15 percent of GDP, after that in 1996 reaches at the lowest value of 7 percent. At the initial stage of 21st century in 2001, 2002 and 2003 current accounts deficits were converted into surplus balance as 2, 5 and 4 percent respectively. In 2008 current account was again converted into deficit balance and reach to peak value of -9.55 percent. It was the time period of world financial crisis.

As for as the budget deficit is concerned, it also represents huge fluctuations during the sample period. Throughout the study period, budget deficit reports negative balance. At the starting time budget deficit balance was -2.46 percent of GDP, in 2008 faces the highest value of -7.44 percent. It is concluded that higher budget deficit was recorded in 2008. In the same year current account balance also has the largest negative value -9.55 percent. So, according to these observations both the variables are interrelated to each other.

3. Data and Methodology

Theoretical background of the issue which discussion gives strong possible connection among the variables. The empirical validity of twin deficit becomes an important subject. By trailing the modern literature, we inspect that hypotheses is tested with the help of different econometric techniques. At first step, we checked out the stationarity of the variables through application of ADF (Augmented Dickey Fuller) test. At the second stage, we apply Granger Causality test and then apply OLS (Ordinary Least Square).

Econometric Methodology

Unit Root Estimation.
The test to check the stationarity of the variables which becomes most popular from many previous years is Unit root test. ADF test is also one of most popular Unit root test to check the stationarity of variables. So, the Y the time series is supposed to integrate by order (d). To check out the prescribed stat of stationarity, we have applied the Augmented Dickey Fuller test. The subsequent equation of regression is to be supposed.

$$\Delta Y_t = \alpha_0 + \alpha_1 t + \alpha_2 Y_{t-1} \sum_{j=2}^{q} \alpha_j \Delta Y_{t-j+1} + \varepsilon_t$$

Here Y is representing a macroeconomic variable with time trend t, while ε_t is expressed as a disturbance term.

Cointegration test
Examination of cointegration test allows checking the association of long run equilibrium amid the variable in the long run, which becomes stationary at first difference. If the entire variables used in the study are stationary, we will investigate the test of cointegration. To test out the long run equilibrium connection stuck between subjects, the implication of different

cointegration statistics are made feasible. Two tests of statistics are used for the examination of cointegration which was suggested by (Johansen 1990); and by (Johansen and Juselius 1990), which are known as trace test and the maximum Eigenvalue test. Trace test is used to check the null hypothesis (H_0), we can examine the trace test as follows.

$$\lambda_{trace}(r) = -T \sum_{i=r+1}^{p} \ln(1 - \hat{\lambda}_i)$$

Here " $\hat{\lambda}_{r+1} .... \hat{\lambda}_n$ " is representing the lowest value eigenvector (P-r). So, null hypothesis expressed strength of various cointegration are equal or less then (r), in opposite of common unrestricted alternative which is being in excess then (r).

The other test of statistics can be performed as below:

$$\lambda_{\max}(r, r+1) = -T \ln(1 - \hat{\lambda}_{r+1})$$

The above expression has laid foundation on maximum Eigenvalue. It's only concerned to check null hypothesis which is (r) for vector, cointegrating in comparative to alternative which is (r+1).

Impulse Response
Impulse Response function is the method engaged for the measurement of unpredicted variations in a variable say X (impulse) in a time trend t forecasting its consequences on the variable Y during a time trend t, $t+1, t+2, t+3+\ldots\ldots+t+$n etc (response). This function describes the outcome of variable X on the variable Y other anyone else. When there is the existence of only two variables in the study, say X_t and Y_t the type of impulse response function would be as below.

$$Y_t = \alpha_1 + \varepsilon_{Y,t} + \eta_1 \varepsilon_{Y,t-1} + \eta_2 \varepsilon_{Y,t-2} \ldots\ldots\ldots \eta_i \varepsilon_{Y,t-i}$$

$$X_t = \alpha_2 \varepsilon_{X,t} + \varphi_1 \varepsilon_{X,t-1} + \varphi_2 \varepsilon_{X,t-2} \ldots\ldots\ldots \varphi_i \varepsilon_{X,t-i}$$

These above mentioned equations state that how an endogenous variable cause to exogenous variable (Xt or Yt).

Granger Causality Test
Granger Causality is a term for particular conception of the causality in analysis of the time series. If couple of the series interrelated to each other than the Granger Causality must have to exist at least from one way, which shows the influence track amid the series. Here, if lagged or current terms of the variable which is time series, consider X_t, conclude that one other variable of time series, supposed Y_t, then there would be the existence of Granger Causality connection stuck between the variables of X_t and Y_t.

$$\Delta Y_t = \eta_1 + \sum_{i=1}^{n} \alpha_i \Delta X_{t-i} + \sum_{j=1}^{n} \beta_j \Delta Y_{t-j} + U_{1t}$$

$$\Delta X_t = \eta_2 \sum_{i=1}^{n} \lambda_i \Delta X_{t-i} + \sum_{j=1}^{n} \delta_j \Delta Y_{t-j} + U_{2t}$$

Here in the above U_1 and U_2 represents the disturbance terms which are not interrelated to each other, the constant terms are shown as η_1 and η_2 and $\delta, \beta_j, \alpha_i$ and λ_i are the coefficients.

