

**DO TRANSPARENCY AND ANTIMONOPOLY  
MATTERS FOR FINANCIAL  
DEVELOPMENT**



Pakistan Institute of Development Economics

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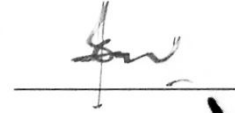
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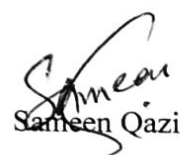
## **AUTHOR'S DECLARATION**

I Sameen Qazi D/o Zahoor Ahmed Qazi hereby state that my MPhil thesis titled "Do Transparency and Anti-Monopoly Matters for Financial Development" is my own work and has not been submitted previously by me for taking any degree from Pakistan Institute of Development Economics or anywhere else in the country/world.

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Sameen Qazi

## **DEDICATION**

*I would like to dedicate this thesis to my family, colleagues and teachers who have been a great help during the last two years. Their cooperation is the only reason that I have been able to complete this thesis.*

## **ACKNOWLEDGEMENTS**

I would like to acknowledge the support of my teachers specially Dr. Ahmed Fraz who provided me this opportunity and guidance to choose the research topic of my interest. His guidance and motivation encourage me to work hard and complete work on time. It would be a pleasure for me to express my gratitude and appreciation to my teacher who helped and support me writing this thesis independently.

## **ABSTRACT**

The objective of this study is to examine the relationship between macroeconomic stability, transparency in government, and anti-monopoly policies on the development of financial markets. The current study is based on a panel data set of 15 countries for the period 2005-2020. The study has employ panel regression model i-e fixed, random effect; the controlling variables of this study are market size, per capita GDP and trade openness. Results reveal that fiscal sector has a weak impact on macroeconomic stability this happen in countries where; financial development is lower than the threshold. In specification of model, transparency has a significant effect that is statistically demonstrate. More competition and technical advancement consider as the effective source for possible accessibility for financial services. Long-term macroeconomic stability and financial market development are facilitated by effective transparency policies. Additionally, the study discovers that anti-monopoly laws are set to reduce bureaucratic power and corruption to boost confidence of investors towards financial markets in the short term. However, in the long run, a higher level of competitiveness is more susceptible to information asymmetry and unfavorable selection.

**Keywords: financial development, antimonopoly policies, transparency, macroeconomic stability, threshold, panel data analysis.**

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## **LIST OF ABBREVIATION**

CCP	Competition Commission of Pakistan
CAR	Capital Adequacy Ratio
EAP	Effectiveness of Antimonopoly Policies
FMD	Financial Market Development
FE	Fixed Effect
GCI	Global Competitiveness Index
GCR	Global Competitiveness Report
GMM	Generalized Method of Moment
GLS	Generalized Least Square
GDP	Gross Domestic Product
HDI	Human Development Index
MSIZE	Market Size
MRTPO	Monopolies and Restrictive Trade Practices Ordinance
MCA	Monopoly Control Authority
NBFC'S	Nonbank Financial Companies
OIC	Organization of Islamic Cooperation
PPP	Purchasing Power Parity
RE	Random Effect
SECP	Security Exchange Commission of Pakistan
TGP	Transparency in Government Policies
WEF	World Economic Forum
WDI	World Development Indicator

# CHAPTER 1

## INTRODUCTION

### 1.1 Background

Financial market development (FMD) is a most debatable topic in finance, which helps to stimulate economic growth. Financial system is a set of financial institutions, financial instruments, financial markets, and legal as well as regulatory framework to provide credit. A well-functioning financial system is essential for directing funds to the productive uses and allocating risks. FMD refers to the progression of financial institutions and markets by overcoming of costs. FMD is influenced by macroeconomic factors such as trade openness, inflation, income, and government expenditure. Macroeconomic stability promotes the financial development by reducing the chance of external shocks (Vasylieva. *et al.*, 2018) also encourage fair and constant output growth (Bourguignon, 2020).

The main objective of financial system is to work for producing reliable information regarding possible investment before allocation of capital then monitor such investment by utilizing balanced corporate governance practices this can be possible by adopting advance standard of transparency and openness, implementing access to information laws. Countries having more transparent government policies have high-income levels, strong technological infrastructure. Transparency in government practices can provide a revise and clear extent of government dealing, public private ownership and in law compulsions. Similarly, competition is use to facilitates financial sector to achieve market efficiency through its better earning ability. However monopoly and monopsony mislead the right of free market and restrict innovation which result an instable financial sector. Antimonopoly policies control financial institutes to regulate markets accordingly as well restrict to increase the cost of finance higher than their marginal revenue.

Development of Financial sector takes place when financial institution, financial instruments and financial market properly manage the outcomes of information, reduce transactions costs and enforce to do a better job at achieving major function of financial system in the economy.

### **1.1.1 Theoretical Background**

Financial development is considered as the most essential part of development process as it refer as the overcoming cost incurred in financial system. The process of reducing cost to access of information, enforcing contracts, making transaction results the emergence of more financial contract, markets and intermediaries.

Financial sector development happens when financial instruments, market and intermediaries will ease the effect of information, enforcement and transaction cost therefore to do a better job. Different types of information along with different legal, regulatory and tax system have motivated different financial contracts which will enhance the development of financial markets across the country.

Develop financial market facilitate long run economic growth through capital accumulation and technological progress by increasing the saving rate, mobilizing and pooling saving producing information about investment, facilitating and encouraging the foreign capital inflow as well as optimizing the allocation of capital.

The fragility of the financial system, is a consequence of weak government policies that are inconsistent and inefficient. The government's transparency and openness, especially with concern to sectors that rely on credit, enhance the institutional financial environment. Better disclosure of information in law and regulations by government can help investors in making decisions, also enhance financial liberalization. Different Regulatory, legal and tax system controls the overvaluation of investments and securities that increases transparency in

financial practices, which promote the growth of the financial sector. A stable macroeconomic environment along with effective government policies are essential to safeguard the sustainability of financial systems. Stable macroeconomic environment encourages growth of financial markets by reducing interest rate and currency volatility.

Formal financial sector regulation is designed to reduce the risk-taking behavior of banks in order to support a strong and stable banking system because instability in the banking system has a negative impact on the overall financial system by reducing available credit and affecting intermediary of loan market and payment system. In fact, the level of competition influenced by formal as well informal sector, will affect financial stability in return. Out of many one of such regulation is activity restrictions. According to the "franchise value effect," fewer restrictions reduce a bank's market share, boost competition, and make the bank more risk-averse. On the other hand, more restrictions will increase more competition by reducing the scope of operations and risk diversification, and may also motivate the bank to limit risk-taking behavior at certain level of competition due to the 'risk-shifting effect'

Financial development matters for both when it functions well and when it malfunctions. Financial crisis show the possibly devastating the consequences of weak financial sector policies for financial development and their impact on the economic outcomes.

The economic crisis has challenged the conventional thinking in financial sector policies and has led to much debate on how best to achieve sustainable development. Reassessing financial sector policies after the economic crisis is an important step in informing this process.

Financial sector strengthen the banking system and promote stability, financial reforms need to plan to increase the transparency and accountability of government institutions.

Efficient financial sector measures the performance of financial institution in terms of depth, efficiency, and accessibility. Availability and affordability are the two important measures of financial development to show how easily an individuals or businesses acquire financial services provided by financial institutions. Acquisition of strong developed financial sector relies on information based on following dimensions: a) efficiency of financial intermediation b) operational efficiency institutes and markets c) profitability.

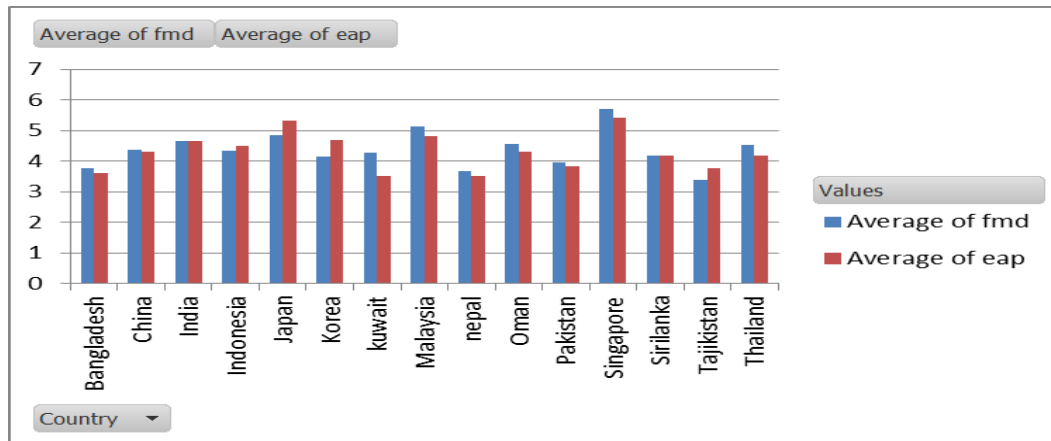
Major function of financial system are: (i) Stating information about possible investments and providing finance (ii) Monitoring investments by using corporate governance after capital allocation. (iii)Diversification, Risk management and Facilitate the trading (iv) Pool and mobilize saving (v) Ease the exchange of goods and services.

### **1.1.2 Association of Transparency and Antimonopoly Policies with financial market development (FMD)**

In order to achieve market efficiency, many countries have already secure the norms of transparency and accountability by permitting access-to-information legislation, demand for highly qualified transparent results, the more information delivered to people regarding apparent programmed and policies by the government, companies and other private firms will provide more job opportunities which will reduce the rate of poverty, unemployment, ease restriction on press release and improve the quality of public interest and income growth of state.

The government must need to adopt strict policies to strengthen financial institutions that are engaged in promoting anti-monopoly practices by allowing institutes to expand their authorities and let them work independently. Developed economy always requires a well-performed financial sector i.e. setting up more of institutions, intermediaries, and markets through which they can support a massive investments and growth. Generally Financial sector development is the upgradation of financial activities by the mean of cost-effective

venture it also help in organize savings for achieving long term financial goal or to construct more future project (Agyemang, Gatsi, & Ansong 2018). Likewise, a fixed proportion of competition challenge financial sector to attain possible market right (Kasman & Carvallo, 2014).



(Source: Global Competitiveness Report, 2006-2020 )

Note: Red bar represents average performance of antimonopoly policies whereas blue bars represents financial market development.

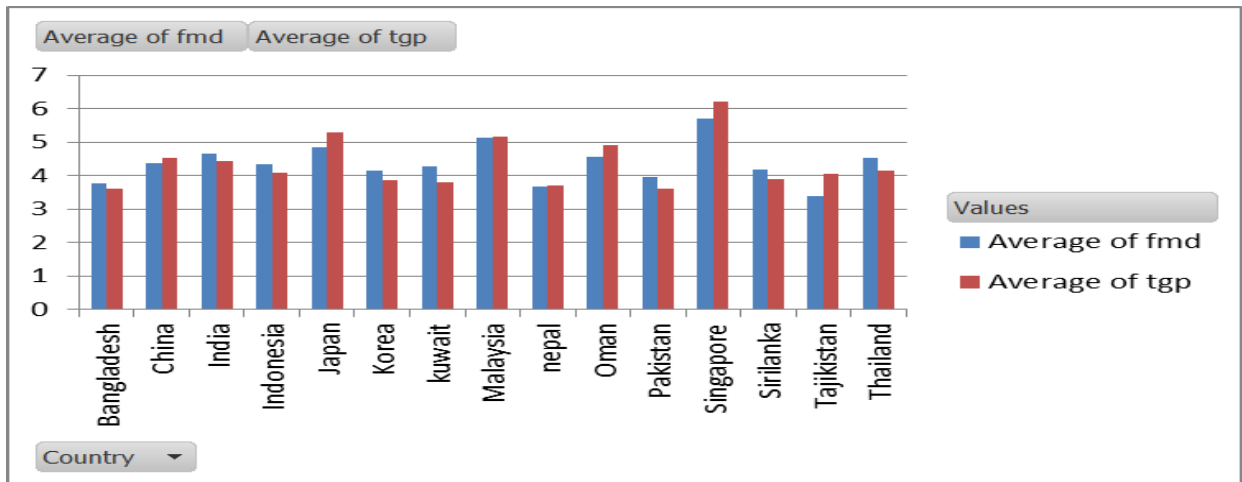
### Figure 1 : Effect of Effective Antimonopoly Policies on Development of Financial Sector

Markets having more transparent environment usually belongs to high income, media dominance, and better technological setup (Relly & Sabharwal, 2009a). Any new regulation does not affect financial stability immediately, especially through the channel of competition. The competition and anti-trust frameworks is required, to ensure market access, both nationally and internationally. There is also a need of stable and unbiased institutional reform through which financial institute or different departments can work efficiently and turn out to be more useful during the time of severe economic as well as financial crisis.

The most frequently discussed matter in academic seminars regarding financial development is to managing transparency in governmental policies and alleviate antimonopoly competence, but as we know, these are both qualitative indicators that are challenging to quantify. The literature demonstrates how such variables affect the growth of the financial



market politically, economically, procedurally, and operationally, so the study use an index for measuring the openness of government policies and the efficiency of antimonopoly.



(Source: Global Competitiveness Report, 2006-2020)

Note: Red bar represents average practice of transparency in government whereas blue bars represents financial market development.

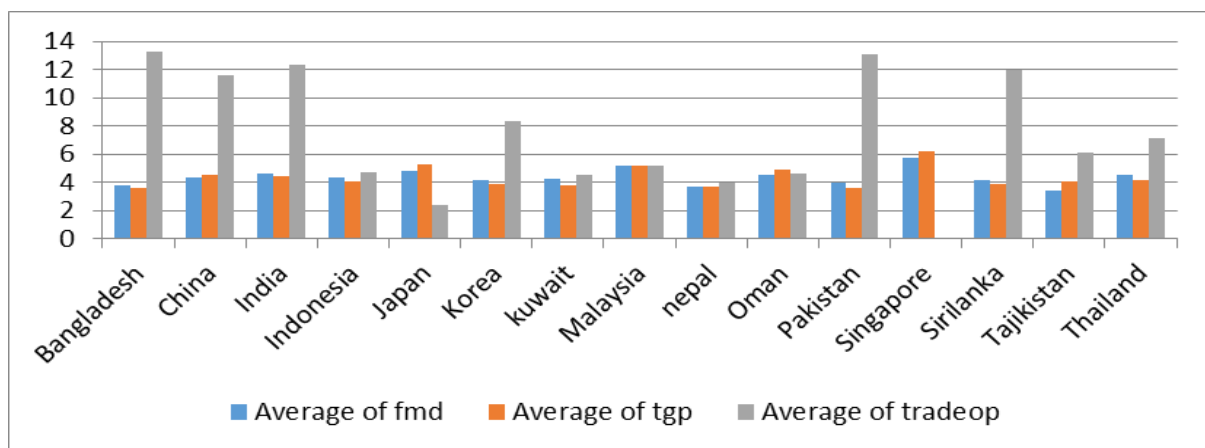
### Figure 2 : Impact of Transparency in government policies on Financial Market Development

Transparent dealing, public private ownership, innovation, competition, technological infrastructure and financial stability will improve the economic situation as well institutional size. Different studies show that financial institutions are less in number in countries having higher rate of inflation. Stable macroeconomic environment is necessary for institutionalization. A stable macroeconomic environment and effective government policies are essential to safeguard the sustainability of financial systems. Macroeconomists generally accepted the fact that an instable financial market has a negative effect on the process of economic recovery. Stability of macroeconomic environment is considered as the degree of uncertainty in the financial market return for a given time period.

Financial development is influenced by macroeconomic factors such as trade openness, inflation, income, and government expenditure. Trade openness, investment, and government spending encourages both the growth of financial sector as well as macroeconomic stability

while it inhibits inflation. The results of distinct studies indicate that financial institutions are less established and regulated in countries having higher rate of inflation and more developed in those with greater rate of trade openness, income, and government disbursements. Trade openness, is determined as the total number of imports and exports as a proportion of GDP, as it will reveals how open a nation is to foreign trade by the help of crowding in and out effect.

The yearly growth rate of accurate GDP deflator use to measure inflation, which is measure as the degree of macroeconomic stability. Initial per capita GDP serves as a proxy for income and serves as a measure of economic development. The proportion of government’s consumption expenditure to GDP used for measuring government spending, which is consider as a reflection of size of government, while calculating macroeconomic environment. Trade and financial transparency have the definite power to affect how financial sector grow well. Number of studies suggested that the income level of the countries is one of the major reasons, for increasing trade access which affects the financial development positively or negatively through external financing demand.



(Source: Global Competitiveness Report, 2006-2020)

Note: Blue bars shows performance of financial market, Orange bars represents performance of transparency in governments’ practices with the influence of trade represented by Gray bar

**Figure 3 : Effect of Trade and Transparency in the Development of Financial Sector**

In this perspective, increased trade openness has a favorable impact on the financial sectors of nations with relatively higher income generation, whether on another side it also have a negative effect on the fiscal area segment of countries having relatively lower incomes. But (Zingales & Rajan, 2003) argued and brought attention towards the openness of trade and its finance to general public which is consider as the crucial element for the development of its financial sector. Transparency regarding fair government policies can benefit the development of financial sector, it can also enhance the imbalanced state of macroeconomic environment. In case of emerging economies transparency will help with the effective allocation of capital and constant regulation of financial sector. The estimation of study is based on Asian countries, and for more in-depth examination the study further compares it at national or state level of information moreover the empirical estimations are available to reveals a broad array of dynamics.

