Message from Patron in Chief

Khyber Pakhtunkhwa Higher Education Academy of Research and Training (HEART) successfully added to the professional capabilities of Associate professors, Assistant professors and Lecturers of the Higher Education Department by imparting quality trainings on updated modules to meet the academic challenges inside the classrooms. Nevertheless, no stone is left unturned to enhance the capacity of DDOs and ministerial staff working in offices at government colleges across Khyber Pakhtunkhwa. The continuous pursuit to excel in the area of training has made HEART a topping professional training institution in KP. Despite the monumental achievements in the area of training however, was deemed unaccomplished as this august academy confronted a demand of initiation of academic research by virtue of the spirit of its act.

An effective Research Wing has been established to look into the intellectual and academic challenges in government colleges and to suggest redressal measures to the government. The Research Wing conceived the idea of *The Lighthouse*, a word suggestive of paving a way forward to the budding creative college faculty and to further glitter the bloomed researchers. The Research Wing tirelessly worked day and night to bring into light the present issues of *The Lighthouse Journal of Literature and Linguistics, The Lighthouse Journal of Social Sciences, The Lighthouse Journal of Natural Sciences* and *The Lighthouse Journal of Computational and Numerical Sciences*. This is a milestone achievement by the research wing of the academy to provide a first ever forum to the college teachers to get their quality research papers published in journals of their own. This valued contribution by the Research Wing of HEART is also the first ever distinguished endeavor among the four provinces. It is further envisioned to invite researchers from college teachers of other provinces to seek benefit from HEART by publishing their best articles and research papers in the light shedding *The Lighthouse*.

I share the pride of this moment with Ms. Seema Rahman, Deputy Directress Academics and Chief Editor of *The Lighthouse* journals, and Ms. Zarfisha Khan Sikandri, the Managing Editor of *The Lighthouse Journal of Social Sciences*. I am fingers crossed to seeing *The Lighthouse* comes up to gleam and twinkle from afar to the light seekers from all across the country.

Prof. Tasbih Ullah

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An Analysis of Social and Moral Values in Secondary School Curriculum of Pakistan Studies

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ABSTRACT

This study explored incorporation of social and moral values in secondary school textbooks of Pakistan Studies in Khyber Pakhtunkhwa, Pakistan. The textbooks of Pakistan Studies of secondary classes and the secondary school teachers comprised the population of the study. Lessons about moral and social values from the textbooks of Pakistan Studies of secondary classes and twelve secondary school teachers were selected as the main sample of the study. For taking the sample of the study, purposive sampling technique was used. Qualitative content analysis technique was used to analyse data obtained from the textbooks and from the interviews of secondary school teachers. Findings of the study revealed that the textbooks contained social values like patriotism, unity and equality and moral values such as faith in oneness of Allah and moderation. Secondary school teachers were of the opinion that social values are quite beneficial for adjustment of people in a society according to its cultural values whereas moral values are standards to judge individuals' behaviour. This study implies that social values such as equality, responsibility, human rights, hard work, unity, dignity of labour, liberty and dispensation of justice and moral values such as fair play, honest dealing, truthfulness and lawfulness might be included more overtly in the textbooks for a more rounded development of students.

Keywords: Values, Social and moral values, Textbooks of Pakistan Studies, Pakistan Studies Teachers, 9th and 10th classes, secondary classes

INTRODUCTION

Values represent perception and belief of people about good and evil in life. Besides this, these also focus on the significance of values in life. Values are important because they shape the personality of an individual as good and likeable for the other people of the society (Hart & Carlo, 2005). Social values are more specific to monitor and determine the social actions of an individual in a society because these are subtle articulation of aims, goals and objectives of people's behaviour in a civilized society (Khanam, 2008). These values form the basis on which individuals' actions in a society are judged and they can be labelled as patriot, responsible citizens, law abiding individuals and person who have respect for universal brotherhood.

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These values play a pivotal role in shaping the socially responsible individuals who live as law abiding people. Their whims and caprices can be controlled because these are thought to be against the social and moral values and norms of a society (Zalta, 2016). Practice of norms and respect for social values make people law abiding and responsible individuals. They consider themselves as an integral part of their society who follow the practices of society because of their internalized belief and grooming. As a result, social order is established in the society for harmonious life of people and creation of cordial relationship for better living. Obedience of social values creates a uniform culture of a society which is quite helpful to create an established and better society (Faizi, 2010).

Morals values are more often concerned with the right or wrong or good and evil aspect of human behaviour. The standards are helpful in judging an individual's personality being right or wrong and good or otherwise. Good actions serve as a source of happiness and satisfactions for an individual. On the contrary, his bad or wrong actions make him feel bad because he would never allow any of his loved ones to replicate that action. Good deeds of an individual are compulsory for his positive moral development and character building in desired way (Cavendish, 2010). People who deviate from the path of goodness always like to practice goodness in their life. Moreover, obedience to the moral values not only shapes the character of an individual but it is also beneficial for creating a better society (Woodier, 2011; Wringe, 2012).

Children who have knack for learning, learn moral values due to their interaction with the people of the society. The learnt moral values become a consistent part of children because these cast a positive effect on them throughout their life. In case of violation, they feel a sense of shame because they have internalized them in their childhood (Toomey, 2010). With the constant practice of values, they willingly follow the learnt values. A combined effort of both parents and teachers complemented by the sober people of society transform children into positive and morally groomed individuals (Zalta, 2016).

Social and moral values have such potential that these can make a child socially groomed and morally better individual (Thornberg, 2009). Young students are in a stage of constant physical, emotional and intellectual stress and strain. It casts a positive or negative effect on children because they can behave positively if they are groomed in planned and positive way and vice versa (Memon, 2007). Secondary education is a defining moment in the life of students because it can train them for good professions besides making them socially responsible and morally better human beings. Purposive secondary education can equip students with useful life skills and good moral and social education to create better human beings (Hemchand, 2009).

The current study explored the inclusion of moral and social values in Pakistan Studies of 9th and 10th classes. The study also focused to elaborate the rewarding effects of incorporation of moral and social values in the textbooks of Pakistan studies. Besides this, it also identified some moral and social values which can be used to make students well groomed and morally better individuals. Findings of the study are based on the research questions:

1. What moral and social values are incorporated in the textbooks of Pakistan Studies of secondary classes in KP?
2. What moral and social values are lacking in the textbooks of Pakistan Studies of secondary classes in KP?
3. What moral and social values can be used to train students as law abiding members of the society in KP?

METHODOLOGY

Textbooks of Pakistan Studies of 9th and 10th classes (2015) of Khyber Pakhtunkhwa Textbook Board, Peshawar and secondary school teachers (who teach Pakistan Studies at secondary level) of Mansehra district comprised the main population of this study. There are 1623 secondary school teachers in district Mansehra (Elementary and secondary education Department, KP, 2016) and books of Pakistan Studies of 9th and 10th classes which were the population of the study.

In the present study, purposive sampling technique (Cohen, Manion and Morrison, 2007) was used and the lessons about moral and social values in Pakistan Studies of 9th and 10th classes and twelve secondary school teachers (who teach Pakistan Studies) of Mansehra district, were selected as the sample of the study. Pseudonym, PST1, PST2, PST3 and so on was used for the Pakistan Studies Teachers (Secondary School Teachers). Data which was collected is in two categories: Data in the form of textbooks contents of Pakistan Studies and PSTs' interviews. To collect data from the respondent teachers semi-structured interviews were conducted (Whiting, 2008).

Before beginning the interview process from the responding teachers of Pakistan studies, two processes were used to validate the interviews; peer review and pilot testing process. To analyse the data; that was the transcribed interviews of teachers and moral and social values, qualitative content analysis technique was used. The data was coded and a coding unit was defined too. An individual theme that was comprised of moral and social values was decided. Similarities among the codes comprised the categories, which were developed for analysis of social and moral values. During the analysis of the data, the entire data was coded and categories were developed based on the similarities among the predefined coding unit. The contents of Pakistan studies and transcribed interviews of teachers were analysed on the basis of the categories and findings and conclusions were highlighted to finalize and conclude the study.

Findings (Social values)

After analysing the textbooks of Pakistan studies of 9th and 10th classes, it was found that these social values were incorporated in the textbooks: equality, patriotism (Pakistan Studies of 9th class) unity and patriotism (Pakistan Studies of 10th class). Patriotism, unity and equality are elaborated in the following sections:

Equality

When something is in the same measure or quantity it is labelled as a state of equality. When equality is practiced in a society then people are treated as equals irrespective of their economic conditions, cultural background and caste or creed. Furthermore, when treating people in the same manner then they are given equal opportunities to work, to vote and strive irrespective of their class, religion, gender, age, geographical location and language (Abiad, 2008).

After analysing the Pakistan studies of 9th class it was revealed that social value equality is highlighted in the textbook of Pakistan Studies of 9th class. The first article 'Ideological basis of Pakistan' elaborated equality and social justice in only two paragraphs. Moreover, social justice and equality are not illustrated in the textbook of 10th class. A passage is cited about equality and social justice in the following paragraph. Pakistan studies of 9th class elaborated these values as under:

> All people in an Islamic state are equal. There is no discrimination among people in an Islamic society on the basis of caste, colour, race and wealth. Only abstinence from committing sins and taqwah (fear of Allah Almighty), distinguishes one person form other person. It is stated in Holy Quran: "Oh you men! Surely we have created you of a male and a female and made you tribes and families that most honourable of you with Allah is the most careful (of His duty) (p. 4).

Equality and social justice are important constituents of the ideology of Pakistan and these are quoted in the following paragraph as discussed in the textbook of Pakistan Studies of 9th class:

> Before the creation of Pakistan, Muslims of South Asia were the victims of social injustices and inequality under the effects of the colonial system. They were deprived of all their rights and kept backward in social and economic fields. In those days not just Muslims but other minorities and low caste Hindus were also treated unequally. Consequently, one of the important aims of the ideology of Pakistan was to establish such a social order in which every segment of the society can enjoy the same equal rights based on the principles of equality. The constitution of the state of Pakistan guarantees equal rights without any discrimination of creed, colour or race (p. 4).

Equality and social justice are valued highly in Islam because of the fact that all human being are considered as equal creatures. The above mentioned social values are brief in nature but emphatic in treatment.

Patriotism

Patriotism is a passion and love for one's country and the individuals who practice patriotism. They love their country so much that they do not hesitate to sacrifice for the sake of their country (Donohue & Esposito, 2007).

Pakistan Studies of 9th class has 'Ideological basis of Pakistan' as in the first chapter in the beginning of the book, objectives of the ideology of Pakistan are elaborated. It elaborates the main objective of the ideology of Pakistan, which aims at creating a country where Islamic moral values can be practiced. This chapter focuses to highlight the purpose of the creation of Pakistan, love for Pakistan and insight into the ideology of Pakistan. These are illustrated by quoting a citation from the textbook as:

> In an ideological state people live according to a code of life which can be termed as their ideology and they mould their character in accordance with that ideology (p.1).

Further it is stated in (p.1) as:

> Every nation has predetermined objectives of its collective national life. To achieve that, individuals of that nation endeavour collectively in the light of their collective wisdom and ideas. That collective wisdom is called the ideology of that nation. For example before the creation of Pakistan, the national objective of the Muslims of South Asia was the creation of a Muslim state where they could live freely. The collective thinking which guided the Muslims in this aim was that the Muslims were a separate nation from Hindus and they should have their separate homeland. This national objective and collective thinking behind the fulfilment of this objective is called the ideology of Pakistan.

Ideology of Pakistan has included Islamic code of life as its integral component. Islam is considered as code of life which not only solves individual's problems but also focuses on resolving national and international problems of Muslims whether these are economic, political and social concerns of Muslims. It is such a potent force that it can groom individuals as enlightened and moderate personals. It is stated as:

> Islam presents such code of life which can resolve individual problems of any society. The creation of Pakistan was aimed at resolving all the problems of Muslims and these problems can be economic, political and social in nature. Islam wants to create such a society of enlightened and moderate individuals in the light of Islamic rules and laws (p. 3).

It is stated about Islamic democracy and consultation with members of the society in the following paragraph as:

> It is stated in the Holy Quran that all the matters of Muslims are decided through mutual consultation. That is why consultation has great importance in an Islamic society. The Holy Prophet (SAW) sought the opinion of his venerable companions on every important occasion. During the periods of orthodox caliphs a Majlis-e-Shurah consisting of the respected companions of the Prophet (SAW) had been constituted that gave advices to the

caliph on all the important matters. At the time of election of the Caliph, opinions of his public representatives were sought and responsibility of this important position was entrusted to only those companions of the Prophet who were capable of it. After the election, the representatives of different groups and tribes of the Muslims used to take oath of allegiance at the hands of the caliph to pledge their loyalty to him (pp. 4-5).

It is stressed that the ideology of a nation is based on the collective wisdom of the nation. The above articles show that following the Islamic ideology Muslim can live true Islamic life which is helpful for a person's peace of mind and peace of a society at large.

Unity

Unity is the state of formulation of perfect harmony and united whole of individuals in a society. People join hand to cultivate united and harmonious relationship in a society to achieve a common objective of life (Khanam, 2008). In the book of Pakistan Studies of 9th class the first chapter is 'Ideological basis of Pakistan' in which there is reference to unity. Ideology of a nation is very important because it keeps the nation united, helps making laws for the welfare of people and protects values and national character. In the textbook of Pakistan Studies of 10th class unity is included. It is stated as:

> Most of Pakistani people are Muslims which constitutes (97 per cent) of the total population. Minorities also play important role in the progress of Pakistan. They are given equal rights and civil liberties due to which they become an integral part of Pakistani society (p.103).

Strong family system in Pakistan and Urdu language also play unifying role in the Pakistani society. Moreover, diverse ethnic and cultural groups are important component of the unified society of Pakistan. Moderate society is described as:

> There are various ethnic groups and many races in Pakistani society though they are varied in ethnicity and races yet they are all part of the one unified Pakistan (p.103).

To highlight unity, culture and history of Pakistan are dealt in detail in the textbooks of Pakistan studies. By practicing moderation all the cultural and religious groups are united and serve for the progress and prosperity of Pakistan. Due to love for tolerance and moderation people of Pakistan are serving their country harmoniously and whole heartedly.

Teachers' opinion about social values in the textbooks of Pakistan Studies

In the following lines, a comparison among the views of Pakistan studies teachers and findings based on the qualitative content analysis of 9th and 10th classes is presented comprehensively. Secondary School Teachers of Pakistan studies opined that the following social values are missing in the Pakistan studies of 9th and 10th classes (2015); PST1 opined that the Pakistan studies of 9th and 10th classes did not cater the social values like responsibility, civic sense, human rights, self-control and liberty. Argument of PST2 about the missing social values is highlighted in the following paragraph:

> Love for human beings, love of history of the country and beliefs of people, impartiality, performance of duties and civics sense are not included in the textbooks of Pakistan studies of secondary classes.

The argument of PST3 about missing social values is not much different because he opined that social values like responsibility, obedience to the laws of the country, freedom and objectivity are not included in the textbooks of secondary classes. Content analysis of Pakistan studies illustrated that social values like equality, patriotism and unity are highlighted in the textbooks whereas the social values like social responsibility, civic sense, human rights, liberty and love and regard for human beings are not included in the textbooks of Pakistan studies.

PST4 opined that social values like responsibility, freedom, justice and love for law of the country, love for human beings, brotherhood and civic sense may be incorporated in the textbooks of Pakistan studies to make students law abiding citizens of Pakistan.

PST5 opined that social values may be included in Pakistan studies of secondary classes:

> Awareness about the social issues like child labour will make students kind and humane. Moreover, for making students unbiased and objective they may be introduced to the varied culture of Pakistan. Furthermore, they may be introduced to the various cultural groups to create feelings of love for these integral groups of Pakistan and human beings at large. They may be trained to serve women, children, weaker and deprived sections of the society.