Let X correspond to the budget deficit and the variable Y symbolize current accounts deficit. Then there would be four hypothesis of Granger Causality test: negative balance of budgetary accounts correspond to current account negativity, deficit of current accounts lead to fiscal deficit, bi-directional causality exist among both variables, both deficits are not causally interrelated.

4. Empirical Results

To break out the structural trends in data, we applied unit root test under ADF (Augmented Dickey Fuller) method. The results of subject's variable divert us toward order of 1(1). The structural trends in the fiscal deficit time series data set break out under Augmented Dickey Fuller test at 1st difference. So, the order of integration for fiscal deficit lead us to $I(1)$, on the other hand Current account deficit also becomes stationary at 1st difference at 5% level of significance and leads us to $I(1)$ order of integration. Hence, according to the results we move towards further on--trace test.

Table 1: Unit Root Test Results

	Augmented Dickey Fuller Test Level		Augmented Dickey Fuller Test 1st Difference		Conclusion
Variables	**Without Trend**	**With Trend**	**Without Trend**	**With Trend**	
Budget deficit	2.58	2.90	5.90*	5.64*	$I(1)$
Current account deficit	1.81	3.42	3.97*	3.84*	$I(1)$

Note: 1%, 5% and 10% critical values for Augmented Dickey Fuller Test (ADF) level are 3.80, 3.02, and 2.65 for without trend, while 1%, 5% and 10% critical values with trend are 4.49, 3.65, and 3.26 respectively. 1%, 5% and 10% critical values for Augmented Dickey Fuller Test (ADF) on 1st difference without trend are 3.83, 3.02 and 2.65 while 1%, 5% and 10% critical values with trend are 4.53, 3.67 and 3.27 respectively

Table 2: Cointegration Test Result

Unrestricted Co-integration Rank Test (Trace)				
H_0	H_1	Trace Statistics	0.05 Critical Value	Prob.
r = 0*	r ≥ 1	141.9786	95.75366	0.0000
r ≤ 1*	r ≥ 2	82.89489	69.81889	0.0032
r ≤ 2	r ≥ 3	45.08015	47.85613	0.0891

Unrestricted Co-integration Rank Test (Maximum Eigen value)				
H_0	H_1	Max-Eigen Statistics	0.05 Critical Value	Prob.
r = 0*	r ≥ 1	59.08367	40.07757	0.0001
r ≤ 1*	r ≥ 2	37.81475	33.87687	0.0161
r ≤ 2	r ≥ 3	26.66635	27.58434	0.0652

* *Denotes rejection of the null hypothesis at the 0.05 level*

The consequences of Johansen cointegration demonstrate that there are numerous equilibrium associations amongst the variables. In Unrestricted Cointegration approximately two dissimilar kind of cointegration affiliation exist amid variables i.e. Budget deficit and current account deficit at 0.05% level of significance and in Maximum Eigenvalue the outcome represents that there is the existence of at least two types of integration relationship amongst the variables.

Table 4: Granger Causality Test Result

Null Hypothesis	F-Statistic	Prob
CAD does not Granger Cause BD	4.73100	0.0269
BD does not Granger Cause CAD	1.49321	0.2583

To interpret Pairwise Granger causality test with lags specification of two, we build up hypothesis as:

H_0 = Current account does not Granger cause Budget deficit vice versa.

H_a = Current account do cause budget deficit vice versa.
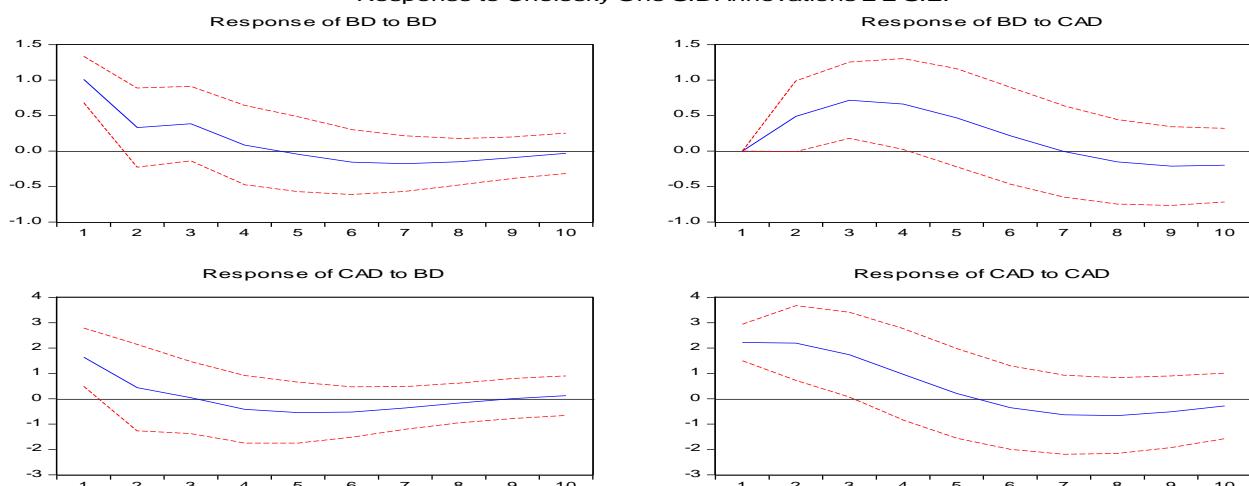
The rule of thumb is that if the F-Stat under Granger causality trace test is greater than 4 and the on other side Probability value is less than 0.05, then we will accept alternative hypothesis and dip down to null hypothesis. Here results illustrate that current account deficit is causing (CAD has relation with BD) budget/fiscal deficit. In reaction budget deficit does not cause current accounts balance. So, results of Granger Causality test express that there is uni-directional connection amid variables. The economic interpretation behind it is that current

