The Impact of Democracy on Economic Growth in Developing Countries

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Candidate of **Master of Philosophy** at the National University of Modern Languages do hereby declare that the thesis **The Impact of Democracy on Economic Growth in Developing** submitted by me in partial fulfillment of MPhil degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

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ABSTRACT

The association between democracy and economic growth is being debated for a very long time. Despite a lot of empirical and theoretical literature, no conclusive results have been obtained regarding the influence of democracy on economic growth. Within this framework, this study aims to factually scrutinize the influence of democracy on economic growth for selected advanced and developing Asian economies from the period of 1996 to 2019. This study adopts the panel FMOLS (Fully Modified Ordinary Least Square) approach to draw empirical insight about the link between democracy and growth. For drawing useful empirical consensus, the study also performed several important diagnostics tests such as panel unit root test, cross-sectional dependence test, and co-integration test. Findings of FMOLS model shows that democracy tends to improve economic growth in developed, developing, and Asian countries. This is also reported that corruption control index positively increases economic growth in developing and developed Asian countries. Other determinants such as education, population, and investment also report an important and positive increase in economic growth in developing, developed, and Asian nations. In contrast, consumption tends to reduce economic growth in developing, developed, and Asian economies. The outcomes of the study recommend that democratic norms must promote in order to restrain corruption and boost the economic growth of the nations. It is also suggested that institutional quality should be strengthened in order to obtain fruitful outcomes of democratic regimes and human capital should be accumulated in order to increase economic growth.

Keywords: Structure, Scope, and Performance of Government, Economic Growth, Comparative Study of Countries.

JEL Codes: H11; F43; O57.

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LIST OF ABBREVIATIONS

GDP: Gross Domestic Production

FDI: Federal Direct investment

MENA: Middle East and North Africa

ASEAN: Association of Southeast Asian Nations

SAARC: South Asian Association for Regional corporation

OPEC: Organization of the Petroleum Exporting Countrie

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DEDICATION

This thesis is dedicated to my late Dad for his love, endless support and encouragement. Dad you are not away but in my every breath.

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CHAPTER 1
INTRODUCTION

1.1. Background of the Study

The democracy-growth nexus attracted the attention of researchers, policymakers, economists, and politicians in the last few years. The central question of Acemoglu (2010) study is that why some economies are much poorer than others? This research question has motivated economists more broadly to look democracy-growth nexus. Economists and policymakers have been long recognized the impact of democracy on growth (Acemoglu & Robinson, 2008). The link between growth and democracy is contentious. As one strand of literature reports a positive linkage between democracy and growth, while the other reports a negative linkage between democracy and growth, and at the same time one stand finds no linkage among them. Cheung (1998) denoted that democracy is described through the right to vote. However, Rivera-Batiz (2002) defined democracy work as a counterbalance on the constitutional process, administrative powers, and guarantees the absence of suppression, freedom of media, effective and clear legal and judicial systems, transparency, mandatory term limits, and openness in policy making.

In literature, various reasons have been highlighted for weak economic performance such as poor performance of exports, high growth of population, less progress in human capital, ethnic conflicts, and public sector inefficiencies (World Bank 1990; Schatz, 1994). In addition, literature has also examined the impact of political determinants on economic growth (Azman-Saini et al., 2010; Butkiewicz & Yanikkaya, 2006; Cuciniello, 2009; Ghura, 1995; Guillaumont et al., 1999; Ojo & Oshikoya, 1995) along with political instability, savings, and investment (Gyimah, et al., 1996). Guillaumont et al. (1999) denoted political instability as a major determinant of low economic growth. Similarly, Sirowy and Inkeles (1990) denoted three main theories regarding the impacts and channels of democracy on economic growth. These are

dispute hypothesis, compatibility hypothesis, and skeptical hypothesis. The conflict hypothesis demonstrates that economic growth and democracy are incompatible. The reason behind this incompatibility is that the politicians make prejudiced decisions in order to increase their accomplishments (Comeau, 2003). Moreover, the conflict hypothesis reveals that authoritarian regimes permit them to ratify policies favorable for long-term economic growth(Comeau, 2003). It is further argued that democracy is less favorable for long-term stability and development and less conducive for the poor (Barro, 1996; McGuire & Olson, 1996; World Bank, 1991). Cheung (1998) added that corruption flourishes more speedily under democracy regime as compared to a dictatorship. One aspect of literature reports that bribery negatively influences economic growth (Mauro, 1995; Mo, 2001) while the other aspect of the study reveals that bribery helps in improving financial development (Acemoglu & Verdier, 1998). The similarity of the hypothesis suggests that official mechanisms and political plurality are compulsory to defend against predacious and systemic abuse behavior. Furthermore, it is suggested that democracy restricts rent-taking attitudes in respect of to its system of counterbalances (de Haan & Sturm, 2003). The compatibility hypothesis reveals that political and economic freedoms are equally emphasized (Friedman, 1962). The skeptical hypothesis demonstrates that there exists no systematic association between growth and democracy. It is suggested the things that matters are policy effectiveness and the stability of the political regime (Comeau, 2003).

1.2 Research Gap

The direct link between economic growth and democracy is being broadly examined in literature especially in the last three decades and numerous theories have been established concerning the association between them. This is obvious that democracy is not the only factor that affects economic growth, it basically creates a suitable atmosphere for numerous other elements to work efficiently to enable economic growth. Consequently, the direct effect of

democracy on economic growth may not be significant and conclusive, but the indirect effect of democracy on financial development via various connecting channels of other factors is highly conclusive and significant.

The association between economic growth and democracy remain an active debating issue in literature among social scientists and economist with different results. Scholars opting for different techniques of estimation, identification strategies and different time periods and different countries have reported either a negative (Gerring et al., 2005) or a positive (Acemoglu et al., 2019) even non-significant association (Murtin & Wacziarg, 2014). Earlier experiential research on the official factors of economic growth also reported diverse results, but it is not unanticipated because Sala-i-Martin (1997) illustrated that financial growth concepts are generally not clear in describing the most important elements that matter for a country to flourish. Although enough practical work is done on this issue but the scholars have not gauged the final consensus yet. According to Sirowy and Inkeles (1990) “many of the central questions pertaining to the growth consequences of political democracy remain, by and large, unresolved"; moreover, “the relevant quantitative, cross-national research continues to be plagued by conflicting findings". Afterward, Przeworski and Limongi (1993) reported the same findings as: in order to explore the association between economic growth and democratic institutions “social scientists know surprisingly little".

Acemoglu et al. (2001) highlighted that in an effort to explore the nexus between democracy and economic growth; researchers moved their attention towards identification strategies, suggesting alternate solutions for tackling the endogeneity of democratic institutions. That leads to further modifications of techniques of estimations, model specifications and other possible measures of democratic institutions. According to Acemoglu et al. (2019) that process leads to uncertain consent related to the positive impact of democratic institutions on economic growth between economists. Knutsen (2012) highlighted that

although, in spite of the circumstance that the democracy and economic growth puzzle get benefited from improved consideration "and from the introduction of novel econometric techniques, machine learning algorithms for pattern recognition and new measures of democracy" the issue still remains unaddressed. Ultimately, the recent empirical literature discussing the causal linkage between democratic institution to economic growth in economics is still differentiated from few studies arguing that income increases in democratic regimes (Alesina & Perotti, 1994; De Haan et al. 2006; Savoia et al. 2010; Murtin & Wacziarg, 2014).

Doucouliagos and Ulubasoglu (2008) investigated the first meta-analysis on the effect of democratic regimes on economic growth by taking a sample of 483 point-estimates comprised of eighty-four studies. Their study concluded that democracy has direct influences economic growth by various transmission channels. However, they have also positive indirect effects on growth via higher education level, lower political and economic uncertainty, and more economic freedom. These findings supported previous evidence investigated by Tavares and Wacziarg (2001) and stimulated a path for additional empirical research (for example, Salahodjaev, 2015; Acemoglu et al., 2019). A bulk of empirical studies has examined the influence of democratic factors at economic growth in developing countries (Ghura, 1995; Easterly & Levine, 1997; Cuciniello, 2009).

1.3 Research Question

The need for the people to rule is expressed as the freedom every individual in the society enjoys in terms of right to live, freedom to own property and adopting a livelihood, enjoying protection through the guarantee of the legal and judicial system and facing no suppression and prejudice, and participation – directly and indirectly – in policy formulation, and having access to every information one desires to have. All these factors contribute to socio-political-economic wellbeing of the society that is then reflected in higher standards of living and strong human values and culture. Therefore, the assessment of democracy is

important to check its impact on creating society and enabling it to progress over time and improve the economic conditions of every tier in the society. This study aims to anwers the following research questions:

- What is the impact of the institution on economic growth over the period 1996 to 2019?

1.4 Objectives of the Study

- This study examines the impact of the democracy on economic growth of democratic developed Asian countries from 1996 to 2019.
- This study examines the impact of the democracy on economic growth of democratic developing Asian countries from 1996 to 2019.

1.5 Significance of the Study

Several empirical educations have scrutinized the influence of democratic uncertainty on investment (Gyimah-Brempog & Traynor, 1999) or savings (Gyimah-Brempog & Traynor, 1996) in developing countries. Guillaumont et al. (1999) concluded that democratic instability is the major cause behind low economic growth in developing economies. Although, the major shortcoming of the existing literature is that they have tested the correlation between economic growth and political variables but they failed to test the causality between economic growth-democracy nexus. This is the major limitation of existing literature as the question of causality between economic growth and democracy is not fully addressed. The Granger causality test is a useful tool that can be measured economic growth-democracy relationship and simultaneously test the democracy and economic growth hypotheses. In developing countries, many democratic issues already exist, this study endeavours to assist empirically to policymakers in suggesting such policies that result in improving the democratic system that in turn results in improving the economic growth. In order to attain these economic objectives, the study will use annual data for selected Asian developed and developing nations for the

period 1996 to 2019. We will estimate economic growth model by using panel second generation model, specifically FMOLS technique.

1.6 Organisation of study

The remaining thesis is structured in the following way. An overview of Asian region is reported in Chapter 2. A brief literature review is reported in Chapter 3. A short explanation of the "data, model, and methodology" is given in Chapter 4. The study findings and their economic discussion are also presented in Chapter 5. Finally, Chapter 6 concludes the study and offers some appropriate policy suggestions.

1.7 Future Research Direction:

Although the study delivered important findings, but it contained some limitations such as the study addressed only few aspects of institutions. The study focused only on selected Asian economies, which may limit the generalizability of the findings to other regions and countries. The study covered the period from 1996 to 2019, which may not capture the long-term impact of democracy on economic growth. The study relied on secondary data sources, which may have limitations in terms of accuracy and consistency across the sample. The study only useda single statistical model (FMOLS) to analyze the relationship between democracy and economic growth, without considering alternative models or approaches. Future the study could have compared the impact of democracy on economic growth across different regions and countries to provide a more comprehensive understanding of the relationship. The study could have used a mixed-methods approach, combining both quantitative and qualitative data to provide a more nuanced understanding of the relationship. Futuremore, the study could have employed a dynamic panel models to capture the intertemporal dynamics of the relationship between democracy and economic growth. Future, the study could have examined the asymmetric effect

of democracy on economic growth by employing the NARDL (non-linear auto distributed lag) approach.

The future studies can include human capability and factors related to sustainable for furthering the scope of governance. The same can be then extended for short as well as long run analysis, with aggregated and regional level data sets. The concept of global governance can also be research on the same lines by further incorporating aspest of international law and millennium development goals. Governance is generally reflected in the public policeis, especially the fiscal and monearty, where debt management has its impact on the outcome of these policies for sustainable economic growth. Therefore, debt sustaibility and management can be brought into focus in future reseach studies.

CHAPTER 2
DEMOCRACY AND ECONOMIC GROWTH: AN OVERVIEW OF ASIAN REGION

This chapter discuss historical background of Asian region about democracy and growth progress in Asian region. Overall, this chapter conclude the history of economic growth and democracy.

2.1 Democracy in Asian region

As the answers to all these questions have been considered as inconclusive by various scholars and policymakers alike (Sunde & Jung 2014; Riaz Pozuelo, Slipowitz & Vuletin 2016; Acemoglu et al., 2019). There is a positive connection between democracy and growth across the world as most of the wealthy counties have a democratic governmental system, but whether this relation shows a causal relationship in a certain direction or it shows that the relationship is working dynamically by reinforcing each other, and also what casual mechanism are still remaining to be contested. Furthermore, the literature has yet to settle on what aspects of economic growth are the "key" toward democracy and to find out whether income is just another proxy for other traits that are relevant for driving democratization such as education, urbanization, inequality, specific values or a new pattern of social behaviours (Welzel, 2013; Treisman, 2015; Acemoglu & Robinson, 2018; Boix 2003, 2011). A correlation using cross-sectional data that was established by the earlier studies and interpreted as a causal relationship in a specific direction suffered from the problem of causality reverse and variables omitted (Lipset, 1959; Cutright & Wiley, 1969; Burkhart & Lewis-Beck, 1994). Newer research uses data from the panel to identify the effects of interest through temporal variation and separate them from time in variant specific to country intervening factors (e.g. Acemoglu et al., 2019; Boix, 2011). In addition, instrument variable estimators are used at an increasing rate to avoid the problem of endogeneity (Acemoglu, Johnson & Robinson : 2001). But empirical results are

depended upon the choice of specific models by scholars and their empirical strategies (Boix :2018).

The region "Asia-Pacific" comprising of the South, Southeast and Northeast Asia have great importance for the growth-democracy nexus discussion. This region has been home to many great stories of economic growth and human development after second world war. In Japan, Hong-Kong, Taiwan, South-Korea, Singapore, Malaysia, Indonesia, and Thailand the capita per GDP increased twice the amount in comparison to another regional group between 1965 and 1990 (Bolt et al. 2018). In the 1980s and 1990s, C. India and China emerged as the main militaries toward the world-wide states and the per capita GDP have increased in sevenfold in China and has almost doubled in India (Bosworth & Collins 2008).