PST6 argued that social values such as responsibility, obedience to the laws of the country, freedom and objectivity in thinking may be included in the textbooks of the 9th and 10th classes.

Findings (Moral values)

Moral values are important part of the textbooks because faith and moderation are included in the Pakistan Studies of 9th and 10th classes respectively. These values are presented as below.

Moderation

Moderation can be labelled as avoidance of extremes in one's behaviour, religious beliefs and practices and political ideology and practice. When practicing moderation everything is made less intense, violent or extreme (Hayes, 2013). Moderation is termed as a moral value because it is helpful for individuals to follow moderate ways of life. Moreover, one can practice tolerance and forbearance which are helpful for people to live a virtuous life. Following the moderate ways of life, an individual's actions become moderate and less extreme, intense, or violent (Oxford Learner's Dictionaries, 2016). It is illustrated

in the Pakistan Studies of 10th class in the chapter titled 'History of Pakistan'. It is elaborated as follows (p. 32):

> The Mushraf regime tried to project the image of peace-loving country by offering all possible support to the United States in the war against terrorism. The Mushrraf regime also pursued policies of moderation in contrast to extremism.

Moderation is a preferred value in Islam and the believers of Islam are desired to follow moderate ways of life and avoid extremism in theory and practice. Moderate people can tolerate differences of opinion due to their broad minded attitude. Besides this, they can also tolerate all differences of religion, geographical location, class differences and differences of ethnicity in their private life which is blessing in disguise.

Faith

Faith is an individual's belief in some dogma or some tenets. It is to follow obligations whole heartedly. A faithful person keeps his promises but the more accepted definition of faith is belief in one and true God (Faizi, 2010). When people submit to an authority they yield for the sake of virtue and goodness. In the chapter 'Ideological basis of Pakistan' in the subject of Pakistan Studies of 9th class the belief in oneness of Allah is presented to show that righteousness is the basis of Islam. The extracts cited below also show the basic beliefs of the Muslims.

Pakistan Studies of 9th class presents faith as belief in oneness of Allah (touheed) in the chapter 'Ideological basis of Pakistan' it is stated that faith is the very foundation of Islam.

> Kalma-e-Tauheed is the very foundation of the two nation theory in India and the ideology of Pakistan. Islamic nationalism is not based on geographical location, ethnicity or race but it is based on Kalma-e-Tauheed in contrast to the Western nationalism which is based on geographical location, ethnicity and uniform race. According to the ideology of Islam, the Muslim nation in India was established when the first Indian embraced Islam (p.3).

Opinion of PSTs about incorporation of moral values in Pakistan Studies Textbook

The views of secondary school teachers about moral values in Pakistan Studies and findings based on the content analysis of Pakistan Studies of secondary classes are compared.

According to secondary school teachers some moral values are missing in Pakistan Studies (2015) of secondary classes: PST10 opined that moral values like dealing in fairway, honesty, tolerance and forbearance for religious faith, ethnic and geographical groups in the country, obedience to the law of the country, goodness and trust among people and countries are missing in the textbooks. PST11 was of the opinion that the textbooks of Pakistan Studies did not include moral values; obedience, honest dealings, truthfulness,

tolerance, submission to the law of the country and goodness. PST12 highlighted that some moral values are lacking in Pakistan studies of secondary classes. These values are honest dealings, trust among various religious, ethnic and cultural groups in the country, truth, obedience to the rules and regulations of the country and patience.

The Pakistan studies teachers recommended inclusion of some lessons which are focused on moral values for improving the quality of the textbooks of Pakistan Studies for moral training and development of students. PST7 argued:

> The textbooks of Pakistan studies can be complemented with the articles about obedience to divine law to make students conforming to the authority. Lessons about famous personalities of Pakistan and Islamic history are beneficial to make students honest, trustworthy and hard working. Heroes of the Muslim Ummah and great personalities of the world can be helpful to make students morally better individuals.

According to PST8 moral values like chastity, truth and honesty are such values which can make individuals and society better. Articles about nobility, faith and moderation can be guiding principles to make them peace loving, tolerant and moderate individuals. They can serve the society in a better way to make it worth living.

PST9 argued that knowledge of history can serve a purpose of making students lover of historical events and love for culture of past and present day to day life which will establish the belief that Pakistan is a peaceful nation. Knowledge of social and contemporary issues make them aware of terrorism, fanaticism and peaceful co-existence among the nations of the world.

DISCUSSION AND ANALYSIS

Social values guide people to become socially responsible because the knowledge of social values is helpful to make them law abiding members of a society. They can learn to behave in accordance with the accepted values by developing positive relationship with the other members of the society (Zembylas, 2012).

The textbooks of Pakistan Studies have elaborated social value because articles about history and culture of Pakistan are used for infusing feelings of patriotism which is a celebrated social value. Culture of Pakistan is presented as a unifying factor among the people of the diverse cultures of Pakistan. The textbooks can be used to introduce social values to make students law abiding and better members of the country. The textbooks can be made more value centred by intruding articles about human rights, hard work and dignity of labour, justice and responsibility in detailed and comprehensive fashion.

Inclusion of social values in the curriculum of Pakistan studies of secondary classes has many benefits because these are beneficial for students' welfare and smooth business of the whole society at large. To make students responsible citizens of Pakistan, teaching of social values like obedience of law, responsibility and tolerance are beneficial. Moreover,

love of law and order can be infused in students by teaching them love for obedience of law and order. They can be trained as better human beings and kind hearted humane personnel by guiding them to follow universal brotherhood and universal human laws.

On the contrary, if social values are not included in the textbooks in detail, it proves detrimental for the students of secondary classes who are in the prime age of their youth. Lack of knowledge of law and order will make them violate law of the country to create a lawless society. Lack of responsibility will develop a nation of reckless people. Moreover, when students have no knowledge of universal brotherhood and universal humanity, they will turn into brutes practicing narrow-mindedness, biases and prejudices. So, lack of knowledge of social values will cause harmful and detrimental effects on students and society at large.

Moral values are criteria for evaluating goodness versus evil and by utilizing these values an individual's character can be evaluated. Moreover, to justify the worth of decisions, actions and intentions of people, the touch stone of moral values can be applied. These values emphasize moral code of an individual and he/she acts in accordance with the code of morality (Puka, 2013).

Pakistan Studies (2015) did not highlight moral values comprehensively and in detailed manner. Faith and moderation are discussed by highlighting with the examples of history, culture and ideology of Pakistan. These values are just mentioned in two brief paragraphs which give only partial information about the values to students. Textbook can illustrate moral values for making them better individuals and moral values like honesty, truth, moderation, and submission to Allah and obedience to the law of the country can serve this end quite satisfactorily.

Truth and honesty are the important values for the character building of students. These values make students truthful and honest who can serve the state and society in a better way. Moreover, values like moderation, faith and tolerance can groom students into better people to withstand the test of times. Submission to the authority is a moral value which enhances the rule of law in a society. Similarly, tolerance and forbearance create a moderate society that can tolerate the difference of opinion.

If a society does not practice truth and honesty, it can sink into the deep quagmire of dishonesty and falsehood. This can make a society without solid values and morality. Similarly, lack of moderation, tolerance and forbearance make a society full of extremists and bigots who cannot tolerate the difference of opinion. Chastity and submissions are pivotal for smooth social and cultural harmony and lack of them make a society full of tension and corruption. Faith is a moral value which is a belief to yield to authority for the sake of virtue and goodness. In the chapter 'Ideological basis of Pakistan' in Pakistan Studies of 9th class the belief in oneness of Allah is presented to show that righteousness is the basis of Islam. Values are helpful to make a society harmonious and united that can combat ideological perils in a smooth way.

CONCLUSION AND RECOMMENDATIONS

Only three social values are dealt in textbooks of Pakistan Studies in detail. These are: equality, unity and patriotism. In this regard some examples are quoted from the historical and cultural background of Pakistan. Moreover, the other important social values are ignored and the textbooks provide deficient information about social values. As a result, these textbooks do not present detailed and comprehensive articles to groom and train students as better human beings.

Moral values are dealt in two paragraphs in the textbooks of Pakistan Studies because these are illustrated in a brief manner. To practice moral values complete knowledge about the values is necessary but the textbooks have presented two values; faith and moderation briefly. Moral values have been dealt with brevity which cannot serve as guidebook to train students as better human beings. Incorporation of social values in the secondary school textbooks of Pakistan Studies is significant to groom students as useful, law abiding and peaceful citizens of Pakistan.

Comprehensive knowledge of moral values can be utilized for moral development of students who can lead a pious and chaste life. Values can create a sense of responsibility and obedience to laws in students. Lessons based on the topics like respect of human beings, equal rights and privileges for all the members of Pakistan, care for children, sense of responsibility and service of people can be used to make students better individuals. Moreover, dignity of labour, love for the country and respect for the rights of women, fellow feelings and unity can be used to create sense of humanity among the students.

To train students as virtuous human beings, moral values can be utilized in an effective way. Knowledge and practice of values like honesty, truth, tolerance and good manners are potent enough to create individuals with no moral scruples. Moreover, mercy, gratefulness, virtue and piety are useful moral values to create balanced individuals and a peaceful society.

Findings of the study revealed that the knowledge and practice of social values are very useful to create sensible and responsible students. Social values like respect for the labouring class, abstinence from breaking the law of the country, hard work, love for dispensation of justice, fulfilling one's responsibility and love for providing equal human rights are also useful to create a balanced society.

The textbooks of Pakistan studies can be made more effective if these are comprised of moral values like truth, honesty, trust, tolerance, obedience and goodness. Historical figures of Pakistan (Quaid-i-Azam, Allama Iqbal and Liaquat Ali Khan) and Islamic history can be utilized to highlight the importance of moral values in the textbooks of Pakistan studies**.**

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Budget Deficit and Private Investment: An investigation to Pakistan's Economy

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ABSTRACT

The study scrutinizes the nexus between business freedom, budget deficit, and remittances that crowding-out or crowding-in private investment in Pakistan over the period of 1991 to 2015. The data has been taken from Pakistan Bureau of Statistics, the State Bank of Pakistan, and the World Bank. The sample size taken in the study is 25 as the entire variable met the assumptions of the model. The Ordinary Least Square (OLS) approach has employed for empirical analysis. The focused objective of the study has to find out whether deficit, business freedom and remittances budget positively or negatively affect private investment. The researcher has used budget deficit, business freedom and remittances as explanatory variables and private investment as the dependent variable. The conclusion of the present research study depicts the negative linkage between budget deficit and private investment. In contrast, business freedom, and private investment depict a positive relationship between them. Hence, from the evidence of the study, the researcher investigated that there exists both crowed-out and crowed-in effect between private investment.

Keywords: Crowd-out, Ordinary Least Square, Private investment, Budget deficit, Business Freedom

INTRODUCTION

The difference between fiscal spending and private investment reflects the volume of private investment which is an important subject of inquiry and discussion (Othuon, 2013), fiscal spending proved to be responsible for economic fluctuations both in developed and less developing economies across the globe. Karanikolos et al., (2013) examines the financial crisis of 2007-08 where a finding of fiscal deficit effect by the financial crisis of America, England and other European countries prompted the government to take strict measures to reduce fiscal spending to close the gap between fiscal spending and revenues.

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Lin (1994) on the other hand highlights that some necessary paths can be adopted to rise the growth that as public goods and infrastructures, social services, and targeted interference such as export subsidies.

Moreover, the phenomena of fiscal deficit and COE (crowed-out effect) on private investment suggests that when the economy goes through constant fiscal spending then private investment decreases hence resulting in a crowding-out effect. Chakraborty et al., (2006) thousands of private businesses in developed countries showed a result of the financial recession confusion in 2007 and 2008. The increasing existing current account and the deficit of the balance of payment, rising inflation rates, increasing the burden of external debt, and declining growth rate stressed policymakers to modify advance strategies contrary to extensive government involvement and further towards the market for allotting and utilizing the capitals alongside the increasing private sector role.

In Pakistan's economy, the role of the private sector is certainly substantial not only as a foremost manufacturer of goods and services but the important funder in outlay and the highest owner. Its reputation can be determined from the statement that according to one assessment its influence on total Gross Domestic Product is approximately 19.206% of the world development index. When the undocumented casual economy (private sector) is taken into the description, its influence on Gross Domestic Product surpasses furthermore. In the era of 1970s, Pakistan implemented a strategy that endorsed a larger role of the unrestricted sector which stemmed in public sector investment exactly double as compared to private sector. This enlargement brought a change in the administration's role in investment activities united with its hitches in floating profits or cutting down disbursements, resulting in a high overall financial plan shortfall in contrast to the scope of the different economies. Since fiscal deficit tendency has sustained instead the change in government policies in the 1980s and headlong.

The fiscal deficit and its crowding-out impact on private investment are being devastated to a large extent by the government policies. Against this, Keynesian economists advocate the crowding-in impact when the government practices fiscal deficit as they believe that budget deficit increases the country's domestic production or local production, it inspires business activity to invest more Saulawa et al, (2012). While the Ricardian equivalence theory is against the two preceding theories by explaining that government deficit does not affect macroeconomic conditions. To the facts from the budget deficit theories, it is highly controversial whether fiscal deficit has a crowding-in or crowding-out effect, yet it was universally agreed among economists and officials to recommend fiscal policy as a strong anti-recession tool in the recent financial crisis Paiko et al, (2012).

This indirectly authorizes the Keynesian theory up to a greater extent as fiscal policy in the outcome of recent financial recession which strongly advocates monetary policy favorable to private investment Kaya et al, (2014). But this can only be true when government increases its capital expenditure which covers the way for private investment (Sen& Kaya, 2014) and pushes the economy from recession to an expansionary phase as a result of eliminating the lack of private-sector spending. Even if this results in the demand for loanable funds and moves the interest rate in an upward direction, it will not result in a crowding-out effect due to the assumption of lower interest elasticity of private investments

Arica et al, (2013). In such a situation it becomes important to study the numerous aspects of fiscal policy; especially when there is a lack of adequate empirical proof.

It is important to know which taxes should be increased and which elements of the expenditures should be restricted to inspire growth prospects in the country. To explore the phenomenon that whether Budget deficit, Business freedom and Remittances have a crowd-in or crowd-out effect, this work aims to empirically examine it in case of Pakistan. Objective of this study, is to find out whether there exists any relationship between Budget deficit, Business freedom and Remittances on Private Investment or not?

LITERATURE REVIEW

Chakraborty., (2006) explored that budget deficit and capital formation crowd out India's private sector investment in the period of 1970 to 2003 by estimating Vector autoregressive (VAR) model. The finding shows that interest rate is sensitive and private capital formation in turn; the increase in the real rate interest is induced by the budget deficit. Hence, it is concluded that crowd-in caused through budget deficit.

Javid and Arif (2009) studied the dynamic impacts of changes in government spending for the period 1971 to 2008 in Pakistan by using the VAR model. Their findings show that the shocks of expansionary fiscal policy improve the trade balance and downgrade the exchange rate. It shows that there is both crowd-in and crowd-out impact between PI (private investment) and governments' expenditure.

Khan and Gill (2009) explored the crowding 0ut effect of govt. borrowing for the period of 1971 to 2006 in Pakistan by using the ADF (Augmented Dickey-Fuller) model. The findings of the study indicate that to hide unnecessary inflation and external debt related to fiscal financing the government needs to focus on internal sources which will lead to crowding in effect.

Basar, et al., (2011) explored the crowd-out effect of FD (Fiscal deficit) on PI (private investment) in Turkey by using time series date during 1976 to 2006 by using the Co-integration model. The results show that transfer payments and government expenditure having positive effect on PI (Private investment) in another view crowd-in hypothesis while fiscal spending has a crowd-out impact on PI (Private investment). The current results show that there is a crowding-in effect on PI (Private investment).

Fatima (2011) explored the connection between private investment and fiscal deficit for the period 1980-2009 by using the Two-stage least squares (2-SLS) model. The finding shows that effective macro-economic tools are directly seen to set the way for growth led employment and poverty elevation. It shows that there is a crowding-out impact on the economic growth of a country.