## **1.2 Problem Statement (SOP)**

The major issue of developing nations in terms of financial development is how to improve the norms of transparency and openness to sustain the efficiency of financial sector, by implementing a possible access-to-information regulation. Usually Government policies in developing nations are opaque, and awareness of general public towards transparency aren't very strong, therefore the contribution towards encouraging the development of the financial industry is less dynamic in these emerging markets (Shaohua et.al, 2020).

By implementing transparency policies in a system the government start to work effectively and help in to reduce corruption, political erosion, as well enhancing the long-term feasibility of financial systems. Second, major issue here is, a lack of competition where a certain amount of competition helps financial industry to develop market strength by nurturing earning potential, leverage, and competence, due to which the role in promoting the growth

of financial sector is feeble. Instable financial system wouldn't be able to manage savings, reduce risk, or enhance the trade of goods and services. Irresponsible, government policies, combined with instable macroeconomic environment, and irregular market structures (monopoly, oligopoly, and cartelization) destruct competition, restrict free markets right, and stimulate financial instability which contributes to the formation of vulnerable financial system.

An anti-monopoly policy encourages open market competition and transparency in government dealing will improves the confidence/ in business environment. Monopolies generally known for waste resources by hiring excessive staff on higher wages while reduce production which will affect the overall performance. Effective competition and regulatory policies may be troubled by the interference of strong monopolistic commercial lobbying (cartelized) groups in government policymaking (Hassan Qaqaya, 2008) .

Based on the account of problem statement the study as stated in the preceding text has following research question and objectives:

### **1.3 Research Questions**

- Does transparency in government practices and effectiveness of anti-monopoly policies matter for the development of financial markets?
- What is the impact of anti-monopoly policies on financial development?
- Does the macroeconomic stability and trade openness relevant to financial market development?

### **1.4 Research Objectives**

Objective of the study are:

- To explore the effect of government transparency on financial development
- To investigate the impact of macroeconomic stability and trade openness on financial development.

- To explore the impact of anti-monopoly policies on financial development.
- To estimate the impact of macroeconomic stability combined with transparency in government policies and the effectiveness of antimonopoly policies on financial market development.

### **1.5 Significance of Study:**

Financial sector can elevate risk as it can help in expanding business and administration sector of state. Consequently the more established financial system are, the better the financial institute and markets will be able to perform finance related functions. Financial market development is referred as the progression of financial markets through financial intermediaries generally driven by several factors, policies, and the institutions. Essentially, the key goal of financial market is to stimulate economic growth and reduce poverty.

The study here shows how important macroeconomic stability is for encouraging financial market development for the longer and shorter period of time. Stable macroeconomic environment encourage the growth of financial markets by reducing interest rate and currency volatility. It will also help in managing massive inflation, a heavy debt load, and excessive currency volatility which is crucial for the financial market's stability in both developing and developed nations.

Government policies in developing countries are usually obscure so that the public awareness toward transparency is not very well-established due to which their role in nurturing financial sector development is less dynamic in these markets. Disclosure requirement bring more investors and businesses to build trust and confidence in financial markets. Implementing transparent government policies may not have an immediate impact, but over time, they can help to strengthen the relationship between growth of the financial markets and macroeconomic stability.

However, for a short period of time, anti-monopoly laws might make it easier to link a stable macroeconomic environment with financial market development, as their long-run equilibrium effects might not be reflected. Through anti-monopoly regulation along with transparency developing nations can reduce the bureaucratic power and corruption, which will also help to grow more financial markets in that specific region but, developed nations should adopt a more advanced and effective anti-monopoly policy to address the issue of adverse selection.

The development of financial institutions, instruments, and markets mitigate the effects of information and transaction costs which has been demonstrated through theoretical models.

### **1.6 Macroeconomic Determinants of Economic Growth**

The justification for overall efforts mentions above to reduce poverty based up on the stability of macroeconomic environment. Question raise here is why are these all linked and focused with macroeconomic instability? Macroeconomic stability is considered as an essential indicator for high sustainable growth, it can directly linked with the major reason like strict unemployment, and poverty. Consequently, there is a need for a relevant approach or policy view point for reducing poverty and unemployment generally for stable macroeconomic environment. Government budget, is one of the most important example of country's economic policies that plays an important role for reducing poverty, enhance non-inflationary economic growth which is also taken under consideration as another route to preserve macroeconomic stability. In order to evaluate a country's macroeconomic stability, the GCI report combines five factors (government budget balance, gross national savings, inflation, government debt, and country credit rating) as the study further discuss these in detail, chosen up from the third pillar of factor-driven economies.

## **1.7 Organization of Study**

Study's arrangement based on six chapters. First chapter of study comprises an introduction to the financial sector's evolution in the context of Transparency in government policy combined with the Efficacy of antimonopoly measures. Second part built on a review of the literature. Third chapters of this study, describes the data, variables and the employed methodology. Chapter fourth formed upon the empirical estimation and results shows reliable research outcomes, respectively. Fifth chapter of the study, covers qualitative analysis, while Conclusions, Policy Recommendations, and Future Research are covered in chapter sixth.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Literature Review**

Global financial crisis, came along with a number of corporate scandals, highlighted as the consequence negligence of book keeping and reporting principles. By encouraging environment economic assets lose its value and investments are hindered or stopped, economic instability can have a range of harmful effects on the overall welfare of people and nations. In the worst-case scenarios, this could result in societal failure, unemployment, or economic recession. No, economy is said to be well functioned until their businesses start working fairly and competitively, providing clear prevention of scam or misconduct. Based on such hypotheses transparency in government policies and anti-competition law is measured as an indispensable element of growth, which can only be carried out through the proper examining and bookkeeping practices that ensure open access to information in a suitable manner. As it is stated above that financial development in any economy is impossible without an appropriate utilization of funds and for this reason there is a need to build up more financial institutions and markets. A wide range of recent studies are given below to develop a positive understanding between financial development and transparency and antimonopoly practices in the presence of macroeconomic stability.

#### **2.2 Origin of Financial Market Development: Empirical Evidence**

Continuous improvement in financial services require continuous financial market development also results in leading more productive business and cost effective investment choices (Agyemang, Gatsi , & Abraham , 2018, Ansong, 2018; Ouma, Odongo, & Were, 2017). Financial markets ease the ability to arrange funds and resources for smooth flow of financial activities throughout the economy (Madura, 2020). But to enhance the businesses'



profitability, and protect their investment from political interference, the financial institutions need to be transparent, competent, and accessible (Kidwell et al., 2016). As per (King & Levine 1993) (Demirgüç-Kunt & Levine, 1996; M. Levine, Toro, & Perkins, 1993), financial progression enhances economic growth through collection of buildup funds. (M. Levine et al., 1993) b offered various facts that show how development of financial sector disturbs growth. (1): Financial sector reassures an enhanced investment by selecting exceptional projects and capitalists (2) Assembling external funding for those capitalists (3) Identifying the best possible way for varying the risk of inventive task and (4) Enlightenment of enormous returns related to the hidden innovation.

Whereas (Alomari & Bashayreh, 2019) define financial market development as the improvement of market be caused by a number of variables, policies, and institutions. The ultimate goal of financial market development is to stimulate economic growth and reduce poverty.

Instable financial system makes it difficult to reduce risks, improve savings, or to stimulate the trade of commodities and services (Batuo *et.al.* 2018). The fragility of the financial system, according to (Eichengreen & Leblang 2003), is a consequence of government policies that are inconsistent and inefficient as well as instable macroeconomic environment that is unpredictable. The government's transparency and openness, especially with concern to sectors that rely on credit, enhance the institutional financial environment (Shahbaz, Bhattacharya, & Mahalik, 2018). Increased disclosure of information in law and regulations by government can help investors in making decisions, also have an advance financial liberalization. But usually different Regulatory, legal and tax system controls the overvaluation of investments and securities that increases transparency in financial practices, which promote the growth of the financial sector.

Z. Shaohua, Yahya, Pham, and Waqas (2021) analyze how the development of financial markets is affected by macroeconomic stability, transparent government practices, and anti-monopoly laws. The relationship between macroeconomic stability and the growth of the financial markets is strengthened by effective transparency policies. In the short term, anti-monopoly laws lessen bureaucratic authority and corruption while enhancing financial markets and regulating factors like GDP, trade openness, and market size. The study used data from 113 nations between 2007 and 2017. Results from the regression technique show that macroeconomic stability promotes the growth of financial markets in both developing and developed nations.

Aluko and Ibrahim (2020) investigate the macroeconomic factors that affect the growth of financial institutions. The study used balanced data from 32 Sub-Saharan African nations between 1985 and 2015. The dependent variable in the study is the size of the firm, while the independent factors are its age, profitability, and use of reinsurance, and the control variables are the market interest rate and an amount of the strength of capital markets. The development of financial institutions is positively influenced by trade openness, income, and government spending, but is hindered by increased inflation, according to a regression model utilizing a dynamic panel and generalized methods of moment (GMM). Findings also point out the fact that financial institutions are way more settled in nations with developed income, trade openness, and government spending, compared to nations with high inflation.

The acquaintance among financial progression and competitiveness started to become notably crucial subjects affecting the expansion of commercial markets as it is highlighted as the key pillars of global competitiveness index. Developed financial system, will allow the financing of existing entrepreneurs and smallest firms and always try to attract new companies and help them to enter the market, which spikes new and old firms to innovate new products by using

advance technologies. Additionally, it will promote long-term economic growth by facilitating resource allocation, simplifying banking activities, stabilizing foreign direct investment, and lowering interest rates.

Abubakar and Kassim (2018) the study examines the institutional and a macroeconomic factor that influence financial development in 50 OIC members. GMM is used in conjunction with a dynamic panel approach-system. The research showed that overall income positively influences the growth of financial institutions and that exchange rates boost lending and financial depth. To clarify the relation between "financial intermediation and economic performance, the study empirically assess the impact of "financial intermediaries on private savings rates, capital accumulation, productivity growth, and overall economic growth. This paper is further motivated by a rejuvenated movement in macroeconomics to understand cross-country differences in both the level and growth rate of total factor productivity. While an institutional quality seems to stimulate loan activity, transparency in government policies seems which will encourage more financial depth. However, inflation reduces the depth of the financial system while raising private credit from banks.

Alomari *et al.*, (2019) examine the relationship between financial market development and economic progress. The study uses the data of 21 countries having higher income by using the GLS regression model from 2009 to 2017. The study has used Competitiveness (COMP) as dependent variable, which is calculated as a weighted average of many different components, each measuring a different aspect of competitiveness. Different independent variables are used i.e., Financial market development, trade openness, Labor market efficiency Technological readiness (TRG), Market size, Good Market Efficiency, Higher education and training. Results of the study indicate that financial market development has significant impact on competitiveness and government-regulation increases the productivity

of financial markets and economic development. Trade has always become an essential part of the economy, and with the impact of globalization, it has become much more important to create a link between countries which is the main purpose of globalization.

Shahbaz, Bhattacharya, and Mahalik (2018) examine a comparison that tries to explain how the economies of Asia Pacific countries like China and India developed in terms of trade, government, and sectorial contributions. The research used panel data from 2005 to 2016. 3,395,647 businesses make up the data, on average during a 12-year period. Variable used in study real domestic credit for private sector ( $F_t$ ),  $u$  as a proxy for financial development, is the dependent variable of the study. As a gauge of urbanization, the urban population is expressed as a proportion of the total population ( $U_t$ ). Real government consumption per capita is ( $G_t$ ), real trade per capita is ( $ot$ ), and real value added by service sector to GDP is ( $It$ ) per capita, as a proxy for industrialization. Institutional quality ( $st$ ) is the measure of institutional quality. The results of time-series estimations showed a link between inadequate institutional quality and government size and the underdeveloped financial status of developing nations like China and India. Globalization is seen as one of the key factors contributing to the long-term development of the financial sector in developing nations, along with improved institutional quality and larger governments.

Canh, (2018) investigate a macroeconomics literature, that the efficiency of fiscal policy is a fascinating topic. The study used to examine how fiscal policy affects economic development while accounting for institutional variations and levels of foreign debt. The study is employed a panel dataset from 2002 - 2014 from 20 using GMM estimators for unbalanced panel data in emerging markets. The dependent variable for the study is the annual real GDP growth rate (LGDP). independent factors are the GDP growth rate (GDPG) taken as an account to the vector of all control variables use in this study are the following ones: the capital investment

factor measure through the rate of capital formation growth denoted as (CAPG), the labor factor, measure as the proxy of the rate of population growth and symbolized in the study by (POPG), next variable is the credit factor, measured through the logarithm of domestic banking credit of private region symbolized as (CREDIT), another one is the technological element, which is measured as the total number of patent claims denoted as (PATENT), next one is the trade openness highlighted in the study as (TRADE); next indicator used in the study is foreign investment symbolized as (FDI). The overall progression rate of general government to its absolute consumption expenditures denoted as (GOVEXG) which serves as a proxy for fiscal policy. The results show that fiscal policy has significantly increases more in developed states and by witnessing such change emerging market are willing to promote and regulate more financial practices in developing economies. Particularly, fiscal policy supports crowding-in effects which is also recommended by means of institutional improvement. The mechanism underlying this non-linear relationship may be explained by the diverse possessions of fiscal policy on economic growth, such as positive effects in low levels of debt and negative effects in high levels of debt. This study also used to expose convincing evidence that the external credit affects overall economic factors in a nonlinear way.

Agyemang *et al.*, (2018) the relationship between institutional frameworks and the degree of financial market growth in Africa is examined in this article. The use of additional financial market development variables adds to the study's contribution to the body of existing work. For the years 2009 to 2015, the analysis is undertaken for 40 African economies. The study used dynamic panel GMM estimators to estimate the model, and the variable used in study are Availability of venture capital, the Ease of obtaining loans calculated as a proxy measures for the evolution of the financial markets. Venture capital accessibility, political stability, free outlook, transparency, rule and regulation, controlling quality, government effectiveness, real

GDP per capita, and trade openness are other variable enrolled in the estimation of this study. According to the result the, individuals in the economies have an easier time obtaining loans when proper institutional frameworks are present. Additionally, it demonstrates a significant distribution and a positive relationship among institutional frameworks and the ease of access of venture capital in the African nations.

Vasylieva, Lieonov, Liulov, and Kyrychenko (2018) explores the macroeconomic factors that are effectively engaged in the development of financial institutions. The study utilizes a balanced panel of data for 32 Sub-Saharan African (SSA) countries from 1985 to 2015. By using the two-step system generalized method of moments (GMM) dynamic panel model. The dependent variable used in the study is firm size, which is calculated as the logarithm of total asset, while the explanatory variables of the study are: (firm age, profitability, reinsurance usage) the control variables engaged in the interpretations of study are (market interest rate and capital market development). Though the independent variables of the study are mentioned in the form of natural log practices, all the control variables are presented in the form of ratios. The results imply that increased financial openness might be the cause in order to decrease the access to financial services provided by domestic financial firms. But it will promote the trend of reasonable fair information regarding better financial projects and also promote competition in market. The study demonstrates that the countries can increase their levels of financial inclusion by promoting more financial openness. The results also prove that financial institutions are less established in the countries having higher rate of inflation and more developed in those countries having greater trade openness, income, and government spending.

Kasman and Carvallo (2014) estimation is based upon the competitiveness ratio of price and revenue of financial stability and competition scores at bank level. The study will support us

to build dynamic correlation between variables using Granger causality techniques in dynamic panel model. The findings are consistent with the idea that when effectiveness of revenue is taken into account in the design, competition promotes stronger financial stability. At the same time, the study is use to detect compound dynamic practices such as: comprehensive banking activities have a tendency to spread higher market power, offering loan usually support the “efficient structure” assumption. Relevant regulatory reviews include those of internal bank governance and potential stakeholder agency issues. For businesses with greater in size, complex, and having more systemic importance, are crucial for financial stability. Strong and stable financial institutions can be attained by doing an appropriate balance between these three factors: competition, sensible considerations, and proper corporate control.

