

## An Analysis of Economic Development and Human Development Index as Economic and Social behavior: A Case Study of Pakistan

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*This research covers the analysis of economic development as relationship to human development. As we know that there are some core issues related to behavioral, social and cultural bases discussed in this piece of work. Some important theoretical base is highlighted for clarity and alleviation of poverty, promotion of education to deal with positive or negative social and human behavior. It is certain meaningful base for the linkage of working, social and behavioral connection. The safety is considered as main base on the criteria of socialization. The main objective of this research is to trace the reasons of negative social behavior. Economic growth can be a better way to lead economic development and social development. A list of basic parameters is available that may encourage social expansion, including human advancement. The Human Development Index (HDI) value reflects the level of advancement of human standard in a nation. The Gross Domestic Product (GDP) per capita of a nation is used to calculate its growth rate. The value of HDI, which can affect the level of economic growth in the value of its GDP, illustrates the influence of human capital resources. In order to measure Pakistan's economic growth in terms of GDP per capita, this study looks at the impact of HDI from 1990 to 2022 with other variables including capital formation, exports and imports of goods and services are included in this study.*

## 1. Introduction

Pakistan is ranked as the sixth-largest country by distance from the Earth, and the state of human development and economic development is not beautiful for survival of basic criteria. The main reason for human behavior is poverty on different criteria for the economy of Pakistan (Rashida & Weihong 2023). The deprivation of basic needs is a major barrier to development goals in the economies (Chishti et al., 2023). The labor behavior is counted as base of human development for efficient working (Oriana et al. 2022). Economy is counted 146th out of 186 countries in the world. In addition, Pakistan is ranked 123rd out of 146 countries in the world for weakness to a certain extent (Wang et al., 2018). In 2013, Pakistan's HDI score was documented at 0.537, placing the country in the least significant 146th position out of 187 countries. There are a few grounds for the most clearly shocking human development indicators, such as energy crises, radicalization, and criminal threatening, which adversely affect the economic situation (Estrada et al., 2015).

It is considered that per capita GDP contributes majorly in economic and human development. As a multidisciplinary discipline, public policy has a substantial influence on a variety of key social implications and their repercussions for the general population. A strategy is usually impacted by certain socio-political with economic environment in a certain economy, and it is implemented for given rules and regulations. One of the primary concerns now appearing in many established nations, in same line in industrially less developed countries, is the role of the economy as a significant factor influencing individual and societal behavior. Therefore, human development and human standard advancement are among the most debated crucial topics, along with population behavior, the effects of which may be linked to each individual. A system that's base is economical or proper political having proper policy making have a variety of effects on individuals, and because many distinct economies exist and function, it might be difficult to make any generally true conclusions. On the other hand, economic changes have direct impact on all the individuals of the society which in turns impact their emotions and behavior. These behavioral changes are observed and shown in society. When economic repercussions are undesirable the social phenomenon which comes out of it are also undesirable. Poverty, unemployment, homelessness, etc. are abrupt increase in crime rate are few of the immediate threads of it. The GDP ceiling as a measure of a nation's own fulfilment or flourishing over the past many years, there has been much debate about the general population. The awareness that the concept of life doesn't demonstrate advancements for a vast array of despite the significant GDP growth, individuals have led to the opinion that human flourishing and individual fulfilment should be included in the GDP calculation. The Human Development Index (HDI) and other multi-dimensional pointers of progress were found to be more reasonable than the rate of GDP growth, which is one-dimensional in pay, close to the general idea that success is a multidimensional thought that cannot be assessed by market creation or GDP unaccompanied.

Humans are a component and module of all economic systems, researchers put emphasis on the role on an individual as part of economic system and economic progress; their relationship with each other; their impact on overall economic system and behavior. An important problem that appears in several study publications dating back to the 1970s. It has been revealed through the study of history and its development that the states that achieve a specific point of advancement under certain conditions eventually deteriorated and began their progress and development later. The immense progress and extension of the Aztec empire's cultural and economic development may be used as a specimen of culture's evolution. Since 1990, the Human Development Index (HDI) has become the most widely used measure of prosperity. Since its launch, it had the chance to catch the attention of academic communities and, in fact, it had the opportunity to change the focus from monetary advantage to an individual's advantage (Ul-Haq, 1995). Numerous experts view this mingle by using per capita open expenditure as a certain level of achievement as the underlying justification for this transformation. Three aspects of development have been added: living a long and difficult life, hearing about things, and adopting a practical way of life.