account deficit cause deficit in budget, because deficit in current account creates shortage of funds to pay for imports and creates budget deficit.

Table 3: Long Run and Short Run

Long Run Analysis							
Dependant variable is bd				Dependant variable: cad			
Variable	Coefficient	t-stat	Probability	Variable	Coeff	t-stat	prob
C	-4.54	-7.189	0.000	C	-0.03	-0.035	0.97
Cad	0.47	3.14	0.0036	bd	0.50	3.14	0.0036
Ad R^2	0.23	D.W Stat	1.42	Ad R^2	0.23	D.W	1.05
Short Run Analysis							
dependant variable: bd				dependant Variable: cad			
C	0.11	.027	0.7859	C	0.06	1.12	0.951
Dcad	0.21	1.27	0.2122	Dbd	0.51	0.174	0.006
Ecm	-0.72	-4.33	0.0002	ecm	-0.10	0.193	0.584
Ad R^2	0.39	D.W Stat	2.11	Ad R^2	0.22	D.W	1.16

Table 3 shows the results of short run and long run analysis of the model. Both the variables have positive sign which means that deficit in current account leads to deficit in budget and vice versa in the long run. While the magnitude of the coefficient is also equal like 47 % and 50%. The short run analysis also depicts very interesting results. The model which have budget deficit as dependant variable shows that disequilibrium in the previous year is corrected 72% in the current period. On the other hand, the model which takes current account deficit as dependant variable shows that only 10 % disequilibrium of the previous year is corrected in the current period.

Figure 1: Impulse Response Function

Response to Cholesky One S.D. Innovations ± 2 S.E.

Impulse response function is an additional method to diagnose connection amongst budgetary deficit balance and negative balance of current account, as predominately it clarifies that how

while giving a shock to one variable would influence to other variable. Now we have checked the impulse response function under Response to Cholesky S.D Innovations.

First we check the response of CAD to CAD itself, while giving a shock to CAD to its own lag is positive until reaching 4th lag up to and after that becomes negative. Figure-2 representing response of BD to CAD, when shock to CAD then representing a positive association among both variables up to 6.5th lag. In comparative in figure-3 we test the responses of CAD to BD which is reporting positive results up to 2.5th lag. In the last figure CAD to CAD is presented by which we conclude that there is existence of bi-directional connection amongst variables of interest.

5. Conclusion and Policy Recommendations

This study examines the long-term equilibrium association/causality amid current account deficit and budget deficit in case of Pakistan's economy. Key purposes of these examinations are to investigate the existence of twin deficits hypothesis. The data in the study is used over the period of 1970-2010. We investigate the results through a process of unit root test, cointegration analysis, impulse response function and Granger causality test. Empirical outcomes demonstrate that there is existence of twin deficits in Pakistan. It is concluded that current account deficit Granger cause to budget deficit. On the other hand, budget balance does not cause to current account deficit. So, there is uni-directional causality in Pakistani data.

Basically, Pakistan is a developing country, not developed one, with an agrarian economy and abundance of labour force. Pakistan is not proficient in technological progress as compared to developed nations. Due to illiteracy and political instability investment projects are not working properly. So output level is going to decline, in diverse dimension. Population is increasing rapidly which is causing higher demand for goods and services, which are not being produced enough domestically. For the fulfilment of these requirements, we import goods and services.

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Failure of Brand Intoxication with the Mediating Effect of Ad Skepticism

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Abstract

Brands still have not intoxicated the all segments of customers, yet there are people who have motivations to escape from brand. This study explores the mediating role of ad skepticism between self-image congruency, product knowledge and brand escapism motivation. The other purpose is to see the direct relation of product knowledge and self-image congruency on brand escapism motivation. A Study of 267mobile phone users is conducted, who use iconic and less iconic mobile phone brands. Proposed relationships were empirically tested through SPSS and SPSS Macro for Multiple Mediation. People in Pakistan consider mobile phone brands as their social status, due to this their beliefs and disbeliefs about advertising and motivation in brand escapism are helpful to understand. Pakistan is a developing country, consumers are not so much brand conscious and do not pay attention to advertising issues like developed countries. Because of this mediating effect of ad skepticism is not supported. The results support the effects of self-image congruence and product knowledge on the brand escapism motivation but not on the ad skepticism.