Oyieke (2011) explored the impact of fiscal deficit on private investment during1964-2006 in Kenya by using VAR (Vector Autoregressive) model. He concluded that internal debts crowd out the PI (Private investment). Therefore, the researcher suggested that government could decrease the dependency on internal debt to finance the fiscal deficit. Moreover, the result also appeared to the crowding out effect on PI (Private investment).

Thus, the government should decrease its dependence on internal borrowing to finance the fiscal deficit. Moreover, the results appear to have a crowd-out effect on private investment.

P, Kweka and Morrissey (2000) evaluated a research study to explore the economic growth and fiscal deficit and took time-series data from 1965 to 1996 by applying the Co-integration model. They found that total expenditure productivity appears to have the worst impact on economic growth. While on the other hand, consumption expenditure has effects on growth is positive. So, the findings have both crowd-in as well as a crowd-out effect between fiscal deficit and economic growth.

Asghar, et al., (2011) explained the impact of fiscal deficit on economic growth for the period of 1974 to 2008 in Pakistan by using Co-integration techniques. They found that government expenses on subsidies should be slowly decreased and law and order expenditures must be re-allocated for maintaining the law-and-order situation inside the country. So we concluded that there is a crowding-in impact between fiscal spending and economic growth.

Paiko (2012) explored deficit financing and its effect on private investment for the period 1972 to 2009 by using the ordinary least square (OLS) model. He found that government needs to redirect its expenditure that would favor the private investors by demotivating over government expenditure and maintaining a lower fiscal deficit. The current study shows that there are crowd-out impacts on private investment.

Bello et al., (2012) examined the crowding-in or –out, budget deficit and private investment for the period of 1997 to 2009 in Nigeria by using a multiple regression model. The results suggest that the influence of macroeconomic management be ensured to pillow the adverse effect of increasing inflation on private investment. So finally, we concluded from the above paper that there is a crowding-out impact of rising inflation in private investment.

Fatima et al., (2012) asserted the effect of fiscal deficit on growth for the period of 1978 to 2009 in Pakistan by using a regression model. They found that the significance of variables has been checked which shows that inflation rate; foreign direct investment and government expenditure have a positive impact on GDP. It shows that there is the crowd-out effect of budget deficit on economic growth.

Ezeabasili and Nwakoby (2013) analyzed fiscal spending and private sector investment in Nigeria for the period 1970 to 2006 by using the Co-integration model. The findings show that fiscal deficit hurts private investment. On the other hand, an increase in fiscal spending leads to a decline in private investment. So, the findings show that there is a crowding-in as well as a crowding-out impact on private investment.

Odhiambo et al., (2013) analyzed the relationship between budget deficit and private investment for the period of 1970 to 2007 in Kenya by using OLS (Ordinary least squares) method. The finding shows that there is a positive relationship between growth and fiscal deficit. While, on the other hand, revenue collection of revenue does not cause crowd out of

the private sector through internal borrowing so the results show that there is a crowding-in situation with the budget deficit and private investment.

Ener et al., (2013) asserted the effect of public and private investment on sectorial output in the context of turkey for the period of 1998 to 2012 by using panel data. They found that both the effects of public and private investment have direct impact on country growth and finally there is the crowding-in effect on economic growth.

Tsegaya et al., (2013) did work in examining that budget deficit crowded out private investment for the period of 1994 to 2009 for the case study of South Africa by using the Vector autoregressive (VAR) model. They found that budget deficit caused by public consumption crowds-out private investment.

O-apere., (2014) Analyzed the impact of Govt. debt on private sector investment for the period of 1981 to 2012, in Nigeria by using OLS regressions. He explored the effect of internal loans on private investment has a positive impact while foreign debts have also a positive impact. So therefore, there is crowd-in effect over private investment.

Shetta and Kamaly., (2014) Explored that fiscal deficit crowds out private sector investment in the banking (commercial) sector for the period of 1970 to 2009, in Egypt by using Vector Autoregressive (VAR) model. The results show that output positively affects the willingness of the commercial banking sectors to expand credit to both private and public sectors and finally, fiscal deficit has a crowding-in effect over the banking sector.

Eminer., (2015) analyzed the effect of deficit budget on economic growth during the period of 1983 to 2010, in North Cyprus by using the ARDL model. He argued that the size of government spendings make both productive and nonproductive expenditures. The budget deficit is a key instrument of growth and hence it is concluded that there is a crowding-out effect over economic growth by budget deficits.

Tugcu and Coban., (2015) analyzed that whether budget deficit crowd out or crowd-in private sector investment for the period of 2000 to 2012, in turkey by using ARDL technique. The study find out that fiscal deficit directly affects private sector investment in the sample panel and, implies that expansionary fiscal policy promotes private investment by expanding economic activities. The study concluded that there is crowd in effect between deficit budget and private investment.

Rehman *et al.,* (2015) analyzed the effect of fiscal deficit over private investment for the period of 1974 to 2010 in Pakistan by using Co-integration analysis. They found that law and order, subsidies and government spending are adversely related to growth. Moreover, the public expenditures on subsidies must be decreased slowly and provide education and training facilities to employees concerned with the maintenance of law and order. The finding shows that there is both a crowding-in and crowding-out effect on private sector investment.

Bahal et al., (2015) asserted that crowd -in and crowd-out public and private investment in India for the period of 1996 to 2015 by using the Structural Vector Error Correction (SVECMs) Model. They concluded that public capital accumulation crowds out

private investment and hence, the results show that fiscal deficit crowd-out private as well as public investment in India.

Samwel, (2016) explored that fiscal deficit crowd out the private investment (PI) for the period of 1970 to 2012 in the context of Tanzania by using the Co-integration model. The study concluded that fiscal deficit considerably crowds out private investment. Government should reduce the budget deficit that would support private investors and hence, it is concluded that crowding out effect exist between fiscal deficit and PI (private investment).

Research Gap

The study analyzed the effect of deficit budget, Business freedom and Remittances on PI (private investment) in Pakistan. In this current study, many researchers worked on this topic but in the case of Pakistan, there is taken no study to sign that budget deficit, business freedom and remittances which crowd out or crowd-in PI (private investment) during the period of 1991 to 2015. So on this topic, the current period is missing and we selected this period or era. Moreover, we have added new variables which were not used earlier which are business freedom and remittances.

DATA AND METHODOLOGY

Secondary data has been used for analyzing this study which has been collected from different sources. The study focusses to design a comprehensive methodology with the purpose to get the best results. According to the research topic, the researchers focused on Pakistan, which is the selected area for this research. Therefore, data was collected in the context of Pakistan. The key sources from which the data has been taken from Pakistan Bureau of Statistics (PBS), State Bank of Pakistan (SBP) and World Bank during the period 1991-2015. Ordinary Least Square (OLS) method has been used for estimation of the data.

Model Specification

The following is the functional form of the model used in this study. The key variables used in this study are private investment, budget deficit, remittances and business freedom.

PI = f (BD, RM, BF, Error Term)

Econometric Model for Data Analysis

$$PI_t = \gamma_0 + \gamma_1 BD_t + \gamma_2 RM_t + \gamma_3 BF_t + \mu_t \dots \dots \dots \dots \dots \dots \dots \dots (i)$$

Whereas;

"t" indicates the number of years or the time.

- PI: Indicates the total Private Investment or the gross capital formation in Pakistan Economy.
- BD: The difference between government revenue and expenditure during a fiscal year is called budget deficit or fiscal deficit.

- RM: It indicates the amount of money which is received by a country in a given year sent by the migrant working abroad.
- BF: An overall indicator of the efficiency of government regulation of business derived from an array of measurements of the difficulty of starting, operating and closing a business.

Data

YEARS	PI	BD	BF	RM
1991	$2.95	-553%	55	$21.16
1992	$3.01	-583%	58	$21.18
1993	$3.04	-658%	61	$21.09
1994	$2.97	-538%	64	$21.28
1995	$2.92	-528%	55	$21.26
1996	$2.94	-660%	55	$20.97
1997	$2.89	-673%	55	$21.26
1998	$2.87	-564%	55	$20.88
1999	$2.75	-554%	55	$20.72
2000	$2.85	-409%	55	$20.80
2001	$2.83	-375%	55	$21.10
2002	$2.81	-286%	55	$21.99
2003	$2.82	-288%	70	$22.10
2004	$2.81	-195%	70	$22.10
2005	$2.95	-320%	70	$22.18
2006	$2.96	-392%	72	$22.36
2007	$2.93	-392%	72	$22.51
2008	$2.96	-716%	71	$22.67
2009	$2.87	-459%	73	$22.89
2010	$2.76	-499%	72	$22.99
2011	$2.65	-640%	71	$23.23
2012	$2.71	-801%	70	$23.36
2013	$2.71	-523%	71	$23.41

2014	$2.71	-655%	70	$23.33
2015	$2.71	-660%	70	$23.37

Source; World Development Index

DISCUSSION AND ANALYSIS

The results were obtained by using the (OLS) method for finding the effect of budget deficit on private investment.

Table-1: Regression Results

Dependent Variable: PI
Method: OLS(Ordinary Least Square) Method
Sample: 1991-2015

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.258812	2.653810	3.112058	0.0060
BD	-0.033437	0.015800	-2.116265	0.0032
BF	0.011635	0.001267	9.183109	0.0000
RM	1.725750	0.864694	1.995792	0.0613
R-squared	0.712127	Mean dependent var		2.863387
Adjusted R-squared	0.616170	S.D. dependent var		0.105754
S.E. of regression	0.065519	Akaike info criterion		2.348749
Sum squared reside	0.077270	Schwarz criterion		2.007464
Log-likelihood	36.35937	Hannan-Quinn criteria.		2.254091
F-statistic	7.421270	Durbin-Watson stat		2.050328
Prob(F-statistic)	0.000410			

Source: (Author own findings by using simple OLS techniques)

Table 1 explained the results obtained through OLS. R-square value is 0.712%, which shows how many variations occur in our dependent variable due to the independent variables which are budget deficit, business freedom and remittances, or how many variations in private investment are explained by the explanatory variables. In the current findings, around 71 units of the variations independent variable are caused jointly by the budget deficit, business freedom, and remittances. Likewise, 29 units of the variation are caused by the error term which is not taken explicitly in the model.

To check whether the currently used model through OLS is statistically significant or not. This study employed F-statistics. The value obtained depicts that the model used in this study is statistically significant. To test the model for the possible problem of auto correlation, we employed Durbin-Watson (D-W) test, the value falls in the area where no Auto-correlation exists in the model such that it is free from the auto-correlation problem. The value of DW is 2.05. Moreover, according to the findings, there is an adverse connection between deficit budget and PI (Private investment).

The difference between budget deficit and private investment is verified by the results. If there is a 1 unit rise in the budget deficit causing private investment to decrease

by 3 units, it indicates that crowd-out effect exist between deficit budget and PI (Private investment).

Findings of the current study are consistent or similar to the earlier outcomes of (Fatima, 2011), (Oyieke, 2011), and (Paiko, 2012). However, the current results are opposite to the findings of (Chakraborty, 2006), (Asghar et.al, 2011), and (Ener et.al. 2013). If there is a 1 unit change in business freedom it will change private investment by 1 unit which indicates the crowd out effect between business freedom and PI (private investment). While the effect of remittances is not quite effective, therefore it is insignificant. Keeping other variables constant, the average change in private's investment is 8.25 units.

Table-2: Descriptive Statistics:

	BF	**BD**	**RM**
Mean	49.69364	-5.096772	3.361136
Median	50.00000	-5.380000	3.095383
Maximum	70.00000	-1.950000	7.108441
Minimum	30.00000	-8.010000	3.031066
Std. Dev.	13.57541	1.569746	0.991086
Skewness	0.329053	0.317191	3.290522
Kurtosis	1.859654	2.209606	11.96948
Jarque-Bera	1.950178	1.155559	1.237819
Probability	0.377159	0.561143	0.389066

Source: (Author own findings by using simple OLS techniques)

Table 2 shows the results of the descriptive statistic, the average value of business freedom is 49 followed by a budget deficit which is -5.0 and remittances are 3.3. Maximum and minimum values show the range of the data and from the above results the maximum value of business freedom is 70 and minimum value is 30 tailed by budget deficit which is -1.9 as its maximum value and minimum value -8.01 while the maximum value of remittances is 7.1 and its minimum value is 3.0. The standard deviation shows fluctuations in the data and from the obtained results we can see that there is more volatility in the business freedom tracked by the budget deficit and remittances. The value of Jarque-Bera shows the normality of the data as its values are insignificant which shows that the data is normally distributed.

CONCLUSION AND RECOMMENDATIONS

This study is based on the association between budget deficit, business freedom and remittances, which crowd out or crowd in Private investment (PI) in context of Pakistan for the period of 1991 to 2015. The main purpose of this research was to find out whether budget deficit, business freedom, and remittances having positive or negative impact on private investment. The conclusion of this study revealed that relationship exist between budget deficit, business freedom and remittances over private Investment (PI) in Pakistan. The researchers have used budget deficit, business freedom, and remittances as explanatory variable while PI (private investment) as explained variable.

The conclusion of this study suggests that budget deficit is negatively related with private investment. The results supported the findings of (Fatima, 2011), (Oyieke, 2011), (Paiko, 2012). In contrast the positive relationship exist between business freedom and private investment supported by the earlier findings (Chakraborty 2006), (Asghar et.al, 2011) and (Ener et.al, 2013) while the remittances do not significantly affect private investment, which is insignificant. Hence, from the above results, it is concluded that there is both crowd-in as well as crowd-out effect on the private investment.

As it is observed that there exists negative relation between budget deficit and private investment. Therefore, the government needs to design its policies in such a way that controls the budget deficit to avoid the negative effect on private investment. Moreover, business freedom is an important factor, and the government needs to increase business freedom, which will promote private investment as well as foreign direct investment (FDI).

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Special Economic Zones under CPEC: A Critical Study of Rashakai Economic Zone

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ABSTRACT

China Pakistan Economic Corridor (CPEC) is considered to be a game changer for Pakistan because it aims at the establishment of Special Economic Zones (SEZs) under its ambit. The SEZs are special delimited areas, usually located in the border areas, wherein special and relax rules of bushiness are adopted to attract FDI as well as local investment. For many economists, the concept and implementation of SEZ work as vehicle for rapid industrial growth that leads to sustainable economic development in developing countries like Pakistan. The paper aims to provide a brief account of already work done on nine planned SEZs and type of industries that will be established with special focus on Rashakai Economic zone being a test case. The lesson learnt from the earlier work indicates that conducive environment, FDI attraction, use of advanced methods of production and ease of joint ventures are success factors. The success of these economic zones will help to revive the economy of Pakistan and will generate thousands of jobs especially Rashakai Economic Zone will help to reduce unemployment in Khyber Pakhtunkhwa. The paper explores that the concept of SEZs in Pakistan is not following any specific theoretical frame work as followed in the contemporary world but is following a mixed approach with focus on additional factor of Public Private Partnership (PPP) model. The paper suggests that Chinese model of SEZs may be adopted in letter and spirit; energy and power requirement may be fulfilled; fibre optic network be initiated and an expo for local businessmen may also be arranged for early harvest of the interventions.

Keywords: Belt and Road Initiative, China Pakistan Economic Corridor, Special Economic Zone, Rashakai, Industrialization, Public private Partnership

INTRODUCTION

Special Economic Zones (SEZs) are taken as ray of hope to revive Pakistan's economy that is confronted with grave problems of debt payment, unemployment, short of

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resources, low production, high inflation, increasing imports and decreasing exports. Initially nine Special Economic Zones were planned under CPEC along the routes of corridor that will speed up the industrialization on the one side and boost up the economic cooperation between Pakistan and China on the other side. Hence, CPEC is a golden opportunity to resolve major issues confronting Pakistan economy. SEZs will help Pakistan in catering fast growing process of urbanization and increasing middle class as these zones will be manufacturing hubs where goods will be produced in large quantity at local level. These zones will serve as import substitution and will help in bringing down the prices of goods. Further, they will help Pakistan to improve its exports at international level with production through highly advanced technology to compete in international markets. In this way, the engineering image of the county will be improved on the one hand and trade deficit of the country will be reduced on the other hand.