Ruiz (2018) inspect the nonlinear relationship among financial development and economic growth in the existence of official investors (assets in insurance firms, pension funds, mutual funds, and as a proportion of GDP) and economic growth. The exploration of study considers data on 116 economies. Data obtained from the World Bank for the period 1991–2014. By using dynamic panel threshold approach, we look at both industrialized and emerging economies. Estimation based on following variables: Economic growth (Growth) is defined as the natural logarithm of real GDP per capita of each country for the consistent period (RGDPC), and the lag of real Gross Domestic Product per capita (L.RGDPC). The endogenous variable of the study are the log of initial income; (CB) is bank credit to Gross Domestic Product, and (DCPS ) has been taken as the ratio of domestic credit to the private region to Gross Domestic product. Institutional investor variables denoted as IIV & for robustness test the study employ mutual fund assets (MF), asset of insurance company (IC), and asset to pension fund (PF), respectively. All variables explained, explanatory and controlled are expressed as the percentage of Gross Domestic Product. The study discovers

that countries above the financing threshold grow more quickly than those below it. In developed economies, institutional investors also help to increase GDP per capita. Results showed that when financial development is below the threshold, the division of fiscal segment has a negative impact on economic growth. Transparency has a statistically significant and consistent favorable effect in all specification models. The sources of the effect of accessibility are increased competition and technological development which will directly and indirectly help in increase capital formation. Gross capital development directly increases the ability to produce more goods and services at reasonably cheaper costs, which leads toward a higher production and as a result, faster economic growth.

Ruiz (2018) study also suggests that if there is a complex financial market system, then poor performance can result a variety of problems such as corruption, misallocation of resources, reduce production, conflicting goals, or miscommunication and to overcome such problem there is a need to have a transparent anti-monopolistic environment because such environment will help in promoting financial market development and macroeconomic stability. To ensure the sustainability of financial systems, a stable macroeconomic environment and efficient governmental policies are required.

Fatás, Mihov, and Rose (2007) investigate empirically the implications macroeconomic effect of a specific measurable objective for monetary policy. Exchange rates, money growth rates, and inflation targets are the three types of quantitative objectives. Through which the study examines the effects of setting a quantitative goal and achieving a stated goal on inflation. Moreover, the study also used to analyze the consequences of formal measurable monetary policy target which include (exchange rate target, money growth target, and inflation target) in 42 developed and developing countries for the period of 1960- 2000. The Results reveal that there is a broadly accepted belief that poverty is a result of social exclusion and a variety



of deficit spending experienced by the poor creates a shortage or a lack of capital, resources, or opportunities caused by a lack of capitalist development, as demonstrated by the low productivity of agricultural labor and informal sector activity.

To attain these targets de jure approach helps to reduce inflation and stabilize business cycles, while achieving these targets through de facto approach will increase the efficiency of the financial sector. According to (Goldsmith, 1968) the financial sector of an economy promotes macroeconomic growth and expands more financial enactment in order to facilitate the mobility of reserves to its best user in the economic system and make it easier for funds to produce the maximum possible profit.

Bayar, Akyuz, and REM (2017) the study looks at how transparency and financial development interact in nine different countries in Central and Eastern Europe. Many of these nations have started to work on export-oriented economic strategies that have loosened the restrictions on the movement of capital, goods, and services across borders. Over time, the total value of global financial asset flow covered the whole value of global trade, and financial markets have expanded significantly in almost every nation. The result demonstrates that transparency had a favorable long-term impact on the development of the financial system. Additionally, there was a one-way causal relationship between the growth of the financial sector and financial openness.

Relly and Sabharwal (2009b) explores the effect of Transparency in government policies have significant effects on financial development, both positively (contribution of foreign investors can improve and assist underdeveloped Asian security markets) and negatively (instability arising from reverse volatility of short-term capital flows in terms of both positive and negative) as it can hit back financial development.

Spykman, Emberger-Klein, Gabriel, and Gandorfer (2021) noted that financial institutions are well performed and developed more in financially transparent environment. It is necessary to limit corruption and give more access to information, and trend to motivate people to form a belief in financial sector which will reduce market anomalies which result in the development of financial sector. Lack of transparency in government policy making will promote corruption, and increase the level of income inequality and poverty in society that were already highly affected by corruption (Gupta, 1998).

Corruption happens due to the lack of transparent practices in society. It is considered as an invasion of power abuse as well as a criminal immoral and the ultimate betrayal of public trust. It erodes trust, weakens democracy, obstructs economic development, and exacerbates inequality, poverty, social division, and environmental crisis. It can simply affect all sectors from upper level to lower level, involving politicians, government officials, public servants, business people, or common public.

Transparency International states, "Corruption is the abuse of entrusted power for private gain, it is not only a solitary initiative done in government organizations, but it is taken as the procurement and developmental projects, and power sectors also strongly witness the practices of such activities, small medium enterprises as well as in private organizations also experienced it. In addition, government agencies, as well as the developmental projects, also suffer the strict consequences of corruption due to the lack of transparency. It also raises the cost of corporate expansion and acts as a barrier to the growth of small and medium-sized businesses. By reducing bureaucratic power and corruption, developing nations can grow their financial markets through anti-monopoly laws; but, developed nations should adopt a more advanced and effective anti-monopoly policy to address the issue of adverse selection.

Beck, Levine, and Loayza (2000) the study determined that financial institution apply progressive impact on over-all factor productivity, it simply nourishes growth by total GDP. The internal progression model dispartate the financial instability because disturb financial system will also disturb the overall economic growth just by limiting the funds and investment (Hao & Hunter, 1997; Pagano, 1993). Growth of financial institutes will lead to increase the rate of return that supposed to be gained on investment; and in return it will improve economic growth as well as the income level of the state.

R. Levine, Loayza, and Beck (2000) empirically evaluate the effects of financial intermediaries on private savings rates, capital accumulation, productivity growth, and overall economic development in order to better understand the relationship between financial intermediation and economic performance. the study obtain data, on 32 countries in scattered years for the period of 1980-1995, yielding a data set that is insufficient for the econometric procedures. Study employed (i) a pure cross-country instrumental variable estimator to extract the exogenous component of financial intermediary development, and develop (ii) a new panel technique that controls for biases linked with simultaneity and unobserved country-specific effect. An improved macroeconomics measure aims to comprehend cross-country variations in total factor productivity's level and growth rate is another driving force behind the study. According to research, result shows that financial intermediaries have a significant, positive effect on total factor productivity growth, which underpins through to overall GDP growth, and the long-run relationships between financial intermediary development and both physical capital growth and private savings rates are unstable.

Neuenkirch (2013) explores how transparency inspires the creation of money market opportunities in emerging markets through their central bank, the dataset for model covers 25

countries for the period from January 1998 to December 2009. The indicators used in this study are dependent variable: interest rates and Independent variables are a weighted average of bond's return, weighted expected target rate. The study employed an unbalanced panel least squares regression model in order to find out suitable results. The finding suggests that transparency in money market successfully decreases biases in money market expectations. Whereas countries without a proper exchange rate control or even those with low incomes countries are more affected than other develop states hence it is proved that not complete secrecy or nor a complete transparency is able to have the greatest favorable impact on emerging market expectations. The majority of literature only concentrates on or discusses about the stability of developed economies or how advanced and strong there financial sector are, but central banks in emerging markets have also worked really hard to improve the level of transparency. There is a very little empirical data is available on how the central bank transparency affects emerging markets. This study explores the effect of transparency on the trajectory of short-term interest rates and fills a gap in the literature on emerging markets.

Gabriel Montes (2019) scrutinizes whether countries are making efforts to improve fiscal transparency, and whether fiscal transparency affects government effectiveness and government spending efficiency. The study employed a data set of 82 countries out of them (68 are developing and 14 are developed countries) for the period of 2006–2014, for estimation the study use panel data analysis. For comparing the scores of fiscal transparency between 2006 and 2014 the study is conduct list of the estimation first-difference GMM panel data is used as a way of excluding non-observed effects. D-GMM and S-GMM estimation techniques are employed for suitable small number of time periods (t) and a large number of individuals (i), in case of small samples, when there are too many instruments, they tend to over-fit the instrumented variables which start creating a bias in the results (Roodman, 2009) estimation of first-order autoregressive (AR1) and second-order autoregressor are performed

to overcome the issue of serial correlation. It is important to focus that one principle of GMM models is the non-correlation of the first difference of endogenous variable, which implies that it is not necessary to perform unit root tests (de Mendonca, Rodrigues, de MN Soares, & Vincenzi, 2013) are providing panel unit root tests. But still we are having a list of several tests that were created for testing unit roots in panel data. With this purpose, the study uses the following tests:

Levin-Lin-Chu (LLC), Im-Pesaran-Shin (IPS), Fisher-ADF (ADF), and Fisher-PP (PP) to check stationarity of panel data set. It has been noted that almost 80% of the countries have made an attempt to increase budgetary transparency. The findings indicate that fiscal openness is crucial for lowering the national debt as well as increasing governmental performance and expenditure efficiency. The results indicate that the sample of developing nations has a stronger impact of budgetary openness on government effectiveness. When the rate of inflation is high, financial intermediaries are pronounced counterproductive to economic growth, while According to (Rousseau & Wachtel, 2002) Macroeconomic stability is also observed as the essential component for bolstering financial development by reducing the susceptibility to the effects of external repercussions. Therefore, policymakers need to realize the importance of transparency along with macroeconomic concerns to formulate such policy which have a direct impact on how financial institutions are evolve in order to realize how economic changes might help financial institutions.

One of main reason behind the lack of transparency is that the predominant monopolistic businesses might challenge government's strategy to restrict progressive competition and regulative policies. Moreover, it is stated that monopsony power will reduces the worth of financial segment (Roberts, 2017), as the risk shifts to sellers, and force prices discrimination (Noll, 2004) .Many researchers put emphasis on the importance of resilient institutional

structure and their consequence on financial market development in order to bear out important financial contract (Hooper, Sim, & Uppal, 2009).

Researchers also suggest that there should be a strong legal structure which have an authority to approve financial deeds and without their approval no financial transaction has been processed, and problems like moral hazard and adverse selection be generated through the system having an incorrect information (Law & Azman-Saini, 2012). Financial intermediaries that are well-developed in nations with better institutional systems which can provide a free exchange of information between employers participating in contracts. Additionally, economy needs diverse institutions to serve as a conduit for the financial markets to support its profitable endeavors (Mishkin, 2009a, 2009b)

First of all, it is anticipated that the study is based on worldwide literature, will analyze the influence of exogenous variable on endogenous variable affecting financial market development (FMD) by employing the sub-indexes of Global Competitive Index (GCI). Second, the study will looked at how much effective anti-monopoly laws and government transparency along with trade are necessary to the expansion of financial sector because all three of these variables are linked in a way to boost macroeconomic growth both short and long term. Third, using qualitative approach and relevant literature to evaluate both short- and long-term relationships between macroeconomic stability, government transparency, anti-monopoly policy, and financial market development.

### **2.3 Hypotheses**

The following hypothesis has been developed to investigate the potential association of conventional accounting factors of different countries through a moderating influence of the control variable as well as unconventional variable like market size.

H1: Transparency in government policies has a positive and linear effects on financial market development

H2: Effectiveness of anti- monopoly has strong positive and linear effects on development of financial market

H3: Macroeconomic stability has positive and fragile effects on financial market development

H4: Trade openness has positive and significant effects on financial market development

H5: Market size has positive and significant effects on financial market development

H6: Gross domestic product per capita has a moderate and significantly effects on financial market development.

## **CHAPTER 3**

### **METHODS OF DATA COLLECTION**

#### **3.1 Document Review Data Collection**

A quantitative data collection method uses to gather data from an existing document. It is considered as an effective way of collecting data from documents. There are three major types of document review are available to collect, analyze quantitative research data. In this study secondary data has been collected from Global Competitiveness Report (GCR) annual report published by world economic forum WEF.

#### **3.2 Qualitative Approach**

##### **3.2.1 Interviews**

Interviewing related individuals is considered as a usual method used for data\_collection. Though, interviews led to gather more structured data, which can be done through some simple set of questionnaires that has been asked by the scholar. Qualitative Indicator Interviews / discussion conducted from:

- Securities & Exchange Commission of Pakistan (SEPC)
- Competition Commission of Pakistan (CCP)
- Mishaal Pakistan

#### **3.3 Quantitative Approach**

##### **3.4 Sample / Data Collection**

The study employed The sample selection criterion be based on index of 15 Asia-Pacific developed, and developing countries taken from global competitiveness report, covering a panel of Bangladesh, China, Indonesia, India, Japan, Korea, Kuwait, Sri Lanka, Malaysia, Nepal, Oman, Pakistan, Singapore, Thailand, Tajikistan. For the period of 15 years that is from 2005-2020. The sample of the study selected on the basis of per Capita GDP from World



Development Indicators online database. The main panel further divided into three subpanels based on income level, i.e., high income, middle income, lower income.

### 3.5 Sample Selection Criteria

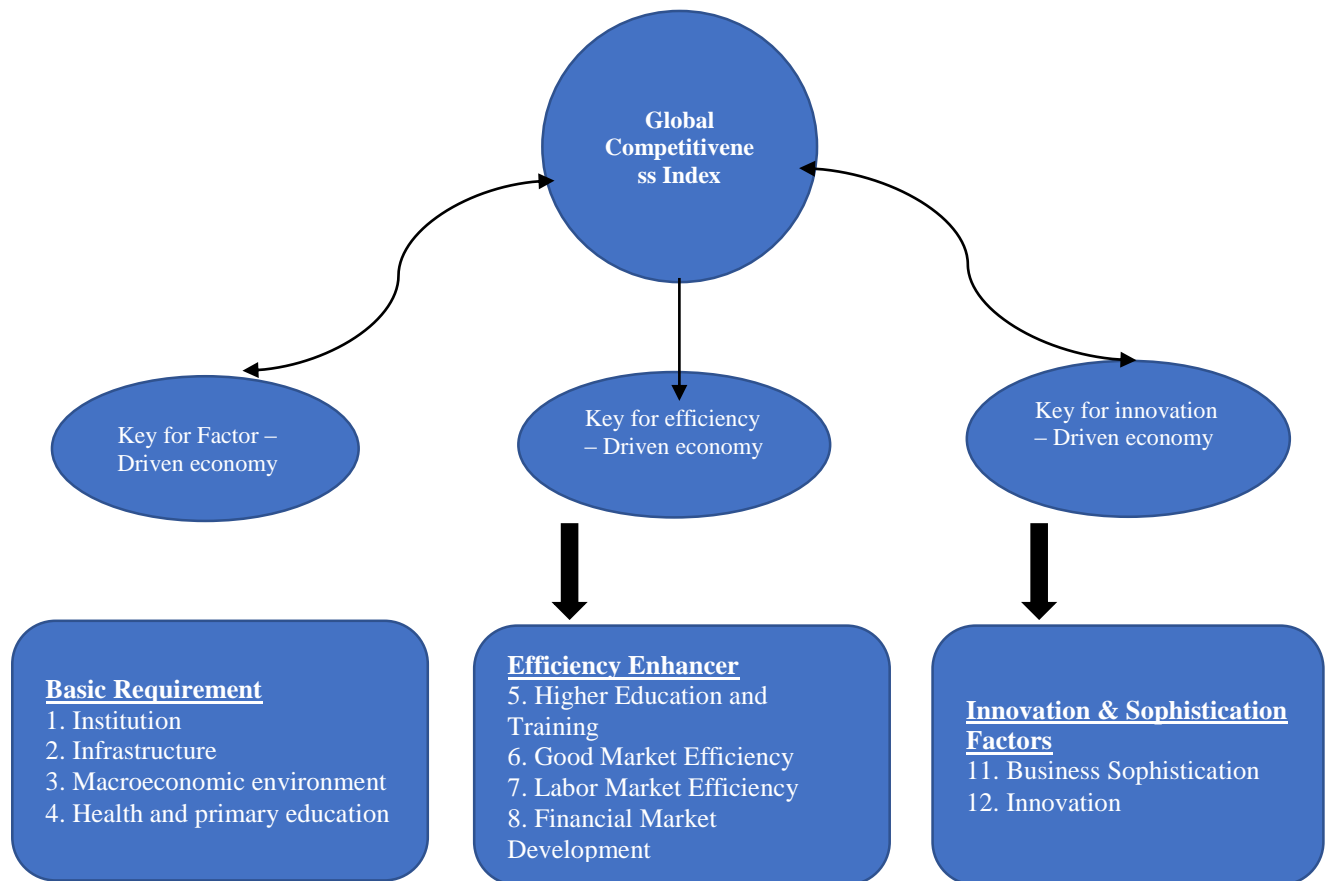
Step	Criteria	Number
1	Total number of countries in GCR.	148 countries
2	Economies with valid responses.	140 countries
3	Number of surveys	14,762
4	Survey retained	12755
5	Total number of Asian pacific countries in GCR	22 countries
6	Panel employed in study based on income level.	15 countries after excluding the countries with missing data.

(Source: *Global Competitiveness Report 2005-2020* )

The major purpose of the study is to understand the cross-country divergences in terms of both level and growth proportion of total efficiency output, as well provide relevant empirical evidence that how factors for driven economy and innovation driver (such as macro-economic environment, openness in government policies and effectiveness of anti-trust policies) affect financial market development. This could be done through all-inclusive estimation of short-run and long-run outcome of various variables such as: macroeconomic stability, government's transparency, and effective anti-monopoly policies collected in forms of different sub-indexes. These indexes are measure on annual yardstick for policy maker to measure and assess the progress in order to determine the level of productivity.