Keywords: Brand Escapism Motivation, Ad Skepticism, Self-Image Congruence, Product Knowledge

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1. Introduction

Escapism means that most people have, due to unsatisfying life circumstances, again and again cause to leave the reality in which they live in a cognitive and emotional way (Henning & Vorderer, 2001). Escapist may do some activities, such as playing video games, watching TV, etc. while non-activities may be daydreaming, waiting, sitting and doing nothing or staring out a window.

Brands are developed to make ease in consumer decision making and save it from perceived risk (Cox & Rich, 1964). Brand awareness make possible for marketers to get consumers decisions taken more faster (Macdonald & Sharp, 2000). Considering this, more emphasis is placed on brand awareness, and it creates consumer brand confusions (Foxman, Berger, & Cote, 1992). However a halo of resemblance is created because of the similar attributes, content etc. and all this leads to confusion (Kapferer, 1995). Brand confusion creates dissatisfaction to some consumers (Foxman, Muehling, & Berger, 1990), which motivate customers to escape from brands. Escapism means that most people have, due to unsatisfying life circumstances, again and again cause to leave the reality in which they live in a cognitive and emotional way (Henning & Vorderer, 2001). Escapist may do some activities, such as playing video games, watching TV, etc. while non-activities may be daydreaming, waiting, sitting and doing nothing or staring out a window.

This is similar with our operational definition of escapism; people due to unsatisfying behavior with brands are motivated to escapism. People escape from brands and use the traditional methods of purchasing butter and honey in rural areas in Pakistan due to lack of trust of originality.

When consumers feel themselves as powerless, they try to regain the wellbeing and degree of self-empowerment, for this consumers mostly find ten remedies and escapism is one of them (Henry & Caldwell, 2006). Motivation in escapism is such a way which gives pleasure or any mental health (Labrecque, Krishen, & Grzeskowiak, 2011). Brands can as well fulfill this escapism motivation such as giving pleasure in using web brands (Mathwick & Rigdon, 2004); sports fandom, like Nike or Harley Davidson (Wann, Allen, & Rochelle, 2004); building communities (Kozinets, 2002).

A healthy research work is conducted to see the ad brand relation, some of it is, retrieval cues and brand evaluation (Keller, 1987); advertising and brand purchase (Tellis, 1988); advertising costs and brand perceptions (Kirmani, 1990); ad attitude and brand attitude (Phelps & Thorson, 1991); comparative advertising and brand positioning (Pechmann & Ratneshwar, 1991); retail advertising and brand sale (Bemmaor & Mouchoux, 1991); advertising and brand switching (Deighton, Henderson, & Neslin, 1994); advertising and

brand image (Meenaghan, 1995); advertising and brand equity (Cobb-Walgren, Ruble, & Donthu, 1995); generic advertising and impact of branding (Brester & Schroeder, 1995); advertising and consumer brand choice (Mela, Gupta, & Lehmann, 1997); advertising and brand gender perception (Till & Priluck, 2001); brand reputation and advertising (Chaudhuri, 2002); 3-D advertising and brand attitude (Li, Daugherty, & Biocca, 2002); advertising and brand linking (Casswell & Zhang, 2002); advertising repetition and brand familiarity (Campbell & Keller, 2003); ad brand incongruency (Dahlén & Lange, 2004); advertising, brand loyalty and pricing (Chioveanu, 2008). All these research works discuss the relations or linkages between advertising and brands.

Skepticism and escapism are the areas which have not been explored in depth, very thin literature is available to discuss. Escapism and brand is studied by (Labrecque et al. 2011), they have checked brand loyalty and effects of escapism motivation and conformity motivation. While another study is conducted by (Khuhro, Bhutto, Sarki, and Shaikh 2012), they have carry forwarded the future research direction of (Labrecque et al., 2011) and tested the same model with iconic and less iconic brand.

Advertising skepticism effects are not tested with brand, only efforts are taken to measure ad skepticism, some of them works are ad skepticism in general (Obermiller & Spangenberg, 1998); persuasive advertising and scale development of advertising skepticism (Koslow, 2000); ad skepticism and intergenerational influences (Obermiller & Spangenberg, 2000); scale development of social ad skepticism (Thakor & Goneau-Lessard, 2009).

Both constructs; escapism motivation and ad skepticism are not researched as is the advertising and brand relations. This study is focusing on the escapism motivation in brands and mediating role of ad skepticism. The purpose of this paper is twofold, first is to know the mediating effect of ad skepticism between self-image congruency, product knowledge and brand escapism motivation while second is to see the direct relation of product knowledge and self-image congruency on brand escapism motivation.