What is even more impressive is the dramatic reduction in poverty in these countries and the increase in literacy together with life expectancy and size of the new middle classes (Asian Development Bank, 2010). In current years, Asia Pacific has seen a large share of transition from the rule of authoritarian style to democratic governance (Croissant 2004; Hellmann & Croissant forthcoming). As supposed "third wave" of democracy reaches toward ends of the region in the mid-1980s. However, the consolidated democracy is an exception, the various democracies tripled in number from three in 1980 to nine in 2005 and then eleven in 2017.

Yet, examining from close the democratic and economic growth of Asia-Pacific shoes that many countries seem to deny the simplest assumption which regards the relationship between democracy and growth On the other side, poor and relatively underdeveloped countries like India, Bangladesh, Timor-Leste, and the Philippines have sustained a democratic electoral system although they do not meet the requirements for the socio-economic requisites of democracy. Other hand the authoritarian governments in Rich countries such as Singapore, Brunei, and Malaysia suffered in adopting democracy. Despite all of this increase in socio-

economic modernization, other countries such as China and Vietnam do not show any sign of more democratic political institutions. Same time, the region shows a contradiction toward the widely held view that "democracy does better in raising the standards of livings in poor countries as compared to authoritarian government "(Halperin, Siegle, & Weinstein 2010). By standards of the World, democracy exceeds authoritarian regimes in almost all measures of growth (Przeworski et al., 2000) but in Asia-Pacific, many, but not all, authoritarian styles of government show a stronger capacity toward growth-generating public goods, economic growth, and human development. At first look, the average rates of growth in autocracies and democracies over the period of 1960-2010 show that globally, democracies do show a higher rate of growth compared to autocracies, while the gap has less substance than it is often supposed.

For the theme of this chapter, however, it is most important to observe that democracies do not lead autocracies in performance on GDP growth, but depending on the time period, economic growth rates in autarkies are found higher than in democratic states. Even if we accept that autocracies stay behind the 'mean' democracy on economic growth, Table 1 has shown that Asia-Pacific dictatorships tell a different side of the picture, even if we take into account the differences between time periods and sub-regions.

Table 1: GDP growth rates in autocracies and democracies in Asia-pacific

	Regime type	1960-2010	1960-1989	1990-2010
World	Autocracies	2.31%	2.02%	2.84%
	Democracies	2.82%	2.88%	2.78%
Asia Pacific	Autocracies	3.54%	3.11%	4.37%
	Democracies	3.54%	2.83%	3.91%

Source: Coppedge et al. (2018), Lührmann et al. (2018), and Maddison Project Database by Bolt et al. (2018).

As a fact, "all the recent examples of successful authoritarian modernization cluster in East Asia rather than other parts of the world", as noted by Francis Fukuyama (2013 ,p 5-15.).

In comparison to high predation type of autocracies in the Latin America and Sub-Sahara Africa, Middle East, non-democracies in Asia-Pacific frequently give a high relative level of "rule of law for elites" (Wallis & Weingast, 2009, p.279-293) and defence of property rights are two of the most significant reasons for economic growth in the long periods (Haggard, MacIntyre, & Tiede 2008; Acemoglu & Robinson 2012).

2.2. Economic Growth in Asian Region

There is an enormous variation in most of the Asian developing and developed countries. Mostly, developed countries including Japan, and several others that are underprivileged including Nepal, Afghanistan and Cambodia beside within this continent. This has a regional dimensional variation. Most of the South-west Asian fall into the category of middle-income (World Bank. 2020). Israel, Kuwait, Qatar and UAE are considered as high-income countries. Most of the north and central Asian countries are considered as low-middle-income countries except Russia, Uzbekistan, and Kazakhstan. Similarly, in the region of South-Asia most of the countries lie in the low-income category except Sri-Lanka which is lower-middle-income. East Asian region is considered the wealthiest portion of the continent except China and North-Asia which are categorized low-income. Most nations are considered upper-middle-income of these parts and Japan is high-income economy. China is estimated to attain lower-middle-income status despite experiencing a dramatic rate of economic growth since 20th country. In many South-East Asian states, as similarly achieved high economic growth rate into the middle-income rank or, even in situation of Brunei and Singapore are in the high group of income.

Varying rate of development the explanation is difficult and depends upon multiple factors. Before World War-2, Japan was the only Asian country that had developed a nationally funded and achieved industrial base. While other countries have depended upon the trade of basic commodities and raw materials such as tea, rubber, and tin for industrial production.

From then on different nations have applied various strategies to attain economic performance. From 1950 toward 1970 the two major and the largest nations China and India have adopted the policies for self-sufficient future and internal development, which limited the roles for the need of external trades and investment. During the period the countries also made a decision under Socialism. This difference in triumph of these two types of economic systems can be seen in Korea, where South Korea has a higher development level compared to North Korea. The reason for the success in the economic condition of Taiwan, Singapore and Hong Kong was without a doubt, is one of the reasons why China stimulated in the 1980's and 1990's toward growing dependence on capitalist and private ownership relations.

Primary means of economic growth have been provided by industrialization. For some economies, this has meant the production of the consumer goods like electronics, footwear or clothing which were often dealt with by foreign businesses. The nations which seen are the greatest economic growth like South Korea, Singapore and Taiwan have delivered various supports for the locally possessed firms, investing deeply in education and technology sectors and moving from low-cost production to more innovative productive activities providing greater returns. The countries like Saudi Arabia and other Gulf regions have seen growth because of the valuable natural gas reserves and resources petroleum, but overall, these countries had a very hard time toward development solely on the production of oil for their future sustainable economic growth.

Regardless of the changes, many people in Asia regions are still engaged in agriculture mostly working as a peasant with small assets. Agriculture is one of the biggest employers in China and India although it provides reducing shares of gross domestic product. Rural areas mostly have the greatest amount of poverty. But due to Urbanization since the 20th century the rural peasants have been moving toward the city areas.

There is an unprecedented migration of the people from the rural areas toward the towns in Asia. China controls these migrations to cities using residential permits but regardless of this the people still migrate without authorized permits. It has been observed as industries become more reliant on machines the comparative growth in employment is often neglected. The service sectors have more growth in cities in current years. In low-income countries, most of the employment growth is in the informal sectors which are referred to as a small family-owned business working outside the rules of the state or the control of the state and primarily engaged in small services and manufacturing. The balanced relation between the food supply and population growth has been very delicate which has been balanced by increasing food production to counter population growth. Most of the major grain crops are still produced by manual labour as a dominant method. Asia has varying crops yields across the continent. For instance, rice productivity per acre in Bangladesh is breaking by South Korea. Due to the one-fifth of the Land in Asia to bearable, the production has met a bottleneck although in some parts such as western Indonesia the forest is being eradicated to build new colonies. Mostly the tropical and sub-tropical areas of Asia have seen a rise in cropping intensity i-e arable land being used and cultivated for more than one type of crops has been increasing each year. Most of this has been accomplished by the Green Revolution, which involves the introduction of hybrid seeds strains that are very responsive to chemical fertilizers. This technology has increased the need for water supplies and increased the use of irrigation and pesticides. The machine played a main role in the growth of some of these crops, like corn and wheat, but it has been most effective in the growing of rice. The uneven distribution of the land has been one of the biggest barriers to the development of agriculture. This has been one of the major problems in poor Asian countries. Governments have tried to counter this problem by launching effective land-reform programs but this progress has been slow most chiefly in the Indian sub-continent and Philippines.

Asian regions grew significantly during the late 20th century. Much of East and Southeast Asia has been dominated by Japanese investment. The formal organization of the regional economy has remained weak relatively even though the ASEAN has functioned reasonably fine. Mostly these countries trading along with other nations in the southeast. In 1995, SAARC proclaimed a free trade South Asian Area as one of its economic policy goal line but such form of zone has until now to recognize. OPEC controls oil prices by the Gulf countries there has been very little integration between South-West Asia. In the early 1990s the Asian portion of Russia Siberia suffered greatly from the collapse of the Soviet Central planning, and the Russian government later on abandoned the region for its own management. But because of the remote location and the harsh cold climate the private investors have remained ticked off from exploiting much of the vast minerals and timber resources, except for the heavy development on the west of Siberia comprising of petroleum and gas deposits.

2.3. Asian Economic Growth according to Historic Background

Moving toward background and replicate on the history of Asian financial growth. It can find different know to learn that, grounded on studies from the famous economic historiographer, Maddison (2006) noted that the Asian financial system measured for approximately 60% of the worldwide GDP earlier than the industrial sector revolution which started in the past due 18th century. But like the Western economies relished a good deal higher boom considering that then, the total share of the Asian regions has a downward path, which is measured 60 percent share in early Nineteen Fifties.

However, the financial system of Asian international locations isn’t going down without hint. Strong Economic growth period is identified as the "Asian Miracle" followed, considered as a "flying geese" outline of growth. This period started with the huge growth of japan in the 1960s, followed by the ‘Four Tigers’ by taking over, Korea, Hong Kong, Taiwan, and Singapore. From starting of 1980s, Thailand and Malaysia also connect themselves with

these five to like the high track of growth. China has grown since the era of 1990s. Certainly, over half of the period throughout the past of Asian growth, the way toward achievement was not constantly plane. The period Asian crisis which start in 1997 mostly people remembered it, which keep toward the period of mid-1990s, a period of high growth. The local economy showed its power and flexibility in spite of the extraordinary effect of the crisis, due to its strong basics entrenched with a robust industrial base like many Asian countries shortly recovered the affluent in export-led regaining path. One more current drawing of this flexibility is the Lehman Shock and the following worldwide economic crisis. Afterward this crisis, the Asian countries continuously follow a relatively high growth track. The consistency of monetary markets in developing economies is overall was destroyed, but stock and foreign exchange market Asian economy continued relatively safe. The Asian economy nowadays has improved its part done 30 percent, while it is estimated to remain to donate to the constant growth rate of the world-wide economy.

What then makes the Asian financial system so solid and robust? To conclude it is needed to compare two devices or the double appliances which make the Asian countries ambitious. The very first device is Asia’s situation as "the factory of the world," a place toward success attained through continuous growth of exports determined through a direct venture from overseas. World-wide trade sizes enlarged histrionically with free trade and direct investment growth. To attain the most effective means of production, Firms in progressive economies are proactively involved in planned worldwide distribution of production spots. For this, these companies might not only protect the impact of higher salaries and soaking more demand for goods in progressive countries, but then again also gain the profits of rising demand in developing nations. Important developments in information skills and inventory organization have also been donated to these activities. With its plentiful highly-skilled labor power and huge potential for upcoming development are only natural that Asia turns out to be

known as a gorgeous applicant in this procedure. Universal firms progressively stimulated their production spots to Asia regions by trading mechanisms and complete goods domestically, therefore creating their supply cables more universal. Asia, as a center of such trade links, relished employment chances formed through the entrance of international firms and exports enlarged meaningfully. Meanwhile, acceptance of developments in production knowledge and reserve organization improved competitions, together with the accrual of human properties.

The other device is that to the highpoint is the independent growth in local demand stimulated by the expansion of export businesses. As export businesses rose, a big quantity of the labour power goes from the countryside agricultural segment to use up employment in city workshop places. The quantity of average income families increases slowly with economic growth, which supported the robust growth in consumption level. As in accordingly, the ground becomes placed for a self-reliant growth of domestic call for, which, together with exports, underscored Asian economic increase. As proved within the current growth in investment inside the non-production zone, Asia is today diagnosed now not only as "the factory of the world," but is likewise attainment fame as the arena's largest "consumer base."

2.4 Economic Growth slowdown in Asia with respect of Democracy

There are numerous explanations to make one or the other one doubtful that have strength. In Authoritarian regimes average per capita real GDP growth changes have been seen more importantly (4.6% per year) as compared with democratic governments (3.3% per year) when starting from 1960. This was found accurate even if the lowliest performance authoritarian countries are included in a sample such as Cambodia, Myanmar, and Nepal. While including this, by comparing both East Asian developed authoritarian countries have average 5.9% yearly GDP per capita growth rate and average 31.9% GDP from investment than from South Asian long-lasting and excessive democracies like India and Sri Lanka have2.8% growth per capita per year which show le ss grown and 21.3% GDP from investment considerably fewer. During

democratic rule in Indonesia GDP growth rate fell from 4.4% to 2.6% per year in Pakistan, it is from 2.9% to 2.6% per year which gets worse, and also in Thailand resulting low growth rate in time of liberal democracy. Nevertheless, it comes to light that this result is not unavoidable. South Korea raised quicker under the democratic regime is about 5.9% per year instead of under the authoritarian regime that is about 5.4% per year. Likewise, Philippines ranges 1.7% as compared to 0.7% per year in previous, while Bangladesh has contrasted 1.5% per year with .9% per year. In spite of the robust growth performance of democratic regimes in the Philippines, South Korea, and Bangladesh, the case study of Indonesia and Thailand is revealing about democratization why it might slow down growth. Among each society, the increase after 1960 turned into pushed by using authoritarian and corrupt patron-patron systems that had been covered with general compressions and extra or much less strongly accomplished with the aid of political leaders in government, the bureaucracy, and within the military (Rock & Bonnett, 2004). As Rock (2000) contends related to Thailand's bureaucratic society, the democratic regime directed toward the division of a federal patron-purchaser corruption community among political leaders, senior army officers, and older bureaucrats from one side and the Sino-Thai marketers who flock the boom method following the boom alliance gathered by General Sarit in 1960 (Thak, 2007). In this central patron-client system, senior government officers provide protective payments in form of rewards to a small number of businesspersons. For example, in Indonesia, where the government provide safeguard to private assets and removed charges at a less sufficient tax rate to encourage businesspersons to finance and raise the economy. With the start of 1980s, a mixture of fast growth and democratic rule eventually directed toward a semi-democratic society (Chai-Anan, 1990). For some time, in the course of the time turned into the high minister period (1980–88), semi-democracy advanced toward both a dealer community in Thailand (Han et al. 2007; Ramsay, 1985) and a North & east Asian fashion developing realm (Wood, 2016) as central financial businesses, top commercial

enterprise associations, and main enterprise leaders met often in an excessive degree Joint Public-Private Sector Consultative Committee to test troubles related to Thailand's attention change choosing industry industrial spreads. Then this change does not end as corrupt upcountry regional politicians afterward taken together with the government and the prime minister's office. They captured both along with pork container expenses in the country to set up their private patron-agent systems. They do it because they get a reward from their supporter and gets fund for the next election through getting out a front and corrupt battering at the public (King, 1996). Consequently, they captured the main institutes of macroeconomic policy. The lobbying of and weakening in the main macroeconomic activities that others qualified with Thailand's earlier fast growth directed toward for long time expert in asking either new democracies might be able to manage their economy. It directed toward another (MacIntyre, 2003) statement about the basic reason of Thailand's current poor routine was the inability of its frail multi-party alliance regimes along with more refusal players to control policy strictness, the incapability to transformation strategies when it was utmost desired.