The international standardd of value-added goods will help to change the market demand and price fluctuation. In initial plan of CPEC, there was a proposal for 29 industrial parks with 21 mineral economic zones in four provinces of the country (Tong, 2015).

These zones also offer opportunities to Pakistani companies to work in collaboration with Chinese companies for producing commodities of international standard helping Pakistan in its strife to overcome its grave economic issues with the assistance of public institutions, which are undergoing a reformation process. SEZs will provide a new business model to help generate number of employments and developing a structure of industries and business. SEZs will also help Pakistan to establish a domestic value chain that will be connected regionally and extra regionally providing required impetus to stimulate micro and macro-economic activities in the country (Hussain and Rao, 2020).

SEZs under CPEC will provide an opportunity to learn from the experiences of China where several Economic Zones have been successful. Through these SEZs Pakistan will be in a position to capitalize Chinese investment technology and experienced human resources as these will be led by China. Now CPEC is in its second phase in which more emphases is on socio-economic activities especially on industrialization in SEZs under the framework of CPEC providing Pakistan a number of opportunities to take advantage of. It is encouraging to note that civil and military leadership is committed to the success of this framework but has to resolve multiple challenges arising out of these SEZs at policy and operational levels. In this way, CPEC has acquired a significance being a flagship project of Belt and Road Initiative (BRI) and for making it successful story. For the positive projection of BRI, the establishment of SEZs have assumed exceeding significance (Hussain and Rao, 2020).

In view of the foregoing, this paper, therefore, is an attempt to underscore the overwhelming significance of Special Economic Zones for the expansion and consolidation of China Pakistan Economic Corridor, which is a core component of the BRI.

Research Questions

The paper attempts to address the following questions:

1. How much initial work has been done regarding the establishment of SEZs?
2. What type of industries will be established in these zones?
3. What benefits Rashakai economic zones offers to the locals that are prioritized in terms of construction by governments of Pakistan and China on April 29, 2019?
4. What lessons Pakistan can learn from successful economic zones in China?
5.

Rationale

All the available valuable research work lacks the detail of SEZs under CPEC specially the type of industries that will be established in these zones. In this study, salient features of the selected nine economic zones have been summarised with respect to location, type of industry and its latest status parameters as shown at Annex-I. This paper tried to provide a brief detail of already worked done in this regard for the planned nine SEZs and practical policy recommendations have been suggested especially for SEZs with emphasis on Rashakai Economic Zone which is the prioritized zone and a test case for all other nine economic zones. The policy recommendations are to the point and practical for the success of SEZs in this paper. The paper has explained the advantages of the SEZs with particular reference to Rashakai Economic Zones that rationalize the study as this will help to realize the importance of SEZs for the economy of Pakistan specially poverty stricken areas of Khyber Pakhtunkhwa .

Problem statement

How the SEZs under CPEC can be successful? What are the socio-economic impacts of Rashakai Economic Zone and what policy measures can work to make Rashakai Economic one a successful story?

Objectives of Research

The following are main objectives of the study:-
1. To highlight the importance of SEZs under CPEC
2. To explore success reasons of SEZs generally and Rashakai Economic Zone especially.
3. To suggest policy recommendations for SEZs especially for Rashakai Economic Zone.

Main Features of the study

The salient features of the selected nine economic zones have been summarised with respect to location, type of industry and its latest status parameters. The paper explained the advantages of the SEZs with particular reference to Rashakai Economic Zone. A brief survey was conducted for socio-economic impacts of Rashakai Economic Zone. Policy recommendations, different from previous research for success of SEZs in general and Rashakai Economic Zone in particular have also been suggested by this study.

LITERATURE REVIEW

A report about the economic corridors in Mekong Region was published by Bangkok Research Center IDE-JETRO to high light importance of corridors with the potential it has presently and had in the past. The report found great impacts of corridors on economic growth that facilitate inter regional trade and development of Cambodia along the corridor. The report also covers the challenges and constraints that required being addressed through decision making (Ishida and Isono, 2012).

Ejaz and Furqan (2019) have explained the historic background of Economic Zones which are about 5400 in number as per 2019 UN report and enumerated the reasons of successful experiences in China. It was interesting to know the history of economic zones that started in England in late fifties and India took the lead to establish such zones but China that initiated the same in 80s was successful more because of its good administration and attractive policies for FDI.

The SEZs under CPEC may work as useful platform for green development or low carbon development and SEZs and there are two models according to source book of Pollution Management Policy Tools for Growth and Competitiveness. Whether a country has to face opportunity cost for lesser pollution or otherwise for higher growth rate high industrialization will cause environmental degradation. China has followed the second model and Pakistan has to follow the same as it is facing shortage of resources and technical assistance to support its industrial and economic growth. The limited areas of SEZs enable a country to organize with better infrastructure and effective administrative policies and implementation mechanism. Such advantages coupled with environment friendly growth help to control pollution and related issues. The circle of such policy, afterwards, may be widening to the whole country (Aslam, 2019).

A research Report of Pakistan Institute of Developing Economics (PIDE) is a contribution to the thought process of Pakistan regarding investment and trade volume. (Ifthkhar and Zhou, 2020) has gone briefly through the world experiences with regard to SEZs specially focussing on China. They reviewed the industrial development of Pakistan's ground realities in this regard and state of preparedness pointing towards how much it needs to work more in this connection.

Dr Zafar Mehmood (2018) has termed the establishment of SEZs as herald for rapid industrial development as required by Pakistan's Economy and Pakistan's demographic profile and diaspora are the advantageous factors that can help it to secure a bigger share in global production and exports.

Dr Sarfraz Batool (2021) while explaining the different nature of SEZs in political and economic and administrative set up of different countries have raised a question of expected role of state in establishing SEZs and about the challenges in establishing these zones.

METHODOLOGY

Data and material about the SEZs have been taken from official website of CPEC, Long Term Plan 2017 and official website of Chinese Government and related research papers/work undertaken on Special Economic Zones. Brief look of Chinese economic zones and reasons for the success of those SEZs have been discussed to realize the necessary steps required for the success of SEZs under CPEC. Data was analysed by using techniques of expert opinion and comparison. The semi structured interview was used as a technique for the survey by interviewing the local people to record aspirations of the locals residing near Rashakai economic zone. Hence, it is disclosed that the research is qualitative and descriptive to clarify the idea and explain to highlight the importance of SEZs for both China and Pakistan and record aspirations of the locals.

Theoretical Framework

Theory is a mean to search rules to explain phenomenon of social science (Bacharach, 89). There are many theories that are used by experts to explain SEZs like the neo-classical, the heterodox, global value chain and the agglomeration economies approach. The neo-classical theory takes SEZs as enclave where free trade policies are adopted to promote trade. This theory emphasizes that government should follow the policies of free trade even if it is not viable at political and economic level. Free trade can benefit in terms of some welfare. Political economy based its understanding of SEZs on public choice theories and interest groups theories. It argues that government intervention promotes the interests of pressure groups and supports the minimalist government principle. It advocates for free trade in all countries and in all situations with minimum government intervention (Agarwal, 2010).

The Heterodox theory advocates a mix of state- market interaction where the role of a government aimed at development to promote investment transfer of technology, human capital formation and institutional building through reforms, is significant as domestic firms have a low profile in technical expertise and marketing and have less access to International distribution channel SEZs serve to fill these gaps (Chang, 2002).

The Global Value chain approach argues that conducive environment for business and investment in SEZs facilitates the country to enter in global value chain to integrate with firms of developed countries that strengthen their competitiveness and promote their productive capacities. Agglomeration economies focus on reallocation of resources for the growth of productivity. SEZs are viewed as clusters promoted by government facilitating foreign firms. Agglomeration helps in knowledge spill over sharing of resources and new innovations (Aggarwal, 2010).

The paper boldly comments that SEZs in Pakistan is not following any specific theoretical frame work but a mixture of the four approaches which can be a better explanation of SEZ in Pakistan along with focus on additional factor of Public Private Partnership (PPP) model. To clarify this view point, the Board of Investment Act (BOI,

2016) is thoroughly checked which clearly explains the process of establishment of SEZs, the role of government, private sector and incentives as well. The SEZ is to be set up by the Federal or Provincial Governments themselves or in collaboration with the private sector under different modes of public-private partnership or exclusively through the private sector.

The fiscal benefits under the SEZ law include a one-time exemption from custom duties and taxes for all capital goods imported into Pakistan for the development, operations and maintenance of SEZs (both for the developer as well as for the zone enterprise) and exemption from all taxes on income for a period of ten years. The provincial SEZ authorities, set up under the law, are required to move the applications received from developers to the Federal Board of Investment which is to act as the secretariat to the Board of Approval and the Approval committee. (BOI Act, 2016). After review of all these points, the adopted implementation framework and approval process of SEZ can be presented as follows:-

SEZ approval/implementation flow chart following mixed approach with focus of Public Private Partnership (PPP)
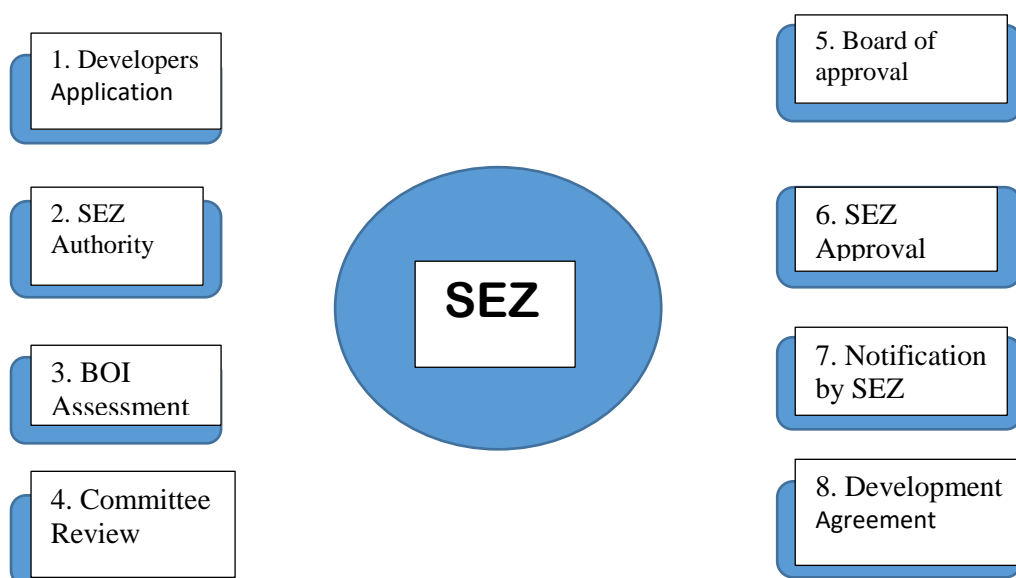
Source: Authors designed figure to show theoretical and implementation framework & approval process of SEZ in Pakistan as per SEZ Act, 2016.

DISCUSSION AND ANALYSIS

Economy of any state only grows when its industrial sector and trade play a positive role in the development process. To achieve inclusive growth effectively and efficiently it is important to promote trade and industry. The industry and trade are considered as main drivers of economy. In international arena, the states which have solid industrial base and growing trade features are called rich countries and the same factors are behind the success

story of Asian Tigers and Dragons. CPEC provides Pakistan an opportunity to revive its economy by promoting Industrial sector with a strong base in SEZs.

In the long Term Plan (LTP, 2017), Pakistan and China agreed to cooperate in trade and industry. The document lays emphasis on cooperation in the fields of trade and industry by relocating Chinese industries in SEZs and both countries agreed to cooperate in boosting bilateral trade. In Long Term Plan, it has been mentioned that both countries should cooperate in key areas of industry like quality of commodities value addition supply of high value added products to promote export processing. Both countries should promote SEZs in all four provinces and regions of Pakistan. The cooperation in fields like export competitiveness, import substitution and capacity building provide a base for industrial cooperation between the two countries" (LTP, 2017).

Types of Industries in Special Economic Zones (SEZs)

The official website of CPEC provides detail of the work done by authorities in this regard. It reveals that in Rashakai economic zones, units of fruit and food processing textile stitching and knitting are going to be established. At Bolan Economic zone the type of industry will include Fruit processing, Pharmaceutical, Motor bikes assembly, Chromite, Cooking oil, Ceramic Industries, Ice and Cold storage, Electric appliances, Hilal Food Industry. In SEZ of Gilgit Baltistan that is situated in Moqpondas units of Marble Iron Ore, Fruit Processing, Steel Industry, Mineral processing Units and leather are planned to be established. As far as other six economic zones are concerned those are in feasibility stage. The salient features of these zones may be seen at Annex -1.

Poverty Alleviation and uplifting life standards of the people

The statistics of economic position and poverty of Pakistan are not as satisfactory as these ought to be. The poverty index measured by government statistical agency shows that it stood at 38.8 5% of the total population of the country that makes 0.197 (MPI report, 2016). It is not as good as it is in advance and developed countries. There can be many socio- economic factors for this poor data but slow pace of industrial sector is one of those. Pakistan requires economic revival to resolve major issues including debt repayment, power shortage, unemployment, shortage of resources for primary health and education.

A country where the major portion of budget is allocated to debt repayment and defence cannot allocate required funds for health and education to improve the life standard of the people. These issues can be resolved with planning and steady industrial growth. SEZs under CPEC provide Pakistan with a better opportunity to overcome these problems. Initially twenty- nine special economic zones were planned under CPEC but later on, nine priority special economic zones (PSEZ) were selected for this purpose (Ahmad and Rao 2020).

The present figure about existing economic zones in the country show that Pakistan cannot achieve the required results from those zones unlike the other Asian countries specially China(CPEC and Potential opportunities, 2018). The purpose of these industrial parks along the corridor is to promote industry in the country. Soon after signing the MOU on CPEC in 2013, Pakistan and China started consultation for priority sectors including relocation of Chinese industry under aligning strategy, financial and technical support to Pakistan's industry along with protecting local industry and bringing these policies in line with other policies of provincial and federal governments (Sial, 2016). The outcome was the decision of establishment of Nine Industrial Parks and development of model cities along the corridor.

Special Economic Zones were expected to serve as new driving force for the economic development of the country improving the infrastructure that will help to bring Pakistan with par to economic growth of the region (China to build model industrial parks under CPEC, 2016). A new company EDZMC was established by government of Pakistan for Rashakai Economic Zone whose CEO Mohsin M. Sayyed was optimistic about the revival of sick units particularly biscuits units in KP. There were 117 such units but now only three are in operation now and the revival of sick units will produce a lot of job opportunities and will increase the production as well (Personal communication, 11th April 2021).

The applied economic Research Centre estimated at around 0.7 million jobs from CPEC by 2030 major portion of which will be through SEZs (Ahmad and Zhou 2020). Institutional framework is essential for the success of SEZs similarly Islamabad chambers of commerce also urged for an implementation mechanism of the projects. Saba Anwar and Karim Khan (2016) while thoroughly looking the SEZs of China concluded that in China the SEZs have been successful because those were provided with uninterrupted power supply and proper infrastructure health and support services, easily manageable business rules. Regulations are streamlined to be enforced in SEZs there. Speedy custom regulations and special administrative procedures are important factors that led to increase the GDP of China by 22 percent and increased job opportunities with 60 present additional exports (Khan & Anwar, 2016).