2. Literature Review

i) Self-image Congruence

Self-image or self-concept is defined as the totality of the individual's thoughts and feelings having reference to himself as an object (Sirgy, 1982). While self-image congruence refer to the match between consumers' self-concept (actual, ideal etc.) and the user image of a given product, band, store etc. (Sirgy, Grewal, & Mangleburg, 2000).

There can be high level of self-image congruity and low level of self-image congruity in consumers. Those consumers belongs to high level of self-image congruity are tend to like more brand and gain more satisfaction than low level of self-image congruity (Jamal & Goode, 2001); the authors have found strong relationship between self-concept and brand preferences;

brand preferences may be on the basis of symbolic or functional properties, with relation to self-concept symbolic properties plays vital role. Their study has also found the strong relationship between the self-congruency and consumer satisfaction, in which image congruity has more impact on consumer satisfaction.

Person intend to purchase those brands which closely match with his own personality and are also connected with the self-image or self-concept, it has different conceptualizations such as, actual self, ideal self, social self, ideal social self (Schiffman & Kanuk, 2000). Brands are attached emotionally with human as are his or her family members, because of this high congruity has the higher quality relationship with brand and it is having positive effect on brand loyalty. Self-congruity has direct link to brand loyalty and functional congruity is linked to brand loyalty indirectly, it may vary in terms of low and high involvement products (Kressmann et al., 2006).

There can be ad-brand incongruences especially when advertiser provides entire different message, such as a man in underwear ready for work or an ad of car and happy army but no any car image. Incongruent ad can bring novelty in brand communications but it can also create complexity in advertising messages. Advertising does not affect negative to established brands, marketers use advertising for established brands as a tool to change brand schemata and providing flexibility in brand knowledge structure. Ad linking plays vital role in ad credibility while ad credibility has negative effect on ad-brand incongruences; high involvement products' credibility is affected more than low involvement (Dahlén, Lange, Sjödin, & Törn, 2005).

Advertising try to give direction to brands as companies wants, in advertising absence brand can exist but not as per the will of marketer, because advertising is the main component of image creation. There are two schools of thoughts in advertising effectiveness, one is cognitive, and the other is behavioral or brand image school. Cognitive school believes the role of advertising should be rational and by this consumer will tend to buy more. While other school points out that advertising should build a relationship between the consumer and brand, it brings the concept of personality of brands while cognitive school favors the functional congruity which refers to consumers' preference to brand performance. On the other hand behavioral school discusses of self-congruity which focuses on consumers cues and matches with brand which are communicated through advertising. Advertising tries to combine both think and feel (cognitive and behavioral) but yet disbeliefs exits (Meenaghan, 1995).

ii) Product Knowledge

There are three types of product knowledge, i) product experience; ii) subjective knowledge; iii) objective knowledge. Product experience is related with the possession of product or

gaining knowledge after usage. Subjective knowledge refers to consumer's familiarity with the brand and its focus is on the motivational aspect. Objective knowledge is related with the information processing ability of consumers (Park & Moon, 2003). In this study general aspect of product knowledge is used.

(Friestad and Wright 1995) have tried to investigate the advertising influences on audiences, for this they have split audiences into two parts, lay and researchers. Persuasion knowledge is the parameter on which it is studied. With these parameters author has found that researchers are more tend to be persuaded through science knowledge and they vary within their group while lay are persuaded through folk knowledge and they are consistent within their groups. Too much product knowledge can dilute the intentions to purchase new product and more product knowledge may leads to product susceptibility because individuals may gain irrelevant knowledge (Lai, 1991).

Theory supports that in traditional case consumers have many choices and make a selection while other aspect is that consumer make selection from given information or product knowledge as of being freedom to choose, and this right to choose is enriched through advertising which reduces consumer's cost and increases consumer's welfare. In this situation consumer is motivated to advertising. But not all advertisings are accurate that is the reason that consumers process their information, which is called defensive motivation. Consumers go for skepticism as marketers try to sell them instead of informing (Koslow, 2000) .

iii) Ad Skepticism

Skepticism and general attitude towards something are separate (Obermiller & Spangenberg, 1998) ; a considerable work has been conducted to investigate the attitudes towards business and advertising such as (Barksdale & Darden, 1972); (Gaski & Etzel, 1986); (Muehling, 1987a). Ad skepticism is constrained to advertising and not for all kind of communications. It is also conceptualized as market place belief (Obermiller & Spangenberg, 1998).

Disliking and believability are different with reference to skepticism. Ad skepticism and attitude towards advertising are related but separable constructs. Attitude towards advertising is studied, such as (Bauer et al. 1968) who proposed a construct of two dimensions, (Sandage and Leckenby 1980) proposed two dimensional conceptualization (Muehling, 1987b) developed a scale which could measure the cross sectional beliefs about advertising.