Particularly, each index in the study is constructed through the combination of both the microeconomic and macroeconomic factors of competitiveness that how an economy uses its resources in a positive way to increase the prosperity of their citizen.

Since time series data has an advantage over discrete data, the estimation of study be based on the scores of indexes rather than ranks. Numerous analyses are available for time series data set and draw conclusions from a small number of observations.



(Source: Global Competitiveness Report, 2005-2020 )

Note: GCI framework divided into 3 major division (factor driven economy, efficiency based economy, innovation based economy) based on 12 pillars represent 12 major dynamics for driven economy and variable selection is been done from these pillars.

**Figure 4 : The Global Competitiveness Index Framework**

### 3.6 Construct of Variables

The study use sub-indexes of the Global Competitive Index (GCI) to assess the uninvestigated impact of variable on the growth of the financial markets because the findings from disassembled variables are mostly biased and diverse.

### **3.6.1 Dependent variable**

Financial Market Development (FMD) is taken as the dependent unit of measurement of study which has been used as the dignified score in terms of sub-indexes of Availability of financial services, Venture capital availability, Legal rights index, Affordability of financial services, Financing through local equity market, Ease of access to loans, Soundness of banks, Regulation of securities exchanges.

### **3.6.2 Independent variable**

Macroeconomic Environment (ME) is the unit measured as the sub index of Government budget balance percentage of GDP (per capita), Gross national savings percentage of GDP, Inflation annual percentage to change, Government debt percentage of GDP, Country credit rating, Transparency in Government Policies (TGP) is measured as the proxy sum of accessible information for businesses, Effectiveness of Anti-Monopoly Policy (EAP).

### **3.6.3 Control variable**

Gross Domestic Product GDP (per capita), Market Size (MSIZE) measured as the sub index of domestic market size index, foreign market size index, GDP (PPP), exports percentage of GDP, and Trade Openness (TRADEOP). These variables should be taken from the global competitiveness report (GCR) is an annual report published by the World Economic Forum, based on global competitiveness index (GCI), these indexes are measured as the performance of set of institutions, factor and policies that shows the level of productivity of certain country. Financial market development is the eight pillars of Global Competitiveness Report planned by following such component (affordability of financial facilities, regulation of securities exchanges, soundness of banks, venture capital availability, ease of access to loans, financing through local equity market, availability of financial services and legal rights).

Macroeconomic stability is the third pillar of Global Competitiveness Report which is measured by the combination of five major modules (government budget balance, gross national savings, inflation, government debt, and country credit rating). Third variable is Transparency in government policies which were shown as the important component of first pillar of GCR dignified as (the sum of accessible information for businesses) with few changes in government rules and regulation.

On other hand, the extent of anti-monopoly policy encourages competition as the efficacy of anti-monopoly policies. The study considers GDP real per capita, trade openness (TOP) (imports + exports as a percentage of GDP), both were taken from the World Development Indicators database. Market size (MSIZE) defines the capability of its potential buyers and sellers both in the domestic and international market divisions. The data of market size derived from the tenth pillar of efficiency-driven economies, affiliated with GCI which also provides detailed market size information.

The study employed panel estimator since there is a need to hold simultaneity bias (it happens when two variables on opposite side of model affect each other at the same time) and country-specific effects. Panel data estimator is thought to use and consider as an influential technique to deal with the issue of endogeneity, and concern as the more appropriate model for panel datasets. More specifically random effect model is prominent when there is a need to measure an unobserved effect which is uncorrelated with all the explanatory variables. In a research study, control variable is something that is need to keep continuous or constrained effect. Because they are not that much relevant to the study's objectives, but somehow effect the performance of variable, can easily influence the outcomes as well. The economists usually include many control variables for estimation purpose in order to separate the underlying effect of a particular variable(Wooldridge, 1986 to 1991).

**Table 1: CONSTRUCT OF VARIABLE**

<u>Description</u>	<u>Variable</u>	<u>Notation</u>	<u>Reference</u>
Explained Variable (Index of Financial Market Development) measured by the affordability of financial services, regulation of securities exchanges, soundness of banks, venture capital availability, ease of access to loans, financing through local equity market, availability of financial services and legal rights)	Financial market development	FMD	(Alomari, Marashdeh, & Bashayreh, 2019) (Agyemang, Gatsi , & Abraham 2018) (Stijn Claess, Mar, 2005)
Explanatory Variable (Government Budget Balance, Gross National Savings, Inflation, Government Debt, and Country Credit Rating)	Macroeconomic Environment Stability	MES	(Abdulsalam & Kassim, 2018; Amjad Ali; Shaohua & et.al, 2020)
Explanatory Variable (the sum of accessible information for businesses)	Transparency in government policy	TGP	(TJ Klein, 2016) (Shaohua & et.al, 2020)
Explanatory Variable (as the efficacy of Anti-monopoly Policies)	Effectiveness of Anti-Monopoly policies	EAP	(Hassan Qaqaya, 2008; Kasman, 2014; Owen, Sun, & Zheng, 2017)S
Control Variable Country's GDP divided by its total population.	Gross Domestic Product Per Capita	GDP	(Agyemang, Gatsi , et al., 2018; Amjad Ali)
Control Variable Domestic market size index, Foreign market size index, GDP (PPP\$ billions), Exports as a percentage of GDP	Market Size	MSIZE	(Kasman, 2014; Shaohua & et.al, 2020)
Control Variables trade tariff, trade prevalence, barrier	Trade Openness	TRADEOP	(Agyemang, Gatsi , et al., 2018; Shaohua & et.al, 2020)

(Source: *Global Competitiveness Index*, 2006-2020 )

### 3.7 Methodology

The study is proposed to investigate a relationship between effectiveness of anti-monopoly practices and transparency in government policies that cause direct or an indirect effect to the development of financial sector. For this purpose, the study is trying to develop a model by using Panel static approaches, which is further divide in to three categories such as pooled OLS or common effect regression model, random-effects regression model, and fixed-effects regression models, to estimate the better quality result the study will apply all of these test

and then it will be decided which one is more appropriate, principally in the presence of stable data set. Even though GLS /GMM model is applied as it is considered as the more powerful technique for addressing the issue of endogeneity in panel datasets, as it works best with micro panel datasets (Eberhardt, 2012)

### **3.8 Model Specification**

#### **3.8.1 Panel Data Estimator**

Panel data (is also known as longitudinal or cross-sectional data) as it has two dimensions: a cross-sectional dimension and a time series dimension, with all cross-sectional units being observed throughout the entire time span.

$x_{it}$ ,  $i=1, \dots, N$ ,  $t=1, \dots, T$ . It is a data set that tracks the activities of multiple individuals or units across time. States, countries, corporations, individuals, and so on are examples of these units. Panel Data Models use to deals with different issues such as: Cross sectional variation versus Time effects, Individual/Group effects or (group effect of each individual), Dynamics in economic behavior, Time series variation, Heterogeneity (observable and unobservable individual heterogeneity), Hierarchical arrangements. It is becoming a valuable estimation technique for computing the performance of firms and countries (Aali-Bujari, Venegas-Martínez, & Pérez-Lechuga, 2017). Panel Data can distinguish between panels that are balanced and panels that are unbalanced. It can detect the repetition or an omission of observations results in the creation of potentially very large panel data sets.

- Advantage of panel estimation is having large sample size. Excellent for estimating.
- Disadvantage: Reliance on others! Observations are most likely not independent of one another. Panel data also use to study different issues like:
  - Cross sectional variation (unobservable in time series data) vs Time series variation

(Unobservable in cross sectional data)

- Heterogeneity (observable and unobservable individual heterogeneity)
- Hierarchical structures (city and state effects)
- Dynamics in economic behavior
- Individual/Cluster effects (individual effects)
- Time effects

When modelling the potential dependence, different models are generated. A fixed effect is a type of panel model that's been used in a special case of the balanced panel. This will require that all individuals be present at all times in this situation. An unbalanced panel is the one in which all individuals are observed at different number of times than they should be, for example, as a result of missing data. Overall, panel data models perform as a cross-sectional data models in terms of 'efficiency,' because the observation of a single individual over a longer period of time reduces variance when compared to repeated random selections of individuals.

### **3.9 Econometric Model**

First, the study shall apply pooled OLS regression then check the result which shows a positive significant relationship between dependent an independent variable. The study is mainly based upon the estimation of two techniques used to analyze panel data:

- Fixed effects
- Random effects

The linear regression model for individual  $i = 1$ , observed for a several time periods  $t = 1 \dots T$

$$Y_{it} = \alpha_i + x_0 + x_{it} + \beta_{it} + c_i + \mu_i$$

Where

- $\alpha_i$  ( $i=1 \dots n$ ) is the unknown intercept for each entity ( $n$  entity-specific intercepts).
- $Y_{it}$  is the dependent variable (DV) where  $i$  = entity and  $t$  = time.
- $X_{it}$  represents one independent variable (IV)
- $\beta$  is the coefficient for that Independent Variable
- $c_i$  is the omitted effects variable correlate in general model.
- $u$  is the error term

### **3.9.1 Pooled OLS Method (Common constant method)**

The common Effect Model is also known as the pooled OLS method or common constant method. In this model, both slope and intercept remain constant over the time series and cross-section as there were no deviations between the data matrices of the cross-sectional dimension.

The fixed effects model in panel data analysis assumes that the intercept for each country is different, whereas the random effects model use to assume that the error term of each countries were different from one another. One may believe that the Fixed effects is the best fit model to operate effectively when the Panel is balanced (i.e., contains all existing cross-sectional data). Otherwise, when the sample comprises, restricted or unbalanced set of observations then there were definitely a problem of Cross-sectional units, then the Random effect technique is supposed to be more applicable.

### **3.9.2 Fixed Effects Method**

The fixed effects technique considers as the constant to be group (section) specific, as indicated by the symbol (FE), which agrees for different constants for each group (section). Fixed effects models, also known as Least Squares Dummy Variables (LSDV) estimators,



they do not evaluate the effects of variables whose values do not vary over time. The model for fixed effects method is stated as: eq (1)

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \dots + \beta_k X_{kit} + \alpha_i + u_{it} \dots \text{eq1}$$

### 3.9.3 Random Effects Method

The Random effects technique is an alternate estimating method that treats each division's constants as random parameters rather than fixed values. The intercepts for each cross-sectional unit are predicted to rise from a common intercept  $\alpha$  (which is same for all cross-sectional units and over time) plus a random variable  $\epsilon_i$  that varies cross-section ally but remains constant over time under this model. The effects of time-invariant variables were estimated using a random effect model; however, the results could be skewed because omitted factors aren't controlled.  $\epsilon_i$  is a variable that measures how different each entity's intercept term is from the 'global' intercept term, The random effects panel model can be written in the following way:

$$\alpha_{it} = \alpha_0 + V\alpha_i \text{ (variation of all } \alpha) \dots \text{eq2}$$

$$\beta_{it} = \beta_0 + V\beta_i \text{ ((variation of all } \beta) \dots \text{eq3}$$

$$Y_{it} = \alpha + \beta x_{it} + \mu_i + \epsilon_{it} \dots \text{eq4}$$

Although  $X_{it}$  is still a  $1 \times k$  vector of explanatory variables, unlike the fixed effects model, there are no dummy variables to account for cross-sectional heterogeneity (variation). Instead, of  $\epsilon_i$  the parameters ( $\alpha$  and  $\beta$  the vector) need to be consistently calculated, through the Generalized Least Square method (GLS)/ generalize method of moment (GMM) instead of OLS.

### 3.10 Econometric Model of Study

$$FMD_{it} = \beta_0 + \beta_1 tgp_{it} + \beta_2 eap_{it} + \beta_3 mes_{it} + \mu_i + \varepsilon_{it}$$

$$FMD_{it} = \beta_0 + \beta_1 tgp_{it} + \beta_2 eap_{it} + \beta_3 mes_{it} + \beta_4 gdp_{it} + \beta_5 tradeop_{it} + \beta_6 msize_{it} + \mu_i + \varepsilon_{it}$$

Description of variable is

- $\beta_0$  is the unknown intercept for each entity.
- FMD is the dependent variable (DV) where subscript  $i$  = entity and  $t$  = time.
- $\beta_{1,2,\dots,6}$  are the coefficient for Independent Variable
- $u$  is measure as the error term (combined cross-section / time series)

The study will assume that each individual ( $i$ ) is observed for all time periods  $t$ . Panel data is simply estimated by using fixed effect and random effect model. In order to compare the result of Random Effect Model with the Fixed Effect Model, to assume which test is best fit for the estimation of the study, the Hausman test must be applied.

Hausman test is applied to detect endogenous regressor (predictor variable) in a regression. The study use random effect model with comparable constant terms and a fixed effect model with unique intercepts individually. By using random effect model the study will test is there any difference between regression model result and qualitative analysis. There are various advantages and disadvantages of using panel regression model (as discussed above). Panel regression model will make it possible to examine heterogeneous data having numerous observations that deliver results which is less multicollinear among all other explanatory factors. Furthermore, it will facilitates the usage of more data and may record each unit of observation. Since heterogeneity arises in the data, it is not able to handle it properly it becomes more complicated. If the result of country's attributes can't be seen, than the errors will be connected with the observations. By using panel estimation will solve such issues by increasing the degree of freedom, forecasts the problem of heteroscedasticity, and offers more valued econometrics estimation because it provides more data and information.

## Estimation and Results

**Table 2 : Summary Statistics (Overall)**

Variables	Mean	Std. Dev.	Min	Max
FMD	4.37	0.6284638	3	5.8666
TGP	4.35	0.7823431	3.1	6.3
EAP	4.31	0.6776385	3	5.6
MES	5.03	0.9833286	2.6	6.6
GCI	4.43	0.6683278	3	5.7
GDP	13462.46	16658.06	6.9	55494.9
TRADEOP	7.29	4.351373	0	16.9
MSIZE	4.68	1.144872	2.3	7

(Source : *Global Competitiveness Report, 2005-2020*)

Note: FMD is financial market development index, TGP is transparency in government policies index, EAP is effectiveness of antimonopoly policies index, MES is macroeconomic stability index, GCI global competitiveness index, GDP is gross domestic product per capital, TRADESOP is trade openness index, and MSIZE is market size index.

Table 2, prepare to report the related information to summarize the variables statistics comprising the Means, Standard deviations, variance value, minimum and maximum value of the variables are completely covered in this table. This table covers all the indicators related to this study based on the country wise indicators. The calculation of study is based on the value of ordinal score scale rather than ranks as our data as continuous data is way more sensitive than discreet data set. The total numbers of observations are 225 of 15 countries were involved through which the empirical estimations have been done in this study. Financial market development (FMD) is the dependent variable of study has an average mean of 4.3 and a standard deviation of 0.628, the minimum score is 3 and maximum score is 5.8. On the other hand, Transparency in government policies (TGP) regressor have a mean value 4.35 overall standard deviation is 0.78 minimum and maximum value engaged in study are 3.1 and 6.3. The average mean of effectiveness of antimonopoly policy (EAP) is 4.31, the minimum value of the profit is 3.1 and the maximum value is 6.3 in a total of 225 observations and the skewed value of this indicator in data set is 0.09 which tells us the data is positive and right account of distribution occur in this data set.

Macroeconomic stability (MES) which is another explanatory variable in the data with an average mean value is 5.03 whereas, minimum and maximum value of the Macroeconomic environment is 2.6 and 6.6 respectively as well as the degree of dispersion regarding standard deviation is 0.983. Additionally, the other control variable employed in the data set is market size (MSIZE) has an equal number of observation (i-e)225 mean value is 4.68, the standard deviation of the indicator is 1.144 the maximum and the minimum value is a 2.3 and 7. Whereas, the variable representing in the data such as trade openness also has 225 observations from the period 2006 to 2020 and the average value of this indicator in present data set is 7.29 maximum score is 16.9 minimum score is 0.

Gross domestic product is considered as a control variable indicator included in the model. The statistical description of the data tells us that the amount of this indicator is calculated in billion dollar and has an average mean value of 13462.4 with the degree of dispersion shows standard deviation of 16658.06, maximum value of this indicator recorded in a data set is 55494.9 and the minimum value of GDP in the data set is 6.9 which is noted as a great variation in the data. But it is also showing a positive relation distribution.

**Table 3 : Summary Statistics (Country Wise) Bangladesh**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	3.759778	0.3086542	3.1	4.2
TGP	15	3.622	0.1558937	3.4	3.9
EAP	15	3.612543	0.4873681	3	4.6
MES	15	4.63437	0.2640441	4.2	5
GCI	15	3.694667	0.1480283	3.5	4
GDP	15	1121.906	935.1973	141.3	4073.9
TRADEOP	15	13.24895	0.2507392	12.73	13.7
MSIZE	15	4.682849	1.144872	2.3	7

Construct of variable is given in above table, table 3 is prepared to calculate the average mean of Bangladesh the result shows that the performance of financial market development is 3.75 below than the overall average i-e 4.3, transparency in government practices is 3.62 below than the overall average which is 4.3, effectiveness of antimonopoly policies is 3.61 again below than the overall average that is 4.31 as well as macroeconomic stability is 4.6

which is also less than the overall average of data set i-e 5.06 that effect the growth of GDP, Trade openness increases i-e 13.2 than the overall average which is 7.29 whereas market size remain same.