In countries like Russia, China, India and Bangladesh, the special acts for SEZs have been framed with necessary changes according to the needs and circumstances for dealing the arising issues. These acts and reformed institutional framework have worked to promote the industry in these countries and resulted in the growth of trade. Technological commercialization on average has been observed in China due to SEZs that make up around 60% as against 19 % outside of the economic zones there. Agro- tech Parks helped China to increase the rate of development of agro based technology to approximately 70%. These economic zones increase the FDI to$ 4.1 billion .From 1980 to 2000, the FDI reached to $ 50 billion and exportable products reached to $ 10 billion.

Four basic principles for SEZs in China

The success of Special Economic Zones in China is the result of its commitment and regulations that are based on four principles. a) Attraction of FDI to construct and construction basically depends on the foreign investment b) Foreign companies were given priority to invest or these were encouraged to invest in joint ventures c) The quality of the products was kept high without any compromise to make them exportable d) The economic activities were driven by the market forces. (Khan and Anwar, 2016)

Key Factors for Success

Khan and Anwar (2016) concluded that the key factors that play the main role in success and resulted in converting a weak economic country into an economic giant were honest leadership, land reforms, conducive environment, use of advance and improved methods for production and joint ventures. The general incentives for these zones include the availability of power and gas and other essentials. The investors were given the guarantee that incentives would not be withdrawn midway or would not be altered for any reason harming the interests of investors. The procedures of establishing zones were kept transparent and were ensured through the act.

The local security arrangement and dispute resolution mechanism was formulated. Rules regarding environmental protection and procedures were kept easy to provide a conducive environment for investment and for trust building of investors. Chinese economic zones are model for Pakistan to be followed with necessary changes and Pakistan can follow the Chinese model but it has to do so by bringing changes according to its own requirements and developing link roads to link these Zones with central cities and other areas of the country for accessibility, labor training and capacity building with Chinese technical cooperation. Pakistan has the potential for industrial development and its economy is in need of a click that can be provided by CPEC in shape of SEZs. The SEZs with basic facility of school hospital and technical and vocational centre will make these zones a success story. (Khan and Anwar, 2016)

Growth of Industrial sector

Industrial sector of Pakistan is telling a sad story since long due to many causes including absence of conducive environment, shaking confidence of investors, inconsistent policies and security concerns in the past. Now with the establishment of SEZs under CPEC this important sector of Economy has got an opportunity to have a break through. The sick units can also be rehabilitated and can be operative with the return of investors (CPEC and Potential opportunities, 2018).

The following table shows a steady improvement in industrial sector that is encouraging as it has shown its conviction despite unfavourable international conditions like war on terror in the region and COVID 19 pandemic.

Pakistan Industrial Production

Actual	Previous	Highest	Lowest	Dates	Unit	Frequency
27.01	9.03	79.03	-39.80	1990 - 2022	percent	Monthly

Related	Last	Previous	Unit	Reference
Industrial Production	27.01	9.03	percent	Mar 2022
Manufacturing Production	8.20	6.50	percent	Jan 2022
Changes in Inventories	664173.00	220438.00	PKR Million	Dec 2021
Cement Production	4605.00	4084.00	Thousands of Tonnes	Mar 2022
Industrial Production Mom	15.56	2.97	percent	Mar 2022
Electricity Production	9966.00	9852.00	Gigawatt-hour	Dec 2021

Source: Adopted from http//Trading economics .com/calendar

In view of above it can be envisaged that industrial sector will show a great improvement with the establishment of SEZs under CPEC provided it follows the Chinese model with required changes and by providing facilities to the investors like Chinese SEZs.

Special Economic Zones and FDI

Foreign Direct Investment has been proved a key of success in Chinese SEZs. The main aim of establishing SEZs were to provide a strong base for industry with Chinese cooperation. In this way, SEZs will help to attract FDI in Pakistan. FDI will enable the Industry and manufacturing sector for value addition and producing exportable goods. Following the same line the Asian countries like IIndonesia, Japan, Korea, Taiwan and Vietnam have made rapid progress and now they are in the list of high end exporters despite having a low manufacturing base (Lotta, 2009).

Prospects of Rashakai Economic Zone

The researchers of the paper conducted a brief survey of the nearby community of the Rashakai Economic Zone about job opportunities, problems regarding health education and residence. A few of the residents of Marhati Banda, a nearby village, told that they got employment as machine operator and office assistants but demanded more job opportunities to coup with unemployment of the area. The general public opinion regarding facilities was not up to satisfaction. Many of them complained about forcing by district administration to sell their land on government rates and not allowing them to sell on market rates. Many land disputes are not resolved and cases are registered in courts. The locals demanded a school for students and a dispensary for health in the premises of zone.

CONCLUSION AND RECOMMENDATIONS

The feasibility reports for all SEZs should be completed as soon as possible and an emergency programme for meeting the energy and power requirements should be initiated for continuous production in these zones. For Rashakai Economic Zone which is first zone that has been started under CPEC, a meeting of local industrials and traders should be called to take them on board. An industrial exhibition (expo) of Rashakai Economic Zone is suggested for attracting more investors.

The zones also requires more speedy internet .The optical fibre network under CPEC is required to be completed soon and access be given to all the Special Economic Zones. CPEC is in its second phase where the focus will be on projects for social and economic development specially the SEZs that can help Pakistan to revive its economy, which is facing problems like low production, increased import, trade deficit, debt payment and extensive pressure on current deficit and balance of payment.

The answer and solution can be successful establishment of SEZs that will invite FDI and lead to job opportunities increased export and generation of microeconomic activities and availability of resources for the developmental projects for the up gradation of living standard of people of Pakistan. Making the establishment of SEZs a successful story, Pakistan can follow the Chinese SEZs model with necessary changes in accordance with its own political and economic system. It is suggested that the emphases should be on attracting FDI, encouraging joint ventures maintaining the quality of goods and let the market forces drive all economic activities.

For the socio economic impacts of all the SEZs, the local business men and stake holders should be taken on board and basic facilities to surrounding localities should be provided on priority bases.

Annex-I

SALIENT FEATURES OF 09 SPECIAL ECONOMIC ZONES IN PAKISTAN

S#	Name of SEZ	Location/Area	Type of industry/sectors	Status
1	**Rashakai Economic Zone**	**Zone , M-1, Nowshera, KPK**	**Fruit/Food/Packaging/Textile Stiching/Knitting**	**Launching of RSEZ was held on 28th May 2021.**
2	Bostan Industrial Zone	Balochistan	• Fruit Processing • Agriculture machinery • Pharmaceutical • Motor Bikes Assembly	200 Acres have been developed Availability of allied utilities i.e road, street, lights etc

		• Chromites		
		• Cooking Oil		
		• Ceramic industries		
		• Ice and Cold storage		
		• Electric Appliance		
		• Halal Food Industry		
3	Punjab - China Economic Zone,	M-2 District Sheikhupura, Punjab	Mix Industry	Land earmarked
4	ICT Model Industrial Zone,	Islamabad	Feasibility studies yet to be carried out	Connectivity Identification of Land Under Process
5	Development of Industrial Park on Pakistan Steel Mills Land at Port Qasim near Karachi	Karachi Sindh	Feasibility studies yet to be carried out	
6	Bhimber Industrial Zone	AJk	Feasibility studies yet to be carried out	
7	Mohmand Marble City	KPK	To be determined during feasibility stage	
8	Moqpondass SEZ Gilgit-Baltistan	GB	To be determined during feasibility stage	
9	China Special Economic Zone Dhabeji	Sindh	To be determined during feasibility stage	

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The Impact of Taliban's Official News Conference on Afghan Business Community in Pakistan

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ABSTRACT

On 15th August 2021, The Taliban took over the control of Kabul. The replacement of Afghan Government by Taliban creates a great curiosity for the business community of the world. Similarly, this creates a panic situation in Afghan business community living across the border in Pakistan, where a major portion of Afghan refugees are residing. To clear the doubts of the Afghan and international community, Taliban held their first official news conference on August 17, 2021. This study intends to examine the impact of the aforementioned news conference on the perception of the Afghan business community living in Pakistan. The data was collected through questionnaire and interviews with the business community living in the Khyber Pakhtunkhwa, Pakistan. A sample of 259 Afghan businessmen were selected randomly for the purpose. The data was analyzed using SPSS Version 23.0. The results of the study show a paramount change in the perception of the business community. Prior to the news conference, people were scared about their lives and assets. However, they felt ease at re-opening their businesses soon after the news conference.

Keywords: *Taliban; News Conference, Afghan, Business, Refugee, Business Community*

INTRODUCTION

The War on Terror, launched by the US Army in 2001, was a good beginning for the Afghans living inside and outside of Afghanistan. It gave them a new hope of rebuilding their country, and the dream of making a government of their choice was high. Millions of Afghan refugees came back from Iran, Pakistan, and other neighboring countries to Afghanistan. The Afghans were very optimistic in the sense that their lives would be

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prosperous in the post-Taliban era and had a desire that Afghanistan would be rebuilt. The Afghan authorities and the international community committed themselves to poverty reduction, economic development, and establishing an accountable democratic regime in Afghanistan (Bonn Conference, 2001).

The resumption of bilateral ties between Pakistan and Afghanistan after the ouster of the Taliban provided a solid basis for enhanced economic ties between the two countries. A Joint Economic Commission, set up in 2002, created the possibility of enhancing economic cooperation between the two countries. Subsequently, due to these significant efforts, the industry in Khyber Pakhtunkhwa appeared to be more responsive to demand in Afghanistan (Shabbir and Ahmad, 2015).

But a widespread offensive by the Taliban and allies in the month of May, 2021 and the withdrawal of US troops left the Afghan people in chaos (Roggio and Bill, 2021). Currently, the governance of Afghanistan is in a state of flux following the effective collapse of the Islamic Republic of Afghanistan during the fall of Kabul to Taliban forces on August 15, 2021, and the subsequent re-establishment of the Islamic Emirate of Afghanistan, which now exercises *de facto* control over most of the country (Ryan and DeYoung, 2021). The Talibans have said they aim to restore peace and security to Afghanistan, including the departure of Western troops, and to enforce Sharia, or Islamic law, once in power (Saikal, 2006).

It took the Taliban just over a week to seize control of the country after a lightning sweep that ended in Kabul as government forces, trained for years and equipped by the United States and others at a cost of trillions of dollars, melted away. The Taliban held their first official news conference in Kabul on Tuesday, August 17, 2021, since the shock seizure of the city, declaring they want peaceful relations with other countries and would respect the rights of women within the framework of Islamic law.

However, many Afghans fear that the Taliban will return to past harsh practices in their imposition of Sharia law. During their 1996–2001 rules, women could not work and punishments such as stoning, whipping, and hanging were administered. Hundreds of Afghans invaded the airport's runways in the dark, pulling luggage and jostling for a place on one of the last commercial flights to leave before US forces took over air traffic control on Sunday.

Study Objectives

Below are the prime objectives of the research study:

1. To examine the impact of Kabul's fall on Afghan business community in Pakistan.
2. To Examine the impact of official news conference by Taliban on Afghan business community in Pakistan

Significance of the Study

The basic purpose of this research was to find the opinion of the Afghan people who are running their businesses in Pakistan and mostly have also established their work in Afghanistan after the Taliban government. On the 15th of August 2021, the Taliban took control of Afghanistan by capturing Kabul. On the 16th of August, the data was collected through a questionnaire with the help of a team of experts. Exactly one day after that, Zabi Ullah Mujahid, the representative of the Taliban, conducted a press conference and explained their policy about the future of Afghanistan. This created some changes in the opinions of the people. Hence, to check the impact of the conference on the same representatives, the data was re-collected. The data was analyzed using SPSS Version 23.0.

LITERATURE REVIEW

Afghan refugees are the world's second largest refugee population, accumulated by Pakistan in its neighborhood over the last decades. The refugees from Afghanistan sheltered in Pakistan since the late 1970s may be classified into three groups. The first was in 1979, during the civil war when the USSR attacked Afghanistan. The second stream of refugees entered Pakistan when the USSR began the withdrawal from Afghanistan in 1980, and the third group of refugees when the United States of America's (USA) started its war against terror. About 3.5 million refugees found shelter in Pakistan during the crises of the 1980's.

Pakistan, along with Turkey, facilitated the Afghan refugee crisis. As per the 2005 census, about 35% of Afghan refugees have been sheltered in Pakistan since 1980. In 2008, approximately 2 million Afghan refugees registered in Pakistan. Most of Afghan refugees were living in the camps managed by the UNCHR in Pakistan. Thousands of Afghan refugees are still living in the urban localities of Pakistan without any prior registration. In 2008, approximately 8 million Afghan refugees were relocated from their region to Pakistan (Kronenfeld, 2008).

Among the reallocated Afghan refugees, most of the Afghans got shelter in the Khyber Pakktunkhwa (KP) province of Pakistan, which was formally known as the North West Frontier Province (NWFP). According to Oberoi, in 2007, approximately 75 thousands Afghan refugees entered various parts of Pakistan every year, and the movement across the Pak-Afghan border was supposed to be a routine issue before the war of terror. According to a situational analysis, Pakistan supported Afghan refugees for three reasons: global assistance to Afghan refugees during the cold war, which resulted in the reduction and disintegration of the USSR from Afghanistan.

The second factor was the recession in the economy of Pakistan during the 90's. The third factor that constitutes change in geopolitical sense after 9/11 is Pakistan's being supposed to be an alliance with the USA and the scale of terrorist attacks. Financial and military assistance and appreciation from the international community for Pakistan were also on the agenda of sheltering Afghan refugees in Pakistan. As a result of all this, the

Pakistani nation suffered a lot from drug and Kalashnikov culture due to the Afghan refugee movement towards Pakistan (Oberoi, 2007).

Mghir and Raskin in 1999 studied the psychological impact of Afghanistan's war. The study considered two Afghan refugee groups, i.e. refugees with Tajik parents and refugees with Pashtun parents. The two groups of refugees were analyzed using post-traumatic stress disorder (PTSD) and depression psychological scales. The refugees with Tajik parents were significantly less dispersed and stressed than refugees with Pashtun parents. Also, there was a significant difference between the two groups from a socio-economic and cultural perspective. The parents of Pashtun refugees experienced more wartime in Afghanistan than Tajik refugees and witnessed more traumatic events.

Naseh et al. (2018) studied the aspects of Afghan refugees returning from Iran. This included basic health and daily life facilities such as covered living areas, access to and use of personal latrines, kitchens, electricity, and clean piped water for drinking. The study reviewed the basic indicators and needs of returnee refugees from Iran. The study showed that maintaining a living standard for the returnee Afghan refugees was no less than a challenge. One of the most important needs was shelter, which was essential for the returnee's reintegration.

Murthy and Lakshminarayana (2006) determined that the mental health of the civil population of the country is one of the most significant factors during war. The study showed that the incidence rate and prevalence of the mental disorder are increasing rapidly in the general population and are significantly affecting men as compared to women. The incidence rate of mental health disorders was found to be associated with the availability of trauma and the cooperation of society.

Sim et al. (2018) conducted a cross-sectional study to model the exposure to war and its impact on parental and child mental health for the refugees from Syria in Lebanon. The study developed and empirically verified relationship with the help of structural equation modelling (SEM) between the post-war effects and stress due to displacement from their country with the attitudes and behaviors and mental health disorders of 291 refugee mothers in 2017 in Lebanon. The study defined a positive relationship between post-traumatic stress and psychological distress in mothers with their exposure to war. Whereas the child's psychological issues were found to be inversely related to the post-traumatic stress. According to the study, post-war trauma has a negative impact on both mother and child's mental health and tends to increase negative parenting behavior.

Ulum and Kara in 2016 studied the effects of war on student refugee academic achievement in Syria. The study considered the war victim students at high and secondary schools in Adana, Turkey and collected the data by semi-structured interview in their mother tongue. The study analyzed the pre- and post-Syria's war grades of the students and concluded that war effects decreased the grades of students.

The objective of this paper is to determine the impact of the first official news conference held by the Taliban on August 17, 2021, on the refugees settled in various regions of Peshawar, Khyber Pakhtunkhwa.