The main motive of this study is that we have tried to analyze the role of GDP on the basis of capital formation, HDI and terms of trade to goods and services. This research will be a clear indication for future policy making of economic development and human development for the economy of Pakistan.

## **2. Literature Review**

### **2.1 Economic development**

China Pakistan Economic Corridor invites attention that integration of economics is based upon the availability of development projects completed. Pakistan as a developing economy is creating thousands of barriers due to unavailability of basic facilities (Ashraf, 2023).

The studying told that development in financial matters, barriers of trade and lack of basic facilities are reasons for low growth in economy of Pakistan (Usman et al., 2023). These discussed factors are addressed by many researchers on the basis of McClelland's Economic Theory who focused that many cultures and social issues differ on the basis of economic, human and cultural development for different economies of the world (McClelland, 1961). Some of the reviewers of the world were of the view that the quality of education, level of social behavior and criteria of positive and negative human behavior and in addition to this the level of motivation and inspiration are key reasons for the human and capital development. This can be clearly suggested that some of the leading organizations of the world thought the base of growth and development in context of human capital and economic development. For to fulfill the basic needs of the world it is positively suggested that the food shelter and the quality of living standard are key reasons of human behavior. In the same line in above context some important reviewers collectively suggested that the cultural, religious and social barriers are main reason for negative or positive attitude in the world.

The relationship of long term and short-term economic growth have witnessed a different status for positive and negative human social behavior on different economic and social parameters of the society. The main characteristics of the high economic performance and positive working performance showed a strong bonding of socially acceptable and rejected philosophy. This scenario suggested a clear-cut manifesto for strong linking base of economic and human development of society. Economic development and economic with social behavior is very important to trace for human development. There are a lot of impacts with economic changes on individuals with change of society's pattern (Hana, 2013). In this analysis (Cover and Johnson 1976) extracted same results for the economy of world as inspiration motivation and social issues are base for human criteria as suggested already. Another idea given by (Ayal, 1963) also favored that different cultural bases are very important for fulfillment of certain desired targets for upgrading a system of best human criteria for economic and human development relationship. Different other reviewers a long ago guided us on a good selection criteria which was a strong foundation for the barriers of economic development in the lacking of proper policy making as suggested before ( Homles & Rahe, 1967). Another view by (Galbraith, 1980) told that some important reasons of social issues consisting poverty corruption income inequality and fiscal imbalance are root causes for the problems of economic development ways in order to cater the economic policy making for getting rid of this important crunch of behavioral issues related to value of available goods and services in the market. They also told that the availability of goods and services, enhancement of living standard that's based on level of income which is generated by different sources in the market and freedom of choice which is available in the economy that's based on cultural religious and social issues.

## 2.1 Human development

The studies show that the infrastructure having direct relationship to human development either directly or indirectly. There is dire need for rational policy making to get rid of negative things in way to human development (Tin et al. 2022). One of the primary justifications for promoting individual existence is the use of electricity. Access to energy is essential for a nation's social and economic reliability (Danish & Wang, 2018). The Per capita electricity usage can be used to gauge a society's well-being. According to Baloch et al. (2018) and Xu et al. (2018), the standard foundation is used by a sizable number of the world's states to achieve their force requirements. Between demand and supply throughout the last few decades, there has been a clear gap observed. Nevertheless, another fundamental factor that has an impact on efforts to better individual circumstances in Pakistan is illegal intimidation.

People fleeing, the loss of infrastructure (such as schools and hospitals), shifting politics, prosperity, and the environment appear to be unmistakable collision impacts. Direct impoverishment and limited human new growth were the results of this combination (Miguel & Roland, 2011). The relationship between mental fighting and human improvement guidelines has been covered in a few studies. For instance, Estrada et al. (2015) depict more manipulators abusing

due to monetary and political norms to illustrate monetary injustice (Fair & Gregory, 2016). In contrast, there is a link between the rise in GDP per capita and the brutality charge.

The elimination of poverty and the expansion of tutoring both help to lessen illegal terrorism (Durodie, 2016). Guidance, impoverishment, and almost certainly a fragile connection are all at once prompt, frustrated, and present.