**Table 4 : Summary Statistics China**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	4.387926	0.2583351	4.1	5.1
TGP	15	4.537556	0.0926289	4.4	4.8
EAP	15	4.298963	0.2261859	4	4.7
MES	15	6.101481	0.2166132	5.7	6.5
GCI	15	4.646667	0.3440653	4	5
GDP	15	5892.02	2315.162	2099.229	9608.4
TRADEOP	15	11.63884	0.8581191	11	14.2
MSIZE	15	6.460494	0.8265979	4.3	7

Table 4 shows that the average mean of china's financial market development (fmd) is 4.387 as same as the overall average i-e 4.3, transparency in government practices(tgp) is 4.53 above than the overall average which is 4.3, effectiveness of antimonopoly policies is 4.29 slightly below than the overall average that is 4.31, macroeconomic stability(mes) is 6.101 which is above than the overall average of data set i-e 5.06 that as well as the effect of GDP which is 5892.02 below than the average i-e 13462.46, Trade openness increases i-e 13.2 than the overall average which is 7.29 whereas market size also increases i-e 6.460 than the overall average which is 4.6828.

**Table 5 : Summary Statistics India**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	4.6735	0.353505	4.1	5.1
TGP	15	4.4244	0.27524	4	4.8
EAP	15	4.6736	0.232222	4.3	4.7
MES	15	4.3418	0.1485703	4.1	6.5
GCI	15	4.3153	0.1300476	4	5
GDP	15	1437.12	354.351	806.753	2036.2
TRADEOP	15	12.360	0.7883286	11	14.42
MSIZE	15	6.228	0.1640464	6	6.4

Table 5 shows that average mean of India's financial market development is 4.67 above then the overall average i-e 4.3, transparency in government practices is 4.42 above than the overall average which is 4.3, effectiveness of antimonopoly policies is 4.29 slightly below

than the overall average that is 4.31, macroeconomic stability is 6.101 which is above than the overall average of data set i-e 5.06 that as well as the effect of GDP which is 5892.02 below than the average i-e 13462.46, Trade openness increases i-e 13.2 than the overall average which is 7.29 whereas market size also increases i-e 6.460 than the overall average which is 4.6828.

**Table 6 : Summary Statistics Indonesia**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	4.329	0.353505	4.1	4.5
TGP	15	4.083	0.409565	3.2	4.7
EAP	15	4.511	0.349104	3.9	5.2
MES	15	5.3050	0.409404	4.5	5.8
GCI	15	4.464	0.236880	4	5
GDP	15	3094.322	750.207	1589.801	3875.8
TRADEOP	15	4.739	0.3915575	3.9	5.58
MSIZE	15	5.368	0.2765752	4.9	5.7

Table 6 shows that average mean of Indonesia's financial market development (fmd) that is 4.32 equivalent to the overall average i-e 4.3, transparency in government practices (tgp) which is 4.083 below than the overall average which is 4.3, effectiveness of antimonopoly policies (eap) is 4.5 above than the overall average that is 4.31, macroeconomic stability (mes) is 5.30 which is above than the overall average of data set i-e 5.06 as well as the effect of per capita GDP which is 3094.322 below than the average i-e 13462.46, Trade openness decreases to 4.739 than the overall average which is 7.29 whereas market size increases i-e 5.368 than the overall average which is 4.6828.

**Table 7 : Summary Statistics Japan**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	4.838	0.165523	4.6	5.2
TGP	15	5.288	0.316362	4.8	5.8
EAP	15	5.337	0.188708	5	5.7
MES	15	4.044	0.266844	3.6	4.5
GCI	15	5.427	0.2623375	4.8	6
GDP	15	39820.65	4004.264	32485.5	46736
TRADEOP	15	2.438	0.393522	1.9	3.3
MSIZE	15	6.0955	0.04691	6	6.2

Table 7 shows that average mean of Japan's financial market development (fmd) which is 4.838 extremely overhead then the overall average i-e 4.3, transparency in government practices (tgp) is 5.28 above than the overall average which is 4.3, effectiveness of antimonopoly policies (eap) is 5.33 highly above than the overall average that is 4.31, macroeconomic stability is 4.044 which is below than the overall average of data set i-e 5.06 that as well as the effect of GDP which is 39820.65 highly improved than the average i-e 13462.46, Trade openness decreases i-e 2.438 than the overall average which is 7.29 whereas market size increases i-e 6.09 than the overall average which is 4.6828.

**Table 8 : Summary Statistics Korea**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	4.143	0.3460718	3.6	4.9
TGP	15	3.852	0.6397257	3.1	5.3
EAP	15	4.684	0.3189261	4.3	5.2
MES	15	6.166	0.345574	5.5	6.6
GCI	15	5.066	0.1496026	4.9	5.4
GDP	15	24692.82	3545.244	19143.85	31345.6
TRADEOP	15	8.348099	0.8963229	6.8	9.9
MSIZE	15	5.497037	0.1608765	5	5.6

Table 8 shows that average mean of Korea's financial market development (fmd) is 4.14 below then the overall average i-e 4.3, transparency in government practices (tgp) is 3.852 below than the overall average which is 4.3, effectiveness of antimonopoly policies (eap) is 4.68 slightly below than the overall average that is 4.31, macroeconomic stability (mes) is 6.101 which is above than the overall average of data set i-e 5.06 that as well as the effect of GDP which is 5892.02 below than the average i-e 13462.46, Trade openness increases i-e 13.2 than the overall average which is 7.29 whereas market size also increases i-e 6.460 than the overall average which is 4.6828.

**Table 9 : Summary Statistics Kuwait**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	4.2702	0.31284	3.8	4.8
TGP	15	3.792	0.28657	3.5	4.5
EAP	15	3.530	0.48112	3.1	4.8
MES	15	6.343	0.29720	5.6	6.7

GCI	15	4.386	0.27481	3.7	4.7
GDP	15	39456.54	8556.873	26004.7	55494.9
TRADEOP	15	4.49407	0.3542027	4	5.33
MSIZE	15	4.00543	0.2367759	3.8	4.4

Table 9 shows that average mean of Kuwait financial market development (fmd) which is 4.27 above then the overall average i-e 4.3, transparency in government practices (tgp) that is 3.792 above than the overall average which is 4.3, effectiveness of antimonopoly policies (eap) is 3.53 slightly below than the overall average that is 4.31, macroeconomic stability (mes) is 6.34 which is above than the overall average of data set i-e 5.06 that as well as the effect of GDP which is 39456.5 above than the average i-e 13462.46, Trade openness declines i-e 4.49 than the overall average which is 7.29 whereas market size also decreases i-e 4.00 than the overall average which is 4.6828.

**Table 10 : Summary Statistics Malaysia**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	5.1412	0.5131	3.4	5.6
TGP	15	5.1544	0.1789	4.9	5.6
EAP	15	4.8047	0.34836	4.3	5.5
MES	15	5.2174	0.1579	5	5.4
GCI	15	5.048	0.1772	4.5	5.2
GDP	15	7819.266	3364.451	296.2	10941.7
TRADEOP	15	5.14527	0.5314679	4.5	6.2
MSIZE	15	4.5777	0.554013	2.8	5.1

Table 10 shows that the average mean of Malaysia financial market development (fmd) is 5.14 above then the overall average i-e 4.3, transparency in government practices (tgp) is 5.15 above than the overall average which is 4.3, effectiveness of antimonopoly policies (eap) is 4.80 highly above than the overall average that is 4.31, macroeconomic stability (mes) is 5.21 which is above than the overall average of data set i-e 5.06 as well as the effect of per capita GDP which is 7819.266 below than the average i-e 13462.46, Trade openness also decreases i-e 5.14 than the overall average which is 7.29 whereas market size is nearly equal i-e 4.577 than the overall average which is 4.6.



**Table 11 : Summary Statistics Oman**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	4.56395	0.2003498	4.2	4.8
TGP	15	4.90491	0.2860616	4.3	5.2
EAP	15	4.296494	0.4455712	3.6	4.9
MES	15	5.733654	0.6846613	4.5	6.6
GCI	15	4.41333	0.274816	4	5
GDP	15	19335.76	3448.116	14420.5	25289
TRADEOP	15	4.636543	0.407632	4.1	5.51
MSIZE	15	3.636543	0.2061004	3.4	4.1

Table 11 shows that average mean of Oman financial market development (fmd) is 4.56 above then the overall average i-e 4.3, transparency in government practices (tgp) is 4.90 above than the overall average which is 4.3, effectiveness of antimonopoly policies (eap) is 4.29 nearly equal than the overall average that is 4.31, macroeconomic stability (mes) is 5.73 which is above than the overall average of data set i-e 5.06 that as well as the effect of GDP which is 19335.76 above than the average i-e 13462.46, whereas Trade openness, market size decreases i-e 4.63, 3.636 than the overall average which is 7.29 and is 4.6828 .

**Table 12 : Summary Statistics Pakistan**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	3.963704	0.2610002	3.4	4.2
TGP	15	3.628593	0.1970673	3.3	4
EAP	15	3.829111	0.2184922	3.4	4.2
MES	15	3.652519	0.4066269	2.9	4.2
GCI	15	3.479333	0.2304798	3	3.8
GDP	15	1216.725	242.8914	836.8605	1555.4
TRADEOP	15	13.05593	4.220283	4.8	17.2
MSIZE	15	4.7507	0.1544398	4.5	5

Table 12 shows that average mean of Pakistan's financial market development (fmd), transparency in government practices (tgp) , effectiveness of antimonopoly policies (eap) and macroeconomic stability is 3.963, 3.62 , 3.82, 3.65 is below then the overall average i-e 4.3, 4.31, 4.31 and 5.06 as well as the effect of GDP which is 1216.7 below than the average i-e 13462.46, but Trade openness and market size increases i-e 13.05, 4.75 than the overall average which is 7.29 and 4.682.

**Table 13 : Summary Statistics Singapore**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	5.717037	0.1628595	5.4	5.9
TGP	15	6.225852	0.832216	6.1	6.3
EAP	15	5.421037	0.1367005	5.3	5.7
MES	15	5.83237	0.1437364	5.2	6.2
GCI	15	5.602667	0.0931563	5.4	5.7
GDP	15	49013.66	8405.785	33769.15	64041.4
TRADEOP	15	6.036666	1.0889355	4.5	6.3
MSIZE	15	4.627901	0.1437364	4.4	4.8

Table 13 shows that average mean of Singapore financial market development (fmd) is 5.71 highly above then the overall average i-e 4.3, transparency in government practices (tgp) is 6.22 above than the overall average which is 4.3, effectiveness of antimonopoly policies (eap) is 5.42 greatly above than the overall average that is 4.31, macroeconomic stability (mes) is 5.83 which is above than the overall average of data set i-e 5.06 as well as the effect of per capita GDP which is 49013.66 also above than the average i-e 13462.46, Trade openness below i-e 6.03 than the overall average which is 7.29 whereas market size nearly equal i-e 4.62 than the overall average which is 4.6828.

**Table 14 : Summary Statistics Srilanka**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	4.182222	0.2214192	3.8	4.5
TGP	15	3.913333	0.2690105	3.5	4.4
EAP	15	4.191111	0.2874261	3.5	4.7
MES	15	3.770593	0.4821759	2.8	4.3
GCI	15	4.070667	0.125554	3.8	4.2
GDP	15	2950.177	880.1866	1435.816	4084.6
TRADEOP	15	11.98314	3.066572	8.2	20
MSIZE	15	3.915802	0.2048809	3.6	4.2

Table 14 shows that average mean of Srilanka financial market development (fmd) is 4.18 below then the overall average i-e 4.3, transparency in government practices (tgp) is 3.91 below than the overall average which is 4.3, effectiveness of antimonopoly policies (eap) is 4.19 below than the overall average that is 4.31, macroeconomic stability is 3.77 which is above than the overall average of data set i-e 5.06 that as well as the effect of GDP which is 5892.02 below than the average i-e 13462.46, Trade openness increases i-e 13.2 than the

overall average which is 7.29 whereas market size also increases i-e 6.460 than the overall average which is 4.6828.

**Table 15 : Summary Statistics Tajikistan**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	3.385185	0.1946985	3	3.7
TGP	15	4.06837	0.3885887	3.5	4.6
EAP	15	3.766296	0.4265575	3.3	4.6
MES	15	3.882741	0.6383941	2.6	4.7
GCI	15	3.702	0.2752713	3.3	4.1
GDP	15	2950.177	880.1866	1435.816	4084.6
TRADEOP	15	6.089432	1.892963	3.5	12.37
MSIZE	15	2.573333	0.1795939	2.3	2.8

Table 15 shows that average mean of Tajikistan financial market development (fmd) is which is 3.385 below then the overall average that is 4.3, transparency in government practices (tgp) is 4.06 above than the overall average which is 4.3, effectiveness of antimonopoly policies (eap) is 3.76 as well below than the overall average that is 4.31, macroeconomic stability is 3.88 which is above than the overall average of data set i-e 5.06 as well as the outcome of GDP per capita which is 2950.177 below than the average i-e 13462.46, similarly Trade openness decreases that is 6.089 than the overall average which is 7.29 whereas market size also decrease that is 2.57 than the overall average which is 4.6828.

Table 2.14:

**Table 16 : Summary Statistics Thailand**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	4.546889	0.119433	4.4	4.8
TGP	15	4.140296	0.373226	3.7	4.9
EAP	15	4.18763	0.4952469	3.7	5.3
MES	15	5.638519	0.4233041	4.9	6.2
GCI	15	4.531333	0.1637885	4	4.7
GDP	15	4488.037	1924.997	395.3	7187.2
TRADEOP	15	7.134609	0.4768223	6.4	8
MSIZE	15	5.061914	0.1228075	4.9	5.2

Table 16 shows that average mean of Thailand financial market development (fmd) is 4.5 above then the overall average i-e 4.3, transparency in government practices (tgp) is 4.14

below than the overall average which is 4.3, effectiveness of antimonopoly policies (eap) is 4.18 to some extent below than the overall average that is 4.31, macroeconomic stability (mes) is 5.638 which is above than the overall average of data set i-e 5.06 that as well as the result of GDP per capita which is 4488.037 below than the average i-e 13462.46, Trade openness slightly decreases i-e 7.13 than the overall average which is 7.29 whereas market size increases i-e 5.06 than the overall average which is 4.6828.

**Table 17 : Summary Statistics Nepal**

Variables	Obs.	Mean	Std. Dev.	Min	Max
FMD	15	3.68963	0.2597811	2.8	3.9
TGP	15	3.717778	0.2409856	3.2	4
EAP	15	3.527111	0.3767422	3	4.4
MES	15	4.811111	0.421950	4.3	5.5
GCI	15	3.624444	0.2623056	3.3	4
GDP	15	869.7751	353.9617	391.3801	1675
TRADEOP	15	4.011111	1.974708	3.7	4.3
MSIZE	15	3.111852	0.3198453	2.8	3.9

Table 17 shows that average mean of Nepal financial market development is 3.68 below then the overall average i-e 4.3, transparency in government practices is 3.71 below than the overall average which is 4.3, effectiveness of antimonopoly policies is 3.52 also below than the overall average that is 4.31, macroeconomic stability is 4.811 which is correspondingly below than the overall average of data set i-e 5.06 that as well as GDP per capita which is 869.775 as well below than the overall average i-e 13462.46, Trade openness increases i-e 4.011 also below than the overall average which is 7.29 whereas market size also decreases 3.111 than the overall average which is 4.6828.

All of these comparing results shows that employed variable of the study are very closely linked with each other as if transparency in government policies combined with macroeconomic stability and effectiveness of antimonopoly policies are diminishes then it will miserably disturbs the development of financial sector vice versa also effect the GDP per capita growth, market size and trade openness.

### **3.11 Testing Stationary Problem (Estimation of Panel Unit Root)**

The study initially use panel unit root test developed by Levin, Lin, and Chu (2002). As after the publication of several papers by Levin and Lin and Chu the use of panel unit root has become very useful for empirical researcher. For testing stationarity of study's variable panel unit root test the study employed Levin lin chu LLC. Which shows null hypothesis ( $H_0$ ) is declaring that panel data contain unit root while alternative hypotheses ( $H_1$ ) suggest that the panel data set is stationary or having no effect of unit root. If the p value of data set is 0.05 or less than 0.05 the study can reject null hypotheses and accept alternative hypotheses.

### **3.12 Levin-Lin- Chu Unit-Root Test**

According to the probability value of Chi-square and t-statistic is 0.0002 which is way more less than 0.05. So, in that case the study will reject null hypotheses ( $H_0$ ) that there is no unit root in any variable of the data set and accept alternative hypotheses which shows that all variables are stationary in their level the panel data set is stationary.