Skepticism toward advertising in general is defined as the tendency toward disbelief of advertising claims (Obermiller & Spangenberg, 1998). Another study of (Obermiller and Spangenberg 2000) have worked on the intergenerational influences and determined ad skepticism as a separate construct from skepticism towards other sources of product

information; their study found that children were less skeptical than their mothers. By considering gender the correlation was tested between children and parent. Male children and parent was having strong positive correlation while females were having strong correlation with fathers. Interrelationship between ad skepticism and other sources of product information was checked by classifying high and low skepticism. People high in skepticism are found high in other sources as well. Older people are more skeptical, high correlation between advertising and sales people was also found. Skepticism towards advertising overlaps to some extend with more general attitude towards business and marketing. Some evidence was found in intergenerational transfer of skepticism towards advertising but it was not so strong.

(Thakor and Goneau-Lessard 2009) have studied the effects of peer influence, parental influence, and personality variables to the social advertising skepticism. Social ads are different than commercial, they try to discourage behaviors which are risky such as smoking and encourage behaviors which are effortful such as blood donations. Modest correlation was in their research between social ad skepticism and commercial ad skepticism; the authors have taken both construct as separate one.

Ad-brand incongruence can have both positive and negative effects in established and less established brands. Ad incongruence may occur when an advertiser communicates a message of a man in underwear ready for work or an ad of car in which a happy army is shown not the car. Advertising does not have negative effect to established brands rather it may be used to change consumers' brand schema and it also provides flexibility in brand knowledge structure. Ad linking plays vital role in ad credibility, while ad credibility has negative effect on ad-brand incongruences. High involvement products affect more on ad credibility. Incongruent ad brings novelty in brand communications but creates complexity in the advertising (Dahlén et al., 2005).
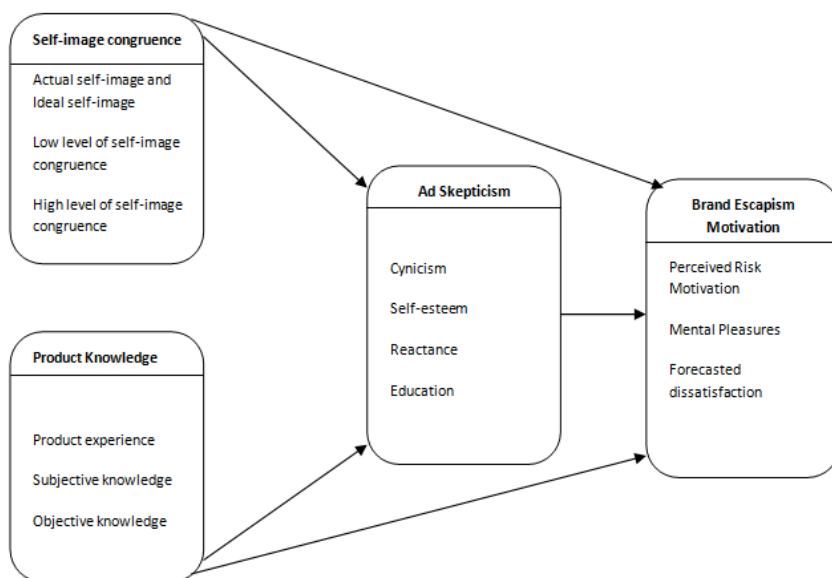
Most new products fail; for reducing it brand extensions are used. There may be similar and dissimilar brand extensions. Ad spending places positive effect on similar brand extensions. Dissimilar brand extensions lead to brand extensions skepticism due to large ad expenditure (Taylor & Bearden, 2003).

Regulations are created when consumers are more skeptics because they verify ad claims. If ad claims are difficult to verify it creates more tendencies towards skepticism, Ads have two characteristics, subjective claims and objective claims. Objective claims contain more information in ads than subjective claims. Consumers can be divided on the basis of economies; such as former Soviet-bloc and developed market economies, skepticism in developed market economies is found more due to wide verity of brands and free choice (Feick & Gierl, 1996).

There is a close linkage between ethnocentrism and attitude towards brands; high ethnocentric consumers understand purchasing foreign brands is wrong while not the non-ethnocentric. This is the same case with ads of foreign brands, ethnocentric consumers show skepticism; it may be more or less with reference to low and high ethnocentrism. Ad influence is more on attitude towards brands in developing countries because consumers rely on information provided in ad rather than direct experience. Expert messages and arguments based appeals becomes more effective and lack of information in ad motivates in new markets (Feick & Gierl, 1996).

Cause-related marketing (CRM) is used by companies to increase their profits by giving some margins, i.e. Surf excel launched the campaign for special children. It also creates skepticism towards ad, particularly to cause related marketing ads. It is specially increased when sin industries try to promote CRM activities, this can be the case, if any Tabaco company raise funds for cancer. This CRM ad skepticism can be reduced by providing high level of knowledge in ads and using emotional ads instead of attention-getting ads (Singh, Kristensen, & Villasenor, 2009).

1. Hypothetical Model

Self-image congruence and product knowledge are independent variables, while ad skepticism is playing as mediating role and brand escapism motivation is the dependent variable.
H1 Consumer being motivated with his self-image congruence does not care for social match up and it strengthen the positive effect on brand escapism motivation

H2 Ad skepticism has mediating effect between self-image congruence and brand escapism motivation.