METHODOLOGY
Study Design

The researcher used a survey research method to collect the feedback of Afghan refugees living in Pakistan. The data is collected using a well-designed questionnaire, and face-to-face interviews have been conducted with the business community living in the Khyber Pakhtunkhwa province of Pakistan. The questionnaire includes a question about the perception of Afghan refugees living in this part of the world. The data is collected pre- and post- news conferences held by Taliban officials.

Study Population

The target population for the study is Afghan people settled in Khyber Pakhtunkhwa. The sample population is the four main markets of the district of Peshawar. The study is conducted among Afghans who earn their living from the four most populous Afghan markets, namely Kharkhano Market, Markets in Hayatabad, Board Bazar, and Afghan colony. Pilot study is conducted to count the number of shops and determine the main source of their income. As a result, the following conclusions are drawn: There are about 700 shops in Kharkhano Market, 100 in Hayatabad, 300 in the board bazar and 70 in the Afghan colony run by the Afghanis settled in Pakistan. They primarily deal in electronics, groceries, carpets, second-hand clothes and second-hand furniture, and some own pharmacies and auto repair shops.

Sample Size

Since the population size i.e. the number of afghan shops in all the four markets are known (1170), so Yamane (1976) formula can be used for the sample size.

$$n = \frac{N}{1 + Ne^2}$$

Where n is the sample size, N is the population size, and e is the level of precision. At a 95% confidence level, e is 0.05. From the given information, the above formula provided n = 298, but in the given study, a sample of size 300 is considered. After selecting the sample size, i.e., 300, the proportion allocation method wis used for the selection of a representative sample from each market.

$$n_i = n * \frac{N_i}{N}$$

Where n_i is the sample number of shops in a market, N_i is the number of shops in a market, n is the total sample size, and N is the population size. After selecting the shops, the

owner or the responsible person of each shop was interviewed. At the final stage, a simple random sampling procedure was used to select the representative sample. At the first stage, the data was collected on the 16th of August 2021 from 300 people. In the second stage, on the 18th of August 2021, the same respondents were approached to check the response of the press conference, but only 259 were present. Due to Muharram, business communities, being reluctant to give the answers, being scared, etc., the rest were not approached. So the analysis of the present study is based on 259 responses. The main focus of the data are based on factors like home in Afghanistan, business in Afghanistan, any fear/scare from the Taliban, female education, female rights, hijab, female work outside, freedom of the media, revenge, foreign investment, security, beard, turban, foreign aid, Taliban success and their competency. The last question about the last president, Ashraf Ghani, is asked.

Sampling Design

To achieve the objectives of the study, a sample of 259 Afghan businessmen are selected randomly. Data are gathered in two phases by using a well-structured questionnaire. In the first phase, information was collected before the press conference of the Taliban that is held on August 17, 2021, and in the second phase, the same information was asked of the same selected respondents after the press conference of the Taliban. SPSS 23 Version is used to analyze the data. To obtain the objectives of the study, first descriptive statistics were computed, such as frequencies, percentages, and averages, to describe the variables. For testing the hypothesis, the researchers used Paired Wilcoxon A ranked test was used.

DISCUSSION AND ANALYSIS

A reliability coefficient of 0.70 or higher is considered "acceptable" according to the Cronbach's alpha score. The value of reliability in the given case is 0.704. This shows a maximum overall degree of satisfactory.

Figure 1 below demonstrates the market-wise distributions of the respondents, which suggests 160 respondents are from the Karkhano Market, 23 from the Hayatabad, 60 from the Board, and 16 respondents from the Afghan colony.
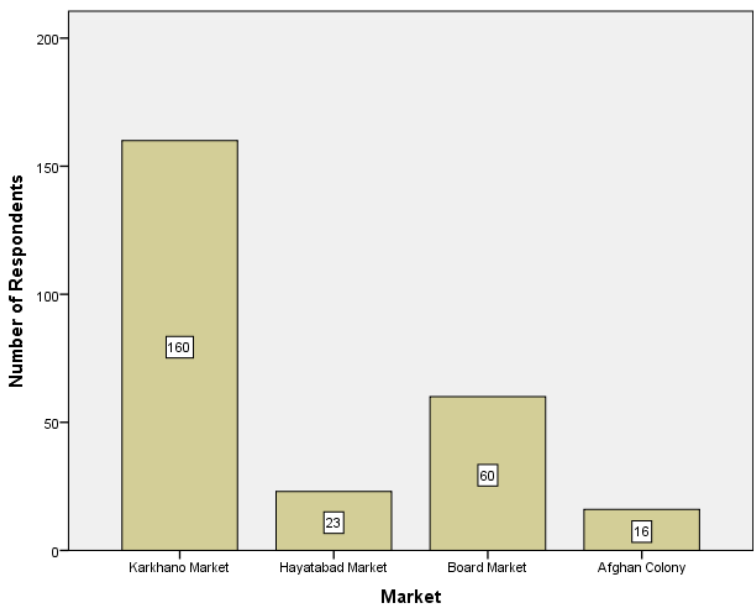
Figure 1: Market wise distribution of respondents

Figure 2 below demonstrates the proportion of Afghans living in Pakistan, while own a business in Afghanistan. The Figure indicates that 94 out of 259 respondents own business in Afghanistan.
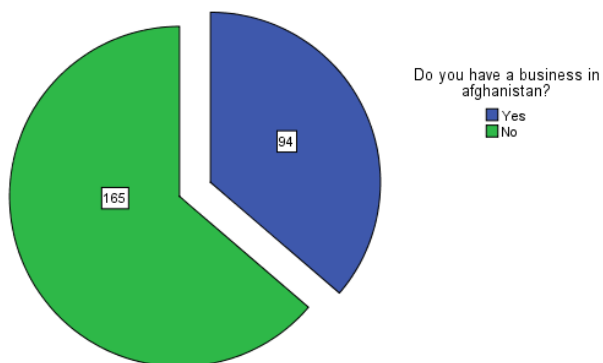
Figure 2: Own business in Afghanistan

The average age of the respondents is mean SD, i.e., 3513. The questions are divided into positive and negative natures. A descriptive summary of the two is summarized in Tables 1 and 2. The result of table no.1 revealed that the response to the question about providing security to the citizens is remarkably increasing from 29.3% to 61.8%, with a difference of 32.5%. From 70.7%, people were of the opinion that they would not provide

any security to the citizens, which decreased to 38.2%. According to the 84.2% of those who participated in the survey before the press conference, the Taliban will be unable to strengthen the economy of the country. Their opinions have been changed to 70.3%. At the press conference, 80.7% of participants responded that females would not get education during the Taliban's government, while 19.3% were in favour of females getting education during the Taliban's government. The responses are changed to 30.1% after the press conference. The response to the question about allowing females to work outside is increasing from 21.6% to 29.7%, with a difference of 8.1%.

Prior to the press conference, 71.4% of participants said the Taliban would not grant equal rights to women, but that number dropped to 65.6% after the press conference. According to 18.1% of participants, the media will be free in the Taliban's government, which increases to 23.2% with a difference of 5.1 percent after the press conference.

The survey shows that before the press conference, 70.3% of participants responded that the Taliban would not give equal rights to all religions, while after the press conference, the response of participants in favour of the Taliban about giving equal rights to all religions increased with a difference of 3.9%.

Table1: Types and frequencies of responses from the positive nature questions.

Types and frequencies of responses	Before Press Conference n= 259				After Press Conference n= 259				Difference in percentages of yes responses
	Yes	%	No	%	Yes	%	No	%	
Taliban will provide full security to all citizens	76	29.3	183	70.7	160	61.8	99	38.2	32.5
Country will be economically more strong during Taliban governments.	41	15.8	218	84.2	77	29.7	182	70.3	13.9
Female will get the education during Taliban's Government.	50	19.3	209	80.7	78	30.1	181	69.9	10.8
Taliban's will allow females to work outside.	56	21.6	203	78.4	77	29.7	180	70.3	8.1
Taliban's will give equal rights to the females.	74	28.6	185	71.4	89	34.4	170	65.6	5.8
Taliban's will give freedom to media.	47	18.1	212	81.9	60	23.2	199	76.8	5.1
Taliban's will give equal rights to all religions.	77	29.7	182	70.3	87	33.6	172	66.4	3.9

Table2: Types and frequencies of responses from the negative nature questions.

Types and frequencies of responses	Before Conference n= 259				After Conference n= 259				Difference in percentages of yes responses
	Yes	%	No	%	Yes	%	No	%	
Taliban's will take revenge from Afghan forces.	213	82.2	46	17.8	66	25.5	193	74.5	-56.7
Are you scared from Taliban?	167	64.5	92	35.5	118	45.6	141	54.4	-18.9
Foreign countries will stop investment in Afghanistan.	248	95.8	11	4.2	214	82.6	45	17.4	-13.2
Taliban's will impose the condition of Hijabs on females.	231	89.2	28	10.8	197	76.1	62	23.9	-13.1
Taliban's will impose the condition of turban on all people.	194	74.9	65	25.1	177	68.3	82	31.7	-6.6
Taliban's will impose the condition of beard on all people.	212	81.9	47	18.1	197	76.1	62	23.9	-5.8

The above table shows that 82.2% of the respondents of the survey says that the Taliban would take revenge from Afghan forces, which was decreased to 25.5% after the press conference. Their perspectives differed by -56.7%.64.5% of participants were scared of the Taliban's government, which reduced to 45.6% after the press conference.

Before the press conference, 95.8% of respondents are in favour of foreign countries' stopping investment in Afghanistan, which decreased to 82.6% after the press conference. 10.8% of participants said that the Taliban would not impose conditions of hijab on females, which was increased to 23.9% after the press conference. The percentage of people who say they will wear a turban has dropped from 74.9% to 68.3%, a -6.6% drop. At the press conference, 81.9% of participants said the Taliban would force everyone to wear a beard. This opinion was changed after the press conference with a difference of 5.8%.
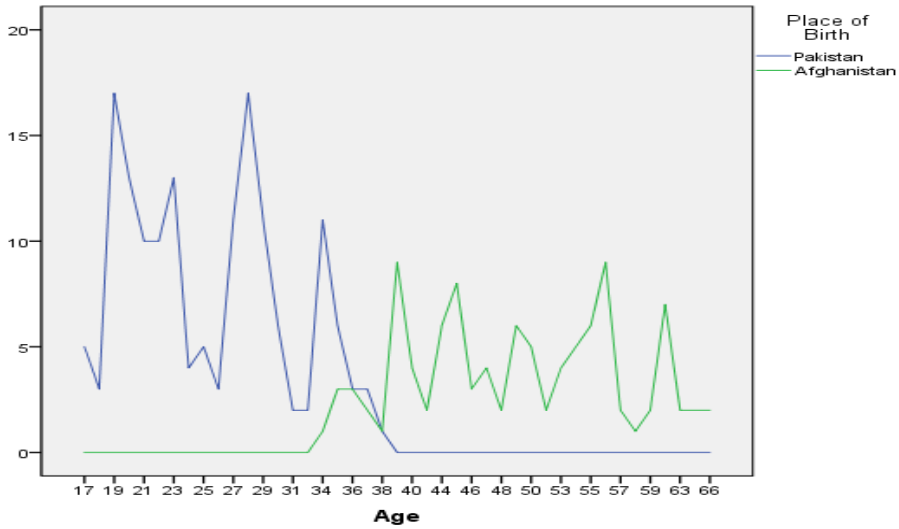
Figure no. 1 shows that the birthplace of Afghan people is Afghanistan, those who have more than 36 years of age, while those who have less than 36 years of age have Pakistan as their birthplace. It shows 36-year-old and younger Afghan people have their businesses in Pakistan and are born in Pakistan. This is because of the Afghan people's migration to Pakistan due to the Soviet Union war in 1979 to 1989.

The results of the study showed that there are four business markets where Afghan people are working with a majority in various types of businesses. Results showed that 61% of Afghan people do their business in the Karkhano market while 23% work in the board market. Besides these, a very small percentage of 8% and 6% work in Hayatabad and Afghan colony respectively. The reason behind the larger portion of Afghan people working in Karkhano market is the small distance from Afghanistan's border. The Afghan people are very punctual in performing prayers, as the results showed 86% of the respondents performing prayers on time. Afghans are engaged in various types of businesses, out of which some are in the majority. From the results, it is observed that 29% of Afghans run electronic goods businesses while 24% run grocery stores. Aside from these, Afghans run carpet businesses, second-hand furniture businesses, and second-hand clothing businesses with 10%, 12%, and 10%, respectively. 13% run other businesses. Normally, Afghans appeared to be illiterate, but this study found that only 25% are literate. Among all Afghans, 76% have their own homes in Pakistan, while 71% have their own homes in Afghanistan. This shows that the majority of the Afghan people have their own homes in both countries, which indicates that they want to be connected to both countries. They don't want to leave in one country forever. From the results, it is also observed that 89% of Afghans are married, the main reason being their early age of wedding.

A Total Unduplicated Reach and Frequency (TURF) analysis is used to find the optimal opinion of the respondents by trying to find the four significant factors between the two data collection points. See Table 3, which summarizes the results of the analysis. The

table shows that overall, there is no difference in the response at two different points in time.

Table3: TURF analysis of significant factors

Before Press Conference	After Press Conference
Foreign countries will stop investment in Afghanistan, Taliban's will impose the condition of Hijabs on females, Taliban's will impose the condition of beard on all people, Taliban's will take revenge from Afghan forces	Foreign countries will stop investment in Afghanistan, Taliban's will impose the condition of Hijabs on females, Taliban's will impose the condition of beard on all people, Taliban's will take revenge from Afghan forces
No difference	

A question about the ranking of the Taliban government was also asked before and after the conference. The wording of the question was, "How many marks are you giving to the Taliban's government competency?" This was analyzed through the Paired Wilcoxon Signed Rank test. The value of the test statistic was found to be $z = -8.984$ with a P-Value of 0.0000, indicating the significant difference between the opinions of respondents before and after the conference.

CONCLUSION AND RECOMMENDATIONS

The primary objective of this study is to investigate the influence of the Taliban's news conference on Afghan business community in Pakistan. For this purpose, a sample of 259 Afghani businessmen working in Pakistan was randomly selected. The information was gathered at two different time points; one before the news conference held by the Taliban and the other after the conference. Information was noted on a well-structured questionnaire that consists of demographic questions of the respondents and questions related to their perception of the Taliban.

The results of the study reveal that all Afghan refugees with less than 36 years of age start their businesses and settle in Pakistan. There are various types of businesses run by Afghan people, including electronics, grocery stores, carpets, second-hand furniture, second-hand goods, and various others. Such businesses are run in three different market places; those are Karkhano market, where a large number of Afghans work; the Afghan colony; Board bazar; and Hayatabad market. At a very young age, they get involved in some sort of business. That is the one reason that Afghans residing in Pakistan have low literacy. The connectivity of Afghans with Pakistan as well as with Afghanistan can be imagined from their own houses in both countries. This may be an indication of their willingness to stay connected with both countries. Another reason for their attachment to both countries is their love for their homeland and their business in Pakistan.

There is a clear indication from the respondents that the Taliban have an influence on the region, particularly on Pakistan and Iran. From the study, it has been noticed that the opinions regarding positive questions that include "providing security to citizens", "female education", "working females in society", "Providing rights to females", "freedom to the media", and "equal rights to all religions" were considerably increased after the press conference held by the Taliban. And for negative questions such as "not providing security to citizens", "foreign investment will be stopped", "scared of the Taliban", the opinions were considerably decreased after the press conference. Besides these, in this study, to find the optimal opinion of the respondents by trying to find the 4 significant factors of the two data collection points by using Total Unduplicated Reach and Frequency (TURF) analysis.

The paired Wilcoxon signed rank test was used and significant differences were obtained between the opinions of respondents before and after the conference. This study concludes that the Taliban's conference and their way of dialogue with the media have a very positive influence on the people. Before, people were scared of the Taliban, but now the Taliban have changed their negative influence to a positive one on people's minds. People now have high hopes for the Taliban as Afghanistan's government.