Quantitative estimation of study is based on statistics of 15 countries and seven related variables i-e (Financial Development, Macroeconomic Stability Transparency in Government Policy, Effectiveness of Antimonopoly Policies, Gross Domestic Product, Trade Openness, and Market Size). The study applied a test to examine the average link between financial development and other explanatory variable such as transparency and effectiveness of antimonopoly policies the study utilizes data from 2006 to 2020 and the total number of observation are 225. Main objective of this study is to find out an appropriate model to estimate result. For this purpose the study shall apply LLC unit root Test to check stationary of data, afterwards will estimate pooled, fixed and random effect model. Hausman test and Bruesch and Pagan LM test to find out the right model.

**Table 18 : Estimation for Unit Root (Level)**

<i>Financial Market Development</i>	Statistic	p-value
Unadjusted t	-11.7355	
Adjusted t	-5.5968	0.0000
<i>Transparency In Government Policies</i>		
Unadjusted t	-15.1138	
Adjusted t	-6.9493	0.0000
<i>Effectiveness Of Antimonopoly Policies</i>		
Unadjusted t	-12.6412	
Adjusted t	-4.7490	0.0000
<i>Macroeconomic Stability</i>		
Unadjusted t	-9.9838	
Adjusted t	-3.6396	0.0001
<i>Gross Domestic Product</i>		
Unadjusted t	-8.2298	
Adjusted t	-1.3308	0.0916
<i>Trade Openness</i>		
Unadjusted t	-11.7832	
Adjusted t	-5.3097	0.0000
<i>Market Size</i>		
Unadjusted t	-5.8812	
Adjusted t	-0.8935	0.1858

(Source: *Global Competitiveness Report, 2005-2020*)

Note: Null Hypotheses  $H_0$ : Panels contain unit roots, Alternative hypotheses  $H_a$ : Panels are stationary.

### 3.13 Hausman Test

The purpose of estimating hausman test is to know which model is appropriate fixed or random. The results shows that the null hypotheses of Hausman test indicate that the random effect model is appropriate whereas it alternatively reject fixed effect model. The probability value of hausman test is less than 0.05 percent, which shows the model will accept null hypotheses and reject alternate hypotheses.

**Table 19 : Housman Test**

	Coefficients			
	(b)	(B)	(b-B)	Sq.rt (diag (V_b-V_B))
	F.E	R.E	Difference	S.E
TGP	0.03	0.16	-0.13	0.02
EAP	0.14	0.16	-0.02	0.0
ME	-0.04	0.00	-0.04	0.02

(Source: *Global Competitiveness Report, 2005-2020*)

Note: Chi Square (3) = 40.70, Prob>Chi 2= 0.0000,  $H_0$  = the null hypothesis for this test is Random Effect model is appropriate.  $H_1$  = The alternate hypothesis is Fixed Effect model is appropriate.

If probability value and the F - Statistic is statistically significant, then we shall reject null hypothesis and accept alternate hypothesis and use fixed effect otherwise random effect model. The result of F-Statistics of hausman test shows an insignificant result.

### **3.14 Breusch and Pagan Lagrangian Multiplier Test**

H0 = The null hypothesis for Breusch and Pagan Lagrangian Multiplier test is that the pooled regression model is appropriate as all error variances are equal.

H1 = The alternate hypothesis is that the random effect model is appropriate because the error variances are not equal.

If probability value is statistically significant, then we shall reject null hypothesis and accept alternate hypothesis and use random effect model. More specifically, as Y increases, the variances increase (or decrease) this is demonstrate or to check which regression model (Fixed effect and Random effect) is appropriate for which the study employ Hausman test. Result of Null hypotheses of Hausman test and Breusch and Pagan Lagrangian multiplier test both indicated that the random effect model is appropriate whereas it alternatively reject fixed effect model. If the probability value of Hausman test is equal or less than 0.05 percent then the model will reject null hypotheses and accept alternate hypotheses but if the value of probability is greater than 5% than the model will accept null hypotheses. Breusch and Pagan Lagrangian multiplier test for random effects has probability value is 0.0000 and chi (2) is 245.04.

### **3.15 Test for Estimating Serial Correlation**

When data set is showing results against economic theory then the study will compute test to check the serial correlation of variable. (H0) Null hypotheses of this estimation are that there is no serial correlation whether alternative hypothesis suggest that there is serial correlation. If the probability value of test is equal or less than 0.05 percent then the model will reject null

hypotheses and accept alternate hypotheses but if the value of probability is greater than 5% than the model will accept null hypotheses. The result shows probability value is 0.0000 so that the model will reject null hypothesis and accept alternative hypotheses which mean that this model has an issue of serial correlation.

**Table 20 : Estimates of Random Effect Regression Model**

Variable	Coefficient	Std. Devi	P- value
TGP	0.169	0.0661411	0.010
EAP	0.166	0.0623861	0.008
ME	0.0008	0.0427717	0.985

Simple regression shows that there is a positive and significant association ship between financial market development, due to transparency in government policies and anti-monopoly policies is positive and strong association, having p value 0.000 which is less than 0.005.

The results of the random effect model are shown above. The outcomes indicate that the independent variables show positive signs which indicates that these variables have positive and strong relationship with financial market development (FMD). Transparency in government policies (TGP) has a coefficient value 0.169 and probability value is 0.010 with that it is showing a direct and significant relationship with Financial Market Development (FMD), which means when one percent 1% increase in the transparency in government policies (TGP) it would lead to 0.169 percent progress will particularly measure in the development of financial sector (FMD).

Second variable which is Effectiveness of Antimonopoly Policies (EAP) its coefficient value is 0.166 and probability value is 0.008 which is less than 0.05 indicates a positive and significant association with financial market development (FMD), enlightening that when 1% percent rises in the effectiveness of antimonopoly policies (EAP) then the development of



financial market (FMD) will also raise by 0.166 percent. The third variable which is Macroeconomic Stability (MES) indicates direct linkage with financial market development (FMD) showing a coefficient value which is 0.0008, value of standard error is 0.042 and probability value is 0.985 this relationship is showing an positive but weak result. The probability value is greater than 5 percent. It means that when one percent increases in the Macroeconomic Stability (MES) will increase the 0.0008 percent of financial market development (FMD) but it has no impact on financial development.

The study here only articulated the estimation and result of explanatory variables that were showing significant results because it employed a general-to-specific approach, but the estimation of the regression model, including the control variable, has been stated in the appendix because they had constrained effects and their results affected the overall estimation and result.

### **3.15 Country Wise Regression**

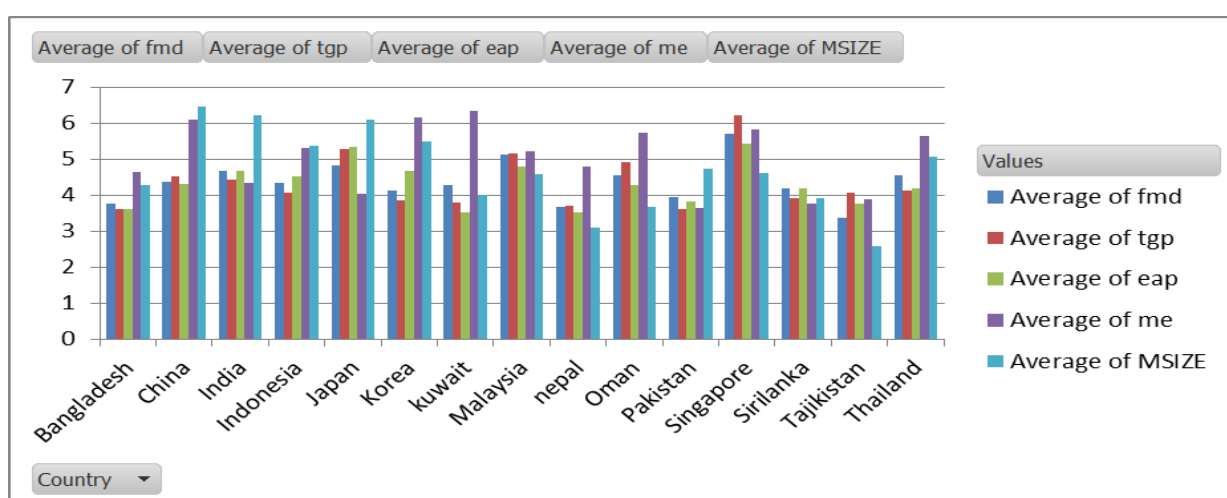
Comparing the scores country wise shows the divergences of both the level and growth rate of total efficiency enhancing element for the 15 countries between 2005 and 2020, by employing both microeconomic and macroeconomic elements it is observe that approximately 80 per cent of the estimated data high lighten to make an effort to improve transparency practice to enhance the widespread presentation of whole fiscal sector.

From above equation, for entity i-e country represented by i, n represents number of observations over time t. furthermore, the random effects regression model (RE) is appropriate in estimating coefficients if the above assumptions are not completed (Baltagi, 2005). Using random effect model is quite prominent when there is a need to measure an unobserved effect which is uncorrelated with all the explanatory variables. If there is a upright controls in equation, then it's been consider that any leftover observation will neglected heterogeneity only induces serial correlation in term of the complex error term, but

it does not cause correlation between the composite errors and the explanatory variables. Estimation of random effects models by generalized least squares is fairly easy and is routinely done by many econometrics packages. First we discuss summary statistic then proceed with countrywise regression.

**Table 21 : Summary Statistics (Country Wise Comparison)**

Country	FMD	TGP	EAP	MES	GCI	GDP	TRADE OP	MSIZE
<i>Overall averages</i>	4.3	4.3	4.3	5.0	4.4	13462.6	7.2	4.6
Comparison								
BANGLADESH	3.7	3.6	3.6	4.6	3.6	1121.9	13.2	4.2
CHINA	4.3	4.5	4.2	6.1	4.6	5892.02	11.6	6.4
INDIA	4.6	4.4	4.6	4.3	4.3	1437.12	12.36	6.2
INDONESIA	4.3	4.0	4.5	5.3	4.4	3094.322	4.7	5.3
JAPAN	4.8	5.2	5.3	4.0	5.4	39820.65	2.4	6.0
KOREA	4.1	3.8	4.6	6.1	5.0	24692.82	8.3	5.4
KUWAIT	4.2	3.7	3.5	6.3	4.3	39456.54	4.4	4.0
MALYSIA	5.1	5.1	4.8	5.2	5.0	7819.266	5.1	4.5
OMAN	4.5	4.9	4.2	5.7	4.4	19335.76	4.6	3.6
PAKISTAN	3.9	3.6	3.8	3.6	3.4	1216.725	13.0	4.7
SINGAPORE	5.7	6.2	5.4	5.8	5.6	49013.66	6.03	4.6
SRILANKA	4.1	3.9	4.1	3.7	4.0	2950.177	11.9	3.9
TAJIKISTAN	3.3	4.0	3.7	3.8	3.7	2950.177	6.0	2.5
THAILAND	4.5	4.1	4.1	5.6	4.5	4488.037	7.1	5.0
NEPAL	3.6	3.7	3.5	4.8	3.6	869.7751	4.0	3.1



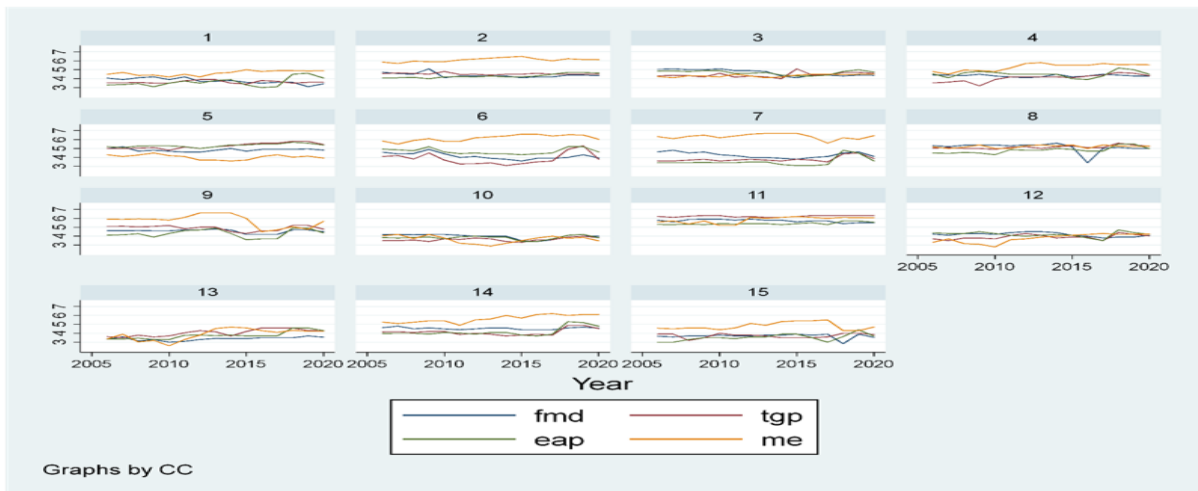
(Source: Global Competitiveness Report, 2006-2020)

Notes: Based on a constant sample. Blue bars represents the performance of financial market development, red bars show the average of transparency in government practices, green bars represents value of effectiveness of antimonopoly policies, purple bars represents presentation of macroeconomic stability of relative state, where as lighter blue bars highlighted the overall market size.

**Figure 5 : Country wise Comparison**

According to figure 5 that shows the average score for financial market development is 3.3, with Tajikistan showing the lowest score while Singapore showing the highest score.

Additionally, China shows linear relationship between transparencies in public dealing,



(Source: Global Competitiveness Report, 2006-2020)

Note: Figure 6 shows the graphic presentation of results showing conjoint association of major indicator also showing that most of Asian states improve their financial system

**Figure 6 : Yearly Comparison of Asian Countries**

Effectiveness of antimonopoly with financial market development, also indicate strong bond between macroeconomic stability and market size. Kuwait and Korea shows the improved macroeconomic stability considering South Korea is the state where Corruption is moderate compared to most countries in the Asia-Pacific. And according to Transparency International's 2021 Corruption Perceptions Index scored South Korea at 54 on a scale between 0 (very corrupt) and 100 (least corrupt), Pakistan, Srilanka and Tajikistan shows the most unstable macroeconomic environment and weak or moderate demonstration of other variable . Among these the Global Competitiveness Report ranks Singapore, Malaysia and Japan as having the most stable positive and successful anti-monopoly regulations and Singapore as having the most transparent government policies, with Bangladesh, Nepal and Pakistan having the lowest rankings for both. Similarly showing a positive but weak association of transparency in government practices and antimonopoly policies which will

affect the performance of financial development which is relevantly below than the overall average.

Whereas China, India, Indonesia shows a moderate association among transparency in government policies, effectiveness of anti-monopoly policies combine with macroeconomic stability, whereas Malaysia, Kuwait, Oman, Singapore and Thailand shows a magnificent performance as well strong association of transparency in government policies result in outstanding appearance of financial sector among estimated sample as well as the showing outstanding presentation of market size, though Pakistan, Srilanka, India still needs to work more toward improving the levels of openness which will make society more alert and active in assessing the accuracy of government accountability, which encourages governments to be more effective and efficient

**Table 22 : Country Wise Regression (Random Effect Model)**

Financial development (FMD)	Coef.	Std Err	Z	p> z	[95% conf. interval]	
Transparency In Government Policy (TGP)	0.2121266	0.0617377	3.44	0.001	0.09	0.333
Effectiveness Of Antimonopoly Policies (EAP)	0.2732239	0.0666202	4.10	0.000	0.14	0.403
Macroeconomic Stability (ME)	0.0624763	0.0433374	1.44	0.149	-0.02	0.147
<b>Country</b>						
China	0.1547	0.11	1.35	0.10	-0.069	0.37
India	0.4719	0.11	4.23	0.00	0.2531	0.69
Indonesia	0.1842	0.100	1.83	0.06	-0.013	0.38
Japan	0.2909	0.160	1.81	0.07	-0.023	0.60
Korea	-0.0538	0.11	-0.45	0.62	-0.287	0.18
Kuwait	0.3900	0.109	3.56	0.00	0.1753	0.60
Malaysia	0.6942	0.13	5.25	0.00	0.0435	0.953
Nepal	0.2764	0.11	2.34	0.01	0.445	0.50
Oman	0.2046	0.09	2.22	0.02	0.02	0.38
Pakistan	0.8359	0.19	4.38	0.00	0.461	1.21
Singapore	0.2565	0.09	2.61	0.00	0.0638	0.4
Srilanka	-0.464	0.09	-5.08	0.00	-0.6435	-0.28
Tajikistan	0.4573	0.09	4.69	0.00	0.26629	0.64
Thailand	-0.0781	0.08	-0.97	0.33	-0.2363	0.08
_cons	1.95	0.31	6.15	0.000	1.333	2.58084

Table 20 design to estimate and report country wise assessment of variable which shows that Bangladesh has the coefficient value of transparency, effectiveness of antimonopoly policies and macroeconomic stability (0.2121, 0.2732 ,0.0624) and a probability value (i-e 0.001, 0.000 ,0.149) which indicates that transparency and effectiveness of antimonopoly policies has a positive and linear association of explanatory variable with financial market development but probability of macroeconomic stability is exceeding the range which 0.005 indicate weak correlation with financial market development with the coefficient value of 0.0624 show less linear which mean having no or weak effect on financial development. China has a probability value 0.10 in comparison to the result of Bangladesh financial market development.