CHAPTER 3
LITERATURE REVIEW

This chapter discusses theoretical and empirical literature. In theoretical literature discuss growth rate and its indicators. The second part of this literature consists of empirical literature. The empirical literature discusses the important determinants of economic Growth.

3.1. Theoretical literature

3.1.1. Literature in favour of Democracy

The first instrument is that democracy provides higher safety of belongings rights thus boosting growth. The next medium is political solidity. Definitely, this type of political rule is identified through means of more solidity of the state along with valuable results on growth. The performance of human capital is another instrument related to a blowout of democracy to increase. Lastly, the very last instrument is the technical revolution. Democracy encourages invention and technological growth so thereby increasing monetary phrases by expanding outcomes. When we talk about the safety of property rights it means that belonging rights talk over with the rights provided to a certain man or woman and are convenient by means of change for parallel rights over different belongings. This channel defines how to use right, economic corruption, and transmission of properties according to the situations put down with the aid of regulation (North 1990). Establishing the order of a clean and operative belongings rights device is an important element linked to the improvement of growth (Hood, 1998; Acemoglu & Johnson 2005). Numerous authors claim that the first class of political institutions is the key to the remaining supply of safety for belongings rights (Haber, 2012). Amongst those institutions, this is democratic institutions that provide a healthier assurance in respect of property rights aimed at diverse motives. Primary, a democratic device creates establishments that produce a practical framework for the defence and powerful implementation of assets rights. Definitely, belongings rights are guaranteed to be most effective inside in the situation

when a tough government put a force on them. But, at the same time as a central authority is strong enough to impose the law, it's also solid enough to devalue after it, like is in the situation of a dictator (Haber 2012). Therefore, only the central authority is who assured the powerful protection of assets rights by imposing restrictions on its authority, together with an elected government. A democratic state focus on several limitations and control instruments, such as the presence of principles and judicial supremacy, the right of votes, the involvement of diverse political gathering, and the government duty related to the voters. These organized features decrease the misuse of monarch supremacy and wanted from the government to safeguard the safety and implementation of belongings rights (Fukuyama, 1995; Knutsen 2011). Furthermore, the magnitudes of a democratic institute are to make certain powerful battle control owed to the loss and gain of groups functioning in an energetic economy complements the safety of belongings rights under a democratic rule (Huth & Allee 2002). Definitely, at the same time as war management establishments are weak enough to provide expected and suited answers or to defend prevailing dividends, as every people want to gain an extra number of shares by influencing the trade. These consequences can be determined more virtual negotiating power by the parties instead of pre-current understood or obvious contracts. The structure of assets rights may worsen in society by spreading those practices. By offering the people valid policies of creating themselves heard through the peaceful procedure, democracy may reduce this risk. In this situation, Sovereign judicial systems allow resolving fights among people in a productive and nonaggressive way. On the other hand, democracy belongs to managing and balance instruments that provide a limitation to the greedy behavior of the private and public sector and saving the people from the looting of collective wealth (De Haan & Sturm, 2003). The inside risk of taking over decreases through the Government and personal marketers bring to the higher assurance of assets rights (Clague et al. 1996). The chance of repossession is decreased for the reason that democratic organizations control the number of

organizational obstacles at the electricity of political governing, and postulate the worth and content material of political and economic choices (Fukuyama, 1995; Buchanan 2000). Under the democratic regime, obligation fees of political movements encourage the appreciation of assets rights (Mukherjee, 2010). According to researchers an inverted U-shape link found among the corruption and democracy era, which states when democracy will become matured corruption decreases (Rock 2009). Lastly, it is highlighted that the solidity and sustainability of political rule depend upon the satisfactory result of democracy on assets rights. Democracy defends agreements and belongings rights while it is relatively in all likelihood to remain (Clague et al. 1996). In volatile regimes, like the new democracies, the rules wherein assessments and balances are set up on weekly basis. To maximize the chance of re-election an elected leader adopted the behavior of grabbing the assets concerning to a minority and reallocating them to the enormous majority in a good way. This takes the leader to decline in the shape of assets rights. Furthermore, the status quo of political rights and civil rights are related to the long-term existence of democracy, which in short is essential for the safety of belongings rights (Olson 1993). Lastly, as it affects the connection between democratic era and the safety of possessions privileges, the steadiness of political government is an instrument for the spread of democracy towards growth.

The second instrument by which democracy impacts growth is political constancy (Apergis 2017). A volatile political government hinders investment and decreases growth. Political uncertainty ends in a kingdom of doubt related to future choices, decreases visibility, and depresses buyers to take project initiatives. Numerous authors factor out that the kind of political regime is political balance. They argue that democratic establishments permit for superior political firmness, for numerous causes that we strive to précis in short way such as; First, a democratic political regime gadget is prominent from different political rules by making use of obvious directions to make sure the change of events in authority. Certainly, without

using extra-legal decisions for advantages of power, democratic governments are considered as an aid for the clean device of succession. In autocratic regimes, the usage of these extra-judicial and threatening strategies is in massive amount (Kim, 1997). Furthermore, it is right in democracy found the political rule must dishearten radicalism and the choosing of energy by illegal method specifically while decision-makers taking political decision. Democracy, thus, offers a diplomatic and expectable switch toward political energy. Thus, and separately from some exact rules, the spirit of growth is not disordered all through an elected string. Secondly, a pure democratic government is make decision-makers under the the framework of the rule of laws within the domain of constitution. Thus, this is not the case in monocratic democratic regimes (Weber 1922).

Established behaviors of each political government cause different social selections, especially related to public expenditure regarding health and training. At this framework, a democratic type of political government is significant by taking into account higher growth via the growth of human resources (Baum & Lake 2003). Democracy permits for extra accrual of human resources for lots of motives. Primary, due to the fact public expenditure on schooling is funded by means of the public; this entire expenditure is essentially prompted by means of rearrangement procedures. If we allow to spread democracy, at first, the right to vote spread toward entire humanity via growing political opposition and average voting power moving toward the poorest, and secondly offers better courtesy regarding population, similarly more concern found in respect of redistribution desires. More demands for redeployment improve the standard of public goods and will lead to different matters, especially are related to the development of training machines. Likewise, democratic regrowth strategies of democratic state make are viable to progress the outstanding lifestyles of residents and particularly their fitness. Consequently, if we choose a democratic type of regime means acceptance of rules which stimulate the growth of human assets. On the opposite side, an autocratic authority

discharges this famous strain of restructuring. An autocratic state is not promoting the establishment of public services which will be cutting a large number of leases (Cumings, 1999). The endogenous boom version of Saint-Paul and Verdier (1993) recommends that reorganization, decided by political equilibrium in form of public schooling. According to the model, public education is taken as a main tool of redistribution. Spending on education is funded from tax amounts concerned with GDP. Thus, the economic model of Saint-Paul and Verdier (1993) suggests that by means of a political method, the dispersal of earning using in society is decided how much more amount produced of public training. In a more democratic government, the extra voter average might be able to direct its choices regarding axioms of training: an improved in level of taxation, stable with the support of the average voter, additional arouses the establishment of public schooling. Lastly, the behavior of some political regimes has an impact on the motivations of policymakers for the accessibility of government services (Cumings, 1999). Among those behaviors, we mention the government for the doubtful individual. This symbolizes the convenience with which through political competition can be dismissed from their workplace. So, this type of risk permits restrictions on competition related to entrance or exit and rules and expenditures linked with political input. Similary, Lake and Baum (2001) changed a theoretical and empricial model in which they count a monopoly by providing government contribution. This monopoly furthermore controls the delivery of public goods in a manner to boom expenses and to extract the maximum quantity of allowances. The writers have the awareness that democracy makes the market uncertain for public contributions. According to democracy context, political applicants are seen as powerful entrants who can control damages from the monopoly government. Definitely, in democracy boundaries are low for entrances and exits. A person can easily participate in surveying activities as there are low barriers to political participation. The importance is that the authority is sustained enough to offer public services for sake of public support, which can be dismissed

anytime. Negativity in democracy, where the behavior of political opposition is certainly notable, a dictator only wants the help of a prominently small alliance to stay in the rule. A dictator may want this alliance for everyone meant through the supply of personal items, by getting disadvantage in the supply of public goods.

The last instrument related to the spread of democracy in the direction of the boom is technical improvements. Romer (1990) noted that technological progress is one factor of the lengthy-term boom. A relationship found between technology and democracy has a beneficial influence on growth. Numerous opinions states that there is a positive favourable link found between democracy and the acceptance of recent knowledge. Bell et al. (1995) reported that democratic era found more spreading and transfer of authority, common sense indicates a democratic technical advance. Additional, democratic institutions are actually educational institutes that guide individuals toward collecting information, discussions, alteration of role, and analysis of previous understanding. These change features inspire the acceptance of current knowledge in a democratic government (Gerring et al. 2005). It is significant for political and economic spirit to learn the method by evaluating and converting antique approaches of doing things and creating growth through tests and errors. Directness toward new opinions and the removal of baseless information is only possible from open and free discussion. Liberty of expressing ideas offers higher possibilities to evaluate and distribute thoughts overseas. It boasts comprehensive and inclusive discussions, taking toward the best and suitable results of selected disturbance. Dissimilar with a democratic ruler, an autocratic one's purpose is to limit civilian rights and give boundaries the distribution facts together outside and inside the nation, this decreases the pressures related to their existing plan. This reduces the ability to accept technical alternatives and prevents the distribution of monetary efficient thoughts and skills. This is the cause that makes it hard for such a regime to improve its strategy in order to withdraw the most effective politically risky data even as economically efficient facts are

authorized (Knutsen 2011). To conclude, democracy encourages revolution and technological development by way of enabling the entrance and departure of advanced companies in the marketplace. A hypothetical model established by Aghion et al. (2014) shows that the connection between technical boundary and democracy is defined through access. Additionally in particular, democracy decreases the capability of political parties to plan with companies for disapproval of new skilled modernizers. Democracies related to fairly few problems and access prices, from inside decrease variety of governmental methods essential for entrance in market, which inspires the access of latest corporations (Rabiul 2018). For this, competition and inspire revolution rises from inside the market. Additionally in particular, Aghion and Howitt (2009) keep in mind states that democracy performs greater inside in greater advanced sectors of the economic system for the reason that of the improvement essential for access and race in those sectors. Dissimilar the slightest advanced sectors, from where growth is stimulated by gathering of things; revolution is mainly energetic for development in areas close to the technical boundary. Accordingly, whilst the character of technological development isn't always absolutely explained, like the case with corporations sporting improvements on the edge, it might be fantastic to assure a greater republic (or devolution inside companies). Powerful democratic establishments increase invention on the edge and arouse growth and boom (Aghion & Howitt 2009).

The effect of democracy era on the strength of growth isn't clear. Certainly, the marvellous association among those variables may be questioned by several writers who highlight the financial deserves of a monarchy’s energy in respect of the effectiveness of a democratic government. The very first disagreement considers that, opposite to a democratic government, the efficiency of monocratic structures belongs to the sovereignty of the authoritarian kingdom from inside. Certainly, doing away with the short-term and random needs imposed with the support of autocratic governance do not want to misuse time and strength in dialogs with

strained businesses, as democratic regimes have to do. Autocratic regimes are an awful lot fewer concerned with the burden of corporatists (Krueger 1974; Comeau 2003). It is important is that monocratic regimes can recognize their ambition for a long time period, choose at the fine rules to attain them, and are capable to enforce strategies that are a good deal further reasoned with gold standard monetary alternatives (Best & Wade 2009). In different of opinion, a monarch chief has awareness on broader imaginary perspective and predictive and searching for solution useful for society as a whole, by way of disregarding policies from the area of finances. To acquire short time goals to increase the possibilities of re-election, the democratic regime has a tendency to make short-sighted choices. For example, the authorities may undertake rules that hold the hobby of positive corporations, like alternate mergers, from decreasing of business income along with objective to succeed in coming elections (Thompson, 2004). The inadequacies generated from the pressure group result in a decrease in national income in the democratic regime (Inoguchi, 1998). On the alternative hand, though a few macroeconomic improvements result in more effective distribution of resources, this method of modification can be sore for some organizations in the public: alternate liberalization is frequently blanketed in industries when you need to preserve their monopoly rents (Tsebelis et al. 2002). In this regard, to achieve fame and re-election elected governments have focused their capacity to put effect in those improvements (Frey 1985; Neher & Marlay, 2018). In the opposite, the autonomy period of the dictatorship who wants discharges from this restraint allows him to bring out those sore and unlike improvements in a spare greenway (Rodrik 1999). The logic is that the sovereignty of tyrannical regime supports the application of top-rated strategies should be measured first with care. Certainly, for the freedom of political strength, the lack of a voting method is neither a vital nor enough condition.