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The Effect of Weather Variables on Stock Returns: Evidence from Pakistan

Shadab Mustafa[1]

ABSTRACT

Behavioral Finance theorizes the impact of weather's effect on the daily stock return through its effect on the investors' mood. This study examines the effect of weather variables on Pakistani stock market. A sample of 124 non-financial firms listed on Pakistan Stock Exchange have been selected through Judgmental sampling along with the daily weather for the period from 2010-2014. Daily returns are regressed on the three weather variables; Temperature, Humidity and Precipitation (Dummy). The analysis is conducted by controlling for Firm Size, Leverage Ratio and Industry Type (Dummy). The results demonstrate no effect of weather on the daily stock returns of Pakistan Stock Exchange. The findings of this study may benefit the financial managers, investors and financial management consultants in making policies regarding investment decision. Some directions are provided for future researches that may extend the literature and improve the limitations of this study.

Key words: *Temperature, Humidity, Precipitation, Stock Exchange, Stock Return, Entrepreneurs and Financial Firms*

INTRODUCTION

The year is divided into four seasons by nature. Each season is distinct and has a distinctive impact on people's moods, habits and activities. Investors, traders and human resources in any organization, are all human beings, and their attitudes and actions are influenced by changes in the weather or season, which may be seen in trading, share price fluctuations, stock returns and other market events. The traditional theory of finance is based on the fundamental of Efficient Markets, which argues that markets are rational and reflect economic morphemes, although psychological, situational, and environmental factors influence individuals' decision-making processes (Watson 2000). In recent years, a new field of study has evolved that investigates the impact of psychological factors on the financial markets. Weather variables have been shown to have a significant impact on people's moods and behaviors in psychological studies. Numerous studies have found that

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an individual's sentiments, emotions and mood have an impact on their decision-making (Schwartz, 1990; Loewenstein et al., 2001). Howarth and Hoffman (1984) looked at the weather variable and discovered that temperature, humidity, and sunshine hours had an impact on mood.

Saunders (1993) pioneered research into the impact of different weather conditions on daily stock performance. He examined the cloud as a variable to see how it affected daily stock returns on the New York Stock Exchange (NYSE) from 1927 to 1989 and the American Stock Exchange (AMEX) from 1962 to 1989. He came to the conclusion that lower cloud cover is associated with higher returns. By focusing on the 26 foreign stock markets from 1982 to 1997, Hirshleifer and Shumway (2003) validated the findings of Saunders (1993). The combined conclusion of the two research points to investors' optimistic conduct on sunny or less overcast days, which leads to better returns, and pessimistic behaviors on cloudy days, which leads to lower returns.

These studies have paved the way for further study into the impact of weather variables in traditional financial analysis. As a result, this research aims to identify the impact of weather-related factors in Pakistan. The weather in Pakistan is harsh in nature; typically, summer lasts for six to seven months, which is a key factor in temperature. Pakistan is situated near the sea, which results in high humidity. Precipitation, on the other hand, is a crucial aspect that can cause a shift in weather, which can be nice in places like Pakistan where summers are protracted.

LITERATURE REVIEW

Finance is predicated on the notion of rationality. According to Thaler (1987), the single trait that distinguishes economics and finance from other social sciences is rational conduct. This assumption asserts that each financial choice is made based on the cost and benefit of the decision. Personal emotions and beliefs of market players have little bearing on financial decisions. Weather may affect an investor's actions, which can be translated into financial decisions and influence stock returns, according to behavioral finance theory. Individuals' actions are influenced by changes in weather factors, according to psychologists, who suggest that people are more optimistic in bright weather and cloudy on overcast or rainy days (Eagles, 1994; Rind, 1996).

As a result, individuals are happier on sunny days than on cloudy or rainy days. Lee and Wang (2011) distinguished between excellent and terrible weather. Low clouds and brilliant sunshine provide a pleasant atmosphere that makes people feel happier and more relaxed. Bad weather, on the other hand, is associated with thick cloud and limited sunlight, which makes people unhappy and less optimistic. Bell (1981) found that temperature had a detrimental impact on individual performance. According to Howarth and Hoffman (1984), humidity was inversely connected with positive human performance, whereas sunlight hours were favorably correlated. Arkes et al. (1988) stated that investors in a good mood were more willing and motivated to participate in riskier enterprises in the hope of making more money. The first study on the present research was conducted by Saunders (1993). He looked at the influence of sunny and cloudy days on the Dow-Jones Industrial Average's daily returns from 1927 to 1989, as well as stock returns from the New York Stock Exchange (NYSE) and the American Stock Exchange (AMEX) from 1962 to 1989.

Temperature, cloud cover, wind speed, humidity, rainfall and hours of sunlight were all taken into account. Because cloud cover is positively correlated with humidity and negatively correlated with hours of sunshine, Saunders defined weather in terms of clouds; rain is also associated with clouds; and because temperature and wind speed are not important in psychological studies, he did not include these two variables in his study. He utilized the percentage of cloud cover from dawn to sunset as a proxy for weather conditions at the nearest meteorological station to Wall Street (New York). The findings revealed that when cloud cover was 100 percent, returns were lower than average, but returns were higher than average when cloud cover was less than 20 percent, and that returns were negatively related to the cloudy days and higher returns on stock in sunny days because of optimistic behaviours.

Hirshleifer and Shumway (2003) looked at the influence of sunlight on daily market index returns for 26 countries from 1982 to 1997 and found a substantial link between return and sunshine. Rain and snow were not related with returns by controlling the sunshine effect. The outcomes of these two researches revealed that sunlight had a significant positive influence on stock returns, implying that a happy mood leads to optimism in individual behaviors. Trombley (1997) examined stock returns on the New York Stock Exchange (NYSE) from 1927 to 1992, arguing that there was no substantial association between returns and weather variable as provided by Saunders (1993). Sunny days or cloudy or rainy days did not cause reason for the change in returns.

When investors' subjective criteria or parameter fluctuate with changes in mood, according to Mehra and Sah (2002), their emotional state has an influence on equities prices. By analyzing stock returns from the German Stock Exchange from 1960 to 1990, Kramer and Runde (1997) found no link between stock return and cloudiness, as well as three other weather variables: humidity, rainfall, and air pressure. For the years 1986-2002 and 1980-2002, Keef and Roush (2002; 2005) found that temperature had a smaller impact on the prices of Government bonds, bank bills and stock indices.

Except for the pricing of government bonds and bank bills, wind speed has a strong negative influence on stock returns, according to Keef and Roush (2002). From 1992 through 2003, Keef and Roush (2007) found a negative relationship between temperature and stock returns, with no influence of wind. For the period 1970-2004, Jacobsen and Marquering (2008) found a negative relationship between temperature and stock returns for 48 countries.

Chang et al. (2006) found a negative relationship between severe temperatures, particularly very low temperatures, the considerable influence of extreme cold, and no relationship with humidity in Taiwanese stock returns from 1997 to 2003. Gerlach (2007) looked at stock returns in the United States from 1980 to 2003 and discovered that higher temperatures and wet days were associated with poorer returns, but that these effects maintained until economic news arrived. Akhtari (2011) looked at New York from 1948 to 2010 and found that daily market returns were positively associated to sunshine, albeit the

strength of this finding might change with time. Temperature levels did not impact the movements of stock returns, according to Brahmana, Hooy, and Ahmad (2012).

There are considerable studies that show that temperature has an impact on one's mood, and that a change in mood has an impact on one's subsequent behaviors or actions. In eight countries, Cao and Jason Wei (2005) (2006) explored the relationship between stock market and temperature and a substantial negative impact was found in 8 and 27 countries, respectively (higher temperature caused lower returns). This relation was not stronger in summer than in winter. Goetzmann and Zhu (2005) examined weather variables such as cloud cover, rain and snow in five US cities from 1990 to 1995 and found no difference in the tendency of trading equities on cloudy days versus sunny days, but higher returns at the NYSE on sunny days, concluding that the weather had no impact on investors' trading decisions.

Hu (2008) used bin test, regression analysis, and copula modelling on a sample of 25 international stock markets to investigate their association. The outcomes showed a statistically vital negative association for individual countries, with greater temperatures resulting in poorer returns, but this analysis was unable to uncover a meaningful combined influence of temperature across markets. To investigate the relationship between temperature and the stock market, copula modelling (with time-varying and constant dependency) was utilized. After adjusting for auto-correlation, normality, and the GARCH effect, the findings of the copula model revealed their negative relationship. Shu (2008) looked at weather-related variables in Taiwan from 1995 to 2004 and found a significant correlation between them.

Floros (2008) investigated the influence of temperature on stock market returns by looking at the stock markets of five European nations (Austria, Greece, France, Belgium and UK). This study used daily stock market returns and temperature data from five European nations as its sample. The GARCH results revealed a negative relationship between temperature and stock market return in Austria, France, and Belgium, as well as negative but not significant positive stock relations in Greece and the United Kingdom. For the Korean stock exchange, Yoon and Kang (2009) found no significant relationship between cloud and return for Korean stock exchange from 1990-2006.

Dong and Tremblay (2014) studied the impact of sunshine, temperature, wind, and rain on daily returns in 49 countries from 1973 to 2012, and found that pleasant weather was positively connected to returns. Sunshine had a positive impact on international returns. Windy or rainy days were negatively connected to returns in cold countries, but positively related in warm countries (September). In the case of warm countries, rainy or chilly days in summer, spring and warm days in winter were all positively connected to returns. Furthermore, it had been found that in both cold and mild places, the chilly temperature in the winter was a motivator for risk taking, which resulted in higher returns. These findings revealed that weather had a greater impact on people's induced individual behaviors.

Kang et al. (2009) analyzed the effect of temperature, humidity, sunshine and cloud cover on Hong Kong Stock Exchange and Shenzhen Exchange from 1999-2008 and found the results as returns at Hong Kong Stock Exchange were not responsive to change in weather while returns at Shenzhen index had shown significant effects of weather, inferring

that the Shenzhen Exchange was less efficient relative to Hong Kong Stock Exchange. Lu and Chou (2012) considered the Shanghai Stock Exchange (SSE) of China to examine the relation between stock index returns and weather-related mood factors and found that variations in mood due to variations in weather did not affect the index return. From 1999 to 2008, change in weather might affect the trading activities, but not the return.

Temperature, precipitation, cloud cover, humidity, wind speed, visibility barometric pressure, dummy of Monday was used by Fruhwirth and Sogner (2011) (2012) to study the influence of weather variables on stock returns, US corporate bonds, risk free interest rates and volatility index. Furthermore, Fruhwirth and Sogner (2012) developed an asset pricing model to test prior study findings that the weather had an impact on the mood that could be seen in asset prices, and discovered that good weather resulted in higher predicted asset returns and lower asset volatility.

Mirza et al., (2012) examined the impacts of temperature on markets in Pakistan (Karachi Stock Exchange and Islamabad Stock Exchange) and revealed negative influence of temperature on returns of stock market. According to Goetzmann et al. (2013), weather-based variables that affect mood have an impact on mispricing perception and institutional investors' trading decisions. They looked at survey and trade data and discovered that individual companies and the Dow Jones Industrial Index were expensive, which raised the likelihood of institutions selling on cloudier days. They looked at investor mood using stock level measurements and discovered that pessimism had a detrimental or negative impact on daily market returns.

An analysis of relevant literature was conducted after taking into account the important work of some researchers. Psychological studies are also taken into account. Bell (1981); Howarth & Hoffman (1984); Eagles (1994); Rind (1996) have found that weather has an impact on people's moods and behaviors. Individuals' productivity is influenced by the weather (Connolly 2008)). Weather has an effect on people's happiness and sadness, despair and life satisfaction, productivity and opportunity cost, financial decisions, and mental health, according to psychological studies. Weather has an impact on investors since they are humans. Investors' mental states may be influenced by changes in the weather, which can be shown in their financial decisions. Weather variables may be some affecting aspects that influence investors, and behavioral finance focuses on this issue that some effecting factors that influence the investors' mood and behaviors that can affect the pattern of trading.

Some studies have looked into the impact of weather on stock returns; however, their findings are equivocal. According to the studied literature [Saunders (1993); Mehra and Sah (2002); Hirshleifer & Shumway (2003); Cao & Jason Wei (2005,2006); Chang et al. (2006); Keef & Roush (2002, 2005, 2007); Gerlach (2007); Chang et al. (2008); Jacobsen & Marquering (2008); Akhtari (2011); Dong & Tremblay (2014)]. While some empirical investigations [Trombley (1997); Kramer & Runde (1997); Goetzmann and Zhu (2005); Yoon & Kang (2009); Fruhwirth & Sogner (2011, 2012); and Lu & Chou (2012)] found no effect of weather on stock returns.

Three explanations for the study are suggested by the literature. The first is psychological data [Saunders (1993); Hirshleifer & Shumway (2003)] that links weather factors to mood and their effects on stock returns. Second, evidence on the relationship between weather variables and stock returns is inconclusive and disputed, and third, Mirza et al., (2012) investigated the effect of weather variables in Pakistan by evaluating temperature. This study includes some additional weather factors in order to add to the literature on weather effects in Pakistan. From 2010 to 2014, this research examines the association between three major weather variables: temperature (high), humidity (high), and precipitation, and daily stock returns of non-financial companies listed on the PSX.

As temperature has a negative influence on individual performance (Bell 1981), this study hypothesizes that an increase in temperature has a negative effect on stock returns [Cao & Wei (2005, 2006); Chang et al. (2006); Keef & Roush (2007); Jacobsen & Marquering (2008); Hu (2008)]. As humidity is negatively associated with negative affect on human performance (Howarth & Hoffman 1984), it has a negative impact on stock returns (Shu 2008). Rain reduces the level of life satisfaction (Pray 2011); therefore, it has a negative impact on stock returns [Gerlach (2007)]. Investors are people; therefore, the weather can influence their mood, which can lead to changes in stock return patterns (Goetzmann et.al 2013). The study tests for the following hypothesis based on literature ground.

H_1: Temperature negatively affects the stock returns.
H_2: Humidity negatively affects the stock returns.
H_3: Precipitation negatively affects the stock returns

METHODOLOGY

This study uses judgmental sampling to enable the sample units that are most appropriate for attaining the study's goals. The sample is selected based on the data's availability and completeness (Worthington, 2009). It took into account all non-financial companies listed on the Pakistan Stock Exchange, and then classified them according to the number of trading days. There were around 400 non-financial companies, which were divided into categories based on their trading days. The total number of trade days was 1155. (1-January-2010 to 30- August-2014). Total non-financial companies are classified into 12 groups based on trading days for this purpose.

The first group spans 1 day to 100 days, the second spans 101 days to 200 days, the third spans 201 days to 300 days, the fourth spans 301 days to 400 days, the fifth spans 401 days to 500 days, the sixth spans 501 days to 600 days and so on to 1100 days to 1155 days. Only firms with a minimum of 1000 trading days were examined in the study. The non-financial companies in this study were selected from a sample of 1000-1155 trading days. The number of trading days at the Pakistan stock market has been used to select a sample of 124 non-financial listed companies.

These businesses are considered regardless of their industry. The sample includes 1155 trading days from 124 non-financial companies listed on the Pakistan stock exchange, for a total of 137643 company days. The data for daily closing share prices have been

collected from the official website of the Pakistan Stock Exchange[2]. The daily weather variables data for Karachi is sourced from the official website of the Wunder ground[3]. The panel data is used for this study from the period from 1-January-2010 to 30- August-2014 for stock returns and weather variables.