India is showing a positive and linear association having coefficient value 0.47 and p value 0.000. Indonesia is indicating positive but weak relation having a coefficient 0.18 and p value 0.06 which is more than 0.05, japan is also indicating positive result with coefficient value 0.2909 and p value 0.07, Korea has negative relationship having coefficient value -0.0538, standard error 0.11, p value 0.62 , Kuwait has positive and linear results having 0.39, standard error 0.109, p value 0.00 Malaysia, has coefficient value 0.69 showing linear and strong association among variables, standard error 0.13 and p-value has 0.00, Nepal has coefficient value 0.27, standard error is 0.11 and p-value is 0.01, Oman has coefficient value 0.2046, standard error is 0.09 and p-value is 0.02

Pakistan has coefficient value 0.8359, standard error is 0.19, and p value is 0.00 which is linear and positive relation, Singapore has coefficient value is 0.2565, standard error is 0.09, and p-value is 0.00, Srilanka has coefficient value -0.464, standard error 0.09 and p-value is 0.00 and Tajikistan shows positive and strong relation among financial market development (fmd) and other independent variable , Thailand has coefficient value -0.0781, standard error 0.08 and p-value is 0.33 are showing overall positive and significant results.

## **CHAPTER 4**

### **QUALITATIVE ANALYSIS**

Initially, the SECP has an authority of capital market and corporate sector regulation. The supervision and regulation of informal financial sector such as insurance businesses, non-banking finance companies, and private pensions have all been added to its mandate throughout time. Various external service providers to the corporate and financial sectors, such as chartered accountants, credit rating agencies, corporate secretaries, brokers, surveyors, etc., are also under the SECP's supervision.

#### **4.1 Interview Conducted from Security Exchange Commission of Pakistan**

According to Mr. M Jehangir to measure financial development there are different indicators such as size of financial sector, usage of formal financial services (financial inclusion), robustness of financial system, efficiency of fulfilling the requirement of different segments in economy (financing, capital formation) etc., footing of financial services through different banks and NBFCs which mean they are sufficiently funded, and they have an ability to convert the saving of household into profitable investment channels. Financial sector is generally playing a role of backbone to the economy as it will act as a robust system where it cover all the changes occur in any industry, corporate sector or even in an economy due to the different shock and crisis such as pandemics. Mainly financial institutions are facing two types of risks i) foreseeable risk ii) unforeseeable risk.

For stable fiscal growth and balanced economic stability is compulsory as it provide a supportive role to overall economy as well as provide better channel for persuading investment, which will improve the life style of people. This will improve human development index primarily introduce by Dr. Mehbub Ul Haq known as an economist, who created the idea of human development index in 1970s, while working for the World Bank, and later as

Pakistan's minister of finance, Dr. Haq made the case that the actual goal of development—improving people's lives.

Financial sector is the division of economy divided into different segments the risk averse part work as banking sectors, and the risk takers known as capital markets and non-banking sector (investment bank) etc. each segment has its own unique requirement as well as specific duty to perform and to fulfill such requirement there exist several institution but to enhance financial services emerging markets will always yearn for more institutes or instrument in order to localize more financial services to its general public. Macroeconomic stability will help to fulfill the predefined requirement of financial instruments so it wouldn't be wrong if we say that above all economic stability will definitely and directly affect financial development.

On asking about transparency in government policies?

He respond that transparency is basically a matter of disclosure of accurate facts and figure there are two major sectors of economy that are closely related regarding financial development

- Government (public) sector
- Financial (private) sector

Transparency is a process to control corruption; with the help of proper disclosure of information to its customers there are two types of transaction

- Overt transaction,
- Covert transaction

Overt transaction are consider more efficient as compare to the covert system. As in open environment there are more chance for people to show their interest as they can have proper information about investing projects, which will motivate them and create additional public involvement. Availability of required information will also help in controlling corruption which will create opportunities for businesses. Such as ease for new entry for innovative small businesses. Whereas, the covert system strictly restrict innovation as well as there are more

chances for corruption to confront and affect overall economy this generally belong to government sector.

But for private sectors fiscal transparency was primarily discuss how to lessen possible chances for corruption. By increasing the value of disclosed information explained as the predefined responsibility of managers to provide informative set of decision to benefit there clientele the consequent of better government policies will improves government as well as private sector effectiveness and spending efficiency. Due to this there were more public investment, creating more funding project which will increase the level of employment reduce poverty which can ultimately help to improve human development index (HDI).

Transparency in government policies is usually consider as the disclosure requirements, and control mechanism such as whenever security exchange introduce any new regulation they will conduct a regular follow up as well as do a proper public consultation. It simply means that whatever the required information regarding to such transaction must be on an arm Length (fair bases) nobody will get excessive benefits, disclosure must be done in accordance to law. Transparency in government policies has a long run affect while antimonopoly shows a shot run effect on the development of fiscal sector. As it has a long run effect on overall fiscal growth as it begins after the revelation of information to people those who willing to do investment on a particular future project this will obviously take 3-5 years for mission accomplishment meanwhile it will convey phenomenal positive change in people's perception and as well help to improve their thinking and behavior regarding financial institute and activities. Transparency and corruption control practices they are very lengthy and severe process they can't be change overnight or they don't even have any short run effect. In country wise context they are seriously time consuming process. Transparent dealing, public private ownership, innovation, competition, technological infrastructure and financial stability will improve the economic situation as well institutional size.



The results of distinct studies indicate that financial institutions are less in number in countries having higher rate of inflation. Stable macroeconomic environment is the key factors for institutionalization.

The process of efficient allocation of financial resources among competing investment option will not only help domestic financial institutions to increase their profit but also provide a better 'learning competitive platform' with the expansion of foreign financial institutions. Mostly the government of developing countries will eventually feel pressure to initiate financial sector reform for the benefit of domestic financial institutions as well as for economic growth and development as competition among domestic and foreign financial institutions increases. This is because domestic financial institutions are unable to compete with foreign banking institutions. Due to their experience of using advance practises of financial systems, best practises, well-maintained financial infrastructure, and domestic financial institutions find it difficult to compete with them. Additionally, it demonstrates the necessity for domestic financial institutions to create a financial system that will develop a financial infrastructure that will lead to financial development. An increase in the financial services sector may contribute to financial development directly by raising demand for financial services, or indirectly by stimulating economic activity.

Monopoly and monopsony has an effective touch for a shorter period of time it can be good and useful for a shorter period of time as if any new industry start to bound its operation for a shorter period of time then it will act as a growth sponsor to that specific industry such as Pakistan Railway, PTCL, State Bank but when we talk about monopoly for long run or for an indefinite period of time it will restrict innovation, hinder regulation of policies and suffocate market freedom.

#### **4.2 Interview Conducted from Competition Commission of Pakistan (CCP)**

According to Ms. Maria Human Resource Director, The Competition Commission of Pakistan (CCP) is an autonomous quasi - judicial, quasi - regulatory organization works under ministry of finance to maintain fair competition among different business sector for the sake of the growth of national economy. The Competition Commission of Pakistan (CCP) deals with the law against monopolies known as the Monopolies and Restrictive Trade Practices (Control and Prevention) Ordinance (MRTPO) existed in Pakistan since 1970 earlier to the Competition Ordinance, 2007. Competition commission usually works across different business sectors in order to provide a healthy check and balance among market players. It dealt to look after the issue of regulation, merger and accusation, cartelization, commodities prices etc.

Competition is an important element for the functioning of markets as it helps in spur investment, enhance innovation, as well as increases productivity in overall economy likewise it will also help and provide a different variety of quality product and services at cheaper rate. It will also provide economic growth at aggregate level to curb poverty and inequality. Monopoly is the opposite of competition; basically it will generate a kind of market where single producers is responsible to supply a particular commodity with having no possible chance of any new firm existence. The total supply in this way is concentrated with only one producer. The monopolist has no rivals in the market. Monopolist set the price policy which wouldn't be influence by anyone monopoly and monopsony usually destroy the freedom of markets, hinders innovation and led financial sector toward instability. Anti-monopoly policies provide fair chances to improve HDI, telecommunication, inspire innovation, instigate technological advancement whereas the agenda of monopolist market is only to maximize profit as there is no alternative available that there is no competition relay.

The Competition Commission Pakistan also works to resolve cartel prohibition of an unfair business practices, it will also help in to boost the specific kinds of anti-competitive

agreements, and exploitation of a dominating market position. Additionally, it examines business transactions that can significantly reduce the competition as well as aims to encourage intentional compliance and foster a "competitive culture" in the economy through its encouraging effort and supporting policies. A stable macroeconomic environment is crucial to fostering the expansion of financial markets by reducing interest and currency volatility. In order to increase the confidence of industries' and stakeholders' as well as their trust in the financial markets, more information about government policies should be provided to them. Stereotypically in developing nation's awareness about government policies are vague because of that the public's understanding of transparent system which is clearly not well-established, which makes them worry to promote and participate a less lively in the development of financial sector. Thus, to improve the current state of the macroeconomic environment, transparency in government dealing is required.

To increase macroeconomic stability and improve financial progress, governments in emerging nations must be more transparent. Last but not the least, only in the short run the interaction of effective anti-monopoly regulations and macroeconomic stability benefit the development of the financial markets. However, the long-term coefficient is smaller, and have a positive effect gradually diminishes over time. The estimations support the conventional market perspective that greater competition promotes more macroeconomic stability in the short run to enhance financial markets and institutions. Even with the fact that developing nations might use anti-monopoly laws to develop their financial markets by reducing bureaucratic power and corruption, industrialized nations should adopt a more advanced and effective anti-monopoly regulations to address the issue of adverse selection or asymmetric information.

## **CHAPTER 5**

### **CONCLUSION**

Financial markets development is a key factor for both economic expansion as well as for sustainable development. It promotes economic growth through capital accumulation encourages and manage foreign capital inflows, providing information about investment before capital allocation, increases the savings and investment rate, by mobilizing and pooling savings, as well as improving technological progress. The study mainly aims to examine the development of financial market within effect of transparency in government policies and the effectiveness of antimonopoly policies in the context of competitiveness growth of ASIAN countries. For this purpose, the study employs random effect regression model to analyze the panel data set of 15 Asian countries i-e (Bangladesh, China, India, Indonesia, Japan, Korea, Kuwait, Malaysia, Nepal, Oman, Pakistan, Srilanka, Singapore, Thailand, and Tajikistan) for the period of (2005–2020). The data is normally distributed but the study usually tested for the Stationarity, serial correlation, heteroskedasticity and endogeneity. The results of regression shows that the explanatory variables of the study are showing positive signs which mean that these variables have positive but strong relationship with financial market development. If transparency in government dealing exist, providing fair access to information through complete documentation required then the issue of speculation will might be resolved. By providing better disclosure requirement will also help economy to improve the investment mechanism of country. Effective antimonopoly laws incorporated with transparency of government policies and macroeconomic stability along with other explanatory variables are examined. The results shows that the transparent government policies strengthen the link between macroeconomic stability and the financial market development in the long term. Effective anti-monopoly policies along with macroeconomic stability has a positive but weak effect on financial market development. The estimations support regular market assumption

that the greater competition will promote macroeconomic stability to enhance the performance of financial markets and institutions in the short run. As a closing point of conclusion, there is no exact empirical support for the relationship between GDP and market size in the short- and long-term. So that the findings, indicate that trade openness has an effect on the long-term growth of financial markets. Trade openness increases the need for external financing and financial depth, which, in the long run, accelerates the process of financial market development.

### **5.1 Policy Recommendation for Financial Development (Pakistan Specific)**

The reform supports financial system to remove market distortions that impede free market conditions (Eatwell, 1996; Mavrotas and Kelly, 2001). McKinnon (1973) and Shaw (1973) argued that financial deepening is an essential ingredient to the process of capital accumulation, which in turn enhances economic growth through savings and investment. Without inclusive financial institutions, low-income individuals and small businesses are forced to depend solely on their own little income and savings to pay for their education, start their own businesses, or to take the advantage of promising growth opportunities.

Pakistan's economy has been on an unsustainable downward trajectory since for some time. The main origins of the unmanageable economic growth are high inflation, a mounting fiscal deficit, increasing foreign debt, weak foreign demand for Pakistani goods, unfavorable physical and climatic conditions, political chaos, as well as other factors that worsen the overall situation of the country. The country needs to implement financial sector reforms to strengthen the banking system and promote stability, financial reforms aimed to increase the transparency and accountability of government institutions. Since financial sector policies promote competition, give people proper rights, as well as help them to overcome the access barriers.

To attain fair Fiscal reform country need to focus on fiscal austerity measures, such as reducing government spending and increasing revenue through tax reforms, as well structural / institutional reforms which aimed at improving the efficiency of the economy, such as deregulation and privatizing state-owned enterprises. Also need to provide better financial assistance regarding saving, and fund as well the management of foreign investment.

Strengthening the fiscal position with permanent revenue measures, will reduces the fiscal deficit, also be improved by both cutting expenditures and increasing revenue. To save government spending, the government should consider reducing or rationalizing subsidies in different sectors (energy, agriculture and food). Reform in fiscal policies are aimed at improving the efficiency of the economy but due to lack of political control and weakness in institutions obstruct the executions.

This is not just a case of any single industry or sector but this issue have arisen all around the globe so the demands of anti-monopolistic environment is perceived by some big businesses or cartels. Anti-monopoly policies are used to promote free competition among different markets, boost confidence in industrial environment and allow open market competition. As per recent calculation four out of top ten worlds developed economies are (UAE, Taiwan, Hong Kong, Singapore) three of them are highly reputed Asian states, which were far from great economic power for last 40 years improve their rank via managing their overall indicators.

Influential monopolies control lobbies, through which it tries to impede government policies, disturb competition and policy regulation. Monopoly for a shorter period of time help industries to grow but with the extensive passage of time it will start to suffocate industries or restrict them to grow and because of this no industry can raise under such restriction.

Monopoly reduce production, waste resources and charges excessively as well as bound innovation.

Transparency helps in achieving several purposes such as: promote fair competition, alleviate poverty, enhance economic growth, ease in trading, helps in better allocation of resources, mobilize saving, facilitate the exchange of goods & services and maintaining trust in government policy. Transparency does not only promote financial depth, but also promote institutional quality and enhances more lending or credit base activities. Government transparency simplifies the link between macroeconomic stability and financial market development in the long-run only. The degree of information accessibility for businesses regarding changes to government regulations and guidelines is used to measure how transparent government policies are.

Problem arises when access to related government policies and practices were not delivered to the general public, this will undermines the idea of free competition because the general public were unable to understand those critical policy and reforms that were constructed to address new proposal, this will also affect the scrutinize accuracy of policy and also undermine the trust in government policy. Institutional quality based on leaders' perception which is persistently low or declining, government has the legal authority to keep secret or disclose more information regarding to its related policies and practices. A well-regulated financial sector provides refined financial services, which in return improves economic growth, while less developed financial sector may restrict the economy from growing. However, stable macroeconomic surroundings and transpicuous government policies are way too important to maintain the consistency of financial systems.

### Key findings of study:

- The continuous improvement of financial transaction services carried out due to the ongoing development of the financial institution, intermediaries and market, results in leading more productive businesses and cost-effective investment choices.
- Institutional quality plays a vital role in enhancing the fiscal development of an economy. Result shows that institutional quality is predictable to play a propelling role in the development of financial sector in an economy.
- For well-regulated financial systems financial sector need to ensure confidence of their customers and to channel savings into the most productive investments instead of high-risk projects. In this regard, institutions play a significant role through effective prudential regulations and supervision of financial intermediaries, and by enforcing contracts.
- The process of efficient allocation of financial resources among competing investment opportunities will not only help domestic financial institutions to increase their profit but also provide a 'learning competitive platform' with the growth of foreign financial institutions.
- To improve the profit of business ventures' and protect their investors from political interference, the financial institutions need to be more efficient, open, and transparent. However, moral hazard and adverse selection hinder the sustainability of financial system.
- Macroeconomic stability is compulsory for market development and financial stability. As it can encourages financial development by reducing the sensitivity of external shocks as well promoting firm output growth, relatively (Vasylieva *et al.*, 2018). Government transparency helps to generate a stable relationship between macroeconomic stability and the development of the financial markets in Long-term.



- Competition regulation and policy have become more dynamic in transforming economies. Due to privatization strategies, there is always a risk of replacing state monopolies in to private ones which will motivate large number of firms to initiate innovative projects, provides a wider range of goods and a better quality of products and services.
- Competition among financial institutions will boost the accessibility of financial services, lower the cost of financing, and allow credit to be extended for transactions. A certain amount of competition encourages increased banking efficiency and financial stability; but, as complexity and size rise, fragility and inefficiency may appear.
- Policy maker needs to prioritize macro-economic stability as it will help to reduce the negative effects of financial as well as economic crises.
- Stable macroeconomic environment demands for effective government policies and high-level institutions, which might help to dig out financial markets to regulate foreign direct investment, innovation, and human capitals.
- Transparent government behavior are needed and way to much essential to improve financial institutional environment. The results were claimed that the relationship between government transparency and financial market development is strong and positive
- Disclosure requirement in government regulation and policies can facilitate investors in decision-making process and promote financial liberalization. Transparent regulatory changes can reduce the underpricing of securities and investments, which will promote financial market development.
- Evidence from empirical result demonstrates that disclosure requirement improve government accountability, reduces misallocation of resource, stimulates economic

growth, curb corruption, increases market stability, as well as improves fiscal performance.