H3 Consumer is escaping from brands when halo of resemblance is created with more product knowledge that creates positive effect on brand escapism motivation

H4 Ad skepticism has mediating effect between product knowledge and brand escapism motivation.

2. Methodology

This is an empirical study, which examines the mediating effect of ad skepticism between self-image congruence and brand escapism motivation; product knowledge and brand escapism motivation. Survey method was selected to collect the data from the Pakistani university students, convenience sampling is used, and total sample in study is 267. Male response rate is more than female, 237 male have responded while only thirty female have participated in the study. The area is divided into two broad categories which are urban and rural, the age is categorized into four parts, the education is as well divided into four divisions, the largest sample size is from the master holders, the age, area and education distribution data is given below.

Age	N	Area	N	Education	N
less than 18	49	Rural	114	less than graduation	67
19-25	159	Urban	153	Graduation	55
26-35	42	Total	267	Masters	129
more than 35	17			MS PhD	16
Total	267			Total	267

Instrument is used to measure four constructs which are self-image congruence, product knowledge, band escapism motivation and ad skepticism. The first three constructs are checked with the help of scale of (Labrecque et al., 2011) and ad skepticism is measured through the scale of (Obermiller & Spangenberg, 1998). Scale contains five point likert scale and responses consists of from Strongly Disagree to Strongly Agree. All the proposed relationships were empirically tested through SPSS 18.

3. Results and Analysis

The four constructs were containing twenty four items; ad skepticism was having nine; self-image congruity six; escapism motivation five; and product knowledge four. The exploratory factor analysis was run to test the scale adoptability in Pakistani culture and consumer approach. Ad skepticism and escapism motivation are found the most valid scale and their all items are loaded on their constructs. Self-image congruity two items were dropped which are

1) The image of the mobile phone brand is consistent with my self-image, 2) The typical person who uses mobile phone matches how I like to see myself, while four items are loaded to its construct. Product knowledge two items have been loaded and two have been dropped which are 1) I feel very confident about my ability to tell the difference in quality among different land line telephones (Landline telephone sets not the services) and 2) I have a lot of knowledge about how to select the best brand of land line telephone to suit my needs (Landline telephone sets not the services).

Table 1 Rotated Component Matrix				
	Component			
	1	2	3	4
Advertising is a reliable source of information about the quality and performance of products	.638			
Advertising's aim is to inform the consumer	.636			
I feel I have been accurately informed after viewing most advertisements	.622			
I believe advertising is informative	.622			
Most advertising provides consumers with essential information	.595			
Advertising is the truth well told	.585			
In general, advertising presents a true picture of the product being advertised	.584			
Advertising is generally truthful	.565			
We can depend on getting the truth in most advertising	.514			
The typical person who owns a mobile phone matches how I see myself		.894		
I can identify myself with the people who own mobile phone		.816		
I aspire to be like those who use smart mobile phone		.816		
People who own mobile phone are like the person that I like to be		.645		
I use my mobile phone because it takes me into another world			.783	
I use my mobile phone because it makes me feel less lonely			.762	
I use my mobile phone because it stimulates me			.757	
I use my mobile phone because it arouses my emotions and feelings			.717	
I use my mobile phone so I can escape from Reality			.471	
If friends asked me about land line telephone, I could give them advice about different Brands (Landline telephone sets not the services)				.673
I feel very knowledgeable about the mobile phones				.592
KMO =.778 Total Variance Explained = 55%				
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 5 iterations.				

Table two shows the mean, standard deviation and correlation of demographic and latent variables. All constructs have standard reliability, escapism motivation has .79; ad skepticism has .77; self-image congruity has .86; and product knowledge has .68.

Table 2 Correlations

	Variable	Mean	SD	1	2	3	4	5	6	7	8
1	Age	2.10	.766								
2	Sex	1.11	.316	-.249**							
3	Area	1.57	.496	-.123*	.019						
4	Education	2.35	.924	.412**	-.252**	.174**					
5	Escapism Motivation	3.05	.819	-.032	-.064	.121*	.271**	.79			
6	Ad Skepticism	3.25	.674	.121*	-.236**	-.136*	.145*	.095	.77		
7	Self-Image congruity	2.73	.955	-.284**	-.022	.149*	.265**	.513**	.078	.86	
8	Product Knowledge	2.84	.843	-.190**	-.009	-.051	.060	.273**	.138*	.391**	.68

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Hypothesis 1 stated that Consumer being motivated with his self-image congruence does not care of for social match up and it strengthen the positive effect on escapism motivation. Table 3 shows that self-image congruence has positive effect on brand escapism motivation. The hypothesis was supported by the results exhibited in the Table 3.

Hypothesis 2 stated that Ad skepticism has significant mediating effect on self-image congruity and brand escapism motivation. The results of hierarchical regression analysis do not support the relationship (See Table 3). This may be the reason that people in Pakistan are not much paying attention to advertising appeals and they only care of an event match up and are not consistent with self-image congruence. Item (The image of the mobile phone brand is consistent with my self-image) in scale of self-image congruence has been dropped in exploratory factor analysis. Which was supported in the study of Labrecque et al. (2011) at United States.