A second fact is connected with the truth that democratic governments are commonly testing the common demands of consumption. Definitely, modern democracy creates an

outburst of needs for fast and extreme level of consumption. But, fulfilling those needs ends in a decrease in funding (Crozier et al. 1975). By decreasing the sovereignty of the Government, political liberties allow the democratic government to want consumption on the fee of funds. Autocratic regimes, alternatively, are better geared up to sell assets through economic suppression, like, increasing the charge of funds. In a similar manner, Zakaria (1997) approves the significant benefit of autocratic regimes, mainly in developing nations, by making it capable of struggle and retort to the need of the poor. Launching investment applications essentially includes a decrease in contemporary consumption. This discount might be sore in countries wherein most of the people are deprived. Governments strongly measure how to generate the excess wanted for funding. The state ought to force residents to keep in investments in each sector of economy. If such a degree is positioned to a prevalent vote, in reality, it might rejected; there is no political party who wishes to get success in election through losses in terms of decreasing consumption in present days. In perod of democratic, it is not possible to pressure the deprived population to save because they will choose relocation of earnings, which has lot of benefit. Furthermore, renowned demands can dominate client needs to extend to more high-priced needs including unfastened colleges, healthcare, lowers' earnings, the rights of the employer, and beneficent allowances. These demands depress saving and funding and load a heavy range of prices in the country.

Lastly, the third fact is linked with the falsification results of regrowth rights in an autonomous regime. The basic concept may be defined as: a democratic government means political supremacy finished a voting system. The bulk of people are maximize their earnings in democratic regime. An appliance of common vote casting makes it easy and feasible to achieve the needs for the restructuring of earnings from the wealthy to the poorer. In specific, democracy ends in a huge relocation of proprietorship of capitalists, landlords, and rich leaders closer to the poor poor community (Acemoglu & Robinson, 2006). The regeneration

of burdens for redistributive guidelines results in a worsening property of human rights and weakens the free markets. Furthermore, those stresses fail motivation for investment and attempt with awkward outcomes on increase (Shah 2014). Thus, facing restrictions associated with democracy, numerous writers claim that the nice political regime is only possible to release dictatorship that comes in respect of the economic liberties essential for the unfastened functioning of the marketplace however which represses man or woman political liberties.

3.2 Empirical literature

3.2.1. Democracy and Economic Growth

In social sciences, there is huge literature found that has nexus among democracy and economic growth along with different consequences. Barro & Sala-i-Martin (1992) designated the significant questions relating to the growing effects of political democracy. In literature, Adam Smith (1776) changed into one of the genuine ancestors to interrogate the roots of economic wealth and the way it can be improved. It determines that for improvement of nations there are primarily three main reasons. These elements are the department of labour, the growth of capital, and the dimensions of the marketplace. The circulation of production function grows the efficiency and production level of every worker when he becomes a specialist in his work. Likewise, the growth of capital and especially the asset in machinery make it easy for the labour to increase their specialization which results is increasing in production means per capita income increases. Lastly, a standard literature noted that free market enhance trade liberalization by increasing division of labour. The producer produces and sell commodity easily on the market according to demand and supply according to what he produces or does not produce. Far along, in the half-past twentieth century with arise of neoclassical models and

literature increase on this area. Regarding context of economic growth, the Solow (1957) model noted that capital development play a keu role in economy.

The exogenous growth models and the Solow model show the limit of growth by explaining the growth by technical performance without finding out the basis of it. The endogenous growth theory was later developed to fill in the gap of literature grounded on capital accumulation. Romer (1986) presented the first theroticial economic model of growth. It accounts for the key determinants which affect long-term endogenous growth. It focuses mainly on the importance of externalities to put aside the decline in returns to capital stock and thus explain long-term economic growth. Some factors, such as human capital (Lucas 1988), public infrastructure spending (Barro1990), and institutions generate positive externalities, which in turn increase economic growth. This last factor concerns a huge amount of literature that highlights the central significance of the growth in an institutional environment. Of course, since the development of the neo-classical tools by the new institutional economy which is used in the analysis of the role of institutions in economy, many researchers have agreed to highlight the important of institutions to promote economic growth and growth (Easterly & Levine 2003). The division of institutions precedes formal as well as informal institutions respectively. The institutions determine economic growth in economy.

Formal institutions are also further separated into political and economic institutions (Bjørnskov t al. 2010). The economic institution reflects human exchanges that are governing in the economic field, while political institution indicates the rules that relate to the political life of the organization. Additionally, there are many kinds of economic institutions, as Rodrick (2005) has classified each institutions. The market-generating solutions are there to confirm and protected property rights, the deals are enforced and in general the rule of law is exact. While, market regulations institutions also define the rules that also improve economic growth. Markets stabilizations institutions prevent monetary as well as fiscal institutionial crisis. In the

context of political institutions (Gamble 1995) show that political economic regime refers to the phenomena of the institution such as the political as well as constitutional decisions making in economic activity. Of course, the foundations and the decisions that change the framework of institutions are rejected by the research of neo-classical economic science. The new political economy is made up of research in the field of economics that has importance in the history domain.

Democracy and economic growth relationship is seeking interest among economic and democratic researchers in recent years. Economists are focusing on exploring the influence democracy on economic growth; however, political researchers are more interested in exploring the influence of economic growth on democracy. This conflict of interest among economists and democratic researchers reflects that the link between economic growth and democracy is argumentative. In literature, some studies support that democracy exerts positive effect on economic growth, some other studies are in favour of negative effect and few studies show no relationship between growth and democracy. Similarly, some studies found positive impact of economic growth on democracy, some show negative influence of economic growth on democracy and few are of the view of no consensus between democracy and economic development. Cheung (1998) reported democracy as right to vote. Rivera-Batiz (2002) defined democracy as "Democracy has checks and balances on executive powers, constitutional processes and guarantees, freedom of the press and the absence of censorship, clear and effective judicial and legal structures, incumbent term limits, and transparency, openness and citizen input in policymaking".

According to Sirowy and Inkeles (1990) there exist three key propositions regarding the influence of democracy on economic development these are namely "conflict", "compatibility" and "skeptical". According to conflict proposition, economic development and democracy are not compatible. Comeau (2003) stated that the reason behind this incompatible

behavior is that nominated officers usually take prejudiced decisions to maximize the probability of their selection. Krueger (1974) and Olson (1992) argued that this kind of actions makes officials susceptible towards the approaches of rent seeker and political interest groups. Gupta et al. (1998) elaborated that this behaviour also affects labour unions as their demands cut into the profits of entrepreneurs that tends to slow down economic development. In opposing words, Comeau (2003) argued that the conflict proposition suggests that the authoritarian governments are segregated from redistributive legislations that permit them to endorse such policies which are favourable to long-term economic growth. According to McGuire and Olson (1996) the remaining applicants of their countries' prosperity, authoritarians show interest in promoting economic growth to enhance their proportion of national income.

According to World Bank (1991) and Barro (1996) another justification given by the supports of the battle propositions is that democracy is not favourable to maintain stability in long term. Barro (1996) further added that democracy is less favourable to long-run economic growth given the tendency of voting systems to decree for reallocation of income, from the high-income households to low-income households, including land reforms. Cheung (1998) added a third justification in support of conflict proposition that corruption flourishes more in democracy regime as compared to dictatorship. The justification behind Cheung's opinion is that in the dictatorship regime, "people on top want to maintain their hold on power and corruption is one thing that will most likely destroy this. The cost of corruption is high for dictators. But if someone is elected into office, because power is transient there is an incentive to go on the take". However, Cheung's opinion overlooks refinements between government types. Corruption can occur in both dictatorship regime and democracy regime. Furthermore, there exists no unanimity about the influence of corruption intensity on economic development. In Mauro (1995) and Mo (2001) views empirical studies report that corruption leads to

reduction in economic growth. But in Acemoglu and Verdier (1998) views corruption exert significant positive influence on economic growth. The latter perception proposes that corruption performs role of lubricant that tends to reduce costs of transaction and enhances the performance of the economy.

The second hypothesis concerning the impact of democracy on economic growth is a compatibility proposition that delivers the reverse view to the contradict proposition. Firstly, it proposes that political diversity and balances of institutions are essentials to defend against universal exploitations or destructive behaviour that is often linked with dictatorship regimes. In North (1993) opinions, "well specified and enforced property rights, a necessary condition for economic growth, are only secure when political and civil rights are secure; otherwise, arbitrary confiscation is always a threat". Secondly, opposite to the opinion constructed for conflict proposition, in view of de Hann and Sturm (2003) it is recommended that rent-seeking might limited in democracy regime due to its check and balance features. This proposition is constructed on Rodrik's (2000) justification that democratic institutes play the role of final institutes to control conflict as they permit for tackling dissimilarities amongst different groups to be settled in an inclusive, participatory and predictable manner.

Friedman (1962) views the compatibility proposition as consistent to the assessment that political and economic freedoms are equally reinforcing. However, nothing is left in principle stopping regime of non-democratic from endorsing economic liberalization. The proposition of compatibility also proposes that democratic governments are more favourable to promote economic freedom and economic growth as compared to dictators because the political lawfulness of democratic governments be determined by sustaining economic rights.

The third proposition suggests that there exist no systematic association between economic growth and democracy. According to Comeau (2003) view in this proposition the important thing that actually matters is the efficiency of economic policies applied and the

stabilization of the regime, instead of its kind. Similar Clague et al. (1996) study proposed that there can be development promoting democracy and growth promoting autocracies and that the worth of policies is dependent upon dictatorship and in a democracy regime the democratic system is durable. The empirical literature proposes that the dictators who remain in power for longer time period deliver better property rights as compared to dictators who remain in power for shorter time period. Esposto and Zaleski (1999) argue that the supporters of the skeptical proposition also claim that although it is true that democratic system provides more economic freedom as compared to a dictatorship regime, there is still no surety for achievement of optimal outcome.

Democratic regime consists on those whose objective is to encounter the property status quo wherever it holds their better interests. Cheung (1998) provoked: "If you look at the things people in the so-called democratic countries are voting on, in the absence of a well-defined constitution, the core issues generally involve infringement of property rights, which in turn undermine the system of private enterprise". Furthermore, Przeworski and Limongi (1993) argued that by nature democracy emphasis on democratic freedom by providing more chances to face the challenges of property rights. Przeworski and Limongi (1993) concluded that "We do not know whether democracy fosters or hinders growth". Dethier et al. (1997) study provides evidence in support of facilitation of democracy for economic globalization in Central and Eastern Europe. Most of empirical studies support skeptical and conflict views instead of compatibility views.

Sirowy and Inkeles (1990) gauged 13 empirical studies on the nexus of growth-democracy, out of thirteen six studies support the skeptical proposition, three of them support conflict propositions and four of them recommended conditional or qualified association. Similarly, Borner et al. (1995) surveyed previous 16 studies, three of them report positive association and three of them report negative link and remaining ten studies report inconclusive

results. Brunetti (1997) reviewed seventeen studies and concluded “nine studies report no relationship, one study a positive, one study a negative, three studies a fragile negative relationship and three studies a fragile positive relationship between democracy and economic growth”. Similarly, Glasure et al. (1999) reported that in newly industrialized nations and developing nations, economic growth exert a significant influence on democracy, but opposing to study of Lipset (1959), economic growth results in lowering democratic performance. However, Glasure et al. (1999) suggested: “The sign reversal may stem from the possibility that as nations strive for economic growth; the nations tend to trade-off democracy for economic growth”.

A somewhat long and respected literature found that democracy and economic growth show the relationship among them. Papaioannou & Siourounis (2007) give a reason, existence of somewhat keen logical difference of literature found among persons which are doubtful in respect of optimistic bond found among democracy and growth rate and those which are positive. Doubters fear majority demands for expenditure and redeployment (Rock 2009), especially in case of high discrimination in income (Alesina & Perotti, 1994) or income in form of fixed resources on unequal possession like oil, diamonds, mineral deposits, land (Boix & Stokes, 2003). Opponents’ parties are concerned around principle representative troubles (Buchanan & Tullock, 1962), other worries which bind unjustifiable economic principles to get success in an election that followed by a politician (Besley & Coate, 1998). Disbelievers also feel fear about doubt on the constancy of new democracies that may cut off the limit period of both politicians as well as civic (Andrés et al. 2015) along with the harmful impact on economic growth. Idealists argue that democratic relocation may arouse growth level when it is related to shaping human assets (Bourguignon & Verdier, 2000) or controlling the assets market (Galor & Zeira, 1993). They also claim that the discrimination demand of income can be quiet when income-generating resources are founded in form of moveable assets instead of

immobile assets (Boix, 2003). Additional idealists contended in order that democratic organizations are following healthier in resolving obligation matters (Olson, 1993), more effective (Wittman, 1989), handling adverse economic crisis in a healthier manner (Rodrik, 1999), more responsible in taking most wanted and important economic strategy improvement task (Haggard & Kaufman, 1995), and well in taking long-run savings plans of human assets (Tavares and Wacziarg, 2001). The question is about the numerical and case studies are actually defining definite association among democracy and growth? Answers are these. One aspect is affirmably deep-rooted in a practice of cross-country growth regressions established by Barro (1991) and Levine and Renelt (1992). Political factors are added in core of this method for cross-country regressions which contain both old economic factors— primary income, speculation rates, population development rates, human assets measurement—and a mass of further economic strategy factors believed that part of public consumption expenses in GDP, trade directness, and the price increases rate have an impact on development. The key conclusion of this study states democracy takes a slight and statistically unimportant impact on growth rate (Papaioannou & Siourounis, 2007). The other feature spreading initial thought by shifting procedure to 'within' state panel development regressions approving emphasis on the energetic connection between democracy and economic growth. Dissimilar cross-country development studies, also find that democracy applies an influential and optimistic influence on growth.