Theoretical Framework

This study tests the relationship of three most prominent weather variables as Temperature (High), Humidity (High) and Precipitation with daily stock returns of the non-financial firms listed on PSX from 2010-2014. The literature suggests that weather variables have effects on the individuals' mood [Bell (1981); Schwarz & Clore (1983); Howarth & Hoffman (1984); Schwarz (1990); Eagles (1994); Rind (1996)]. The effect of temperature [Cao & Wei (2005, 2006); Chang et al. (2006); Keef & Roush (2007); Jacobsen & Marquering (2008); Hu (2008); Dowling & Lucey (2008)], humidity (Shu 2008) and precipitation (Dowling & Lucey (2005) Gerlach (2007)), is negative on the daily stock returns.
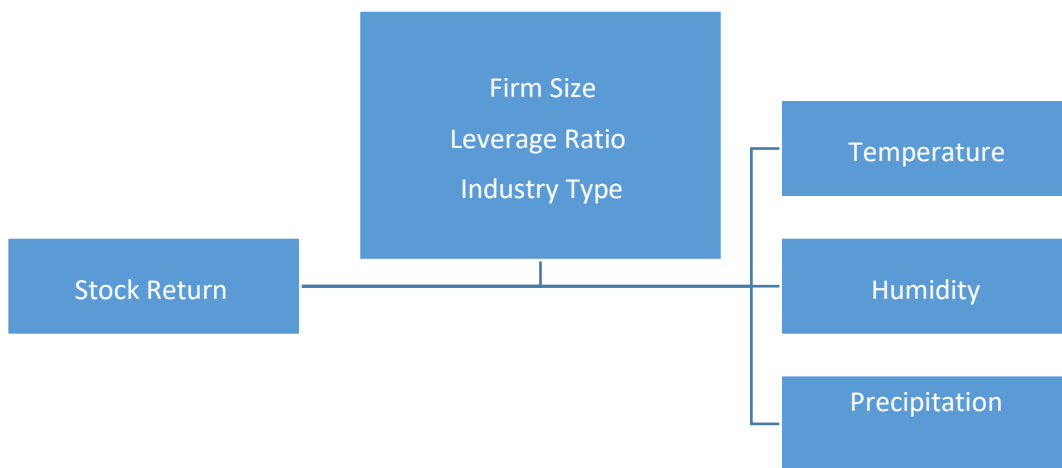

Figure 1: Theoretical Framework

Statistical model

$R_t = \alpha + \beta_1 Temperature_t + \beta_2 Humidity_t + \beta_3 D_1 Precipitation_t + \beta_4 Size_t + \beta_5 Leverage\ Ratio_t + \beta_6 D_2 Industry\ type_t + \varepsilon_i$

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[2] http://www.psx.com
[3] http://www.wundergrounds.com

Where,

R$_t$ shows the daily stock return at Karachi Stock Exchange on day t.

Temperature$_t$ shows the Temperature on day t.

Humidity$_t$ represents Humidity on day t.

A dummy for precipitation is used, as **DPrecipitation,** if it is rain then 1 and if it is not rain then 0 on day t.
Size$_t$ represents the firm size (Log of Assets of the firm on day t).

Leverage Ratio$_t$ represents the leverage of the firm (Debt to Asset Ratio).

Industry type$_t$ represents the specific sector (Coded the sectors).

Variables

Stock returns are considered as a dependent variable in this study. The daily stock returns were calculated using the closing share prices of 124 companies (PSX). The independent variables are temperature (high), humidity (high), and precipitation (given as a dummy variable). The data was collected on a daily basis and used as is, as provided on the Wunder Grounds website. The temperature data is expressed in degrees Celsius (^{0}C). The humidity data was expressed as a percentage of the relative humidity in the air. The data set includes a millimeter measure of rain, but it was treated as a dummy variable in this study, therefore the data is presented as follows:

If there is rain=1
If there is no rain =0

The equation accounts for the possible effects of company size, leverage and industry type to rule out any influence on the explanatory variables in this study. The size of a company is determined by the log of assets. The Debt to Asset Ratio has used as a proxy for the leverage ratio. The industry type dummy is created by coding the specific sector. The data for firm size and leverage ratio are from the related firms' annual Balance Sheet reports have been taken.

DISCUSSION AND ANALYSIS

To determine the link between weather-related factors and daily stock returns of non-financial enterprises listed on the Pakistan Stock Exchange, this study employed regression analysis [Hirshleifer & Shumway (2003), Goetzmann & Zhu (2005), Cao & Wei (2005, 2006), Fruhwirth & Sogner (2012)]. In Table 1, the variables are regressed. Because of the issue of multi-collinearity, the weather variables employed in this study may be connected to one another, resulting in skewed results. Because cloud cover is positively connected with humidity and negatively correlated with hours of sunshine, Saunders (1993)

defined weather in terms of clouds. Rain is likewise linked to clouds. Because temperature is positively connected to weather, Cao & Wei (2005, 2006) defined weather in terms of temperature related with the cloud cover, rain and humidity. As a result, this research examines the topic of multi-collinearity among weather variables (Table 2). Furthermore, heteroskedasticity and auto-correlation are examined (Table 1).

The effect of weather variables (Temperature, Humidity, and Precipitation) on daily stock returns is very small, as evidenced by the R-Square value of 0.000616 roughly zero, implying that weather factors have no effect on the Pakistan Stock Exchange. This finding is consistent with the findings of the Trombley (1997), Kramer and Runde (1997), Goetzmann and Zhu (2005), Yoon and Kang (2009), Fruhwirth and Sogner (2011) (2012) and Lu and Chou (2012) as no effect of weather on stock returns. The value of constant is 0.00244204 (Table 2), shows the value of average daily returns and significant at 1%. The t-ratio is 2.6768 is significant, directing that if these weather variables do not exist than the returns are 0.00244204 on average.

The coefficient (β_1 Temperature) of Temperature (High) is -0.000322342 (Table 2), shows the negative and significant at 1% relation with stock returns.The t-ratio 2.6773 directing towards significant negative relation between Temperature and Returns. Any unit increase in the temperature decreases the stock return by -0.000322342 but temperature has slighter impact on daily returns. It directs towards the acceptance of the H_1, there is negative relation between temperature and stock returns. The negative relation of Temperature and Return is consistent with the findings of Cao and Wei (2005, 2006), Chang et al. (2006), Keef and Roush (2007), Jacobsen and Marquering (2008), Hu (2008). The effect of Temperature on Return is slighter in case of (Karachi) Pakistan.

The Humidity (High) has shown significantly negative but slighter effect on daily returns. The β_2 (Humidity$_t$) is -2.78458e 05 (Table 2) is significant at 1%, shows unit increases in the level of Humidity in air decreases the return by -2.78458e 05. The t-ratio is -3.1368 directing towards significant negative relation between Humidity and Returns. The negative relation of Humidity with daily returns is consistent with the findings of the Shu (2008). It directing towards the acceptance of the H_2, there is negative relation between humidity and stock returns. The effect of Humidity on Return is slighter in case of (Karachi) Pakistan.

This study has also considered the Dummy of Precipitation (as if Rain=1, if not Rain=0). The effect of Precipitation (on rainy day) is 0.00215576 (Table 2), is positive but little effect of Precipitation on daily returns. The value of constant is 0.0061312; it shows that on average the stock return on non-rainy day is 0.00244204. The value of the precipitation coefficient (β_3DPrecipitation$_t$) is 0.00215576 shows that stock returns on rainy day is 0.00215576 more than the non-rainy day. The stock returns on rainy day (0.00244204+0.00215576= 0.004598) and significant at 1%. The t-ratio is 2.6481 directing towards significant positive relation between Precipitation and Returns.

The literature has suggested negative relation of Precipitation with daily returns (Gerlach (2007)). The findings regarding effect of Precipitation are not consistent with the literature. The findings are directing towards the rejection of the H₃, that there is negative relation between precipitation and stock returns. The effect of Precipitation on Return is slighter in case of (Karachi) Pakistan. The reason may be that Pakistan is a warm country where the rainy days lead to good mood. Another reason is that rainy days fewer happen in Karachi, therefore the impact is slighter. The control variables as size of the firm, leverage ratio and dummy of industry type are also regressed on stock returns.

The size factor has shown -9.08858e-05 effect on returns; as by unit increases in size decreases the return by -9.08858e-05. The size has negative effect on the stock returns but insignificant. The leverage ratio has shown 6.08422e-05, positive effect on returns but insignificant; as the firms, unit increase in leverage increases the returns by 6.08422e-05. Therefore, the evidence suggests that more leveraged firms are more profitable. The dummy of Industry type shows negative effect on returns. The effect is -1.08527e-05; shows that difference in industry type decreases the stock returns by -1.08527e-05.

Overall, the results are significant at 1% but very weak (approximately zero) effect of weather variables (Temperature, Humidity and Precipitation) on the daily stock returns of the 124 non-financial firms listed on the Pakistan Stock Exchange. These findings are consistent with the findings of the Trombley (1997), Kramer and Runde (1997) Goetzmann and Zhu (2005), Yoon and Kang (2009), Fruhwirth and Sogner (2011) (2012) and Lu and Chou (2012) as no effect of weather on stock returns. The correlation values among the weather variables were less than 0.6, which indicate no multi-collinearity issue among the weather variables (Table 1). The Durbin-Watson value is 1.9 approximately 2, indicates there is no problem of Autocorrelation (Table 2). The study has used the GRETL statistical software for obtaining the results.

In summary, the findings of this study indicate that seasonal fluctuations in weather variables do not have a significant influence in affecting stock returns. The temperature and humidity have a slight negative relationship with stock returns. Precipitation has a positive effect since Pakistan is a hot nation where rainy days bring happiness, but it has a little effect on stock returns. Another factor is that rainy days are less common in Karachi; therefore precipitation has a less effect. The findings of this study are not consistent with the phenomena that good mood is linked with the higher returns.

The reasons might be because economic concerns and events are more applicable in Pakistan. Individuals have to work to make a living. Change in weather affects the daily needs and life style of the individuals but this impact is not seen on stock returns. The control variables as firm size, leverage ratio and industry type have also considered but they are also showing slighter and insignificant effect on stock returns. Therefore, this study is an addition to the empirical literature but it does not add to the theoretical perspective regarding effect of weather variables on the stock markets in Pakistan.

Table 1

Correlation Matrix for Independent Variables:
Correlation coefficients, using the observations 1:00001 - 3:45881

5% critical value (two-tailed) = 0.0053 for n = 137643

Temperature	Humidity	Precipitation	Size	Leverage ratio	Industry type	
1.0000	0.0294	-0.0111	-0.0178	0.0014	-0.0066	**Temperature**
	1.0000	0.1166	-0.0074	-0.0029	-0.0159	**Humidity**
		1.0000	-0.0083	0.0048	-0.0102	**Precipitation**
			1.0000	0.1210	-0.0269	**Size**
				1.0000	0.0088	**Leverage ratio**
					1.0000	**Industry type**

Table 2

Model 2: Fixed-effects, using 137643 observations
Included 3 cross-sectional units
Time-series length = 45881
Dependent variable: returns

	Coefficient	Std. Error	t-ratio	p-value
Constant	0.00244204	0.000912307	2.6768	0.00743 ***
Temperature	-3.22342e05	1.20399e-05	-2.6773	0.00742 ***
Humidity	-2.78458e 05	8.87719e-06	-3.1368	0.00171 ***
Precipitation	0.00215576	0.000814086	2.6481	0.00810 ***
Size	-9.08858e-05	5.67956e-05	-1.6002	0.10955
Leverage ratio	6.08422e-05	0.00049232	0.1236	0.90165
Industry type	-1.08527e-05	1.90938e-05	-0.5684	0.56977
Mean dependent variable	0.000531	**S.D. dependent variable**		0.040277
Sumsquared resid	223.1504	**S.E. of regression**		0.040266
R-squared	0.000616	**Adjusted R-squared**		0.000558
F(8, 137634)	10.61254	**P-value(F)**		5.08e-15
Log-likelihood	246841.8	**Akaike criterion**		-493665.6
Schwarz criterion	-493577.1	**Hannan-Quinn**		-493639.1

| **rho** | 0.050454 | **Durbin-Watson** | 1.989084 |

Test for differing group intercepts –

Null hypothesis: The groups have a common intercept

Test statistic: $F_{(2, 137634)} = 24.2889$

 With p-value $= P(F_{(2, 137634)} > 24.2889) = 2.8401e-011$

Table 3

Hypotheses and Results

Hypotheses	Results
H_1: Temperature negatively affects the stock returns.	Accepting the H_1
H_2: Humidity negatively affects the stock returns.	Accepting the H_2
H_3: Precipitation negatively affects the stock returns.	Rejecting the H_3

CONCLUSION AND RECOMMENDATIONS

In each year, the four seasons are unique and have a varied impact on people's moods, behaviors and actions. Any corporation's investors, traders, or human resources are human beings, and their attitudes and activities are influenced by changes in the weather or season. The Efficient Market is the premises of traditional finance theory, but there are additional behavioral elements that impact investors' moods, behaviors, and actions. Many psychological studies show that bright sunny days and temperatures are associated with a positive mood, whereas cloud cover and rainy days are associated with increased productivity. Various studies on behavioral finance indicate the effect of weather-related factors on daily stock prices, markets and investor trading patterns. The objective of the present research is to look at the impact of weather-related factors on daily stock returns in Pakistan. The said study is prompted by the weather in Pakistan, contested results of prior studies and the lack of previous research on the issue in the setting of Pakistan.

The non-financial companies listed on the Pakistan Stock Exchange form the study's sample frame. The daily stock prices for 124 non-financial listed corporations at PSX selected using a judgmental sample approach, are acquired from the Pakistan Stock Exchange for the period 2010-2014. The weather variables (Temperature (High), Humidity (High), and Precipitation) are taken into account for Karachi, with data collected from Wunder Grounds. The regression method was used to find the comprehensive relationship between weather variables and daily stock returns of non-financial companies listed on the Pakistan Stock Exchange.

Temperature has a negative influence on H_1 acceptance, and it is considerable at 1% but has a minor effect on daily returns. Humidity has a negative effect on H_2 acceptance, which is considerable at 1% but has a smaller effect on daily returns. Precipitation has a positive effect on H_3 rejection, which is significant at 1%. It also has a positive effect on daily returns, although the effect is low. The results show a very weak relationship between

stock returns and weather variables, with no effect of weather variables on daily returns (Temperature (High), Humidity (High), and Precipitation). Overall, the results are significant at 1%; however the influence of weather variables of the 124 non-financial companies listed on the Karachi Stock Exchange is very modest, with approximately no effect. Furthermore, the control variables are taken into account in this study; however they have no significant effect on the returns.

The present research is a vast field of study. This field of research has not been adequately discussed in Pakistan. Only three weather variables were evaluated in this study: temperature (high), humidity (high) and precipitation. With a larger data set and a longer time span, more research can be done on the effects of temperature (low), humidity (low), and precipitation, as well as temperature (high), humidity (high), wind, cloud cover and sunlight.

The present research has a very important role for every business because change in weather is actually change by nature and affects everybody lives in it. Investors are human beings live in the system provided by the nature and affected by the change in season that will subsequently affect their decision regarding the investment decisions.

In Pakistan weather is extreme in nature and it affects may not be consistent because change in weather brings a lot of variation in the behaviors of the investors and ultimately the capital market. If changes in weather conditions have effect on the investors' mood then these changes may alter investor's aptitude as risk taker or risk averse. The study contributes to the existing literature by providing the knowledge related to weather effects in developing countries, as developing countries are rarely addressed in this regard.

The findings of this study may benefit the financial managers, investors and financial management consultants in making policies regarding investment decision. Management will have benefit to know the investors regarding their feelings and emotions due to variations in the season and their significance in the performance of the business. It will also help students and new researchers who want to conduct further research on the topic of weather variables and stock market return and their subsequent effect on the firm performance with respect to Pakistan.

The limitation of the study is that this study considers the effect of prevailing weather effects of Karachi (Pakistan) on Pakistan Stock Exchange while investors across Pakistan participate in the stock market. The results of this study are limited to Pakistani non-financial firms listed on Pakistan stock exchange. The findings of this study are limited because of the data time span, as daily stock returns data for five years is not seemed sufficient to take a broader view of the findings.

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