Hypothesis 3 stated that Consumer is escaping from his social gatherings with the consumption of many products and its more knowledge creates positive effect on brand escapism motivation. The results of hierarchical regression analysis supported the relationship (See Table 4) that product knowledge creates positive significant effect on brand escapism motivation. The hypothesis was supported by the results exhibited in the Table 4.

Similarly hypothesis 4 stated that Ad skepticism has significant mediating effect on product knowledge and brand escapism motivation was also examined by hierarchical regression analysis. The results showed in Table 4 states that Ad skepticism has no significant mediating effect on product knowledge and brand escapism motivation. Respondents have shown that they are less caring in the product knowledge of substitute brands; the items, (1. I feel very confident about my ability to tell the difference in quality among different land line telephones, 2. I have a lot of knowledge about how to select the best brand of land line telephone to suit my needs) have been dropped in exploratory factor analysis. This is the reason that mediating effect has not been supported.

Table 3

Brand Escapism Motivation

	Step 1			Step 2			Step 3		
	β	t	ρ	β	t	ρ	β	t	ρ
Age	-.16	-2.49	.013	.073	1.099	.273	.071	1.072	.285
Gender	-.02	-.39	.694	-.011	-.193	.847	-.003	-.050	.961
Area	.044	.729	.467	.038	.707	.480	.044	.808	.420
Education	.325	4.830	.000	.099	1.492	.137	.095	1.440	.151
Self Image Congurity				.502	8.281	.000	.499	8.191	.000
Ad Skeptism							.039	.713	.477
R	.317			.536			.537		
R²	.100			.288			.289		
Adj R²	.087			.274			.272		
Δ R²	.100			.187			.001		
F	7.305			21.06			17.60		

4.
5.
6.

Table 4

Brand Escapism Motivation

	Step 1			Step 2			Step 3		
	β	t	ρ	β	t	ρ	β	t	ρ
Age	-.166	-2.493	.013	-.095	-1.42	.156	-.097	-1.447	.149
Gender	-.024	-.393	.694	-.017	-.279	.780	-.008	-.133	.894
Area	.044	.729	.467	.074	1.234	.218	.080	1.319	.188
Education	.325	4.830	.000	.279	4.196	.000	.275	4.115	.000
Product Knowledge				.242	4.098	.000	.237	3.963	.000
Ad Skeptism							.043	.717	.474
R	.317			.393			.395		
R²	.100			.155			.156		
Adj R²	.087			.139			.137		
Δ R²	.100			.054			.002		
F	7.30			9.55			8.032		

Sample size 267
Level of Confidence for Confidence Intervals: 95

4. Conclusion

This study is conducted to see the mediating effect of ad skepticism between self-image congruence, product knowledge and brand escapism motivation. Consumers in Pakistan are motivated in escaping from brands; product knowledge and self-image congruity has positive effect on it. Self-image congruity places positive effect when it is not matched between marketer offer and an individual self. This is because of certain mediums, such as ad skepticism, which is studied as mediating effect in this study. This mediating effect is not supported in our study; it is due to consumers less interest of self-image consistency and product knowledge of substitute products. Both constructs, self-image congruency and product knowledge two items has been dropped in exploratory factor analysis, which represents the consistency of self-image congruency and product knowledge of substitute products. The other reason may be that consumers do not try to get the product knowledge because of their less interest in brands expect as an icon of social status or being a collectivist society they believe on other sources of purchase decisions instead of their own product knowledge collection and evaluation, such as peer suggestion and word of mouth. The more products in the market and more its knowledge creates halo of resemblance which has positive effect on escapism motivation, the results in our study also support it.

5. Practical Implication

This research is helpful for all marketers to position their brand in such a way that consumer should not be motivated in escaping the brands and for advertising agencies to clearly understand the product knowledge excess which is becoming the cause to hallo of resemblance. Managers try to increase the customer loyalty, escapists are the one who not only leave the usage of brands but also places influence through negative word of mouth, managers can take help from this study and try to retain the customers and save users of brands from escapist arguments. Apart from this it also share contribution in the marketing literature as well.

6. Research Limitation

Product knowledge and self-image congruence are very broad constructs and have their sub parts, like product knowledge has product experience, subjective knowledge, objective knowledge. And self-image congruence has actual self-image and ideal self-image or high and low level of self-image congruence. Our research is focusing on only general concept of these constructs. If they are studied with their division and the mediation role of ad skepticism is examined, this can bring new aspects of research. Sample used in this study is enough for statistical analysis but for further generalization, it may be increased.

7. Future Research

The mediating role of ad skepticism can be checked by classifying the self-image and product knowledge; as it is discussed in our area of research limitations. This kind of study can bring new results in a developed country, where consumers tend to spend more time on the selection of brands and study more information of products and they try to relate brands with their personality with consistency.

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