The case study (MacIntyre, 2003) recommends a fine distinction and compound image. It has directed political researchers to re-examine the connection between democracy and economic growth 1) naturally a tricky atmosphere faced by new democracies 2) the essential changes in the formal assemblies of democracies and strong connection found between them. For the reason, that disaster managing politics is much changed from keeping prevailing pro-growth strategies politics. Andrés et al. (2015) reason that it is substances whether new level

of democracy find significant economic disasters or when they receive well-progressed nations. They additionally argue that crucial versions inside the shape of democratic institutions count number wide variety—particularly the strength of executives, the layout of celebration systems (Redmond, 2008), and whether or not or no longer democratic governments feature with presidential in place of parliamentary structures (Haggard, 2004).

The connection between corruption and economic growth came to be discussed. Numerous studies provide proves regarding the destructive impact of corruption on growth. Mauro (1995) corruption expresses a negative association with economic development by governing for the institution. Fuentelsaz et al. (2015) explore so as corruption is more harmful to development than for increase in economic doubt (Bardhan, 1997). Kaufmann & Wei (1999) discuss related to corruption that is doubtful for the lender and it rises danger for assets in between nations where a high level of corruption is found. However, various literatures exposed a supportive impact of corruption on economic growth. Meon and Weill (2010) observe that corruption is as much harmful for the nation and it might positively relate through effectiveness in states wherever organizations are very useless. Huang (2016) observes that a fundamental connection is found in 13 Asian-pacific nations among corruption and economic growth and observes that despite high-corruption stages both South Korea and China are facing economic development. Colombatto (2003) des cribe that corruption removes adverse situation which delays growth in developing nations, as corruption might behave by mean of "speed currency" below circumstances of political uncertainty and institutional inadequacy. Seeing corruption as a factor of firm performance, Fuentelsaz et al. (2015) remember the suggestion of a "greasing the wheels", while India has the influence of corruption at the firm size. These recent results are definite and related with procedure, data, sample, and period about the direct influence of corruption intensity on economic development. However, numerous present studies practice a linear description and attain indecisive consequences. These linear

descriptions explain that nations might be the cause of different corruption impacts due to separate producing function and effectiveness situation of the institution. By seeing this fiction, there is a nonlinear or asymmetric link found between corruption and development according to an indication of numerous studies. Durlauf et al. (2009) by using cross-nation examination find many corrupt governments and discover a nonlinear condition of corruption and development. Aidt et al. (2008) contend that corruption also affects governance excellence. It is destructive when government applies good supremacy, but corruption has a positive influence under incompetent power. Bose et al. (2008) observe corruption as a sill or door-step which directs two different governments according to their corruption size. Within one country, the level of corruption is high and corruption declines its development effect and corruption has a mitigating effect of growth. In other countries, the level of corruption is matter in economic and human development. These results also are also upheld by Aidt (2009) & Dzhumashev (2014). at the same time, according to current research, Ali (2015) noted that corruption has three phases, such as pre-modern, modern and post-modern corruption. The impact and reasons related to corruption are differed according to it phases, and techniques adopted for the purpose of decreasing corruption. The writer recommends that updating institution standard and economic growth will lead toward the ideal level of reduction in corruption, this will lead growth procedure from pre-modern to modern and toward post-modern phases. The indecisive results of the direct impact of corruption on economic development move toward a-few experimental works which examine through govt spending the indirect impact of corruption. Dzhumashev (2009) has stated that robust negative influence of corruption, which can be direct and indirect effect of economic factors, which found by empirical studies. The direct and indirect influence of corruption has been found to be a reduce to economic growth and it becomes significant.

Ugur (2014) has found that with inefficient bureaucratic conditions in the low-income countries, with indirect effect of corruption public finance and human capital are likely to harmful for growth. Moreover, corruption can affect what the government spending is composed of and revenue collection distortion. Keefer and Knack (2000) propose that corruption pays to incompetent government spending and ends in rent-looking with the aid of converting the price range structure. Parallel donations help this point of view (Dzhumashev, 2014). Approve destructive impact of corruption is related to armed forces and consumption spending; on the opposite side, approve that corruption for sake of investment spending is good to increase economic gowth level. A current studies by Grilli et al. (2018) and Ali and Solarin (2019) proves that states along with a high rate of corruption lean towards higher stages of armed expenses, by supporting the vital effect of corruption on military expenses.

Some study has cautioned different corruption measures, which includes corruption convictions (victim) and corruption-linked cases. However, Goel and Nelson (2011) considered two separate measurements of corruption in the USA, the first is separate government convictions and the other is corruption observation studies. They describe by taking both procedures corruption decreases through larger legal employment and conviction of corruption rises through a population of government. Some earlier studies apply convictions of corruption on diverse stages, like government convictions of corruption (Goel and Rich, 1998), per yearly central government convictions of corruption (Gründler & Potrafke, 2018), and central convictions of corruption (Del Monte & Papagni, 2001), and United States work on most of these training.

3.2.2 Corruption and Economic Growth

The nexus between corruption and growth is not a new idea in economics ground. Furthermore, some researchers have tried to discover the effect of corruption on the financial boom for the ultimate many years; however, there may hardly find any consent between

economists at the function of corruption. However, World Bank (2009) report stated about per yearly economic growth rate of East Asian nations was about 7% from 1986 to 1996 in which Malaysia, South Korea, Singapore, Hong Kong, Thailand, Indonesia and the Philippines including, however in rest of the world 2.5% that was very poor. In these nations, Singapore is excluded because it faces a higher corruption level throughout this time. Some of the previous experimental studies earlier these periods have exposed that corruption hinders economic development and by overviewing of these studies queries about the corruption level in between these countries and the co-occurrence knowledge of high economic growth. The literature provides inconclusive empirical results on this debate. The original hypothetical effort of Leif (1964) exposed a very good connection between growth and corruption; Corruption works as an appliance of economic increase inside the state of affairs when administrative interruptions and strict guidelines forced through the authorities enable the personal retailers to shop for their way out of politically forced inadequacies. So, corruption increases effectiveness in a country and left a positive effect on growth level(Acemoglu and Verdier, 1998). Likewise, or by contrast, some economists adopted changed models, in which the efficiency of economic development increases by the working procedure of corruption rises. Lui (1985) used the "queue model" by signifying that administrators distribute business certificates between those companies who give inducement in high quantity. The "auction models" directed toward biding technique that can increase capacity due to most efficient companies are often those which gives inducement in large amount (Mo, 2001). Hoever, Rock and Bonnett (2004) examined the connection between level of corruption, economic growth, and domestic and foreign investment. They point out that corruption importantly encourages growth in China, Korea, Thailand, Indonesia, and Japan. On the other side, many studies have exposed that the cause of the increase in business cost and uncertainty in process of decision-making due to corruption through the plundering of economic growth. There are four channels indicated by the literature

in existence, (1) sagging the competency of infrastructure by impeding the economic growth through corruption. (2) Through corruption the increase in economic production is reduced through the decrease in productivity. (3) Low government income lowers the expenditure made by the government which in turn lowers the economic progression. Gupta et al. (1998) revealed that enhancement in gains for rich people at the expense of the poor groups of the population are caused by corruption. After the imitative work of Barro's (1991), an astonishing increase in the literation on investment and growth has been observed. Mauro (1995) found a high negative relational factor between corruption and growth. Similarly, Mauro (1995) found a negative link between corruption and growth in globe. Ehrlich & Lui (1999) also indicated a negative inverse link between economic growth and government size and corruption in developing as well developed nations. Mo (2001) found an inverse influence on economic growth with corruption through political stability, and volatility were indicated by the empirical growth. Further, rises in corruption and political instability have also a negative influence on each sector of the economy. Later, Shabir and Anwar (2007) found various causes for the visible corruption level in 41 countries. The non-economical aspect of corruption was also considered for this. They observed the increase in economic freedom, income level, and globalization has a reduced level of corruption in selected countries. But with an increase in education level in developing countries the corruption level also rises. The economic factors are more important in developing countries as compared to non-economic factors. Asiedu & Freeman (2009) examined the effect of corruption on the investment levels of the firms in Sub-Saharan Africa and Latin American economies. They also found that across the various regions there were relationships found between corruption and investment, but no such relation was found in Sub-Saharan Africa and Latin America. They also notified the fundamental and crucial reason for investment in case of changing countries was corruption. Ahmad & Ali (2010) tried to find the influence of corruption on growth in finance in 38 economies by using

the method of GMM. Findings revealed that an increase in the levels of corruption obstructs financial sector development. The nexus between corruption and economic growth was also observed by Ali et al (2010). They found that higher intensity of corruption lead to a low level of economic growth.

3.2.3. Government expenditure and Economic Growth

The connection between government size and growth indicate nonlinearly. As a result, a nonlinear association between growth and government expenditure found according to document proves observed from a great size of works (Asimakopoulos & Karavias, 2016; Olaoye et al. 2020). Exactly, some students discovered to be had variations along with the common linear version, which displays the fundamental of nonlinear valuation strategies (Larsen, 2016). By enjoyable the linearity assumption, those papers discovered fashions that are extra effective at showing a monetary increase. A principal result of nonlinearities or asymmetries in mild of the Solow growth model, which reported statement conditional convergence in presence of multiple steady states. Some motives had been presented for this nonlinear-courting among authorities spending and economic development. First, the connection is might be due to others elements of macroeconomics. Such as, the connection might be squeezed through macroeconomic shocks or operational breakdowns. Likewise, this bounding among two the relation between the two macroeconomic factors might be related to the set-up of institutions like the organization of institution (Olaoye et al., 2020). Other is, some researchers suggest that an effective sloping point (i.e. threshold) out there government expenditure will take toward gradual economic development (Gunlap & Dincer, 2010; Forte & Magazzino, 2016; Hajamini & Falahi, 2018). Such lessons help an inverted U-shaped curve dating among government expenditure and financial boom, here next identified as the BARS curve (Barro, 1990; Scully, 1995). Next, there is possible uneven data related to government spending connection with growth level (Ram, 1986; Asimakopoulos & Karavias, 2016),

particularly, in the case of developing nations from where we see the weak institutional background, inflexible structures, administration, deficiency of transparency and frail supremacy. For this, the excellence of institutional substructure is less, where people have no suitable info related to government financial actions like whole returns, definite government expenditure. In the same way, the tendency of government expenses explains the asymmetric structure. Another one, business cycle poisnters like government expenses is also show asymmetric structure (Combes et al., 2017). This indicates about fiscal cycle asymmetries may well conduct government expenditure (Chen, 2014).

Likewise, an excess of learning observed that the non-linear connection between government expenditure and economic growth adopted different methods. For instance, numerous researchers have observed that by simply using the technique of dummy variable to check the occurrence of irregular structure of government expenses of the non-linear connection (Podobnik et al., 2008). In that, it might not sufficiently get the non-linear impact (Olaniyi, 2019). A little wide variety of empirical training observed the asymmetric form of presidency spending by using inspecting the openness of presidency spending to the corporate/monetary cycle (Mercinger et al., 2017). Similarly, according to some studies the non-linearity observed between government expenditure-growth is connected by the simple addition of formed government expenditure period or by addition of a cubic government expenditure period (Ghourchian & Yilmazkuday, 2020). Additional techniques carried out in present research contain the brink autoregressive and facts envelopment evaluation for manipulative the superior length of government (Asimakopoulos & Karavias, 2016; Nirola & Sahu, 2019). These strategies are about most important weaknesses. Like, the quadratic shape makes biased evaluation because of its non-stochastic nature. By adding, the evaluations may not be without difficulty verified the use of the same old diagnostic equipment. Likewise, within the quadratic shape model, the optimal length cannot be directly

anticipated(Podobniketal.2008). Mo (2001) reported that increase in government spending and rises in tax, which in turn increase level of GDP. If government level of spending is matter and caused the unemployment that result in increase in aggregate demand (Phelps, 1967; Ball et al. 1999; Mian & Sufi, 2012). The positive influence of government expenditure leads to growth in real sector. Keynesian theory noted that government expenditure has a positive influence on economic growth, which as a result of expansion in government fiscal policy (Al-Faris, 2002; Arestis & Sawyer 2003; Ogundipe & Oluwatobi, 2013). According to classical and neo-classical the government expenditure has negative effect on economic growth

3.2.4 FDI and Economic Development

Modernization theories are the two theoretical viewpoints that have been used to explain the impact of FDI on the economies of host countries. Neo-classical and endogenous growth theories have been made on the basis of modernization theories which tells that promotion in the economic growth of developing countries is based upon FDI. Economic growth requires investment in capital; based upon this necessary principle the modernization perspective has been developed. Through the eyes of new growth theories, the lack of resources in infrastructure related to educated population, liberal markets, social and economic stability that are required for innovations to promote growth (Borensztein et al. 1998), are especially important for the transfer of technology through FDI. Apart from technology and capital, it was noted by Kumar & Pradhan (2002) that the flow of FDI as bundle resources includes skills at the organizational and managerial level, the know-how of markets, and access through networks of multinational enterprises (MNEs). FDI plays an important role in total factor productivity (Khan & Reinhart 1990). Modernization theories argue that foreign investment is presumed to have a negative influence on economic growth and the income distribution process. Adams (2009) claimed that investment in foreign expenditure creates a structure of the industry in which predominantly is shown by a monopoly which leads to what is described

as “underutilization of productive forces.” Assuming that foreigners control the economy, such a basis could not have been developed organically, but this would rather grow in a negatively articulated manner (Armin, 1974). Demand in one sector through which demand in another sector created is weak is because of the multiplier effect and thereby leads to slow growth in developing economies. Most FDI to Africa is in the sectors of natural resources (Pigato, 2000) which have several barriers to entry; that is why this argument is very important.

Due to the conflicts in the views of theories, the relationship between economic growth and FDI has been observed by many practical studies (Zhang, 2001). Zhang (2001) studied many American and Asian countries numbering 11 between 1970 and 1997 and it was observed that growth in Asia was more likely to be promoted by FDI than in Latin America. Also, Zhang (2001) had also observed that when a host country embraced free trade policies, improve health and education, and stable macroeconomic factors, thus FDI promotes economic growth. Similarly, a study conducted over 46 countries from 1970 to 1985 by, Chang (2007) reported a positive relationship between FDI and economic growth at the country-level. On the other hand, many studies find a positive correlation between FDI and growth others find non-significant or even negative effects (Hermes & Lensink, 2003). In a study of developing nations for the time 1970 to 1995, Hermes and Lensink (2003), found that the host country has a significant negative effect on FDI. The differences observed in results showed that the regional and specific studies to countries have more importance. This type of study upholds the work performed by Fry (1993), Agosin and Mayer (2000) and Sylvester (2005), which was accomplished by using a larger dataset and found that FDI enhances economic growth.