According to Stumble (1976), this is of the view that human behavior and human development can be controlled by two ways either it is local control and it can also be controlled by external view that's a clear cut strategy that will guide us that how to formulate a proper strategy for the development of human base and human nature for economic and social development. In addition to this the two-policy given internally or externally is properly suggested by a proper base of social development. If the economic situation will be different, it means overall human development base will be different. It can easily be understood that the fair policy making is very important for human development as a way of economic social and political development. In human development the basic system of economy also plays very important role for actualization of systematic base. The income of any individual is base for human development in Invalid capacity or collective capacity. The studies also suggested and compared a difference in between work and satisfaction instead of leisure and satisfaction for human development index and greater impact of proper policy making. If someone have low income, it's low satisfied and if someone have high income it means it's highly satisfied. Here important base is guided by two parameters income and satisfaction

### **2.3 Human Behavior**

It can easily have concluded that human behavior having supportive role in creating healthy environment in society's development (Sung, 2023). Maslo (1943) describe that it is of the essence that for human behavior work is an important determinant for economic impact payments and development of economics in condition and context of human development for close interaction with human development and international standard of human behavior. It also included that for social status and social prestige motivation, self-inspiration and self-actualization are very important determinants of human behavior. As a part of self-development and personal management strategy we are more much clear that basic needs are very important in determining basic human behavior base. The self-realization and self-inspiration is very important factor for economic development. It's extrinsic and intrinsic motivation of work and leisure for the economy of personal base and personal behavior. When it depends upon feeling of good living standard for motivation of economy. It can be concluded that work plays very important role for motivational values.

A sense of lack of resources created a best criterion for economic social and political development that plays very important roles for decision making of economics in development. As we know that development is provision of basic needs expansion of living standard and easyness of life. This is clearly indicated to human behavior. On the contrary to this we are lacking

resources it means we are depriving from given standard criteria of positive and negative behavior. A sense of security is very important for the given criteria of human behavior. (Meichenbaum, 1977) told that emotions are important in determining human behavior, whereas perception is also important factor for human development and human behavior determination. Emotional support is reason of being social or not being social. It depends upon a list factors which are connected to social behavior as a base for personal and collective emotions. Few things are clearly indicated to social and personal attachment of society's behavior.

### **2.3.1 Human Consciousness**

A human Consciousness is very important in determining information related to brain work for better processing of human behavior and development (Michael, 2022). The awareness of human beings or consciousness of human beings is directly linked to human behavior, human development, human sense of security is a condition of feeling for the development of human base which makes a person comfortable or uncomfortable that permits us in human interaction and human socialization.

It is very important to notice that economic security is very important for getting a basic criterion of development. Work is very important way of earning more and as a result to get relax by getting more utility. One important side that to get more social can be problematic that it can be reason of wastage of more time as it disturbs working. A list of basic parameters income, tax, work, get easy and to perform effectively can be more support in the consciousness of human development for different economies and different strategies of the world.

(War P. 1983) told that human development is directly linked to human Consciousness and consequently we can promote our basic culture effectively. He also talked about the solid connection of human social issues for the working of social political and economic development.

A very serious outcome of lack of policy making is that we don't have an enough strategy for the working of social behavior in certain stressful situations for betterment of society.

### **2.4 Economic Instruments and Social Behavior**

Researchers worked on different patterns of social sciences for proper work process of social development and social behavior of economic development (Anil & Bayne 2022). People's lives without employment are a difficult challenge for both individuals and society as a whole. This analysis is based upon real effective exchange rate, deficit in fiscal base and foreign direct investment saying that these are the important factors for proper policy making (Andleeb et al., 2023). The method of meeting fundamental existential and social demands and establishing a standard of life coincides with behavior and is determined by the individual's or society's economic status. It was very important contribution on the basis of capital formation to resources and environmental issues for proper working conditions of society (Michael et al. 2023). Increased crime and violence indicate a lack of or ineffective use of economic instruments, as well as inadequate living conditions. When there are no jobs to individuals when they are ready for

working. For unemployed people family society and different corners of society create stressful situation. The negative behavior of society creates hurdles for economic development for different reasons. The capital formation, GDP per Capita and living standard play very critical role for the betterment of society. This research concluded that different social issues including population growth, low salary and lack of education are reasons of low economic and human development (Nicolette at al., 2023). In context to public expenses for different social sector parameters as education there is a stable share for European countries which are very beneficial for the betterment of society. This is conclusion from different data samples that the growth and development is directly proportional to education for different euro zone economies of the world. If from the development side any economy lacks basic needs, standard of living and they lack political freedom it's very important for them to create a solid policy making. This analysis told that trade deficit having different reasons but core reason in lack of exports in the economy of Pakistan (Lakhan et al., 2020). Following are the research questions of the research.