- Restrict cartelists to initiate their consents such as price fixing, bid rigging, and manipulate price, quality and other several conditions controlling the market freedom.
- According to moral hazard theories, it can be stated that rates charged by banks with competitiveness and stable market powers may encourage entrepreneurs to take more risks and invest more.
- Trade openness has a long-term growth effect on the development of financial markets. As it will help and increase the need for external financing and financial depth, which, in the long run, accelerates the process of financial market development.
- The execution of financial markets regulation has to be done by government as they have the official right to enhance productivity and economic development.

## **5.2 Future Research Gap /Recommendation:**

The issue is that the study currently holds a self-fulfilling narrative that the government's primary purpose is to correct market failures or de-risk, the risk-takers in places like Silicon Valley etc. If this is so, then how can a study possibly expect new investors to operate either as risk-takers or hazard itself? Therefore, it is the responsibility of policymakers to think creatively and consider the state as an investor of first resort rather than a lender of last resort, it is completely dependent on government policies that how would it allow its investors to act as a participant in risk-taking situations or being a risk avoider, or perform more than just a mender of market failure. Policy makers need to understand what an investor needs, and what they expect in terms of relationship with people, work and as well as in terms of documentation they should consider the state as a co-creator / co-shaper of innovative market value. Once a nation starts to rely on competition it will certainly start to get more holistic opportunities which will urge a stable fiscal sector and generate more employment

possibility. This description is more conventional and exciting to motivate to work under transparent government policies where a state needs to adopt a new economic system whether it is (radical/ hybrid) where any state without any restrictions reimagine itself as an innovative investors and also create different type of public private partnership with strong conditionalities so the financial intermediaries don't need grants and subsidies in order to survive and promote economic growth.

The study has following research gap and limitation left for future studies to be conducted on:

- This study is based on Asian countries but the horizon of study can be changed or drawn beyond this, it can be estimated on international level or can compare according to high, middle and low income state world widely.
- Number of variable can be change or added or erased in terms of testifying the effect of variable affecting the progression of fiscal sector
- The empirical estimation done in this study is only related to designate 15 Asian states. The idea here is to explore the productivity of fiscal sector due to transparent government policy and effectiveness of antimonopoly policies in times of globalization

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## **APPENDIX A:**

### **QUESTIONNAIRE:**

Q1. Why do large proportions of the populations in many developing countries are not using financial services? What are the strategies performed by the government or by security exchange commission for public awareness?

Q2. Why financial development is important?

Q3. How financial development increase / prevent economic growth?

Q4. Are countries really making efforts to enhance fiscal transparency?

Q5. Do countries with higher fiscal transparency also present increased government effectiveness and higher levels of government spending efficiency?

Q6. Does development of financial sector promote economic growth or does economic development foster financial sector development?

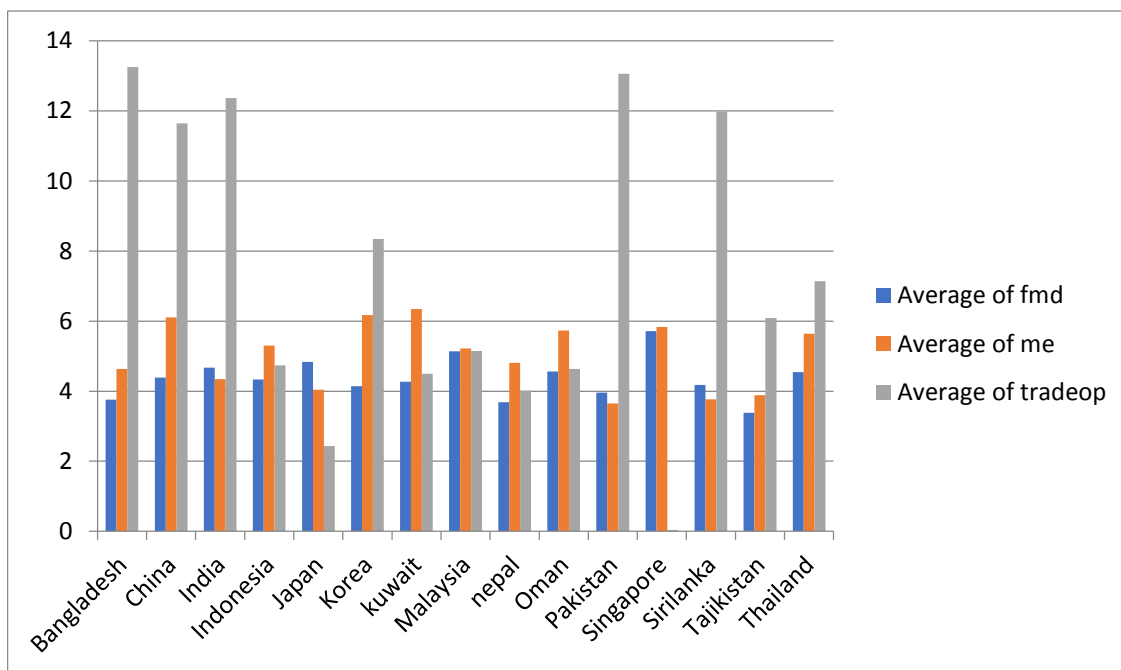
Q7. Does transparency decrease the expectation bias in money markets? If so the bias reducing influence linear or non-linear?

Q8. Are the subcategories of transparency (political, economic procedural, policy and operational) particularly important for the formation of expectation?

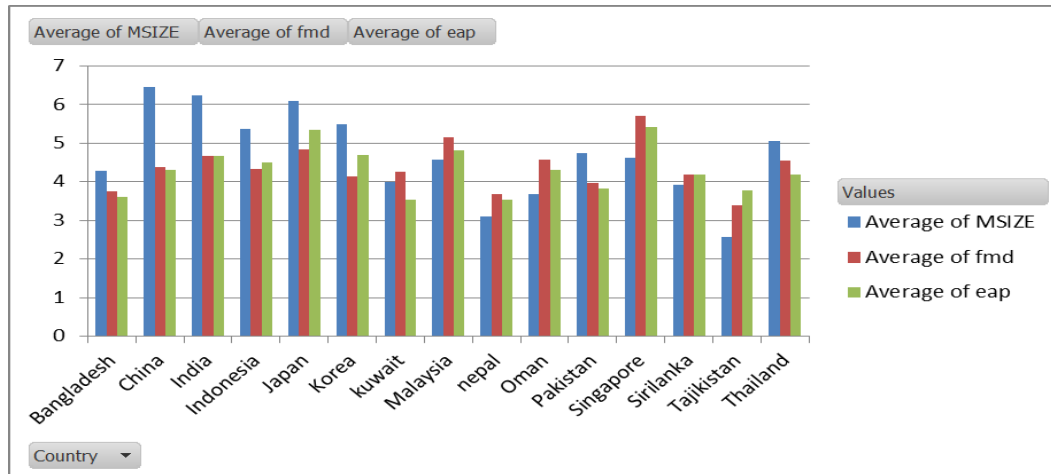
Q9. What Aspects of Financial Development Matter for Access?

Q10. Growth is fostered by efficient financial institutions, but do financial reforms assist economy as a whole also benefit impoverished households fairly?

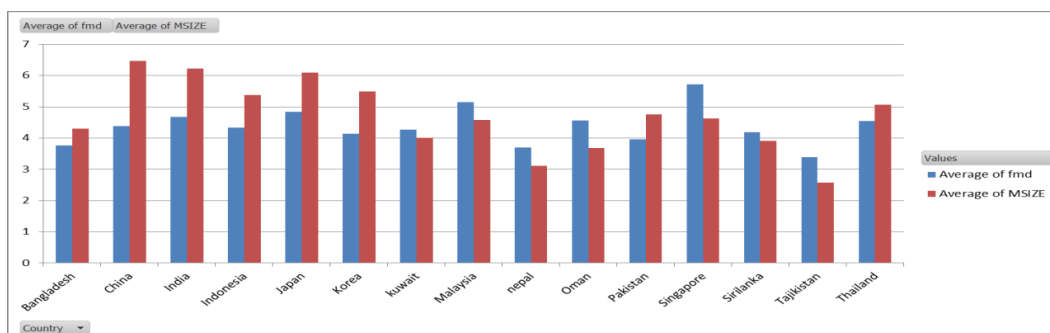
## APPENDIX B



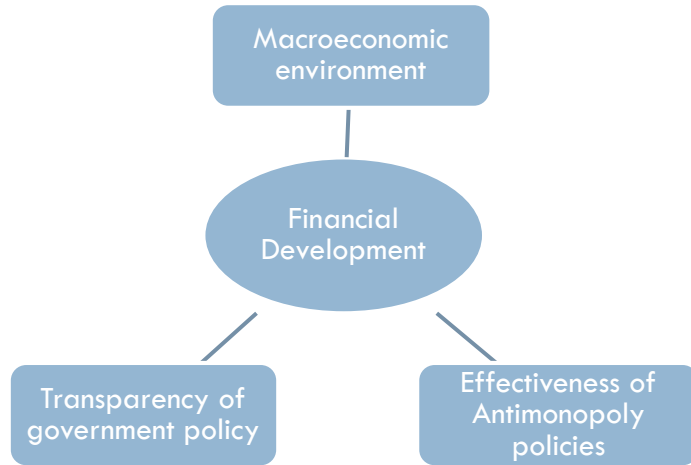
**Figure 7 : Influence of Macroeconomic Stability and Trade Openness on Financial Development**



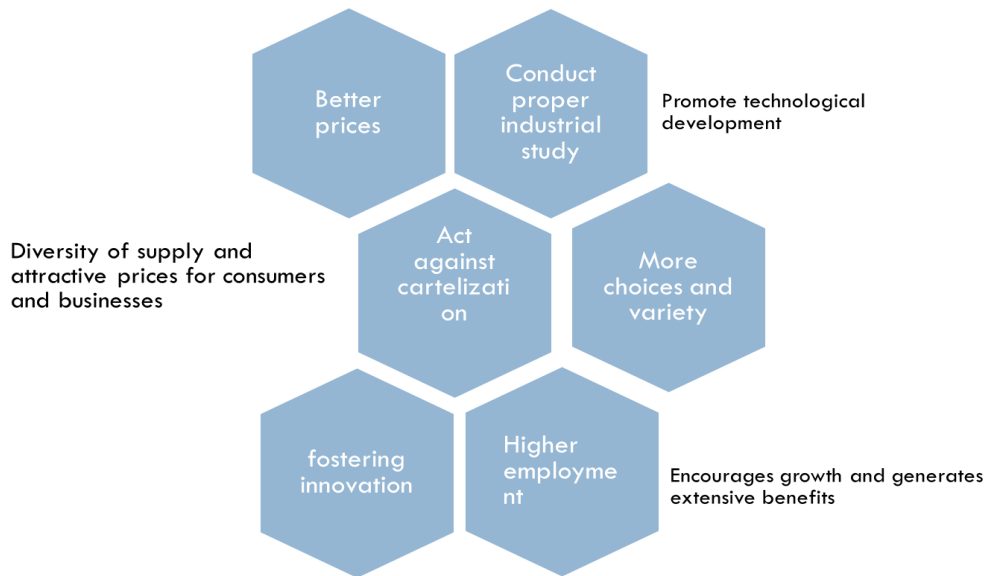
**Figure 8 : Effect of Anti-Monopoly Policies on Financial Development**



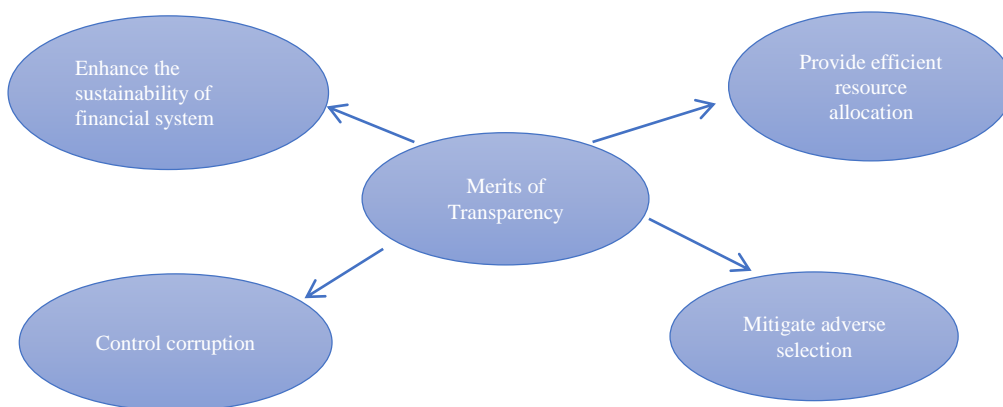
**Figure 9 : Financial Development V/S Market Size**



**Figure 10 : Conceptual Framework**



**Figure 11 : Benefits of Competition**



**Figure 12 : Merits of Transparency**

**Table 23 : Summary Statistics (Overall Comparison)**

Variables	Obs.	Mean	Std. Dev.	Min	Max	Variance	Skew.	Kurt.
FMD	225	4.3	0.6284638	3	5.8666	.3949667	0.3451727	2.943795
TGP	225	4.357019	0.7823431	3.1	6.3	.6120608	0.8341948	3.008057
EAP	225	4.311477	0.6776385	3	5.6	.459194	0.0945202	2.154778
MES	225	5.03175	0.9833286	2.6	6.6	.9669351	-0.1852783	2.074947
GCI	225	4.431585	0.6683278	3	5.7	.446662	.1489509	2.195354
GDP	225	13462.46	16658.06	6.9	55494.9	2.77e+08	1.202723	3.122014
TRADEOP	225	7.290702	4.351373	3	16.9	18.93445	0.4360987	2.406734
MSIZE	225	4.682849	1.144872	2.3	7	1.310732	-0.0430756	2.394203

**Table 24 : Summary Statistics (Country Wise Comparison)**

Country	FMD	TGP	EAP	MES	GCI	GDP	TRADE OP	MSIZE
<i>Overall averages</i>	4.3	4.357019	4.311477	5.03175	4.431585	13462.46	7.290702	4.682849
Comparison								
BANGLADESH	3.7597	3.622	3.612543	4.63437	3.694667	1121.906	13.24895	4.293086
CHINA	4.3879	4.537556	4.298963	6.101481	4.646667	5892.02	11.63884	6.460494
INDIA	4.6735	4.4244	4.67363	4.3418	4.3153	1437.12	12.36	6.228
INDONESIA	4.329	4.083	4.511	5.305	4.464	3094.322	4.739	5.368
JAPAN	4.838	5.288	5.337	4.044	5.427	39820.65	2.438	6.0955
KOREA	4.143	3.852	4.684	6.166	5.066	24692.82	8.348099	5.497037
KUWAIT	4.270	3.792	3.53	6.343	4.386	39456.54	4.49407	4.00543
MALYSIA	5.1412	5.1544	4.8047	5.2174	5.048	7819.266	5.14527	4.5777
OMAN	4.5639	4.90491	4.296494	5.733654	4.41333	19335.76	4.636543	3.636543
PAKISTAN	3.9637	3.628593	3.829111	3.652519	3.479333	1216.725	13.05593	4.7507
SINGAPORE	5.717	6.22585	5.421037	5.83237	5.602667	49013.66	6.036666	4.627901
SRILANKA	4.182	3.91333	4.191111	3.770593	4.070667	2950.177	11.98314	3.915802
TAJIKISTAN	3.385	4.06837	3.766296	3.882741	3.702	2950.177	6.089432	2.573333
THAILAND	4.546	4.14029	4.18763	5.638519	4.531333	4488.037	7.134609	5.061914
NEPAL	3.689	3.71777	3.527111	4.811111	3.624444	869.7751	4.011111	3.111852

**Table 25 : Estimates of Pooled Regression Model**

Variable	Coefficient	Std. Err.	P Value
TGP	0.4019038	0.0519287	0.000
EAP	0.2710998	0.059183	0.000
ME	0.0975796	0.0269457	0.000

**Table 26 : Estimates of Fixed Effect Model**

Variable	Coefficient	Std. Devi.	P-Values
TGP	0.032	0.069946	0.645
EAP	0.143	0.0614709	0.020
MES	-0.048	0.0472823	0.30

**Table 27 : Estimates of Fixed Effect Model (Control Variable)**

FMD	Coefficient	Std. Devi.	P-Values
TGP	0.035	0.069	0.608
EAP	0.161	0.060	0.008
MES	-0.008	0.049	0.987
TRADEOP	-0.0020	0.049	0.86
MSIZE	-0.174	0.056	0.002
GDP	-4.21	5.14	0.414