3.2.5. Education and Economic Growth

The study of Becker (1964) noted that education provides knowledge, skills, awareness, which in turn improves economic growth. Education plays the most important role in the practice of economic growth and a lot of research has been done on the education-growth

nexus. The neoclassical and endogenous growth theories have an important distinction between educated human capital and economic growth. The previous arguments show that an increase once in the educated human capital stock results in one time increase in the growth rate of the economy until the new higher steady state is reached. Furthermore, there are also two new growth theories, the impact of which focuses on the accumulation of physical capital and human capital stocks. One time increase in the human capital sets one-off increases in output in the cases of (a) permanent growth increase (b). Due to this, the increase in the social advantages of education is much greater in the last case (Griliches, 1997; Sianesi & Van Reenen, 2003). Education affected economic growth via different mechanisms (Ogundari & Awokuse, 2018). First, the skilled in human capital of labor increases through education, which results in an increase in labor production and transitional growth which leads to a higher level of equilibrium level of output. Second, in the domestic growth theories, the innovative capacity increased economic growth through education. Education is efficiently improves production process. Educational attainment is a leading factor of economic growth, earning and employment. Educated workers can work more efficiently and easily carry out their task.

3.2.6. Investment and Economic Growth

Investment is also a crucial factor of economic productivity.Investment has an immediate impact on GDP, stock trading allows business to raise capital, launch new products and increase operation, and stock prices influence producers and consumers that in term effect overall economy (Xu, 2000; Obwona, 2001; Tang 2008; Nosheen, 2013; Albulescu, 2015; & ADB et al., 2016). Sean & Ross (2020) noted that economic growth occurs as a result of upsurge in the production of services and goods. The economic growth depends on consumer expenditure, international trade, stock of capital in an economy. Education is efficiently improves production process. Economic results of corruption consist of low output, reduced investment, and poor quality of growth. The country with high stage of corruption finds poor

economic growth. According to Ahmad (2012) corruption not only hinder economic development but also reduce domestic and foreign investment, overblown government expenditure, unfair allocation of education and health expenditure, and maintenance of digital infrastructure and reduce government projecs. Rodrik's (2000) highlighted that growth is the upsurge in what a country produce over time, it is a strong factor that is used to measure the performance of economy, when GDP growth is strong, firm empoly more labor forces and able to pays more, it lead more people to hire, increase wealth of a country (Fischer & Easterly, 1990; Alesina & Perotti, 1994; Tung, 2018; and Mohsin et al. 2021).

3.3 Conclusion

This chapter conclude that democracy has positive impact on economic growth. The empirical results provide inconclusive results.

CHAPTER 4
THEORETICAL BACKGROUND AND ANALYTICAL FRAMEWORK

This chapter has reported theoretical model. Secondly, we discuss econometric model of us study. We estimate the model with FMOLS techniques. We also discuss the four steps of FMOLS. This chapter also discuss the data variables and sources of model.

4.1 Augmented Solow Growth Model

The basic Solow growth model ignores democracy. SO, we have explored the effects of including democracy in the model. The production function now becomes

$$Y_t = K(t)^{\alpha} D(t)^{\beta} \left(A(t)L(t)\right)^{1-\alpha-\beta} \quad (1)$$

Where Y is output, K is capital, L is labour, D is the democracy, and A is the technological progress. Under the model of Solow growth, K and A grow exogenously at rates *n* and *g*, but *n* is the growth rate of population and *g* is the growth rate of labour productivity.

There are few basic assumptions:

a. The fundamental assumption is constant returns to scale (CRS) in production function.
b. The saving ratio s is constant and exogenous
c. Technology and labour are also exogenous and rise with constant rate.

Where, solving the equation for capital and democracy, we get capital per effective unit of labor defined as

$$k(t) = s_k y(t) - (n + g + \delta)k(t) \quad (2)$$

And democracy per effective unit of labor is defined as

$$d(t) = s_d y(t) - (n + g + \delta) d(t) \tag{3}$$

Where, $d = \frac{D}{AL}$, $k = \frac{K}{AL}$, $y = \frac{Y}{AL}$. Yi and Xiaoman (2012) assume $\alpha + \beta < 1$, decreasing returns to capital and democracy. Mankiw et al. (1992) define s_k as the fraction of income invested in physical capital and s_d as the sources of democracy.

Using specifications (2) and (3), the economy converges to the level of steady-state and defined as:

$$k^* = \left(\frac{s_k^{1-\beta} s_d^{\beta}}{n + g + \delta} \right)^{\frac{1}{(1-\alpha-\beta)}} \tag{4}$$

$$d^* = \left(\frac{s_k^{\alpha} s_d^{1-\alpha}}{n + g + \delta} \right)^{\frac{1}{(1-\alpha-\beta)}} \tag{5}$$

Substitute equation (4) and (5) into the basic production function by taking the natural logarithm and equation for income per worker is written as:

$$\ln\left[\frac{Y(t)}{L(t)}\right] = \ln A(0) + g_t - \frac{\alpha + \beta}{1 - \alpha - \beta} \ln(n + g + \delta) + \frac{\alpha}{1 - \alpha - \beta} \ln(s_k) + \frac{\beta}{1 - \alpha - \beta} \ln(s_d) \tag{6}$$

Where, $-\left(\frac{\alpha + \beta}{1 - \alpha - \beta} \right)$ is the output elasticity with respect to $(n + g + \delta)$, $\frac{\alpha}{1 - \alpha - \beta}$ is the elasticity with respect to s_k, and $\frac{\beta}{1 - \alpha - \beta}$ is the elasticity with respect to s_d. Equation (6)

states that the income per worker is depends on physical capital, population growth, and accumulation of democratic government performance.

In the end, we also solved the basic production function for democracy per effective unit of capital is written as:

$$\ln\left[\frac{Y(t)}{K(t)}\right] = \ln A(0) + g_t - \frac{\alpha+\beta}{1-\alpha-\beta}\ln(n+g+\delta) + \frac{\alpha}{1-\alpha-\beta}\ln(s_L) + \frac{\beta}{1-\alpha-\beta}\ln(s_d) \qquad (7)$$

4.2 Theoretical framework

Christie (2011) investigated different linkages of association between economic growth and government expenditures in the long run. Following Bekers (1968) study, Polinsky and Shavell (1984) constructed a theoretical model, which examines the expected gains and expected costs (in the form of probability of perception and penalising). This infers that the net expected gain must be positive for the prevalence of democracy. Democracy-growth consensus has two aspects of literature: democracy might increase or decrease economic growth. Based on Solow's (1956) growth model we use basic production functions to encounter the democracy-growth tools as below.

$$Q_{it} = \alpha_{it}\left[f(K_{it}, L_{it})\right] \qquad (1)$$

Where Q_{it} is total output, α_{it} is total factor productivity, K_{it} is capital stock and L_{it} is total labour in country i at t time period.

Total differentiation of function Q_{it} is given below:

$$dQ_{it} = [f(K_{it}, L_{it})]d\alpha_{it} + \alpha_{it}(f_K dK + f_L dL) \quad (2)$$

Dividing equation (2) by Q_{it} we get

$$\frac{dQ_{it}}{Q_{it}} = \frac{d\alpha_{it}}{\alpha_{it}} + \frac{\alpha_{it}(f_K dK)}{Q_{it}} + \frac{\alpha_{it}(f_L dL)}{Q_{it}} \quad (3)$$

Following Schumpeter's theory of economic growth (1912, 1939) equation (3) predicts two impacts of changes that may affect an economy

a) growth factor that indicates the effects of changes in availability of factors in production function that shows different growth ratios of labour and capital.
b) development factor that shows the changing outcomes of technology and other components, which are related to factor productivity growth.

Following Mo (2001), we can transform equation (3) as:

$$Q'_{it} = f(\alpha'_{it}, K'_{it}, L'_{it}) \quad (4)$$

where Q'_{it} is growth rate of real output, α'_{it} is total factor productivity, K'_{it} shows investment output ratio and L'_{it} shows growth rate of labour. Levine and Renelt (1992) recognizes the components, which are robust in defining economic development like growth rate of population, human capital, real per capita GDP, and investment share in GDP. Population growth and investment share in GDP are considered as growth factors, however, human capital and real per capita GDP are considered as components of development. Following Meon and Sekkat (2005), this study uses democracy, economic growth and interaction term in the model

as a factor of economic growth rate along with other variables to investigate the hypotheses whether democracy enhances or retard the economic growth as follow:

$$\alpha_{it} = F(\beta_j, Dem) \tag{5}$$

where β_j is the *jth* control variable such as investment-output ratio, education, government expenditures and population growth, and Dem shows the democratic standards commonly prevalent in society.

4.3 Analytical model

Merging equation (5) with equation (4), we acquire equation for estimation. Equation (6) shows the influence corruption and democracy on economic growth.

$$Q'_{it} = \delta_{\circ} + \delta_1 Dem_{it} + \sum \theta_j X_{ijt} + \varepsilon_{it} \tag{6}$$

Q'_{it} is a dependent variable of GDP per capita that shows growth rate, and explanatory variables are democracy Dem_{it} and sets of associated variables X_{ijt}. Following Mo (2001) the study incorporated six control variables such as investment-output ratio, corruption, government expenditures, education, growth rate of population, and GDP growth to examine the influence of democracy on economic growth. Where X_1 = GDP growth, X_2 = investment-output ratio, X_3 = education, X_4 = corruption, X_5 = government expenditure and X_6 = population growth. We will estimate economic growth model given in equation (7) by using panel second generation model, specifically Fully Modified Ordinary Least Square (FMOLS) technique.

4.4 Econometric Methodology

4.4.1 Cross-Sectional Dependence

This is an era of globalization, and economies are connected with each other, and the shock in one economy is not limited to that country but has long-lasting effects on the other economies as well. The spill over effect attached to the shock gives rise to the problem of cross-sectional dependence in panel data analysis, where we collect data for many economies across time. According to De Hoyos and Sarafidis (2006), modern nations are integrated financially and economically, an important reason for cross-sectional dependence. The problem of cross-sectional dependence is more pronounced in dynamic panel data. Most of the previous studies have ignored the issue of cross-sectional dependence and produced biased results (Hsiao and Tahmiscioglu 2008). In recent studies, cross-sectional dependence is no more an option but a compulsory procedure (Turkay 2017). Therefore, in this analysis, we have checked the cross-sectional dependence between the cross-sectional entities with the help of the Pesaran (2004) test. The null of this test confirms the independence of cross-sectional units or, in other words, no cross-sectional dependence. Another advantage of checking cross-sectional dependence is that it helps us to indicate whether we should apply first-generation or second-generation unit root tests.

4.4.2 Unit Root Tests

After checking the cross-sectional dependence, the next issue in the dynamic panel analysis is to check the stationarity of the data series. To avoid spurious regression or to have a valid long-run relationship among regressors, we need to check the order of integration of the variables. In this regard, first and second-generation unit root tests are available. The first generation unit root tests such as Maddala and Wu 1999, Levin et al. 2002, and Im et al. 2003 have one problem: they don’t consider the issue of cross-dependence and can wrongly reject

the null hypothesis in the presence of cross-sectional dependence (Banerjee et al. 2001). Contrariwise, the second generation unit root tests like CADF and CIPS introduced by Pesaran (2004) can resolve the issue of cross-sectional dependence and heterogeneity in panel data and fix the false rejection of the null hypothesis.

4.4.3 Co-Integration Tests

Co-integration must exist between the long-run variables to avoid spurious long-run results. In this analysis, we have applied two different cointegration tests known as Pedroni (1999) and Westerlund (2007) to detect whether the long-run relationship exists between the concerned variables or not. Most of the environmental studies have relied on the Pedroni cointegration test. The Pedroni cointegration test has used seven statistics to confirm the long-run relationship between the variables under consideration. Four are panel-based among the seven statistics, and the remaining three are group-based. The four panel-based statistics consist of panel-v, rho, PP, and ADF statistics, and they are also identified as within dimension tests. On the other side, the remaining three tests include group-rho, ADF, and PP, also known as between dimension tests. The null hypothesis of this test indicates no cointegration against the alternative hypothesis for cointegration. In this test, the null hypothesis is similar for both within and between dimension statistics. In contrast, the alternative hypothesis of this test is quantified in terms of homogenous alternative for within dimension statistics and heterogenous alternative for between dimension statistics. However, the main disadvantage of this test is that it can't account for the cross-sectional dependence while measuring the cointegration relationship among the variables. Therefore, we have also employed another cointegration test known as the panel cointegration test based on the ECM model proposed by Westerlund (2007), which is an efficient test even in the presence of cross-sectional dependence. The Westerlund (2007) test is made up of two different group statistics, including two mean group (Gt,Ga) and

two pooled panel (Pt,Pa) statistics. This test also has some added advantages; for instance, it also accounts for the structural break and considers the lead-lag length while dealing with a short span of data (Persyn & Westerlund 2008).

4.4.4. Fully Modified Ordinary Least Square (FMOLS)

The panel data is a mixture of time series and cross-sectional settings. Therefore, the number of observations in the panel data set up increases manifold, which provides more efficient results. In time series and cross-sectional analysis, the number of observations is limited, and we can have a limited degree of freedom in both types of data. Conversely, in the panel data set, due to the integration of time series and cross-sectional data, we don't need to worry about the issue of a limited degree of freedom. However, special techniques such as the fixed effect (FE), random effect (RE), and generalized method of moments (GMM) are required to deal with panel data settings, but only for small panels. When the time series dimension is long enough, as is in our case, we need to apply second-generation estimation techniques such as the pooled fully modified ordinary least square (FMOLS) estimation technique, an advanced form of pooled ordinary least square (POLS) estimation technique.