1. What's impact of human behavior on economic development?
2. What's relationship of GDP per capita with human development?
3. What's role of capital formation with GDP per capita?

### **3. Data and Methodology**

The investigation's goal is to identify any connections between HDI and per-capita GDP. Due to this, we used board arrangement information from Pakistan from 1990 to 2022. Both the GDP per capita and the health index, or HDI, are dependent variables as human behavior and education. These variables' data are taken from the World Bank.

#### **3.1 Panel Unit root tests**

The board arrangement data typically follow certain patterns, such as trustworthy descending or rising patterns. There are many factors at play, including the occasional effect, the currency cycle, the climate, and numerous other financial considerations. The specific properties of the data, such as the mean and consistency of factor fluctuations, determine how accurately the model is evaluated. If the data have ascending or descending patterns as well as non-fixed of the data similarly, there are greater chances of a false relapse. Unit root tests, including ADF (Augmented Dickey Fuller), DF (Dickey Fuller), PP (Phillips-Perron), and numerous other unit root tests, are extensively used to demonstrate the stationary level of statistics. These tests help us on the path to understanding the levels of stationarity. It aids in selecting the proper evaluation technique that helps to provide a botched result at no cost.

#### **3.2 ADF Fisher Test**

ADF is frequently used for unit root testing, and its licences are tolerant of the presence or absence of unit roots in time series statistics. The test's results are also fixed at level, primary

exceptional, or at subsequent data differentiation. the elevated Dickey Fuller utilised the fundamental and differentiated values, as well as the t estimates. There is enough evidence to support flawed theories because they don't generally hold up to scrutiny and it demonstrates the stationary of information (Gujarati, 2003).

### 3.3 Philips Perron Test

This is a statistical tool which is used for data analysis as to check that either data is stationary or not. Next to ADF test this PP test evaluation provides us a strong base for data evaluation. To make data more reliable this test performs on the basis of very good criteria for proper policy making. In addition to this it seems that either values of data are correlated or not. If we consider data base of this PP test more reliable than it can be said that this analysis is very effective for proper policy making.

### 3.4 Econometric Model and Specification

$$Y_t = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon_t$$

$$GDPPC_t = \beta_0 + \beta_1 HDI_t + \beta_2 GCF_t + \beta_3 EXP_t + \epsilon$$

GDP = Gross Domestic Product Per Capita  
 HDI = Human Development Index  
 GCF = Government Capital Formation  
 EXP = Exports of goods and services

## 4. Results and Discussion

This chapter discusses the estimation of the outcomes on the basis of the methodology used to argue in the previous chapter as well as the outcomes from the discussion section at the end of this chapter. The study's primary concern is to examine the connection between HDI and GDP per capita. The analysis is based on panel series data as well as data compiled in Pakistan from 1990 to 2022. Economic growth is the study's dependent variable, and it is specifically measured by the GDPPC growth rate. The health, education, and income indices are used to calculate the HDI. Additional factors include capital formation, exports of products and services.

### 4.1 Results of ADF

Table No 1: Results of ADF

Variables	Level ( with intercept and trend)	1 <sup>st</sup> difference (with intercept & trend)
HDI	-3.123	-6.712*
GCF	-4.145	-4.341*
EXP	-6.451	-5.162*

\*Significance at 5% level.

In above process variables are stationary at first differencing.



**4.2 Johenson Co-Integration Test (Maximum Trace Value)**

**Table No 2: Johenson Co-Integration Test (Maximum Trace Value)**

Null Hypothesis	Alternative Hypothesis	Maximum Statistics	Trace	Critical Value at 5%
r=0	r=1	86.154		63.122
r=1	r=2	76.123		51.712
r=2	r=3	46.651		36.111
r=3	r=4	37.913		16.24

\*Significance at 5% level

Above results suggested that there is strong connection/relationship among variables.