We combine the time series and cross-sectional observations in the POLS method and run a single regression; however, the estimates of such regression suffer from the problems of serial correlation and endogeneity because POLS can't deal with such issues. Therefore, in this analysis, we have applied FMOLS, an efficient estimator in the presence of sequential correlation and endogeneity. The technique of pooled FMOLS was presented by Phillips and Moon (1999), which can estimate the cointegration relationship if all the variables are integrated of order one (I(1)). This technique uses the non-parametric approach to deal with the problems of sequential correlation and endogeneity (Ametorwo, 2016; Sharif et al., 2019).

It is also worthy of mentioning that pooled FMOLS can separately sum through cross-sections in the numerator as well as in the denominator. Both FMOLS and DOLS are robust estimation techniques and provide efficient results even if the problem of endogeneity exists in the model. Moreover, these techniques can also resolve the problem of serial correlation. The processes used by the FMOLS to counter endogeneity and serial correlation are non-parametric against the parametric technique by the DOLS to counter the same problems (Baek, 2015 and Streimikiene & Kasperowicz, 2016). In the parametric approach, DOLS adds leads and lags values of the independent variables that can take good care of issues of endogeneity and serial correlation (Kao & Chiang, 2001). DOLS is a good estimator in the case of small sample size (Dogan & Seker, 2016). Moreover, DOLS can also handle the issue of cross-sectional dependence and can provide consistent and unbiased estimates. To deal with the problem of cross-sectional dependence the DOLS can use the country-specific estimates to attain unbiased estimators. While dealing with panel data analysis another problem we encountered is the heterogeneity in the long-run variance (Kim et al. 2005). This problem can also be solved by the FMOLS and DOLS through their weighted criteria (Kisswani et al. 2016). Twin approaches are workhorse methods of estimation in panel data last one decade. We employed FMOLS approach for long-run estimates.

4.5 Data and Sources

The study intends to explore the influence of democracy on economic growth for developing, developed, and Asian economies for time horizon 1996 to 2019. In developing and developed countries inequalities is common in institutional quality, which becomes a difference in economic growth. The level of economic growth is also different in Asian developing and developed countries. The institution plays an important role in maintaining a secure economy and lead socialization decreases risk and uncertainties, and strongly affect

economic growth. Unfortunately, developing Asian countries are corrupt, violation of laws, lack accountability of government institutions due to which less effective public sector found. The level of democracy, Institutional quality, and economic development are different in developing and developed Asian countries. So we have selected both developing and developed Asian groups of democratic states for empirical analysis. Table 1 displays the details regarding symbols, definitions of variables, and sources of data.

Table 1: Variables definition and sources

Variables	Definitions	Sources
GDP	GDP per capita growth (annual %)	World Bank
Democracy	Democracy index range from 0 to 3**	V-Dem
COC	Control of Corruption: Percentile Rank	World Bank
Consumption	General government final consumption expenditure (% of GDP)	World Bank
Investment	Gross capital formation (% of GDP)	World Bank
Education	Average years of schooling	Barro and Lee
Population	Population growth (annual %)	World Bank

** liberal democracies (score 3), electoral democracies (score 2), electoral autocracies (score 1), and closed autocracies (score 0)

4.5.1. GDP: Economic growth is measured as GDP per capita growth in annual percentage and the data series is taken from the World Bank. Previous statndard litatertur has used GDP per capita growth as dependent variable.

4.5.2 Democracy: Democracy is the main variable of economic growth. The impact of a democratic regime on economic growth is described by (Guillaumont et al.,1999). A bulk of studies regarding the relationship between democracy and economic growth are directed, but decisions keep on mixed (Przeworski et al., 2000; Brown and Mobarak, 2009; Krieckhaus, 2004 Chowdhury, 2012; Aisen and Veiga, 2013). A strong and positive impact of democracy on economic development by Rock (2009) and Knutsen (2013), Acemoglu et al., (2019). In distinction, other's opinion settles that democracy has a negative effect on economic growth Gerring et al., (2005) Aisen & Veiga (2013). Further studies found that there is no relationship between democracy and economic growth (Murtin &Wacziarg, 2014). Narayan et al. (2011) discover that the increase in democracy establishes a negative impact on real income levels. The standard literature shows that democracy has a mixed impact on economic growth. Democracy index ranges from 0 to 3 where score 0 means closed autocracies, score 1 means electoral autocracies, score 2 electoral democracies, and score 3 means liberal democracies. Data for democracy index has been extracted from V-Dem.

4.5.3 Corruption: Corruption is another factor that hinders economic growth due to democratic institution quality. Numerous studies provide different impacts on economic growth. Mauro (1995) noted that corruption in governing institutions creates a negative association with economic growth. Within one country, corruption has a growth-deteriorating effect. The level of corruption is low, and corruption increasing its development level. Control of corruption is measured into a percentile rank.

4.5.4. Consumption: Consumption level is another factor of economic growth. It has a negative impact on economic growth in developing countries. Government consumption affects negatively growth levels. This result ropes this statement that quality government

spending progresses growth with growing democracy. However, consumption is measured in general government final consumption spending as percent of GDP.

4.5.5. Investment: Investment is a key factor in the economic growth model. Investment has a direct effect on economic growth. While investment has also an indirect effect on economic growth. Investment has also a strong multiplier impact on economic growth, but it has conclusive results in past literature. Investment has a different impact on economic growth in different regimes. It has also a different impact on economic growth in developed and developing economies. The investment grows in an environment of economic freedom and rich institutional quality. Gross capital formation as percent of GDP is used as measure of investment.

4.5.6. Education: The other factor we discuss is education which has a positive impact on democracy as it increases economic growth (Card, 1999). Education real income and mental skills. A rise in education is also related to suitable social results. In 20th century, some prominent researchers only focused on education (Dahl, 1971; Lipset, 1959). Higher education lead to high income (Cutler and Lleras-Muney, 2008). Its positive effects are more than personal benefit Moretti (2004). Average years of schooling are used to measure education. Data for control of corruption, consumption, investment, and population is taken from the World Bank, whereas the data for education have been sourced from Barro and Lee.

4.5.7. Population: The relationship between population growth and economic growth is contentious (Heady & Hodge, 2009). Low population growth generates social and financial problems in high-income countries whereas high population growth leads to slow growth in low-income countries (Baker, Delong, & Krugman, 2005). Population growth is another factor

that we discuss which affects economic growth. Population growth disturbs many facts like the age structure population of a country, worldwide movement, economic discrimination, and the labor size of a country. These factors affect economic growth. The population has two types effects of effects. Becker et al. (1999) explain that low-income and high-income countries have different sizes of population growth. Population growth is measured in annual percentage.

CHAPTER 5
RESULTS AND DISCUSSION

This chapter discuss the descriptive and empirical estimation. We also reported the results of cross sectional dependence, unit root and co-integration. In the end we also estimated the results in region wise and economy wise.

5.1 Results of Diagnostic Testing

Table 2: Descriptive statistics

	Variable	GDP	Democracy	COC	Consumption	Investment	Education	Population
Developing	Obs	360	360	360	360	360	360	360
	Mean	3.729	1.197	32.67	17.15	29.27	6.139	1.480
	Std. Dev.	3.697	0.729	18.76	22.98	10.63	2.799	0.830
	Min	-8.873	0.000	0.474	4.727	6.620	1.314	-0.268
	Max	17.03	2.000	91.82	147.73	69.51	11.05	6.559
Developed	Obs	288	288	288	288	288	288	288
	Mean	3.449	1.694	52.85	15.10	27.03	9.742	1.113
	Std. Dev.	4.630	1.021	30.70	5.367	7.584	2.538	1.274
	Min	-5.39	0.000	1.075	3.961	12.92	3.000	-3.630
	Max	23.07	3.000	99.51	34.18	52.03	13.15	5.322
Asia	Obs	648	648	648	648	648	648	648
	Mean	3.604	1.418	41.64	16.24	28.27	7.740	1.317
	Std. Dev.	4.136	0.905	26.72	17.52	9.458	3.227	1.066
	Min	-5.39	0.000	0.474	3.961	6.620	1.314	-3.630
	Max	23.07	3.000	99.51	147.7	69.51	13.15	6.559

Table 2 reports descriptive statistics. The mean of GDP in developing countries is 3.729 while the mean of developed is 3.449. This shows that the means of GDP of a developing country is relatively high than a developed country. Similarly, mean democracy of developing countries

is 1.197, and mean value of developed countries is 1.694 which relates that developed countries are more democratic states than developing countries. Control of corruption indicates that developed countries are more than developing countries. Similarly, the consumption level in developing countries is 17.15, and the mean value is 15.10 which shows that the consumption level of developing countries is more than developed countries. The descriptive statistics also show investment and population in developing countries is more than in developed countries. The result also shows that education level is higher in developed countries as compared to developing countries. Economic growth and democracy of developing and developed economies are also reported in Figure 1 and 2.

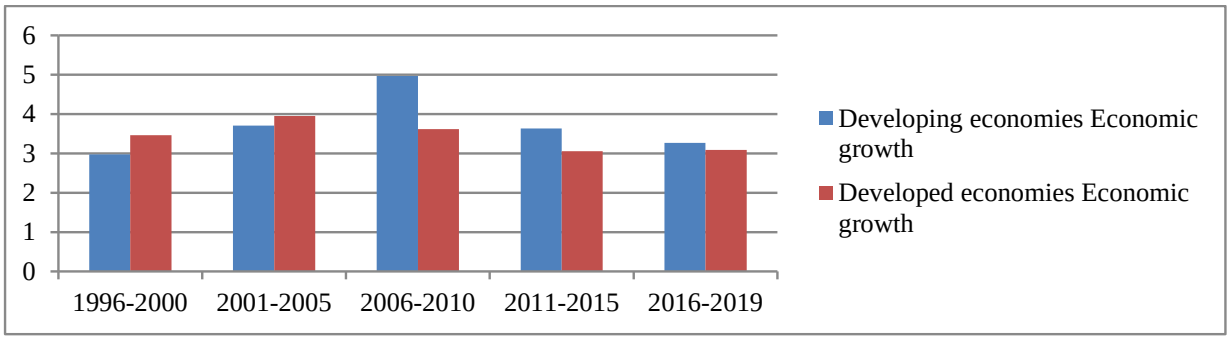

Figure 1: Economic growth of developed and developing economies

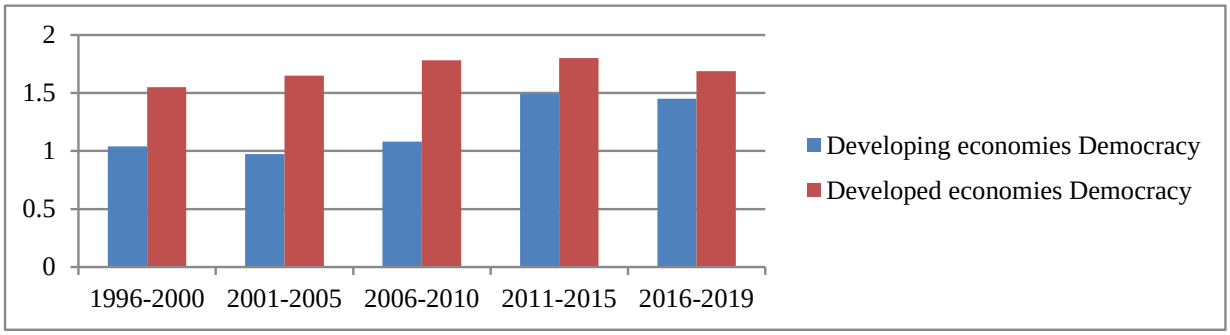

Figure 2: Democracy of developed and developing economies

Figure 1shows that the growth level of developed countries of Asian region is higher as compared the developing countries. However gradually the growth level of developing countries increases as shown in last one and half decades. Figure 2 shows democracy level which explains throughout high in Asian developed countries.

5.1.1 Multicollinearity test

Table 3: Correlation matrix

		GDP	Democracy	COC	Consumption	Investment	Education	Population
Developing								
	GDP	1						
	Democracy	0.136	1					
	COC	0.024	0.182	1				
	Consumption	-0.112	0.053	0.172	1			
	Investment	0.181	0.199	0.506	0.071	1		
	Education	0.088	0.266	-0.142	-0.218	-0.036	1	
	Population	-0.355	0.132	-0.075	0.076	-0.132	-0.050	1
Developed								
	GDP	1						
	Democracy	0.226	1					
	COC	0.281	0.294	1				
	Consumption	-0.285	0.236	0.258	1			
	Investment	0.204	-0.194	-0.459	-0.425	1		
	Education	0.033	0.508	0.194	-0.157	-0.072	1	
	Population	-0.257	-0.107	0.185	0.245	0.117	-0.442	1
Asian								
	GDP	1						
	Democracy	0.190	1					
	COC	0.164	0.329	1				
	Consumption	-0.114	0.051	0.106	1			
	Investment	0.186	-0.009	-0.010	0.019	1		
	Education	0.043	0.455	0.238	-0.186	-0.104	1	
	Population	-0.284	-0.065	0.026	0.093	0.005	-0.298	1

Table 3 reports the correlation matrix. The relationship between democracy and control of corruption is 0.182 in developing countries and 0.284 in developed countries, which shows that there is no problem of multi-co-linearity. Similarly, the relationship between democracy and consumption is 0.053 in developing and 0.236 in developed countries, which shows that concern variables are free from the problem of multi-co-linearity. The relationship between investment and democracy is 0.199 in developing economies, while -0.194 in developed

countries. This also means that variables have no problem of multi-co-linearity. In short, our explanatory variables are free from the problem of mule-co-linearity in developing and developed, and Asian samples.