**4.3 Results of ECM**

**Table No 2: Results of ECM**

Variables	GCF	HDI	EXP	C	ECM
Co-efficient	-3.321	5.123	2.21	-35.512	-0.46
ECM	1.31	3.141	7.12	0.41	-0.091

\*Significance at 5% level

The ECM results are desirable and recommended for further policy making.

**4.4 Regression Analysis**

The major purpose of this study is result of government size on monetary expansion. We estimated the relationship of HDI as well as GDP Per Capita in Pakistan for the period of 33 years from 1990 to 2022.

**Table No 2: Regression Analysis**

Variables	Dependent Variable: GDPC			
	Coefficient	Std. Error	t-Statistic	Prob.
GC	0.1	0.012	2.12	0.0001
EXP	0.0	0.031	2.34	0.0003
HDI	0.3	0.034	2.51	0.0002
C	0.2	0.012	2.62	0.0001
R-Square	0.78			

The panel OLS regression results are shown in Table above. The findings suggest a significant and positive link between HDI and per capita economic growth. It suggests that if HDI rises, economic development will follow suit. The outcome shows that the financial expansion of these nations would grow by 78% for every 1% improvement in HDI. The export of goods and services has a positive and significant influence on economic growth. It suggests that as domestic and international sales of products and services rise in Pakistan, so does economic growth. According to the result, economic growth will improve by 3% for every 1% increase in goods and service exports. The results indicate that all the factors are satisfactory.

## 5 Conclusion

The relationship between HDI and financial development per capita is being looked into anything other than a new theme. However, it has recently become a persistent topic due to a decline in GDP growth per capita and an increase in HDI in practically all countries. Many creators have made an effort to demonstrate this link using various approaches and unique datasets. Results between them seem to be quite contradictory. In this study, we support the non-linear relationship between GDP growth and HDI, and we investigate this relationship using a different Smooth Transition Autoregressive model methodology. A led analysis revealed that it is highly improbable that Pakistan's HDI will have a greater impact on economic growth. The results show that Pakistan's HDI has a stronger impact on per-capita financial development and

The important conclusion of this analysis remained that different theories are connected to analysis of proper evaluation for important burning issues of economy of Pakistan by considering some important core areas as: GDP per Capita, capital formation, the value of availability of goods and services in the market to analyze the human development and economic development directly and human behavior based on these corners indirectly. A list of factors is analyzed including work, leisure, social and economic impacts in direction to prosperous economy. This is concluded that all the variables impacted positively on the production of goods and services in the economy.

## References

- Andleeb, Nadia, Saif and Sadia (2023). Impact of exchange rate, foreign direct investment: Evidence from Pakistan, *IRASD Journal of Economics*, 5(1), 52-62, 2023.
- Aneel and Tim (2022). Theories of Consciousness, *Nature Review Neuroscience*, 23(7), 439-452, 2022.
- McClelland, D.C. (1961). *The Achieving Society*. Princeton, NJ: Nostrand
- Cover, J.D., Johnson, N.R. (1976). Need Achievement, Phase Movement and the business cycle. *Social Forces*, 54, p 760-774
- Ayal, E.B. (1963). Value systems and economic development in Japan and Thailand. *Journal of Social Issues*, 19 (1), 35-51
- Holmes, T.H., Rahe, R.H. (1967). The social readjustment rating scale. *Journal of Research Psychosomatic*, 11, 213-218
- Gailbraith, J.K. (1980). The nature of mass poverty. *Harmondsworth*: Penguin
- Strumpel, B.(1976). Economic Means for Human Leeds. Ann Arbor, MI: *Survey Research Center*, Institute for Social Research, University of Michigan
- Maslow, A.H. (1943). A theory of human motivation. *Psychological Review*, 50, 370-396
- Meichenbaum, D.H. (1977). Cognitive behavior modification: An integrative approach. New York: Plenum Warr, P. (1983). Work, jobs and unemployment. *Bulletin of the British Psychological Society*, 36, 305-311
- Baloch, A., Shah, S. Z., Noor, Z. M., & Magsi, H. B. (2018). The nexus between income inequality, economic growth and environmental degradation in Pakistan. *GeoJournal*, 83(2), 207- 222.
- Brockhoff, S., Krieger, T., & Meierrieks, D. (2015). Great expectations and hard times: The

- (nontrivial) impact of education on domestic terrorism. *Journal of Conflict Resolution*, 59(7), 1186-1215.
- Cobb, C., Halstead, T., & Rowe, J. (1995). If the GDP is up, why is America down? *ATLANTICBOSTON-*, 276, 59-79.
- Cobb, C. W., & Daly, H. (1989). *The index for sustainable economic welfare. For the Common Good—Redirecting the Economy toward Community, the Environment, and a Sustainable Future*. Beacon Press, Boston, 401-457.
- Costanza, R., Erickson, J., Fligger, K., Adams, A., Adams, C., Altschuler, B., . . . Kelly, J. (2004). Estimates of the genuine progress indicator (GPI) for Vermont, Chittenden County and Burlington, from 1950 to 2000. *Ecological Economics*, 51(1-2), 139-155.
- Costanza, R., Kubiszewski, I., Ervin, D., Bluffstone, R., Boyd, J., Brown, D., . . . Polasky, S. (2011). *Valuing ecological systems and services*. F1000 biology reports, Costanza, R., & Patten, B. C. (1995). Defining and predicting sustainability. *Ecological Economics*, 15(3), 193-196
- Danish, & Wang, Z. (2018). Dynamic relationship between tourism, economic growth, and environmental quality. *Journal of Sustainable Tourism*, 26(11), 1928-1943.
- Dar, A., & Amirkhalkhali, S. (1999). The impact of government size on economic growth: A time series cross-country study. *Development policy review*, 17(1), 65-76.
- Dar, A. A., & AmirKhalkhali, S. (2002). Government size, factor accumulation, and economic growth: evidence from OECD countries. *Journal of Policy Modeling*, 24(7-8), 679-692.
- Durodie, B. (2016). Securitising education to prevent terrorism or losing direction? *British Journal of Educational Studies*, 64(1), 21-35.
- Estrada, M. A. R., Park, D., Kim, J. S., & Khan, A. (2015). The economic impact of terrorism: A new model and its application to Pakistan. *Journal of Policy Modeling*, 37(6), 1065-1080.
- Fair, C. C., & Gregory, S. (2016). *Pakistan in National and Regional Change: State and Society in Flux*: Routledge.
- Gujarati, D. N. (2003). *Basic Econometrics*. Forth Edition. Singapura: McGraw-Hill.
- Miguel, E., & Roland, G. (2011). The long-run impact of bombing Vietnam. *Journal of Development Economics*, 96(1), 1-15.
- Michael, Saba and Emad. (2023). Investigating connections between innovation, natural resources extraction and environmental pollution, *Resource policy*, 81, 2023.
- Nicole and David (2023). The Effect of Population ageing on economic growth, labor force and productivity, *American Economic Journal*, 02, 306-332, 2023.
- Posner, S. M., & Costanza, R. (2011). A summary of ISEW and GPI studies at multiple scales and new estimates for Baltimore City, Baltimore County, and the State of Maryland. *Ecological Economics*, 70(11), 1972-1980.
- Ranis, G., & Stewart, F. (2007). Dynamic Links between the Economy and. Policy matters: *Economic and social policies to sustain equitable development*, 32, 315-335.
- Shome, S., & Tondon, S. (2010). Balancing human development with economic growth: a study of ASEAN 5. *Annals of the University of Petroșani, Economics*, 10(1), 335-348.



- Smith, K. L. (2013). Methods for economic optimization of reservoirs (MS Thesis), The University of Texas at Austin,
- Talberth, J., Cobb, C., & Slattery, N. (2007). *The genuine progress indicator 2006*. Oakland, CA: Redefining Progress.
- Ti.Simplice, Njamen (2022). Linear and non linear effects of infrastructure on inclusive human development in africa, *African Development Review*, 34(1), 81-96, 2022.
- Ul Haq, M. (1995). Reflections on human development: oxford university Press. UNDP. (1996). *Economic Growth and Human Development*. Retrieved from <http://hdr.undp.org/en/content/human-development-report-1996>
- Wang, Z., Zhang, B., & Wang, B. (2018). Renewable energy consumption, economic growth and human development index in Pakistan: evidence form simultaneous equation model. *Journal of cleaner production*, 184, 1081-1090.
- Wilkinson, R. G., & Pickett, K. E. (2009). Income inequality and social dysfunction. *Annual review of sociology*, 35, 493-511.
- Xu, J. X., Li, N., & Ahmad, M. I. (2018). Banking performance of China and Pakistan. *Entrepreneurship and Sustainability Issues*, 5(4), 929-942