5.1.2 Cross-sectional Dependence Test

Table 4: Cross sectional dependence test

	GDP	Democracy	COC	Consumption	Investment	Education	Population
Developing							
CD-stats	2.619***	1.347	9.227***	6.317***	0.238	29.41***	2.625***
off-diagonal	0.424	0.367	0.342	0.375	0.333	0.622	0.408
Developed							
CD-stats	10.31***	1.886*	0.547	0.385	1.620*	26.60***	-1.323
off-diagonal	0.280	0.356	0.270	0.313	0.316	0.856	0.301
Asia							
CD-stats	10.91***	1.715*	8.771***	7.561***	1.164	61.92***	1.527
off-diagonal	0.221	0.407	0.309	0.328	0.343	0.754	0.431

Note: ***p<0.01; **p<0.05; *p<0.1

The cross-section dependence test results are reported in Table 4. Globalization encourages interdependence among nations in political, social, and economic. Size of economy is also matters in interdependence among nations. The cross-sectional dependence is one of the common phenomena in the estimation of panel data. Following the literature, Table 4 shows the results of cross-sectional dependence tests of Pesaran (2004). GDP of developing developed, and Asian countries shows that cross-sectional dependence is exists among groups. Thus our confirmed that the hypothesis of cross-sectional dependence is rejected, therefore, cross-sectional dependence is found among the groups.

5.1.3 Unit Root Test Table

Table 5 reported panel unit root results. For purpose of testing, we have used two method of unit root, such as Cross-sectional Augmented Dickey Fuller (CADF) and Cross-sectional Im-Pesaran-Shin (CIPS).

Table 5: Panel unit root testing

	CADF			CIPS		
	I(0)	**I(1)**	**Decision**	**I(0)**	**I(1)**	**Decision**
Developing						
GDP	-0.542	-4.448***	I(1)	-0.542	-3.241***	I(1)
COC	-1.213	-14.97***	I(1)	-1.483	-4.837***	I(1)
Consumption	-0.879	-12.77***	I(1)	-1.403	-4.325***	I(1)
Investment	-0.120	-13.71***	I(1)	-1.569	-4.526***	I(1)
Education	4.082	-14.10***	I(1)	-0.455	-4.641***	I(1)
Population	-0.597	-2.608***	I(1)	-1.426	-2.063***	I(1)
Developed						
GDP	-11.60***		I(0)	-4.373***		I(0)
COC	-0.366	-2.393**	I(1)	-0.398	-2.109**	I(1)
Consumption	-0.255	-13.47***	I(1)	-1.496	-4.875***	I(1)
Investment	0.102	-4.079***	I(1)	-0.256	-2.489***	I(1)
Education	3.358	-13.81***	I(1)	-0.520	-4.995***	I(1)
Population	-1.123	-5.071***	I(1)	-1.411	-2.738***	I(1)
Asia						
GDP	0.236	-4.681***	I(1)	0.365	-3.744***	I(1)
COC	-0.325	-2.500**	I(1)	-0.233	-1.928*	I(1)
Consumption	-0.825	-18.50***	I(1)	-1.155	-4.568***	I(1)
Investment	-0.558	-18.28***	I(1)	-1.178	-4.502***	I(1)
Education	5.281	-19.72***	I(1)	-0.484	-4.799***	I(1)
Population	-1.194	-5.175****	I(1)	-1.494	-2.363***	I(1)

Note: ***p<0.01; **p<0.05; *p<0.1

The variable of GDP is insignificant at level and becomes stationary at first difference in developing countries. The remaining all variables of developing countries are insignificant at level and convert it stationary at first difference. Both CADF and CIPS outcomes show that democracy, COC, consumption, investment, education, and population are non-stationary at level but stationary at the first difference, meaning that order of integration is mixed. Findings show that all concern variables are stationary at I(1).

5.1.4 Co-integration Analysis

Table 6 reveals the results of panel cointegration test. The findings of Pedroni and Westerlund tests show that cointegration relationship among the concern variables is confirmed.

Table 6: Panel co-integration test

	Pedroni test					**Westerlund test**	
		Statistic	**Prob.**	**Statistic**	**Prob.**	**Statistic**	**Prob.**
Developing	Panel v-Stat	-0.532	0.720	-1.062	0.142	-1.934**	0.026
	Panel rho-Stat	2.888***	0.001	3.827***	0.000		
	Panel PP-Stat	-11.34***	0.000	-11.51***	0.000		
	Panel ADF-Stat	-9.132***	0.000	-9.023***	0.000		
Developed	Panel v-Stat	-0.680	0.870	-1.200	0.210	-1.921**	0.027
	Panel rho-Stat	2.183**	0.014	3.176***	0.000		
	Panel PP-Stat	-10.29***	0.000	-11.01***	0.000		
	Panel ADF-Stat	-9.193***	0.000	-10.06***	0.000		
Asia	Panel v-Stat	-0.651	0.812	-1.145	0.208	-2.974***	0.001
	Panel rho-Stat	3.499***	0.000	4.859***	0.000		
	Panel PP-Stat	-14.55***	0.000	-15.02***	0.000		
	Panel ADF-Stat	-12.93***	0.000	-13.43***	0.000		

Both tests reveal that there exists long-run relationship among the variables in developing and developed countries. A similar result is found for Asian nations.

5.2 Results of Fully Modified Ordinary Least Square

5.2.1 Comparison of Asia with Developed and Developing Countries

Table 7 reports the results of FMOLS regressions for three different samples. Democracy has a significant positive effect on economic growth, which shows that 1% increase in democracy fosters 1.23% in economic growth in developing economies. Similarly, in case of developed countries, democracy has a positive effect on economic growth, which infers that 1% increase in democracy increase 2.78% in economic growth.

Table 7: FMOLS estimates

	Developing		Developed		Asia	
	Beta	t-stat	Beta	t-stat	Beta	t-stat

Democracy	1.23***	6.51	2.78***	5.35	2.37***	3.65
COC	0.01***	5.04	0.06***	6.49	0.02	0.57
Consumption	-0.16***	18.4	-1.60***	6.72	-0.82***	24.1
Investment	0.19***	38.7	0.14***	2.74	0.17***	30.7
Education	1.18**	2.15	1.89**	2.44	0.19***	15.2
Population	2.19***	34.4	2.08***	9.16	2.14***	31.8

Note: ***p<0.01; **p<0.05; *p<0.1

This result is in line with the previous theoretical and empirical studies (Helliwell, 1994; Feng, 1997; Drury et al. 2006; Doucouliagos & Ulubaşoğlu, 2008; Rachdi & Saidi, 2015). This finding changes from Knutsen (2012), who demonstrated the unfavourable effect of democracy on economic growth. Also, democracy is related to freedom of right and high capital accumulation, which in turn improves economic growth. Democracy also affects economic growth via foreign direct investment and good governance. A possible reason is that democracy has also a strong significant indirect effect on economic growth.

Control of corruption has a significant positive affect on GDP which states 1% increase in COC raises 0.01% increase in economic growth of developing countries. Similarly, developed countries control of corruption has a significant positive effect on economic growth. This infers that a 1% increase in COC increases 0.06% of economic growth. This result is also consistent with the findings of De Vaal & Ebben (2011), Grabova (2014), and Ertimi et al. (2016), who noted that corruption is strongly directly and indirectly affects economic growth. However, it is inconsistent with the result of Obamuyi & Olayiwola (2019), who noted that corruption has a positive impact on economic growth in India and Nigeria. There is a direct and indirect relationship found between corruption and economic growth. The level of COC will have a positive impact on equitable distribution of resources among the population, social

welfare programs, reduce income inequalities, which in turn improves economic growth. Control of corruption has also directly and indirectly influenced economic growth by reducing transaction costs. Corruption also hinders economic growth by limiting domestic and foreign investment. Thus corruption is a severe impact on economic performance in Asia by reducing the progress of economic factors.

Regarding control variables, investment has a significant positive effect on GDP in developing countries. This states that 1% increase in investment has 0.19% increase growth rate of developing countries, but investment has more positive significant effect on economic growth in developed counties and increased by 2.74% in economic development. Our outcome is backed by Khan & Kemal (1996) for developing countries, Ghani & Din (2006) for Pakistan, Tang et al.(2008) for China, Moyo (2013) for Zimbabwe, and Bermejo Carbonell & Werner (2018). This implies that domestic investment is a major component of development growth. Positive investment is due to an increase in stock of capital and in the quantity of capital available in economy. Investment has a positive effect economic growth through increasing the level of stock of capital. This also reports that investment has a positive relation with economic growth by boosting the infrastructure of an economy and opportunities for employment. Traditional economists believed that increase in capital stock leads to economic growth.

Consumption has significant negative effect on economic development in developing countries. This shows that 1% increase in consumption decreases -0.16% in economic growth rate. Similarly, in developed countries consumption level has also a significant negative effect on economic development and infers that 1% increase in consumption level decreases -1.60 in development growth. Our finding is also confirmed by Barro (1991), who noted that government consumption is inversely related to economic growth. However, our result is also contradicted with Dowrick (1996), who noted that economic growth is a non-monotonic

production function of expenditure and playing a positive role in economic growth. The negative effect of consumption has many reasons. A negative effect of consumption maybe due to a large government deficit, which in turn increases economic uncertainty. With increase in taxes the purchasing power of consumers decreases, the stock of goods increases, the investment decreases, thus economic growth also decreases in developing and developed economies. Similarly, unexpected inflation also creates uncertainty for domestic and foreign investors which results in less investment and less economic growth. Non-development expenditure of government on defence, healthcare, education, which decreases the level of GDP.

In developing countries, the government goal is to achieve demand-driven industrial policies to get employment levels, market sustainability, and limitations in competition. To enhance trade and exchange rate policy govt focus on a sustainable inclusive industrial market. As a result, adequate new products and services create new jobs and new industries that are essential for long-run economic growth (Saviotti 2001, 2013). There are some reasons for the reduction of economic growth in developing countries such as; high level of population, low export level and stretching import, poor quality institutions, and high restrictions in trade (tariff and other quotas). The government only focused on demand-driven policies, which indirectly reduces economic growth.

Education has a significant positive effect on economic development, which states that 1 % increase in education increases 1.18 % in economic growth in developing countries. Findings also infer that a 1% increase in education foster 2.44 % in economic growth in developed countries. The finding on education is in accordance with Galor & Tsiddon (1997), Asteriou & Agiomirgianakis (2001), de la Escosura & Rosés (2010), Pelinescu (2015), Wang & Liu (2016), Mohanty & Sethi (2019), and Ogundari, K., & Awokuse (2018). Educations

directly affect economic growth as it is necessary to improve human capital, as its positive role in increasing the productivity level of workers and output. Education enhances basic skill and knowledge, which also improves the productivity of each sector of economy. This means that education is the fundamental key for economic growth by improving technology innovations. Education improves standard of life by reducing income inequality and poverty in economy. Education raises people's productivity and entrepreneurship, thus it has also positive impact on economic growth.

Specifically, the coefficient of the population is significantly positive. This shows that 1% increase in population increases economic growth by 2.19% in developing countries. Similarly, a 1% increase in population fosters economic growth by 9.16 % in developed economies. This result is in accordance with the previous literature (Kelley & Schmidt 1995; Becker et al. 1999; Peterson 2017), who noted that population positively affects long-term economic growth. The more people lead more work is economy by increasing consumer spending at domestic level and do more innovation, thus improves economic growth. The positive effect in terms of economic growth due to increase in human capital and abundance of manpower. More stock of population reduces wages rate in labour market by increasing productivity. In contrast, some nation has also negative population on economic growth in developed countries. This result contradicts the current empirical studies (Golley & Zheng 2015; Nagarajan et al., 2016), which infers that population growth negatively impacts GDP growth.

5.2.2 Country Specific Analysis

Table 8: Country-wise FMOLS results

	Democracy		COC		Consumption		Investment		Education		Population	
Country	Beta	t-	Beta	t-	Beta	t-	Beta	t-	Beta	t-	Beta	t-
India	3.44***	7.61	0.10***	4.34	0.04	0.26	0.16***	6.49	2.46***	2.74	5.48**	2.05
Pakistan	0.46	1.40	0.04**	2.21	-0.66***	8.55	0.13**	2.23	2.29***	4.38	3.51**	2.21

Bangladesh	0.13***	11.6	0.01***	2.84	1.19***	8.00	0.35***	5.78	-1.50***	5.50	-2.25***	8.78
Philippines	0.86***	8.46	0.01	1.22	-0.35***	4.68	0.15***	7.67	2.67***	7.64	1.99**	2.23
Vietnam	0.36***	3.08	0.11***	9.96	1.62**	2.09	0.04***	3.05	0.11**	2.56	-5.59***	8.33
Iran	1.47	0.20	0.33***	8.66	1.14***	4.57	-0.16*	1.70	1.19***	4.89	-2.16***	6.37
Myanmar	-5.13***	8.45	0.01	0.57	0.56***	8.36	0.49***	4.41	-10.7***	4.82	-1.27***	10.8
Nepal	0.50***	4.85	-0.03**	2.47	-0.78***	6.43	0.32***	4.16	-1.15***	7.60	-0.34***	4.03
Sri Lanka	-0.86***	4.46	-0.10***	5.21	0.44**	2.20	0.59***	8.67	-3.69***	5.47	-0.51	1.41
Bhutan	-3.00***	20.1	0.08***	3.49	-0.83***	11.6	0.06***	8.61	-4.22***	11.2	-2.69***	21.2
Kyrgyz	1.14***	9.60	-0.25***	4.58	-1.24***	6.19	0.17***	3.32	-6.73***	7.81	1.80**	1.99
Lebanon	-4.95***	11.0	-0.08***	2.71	-2.41**	2.00	0.10**	2.13	-5.07**	10.8	-0.66***	8.90
Mongolia	2.58	1.11	0.07***	3.39	-0.51***	4.00	0.38***	9.11	-1.09*	1.88	0.09	0.07
Nepal	0.52**	2.47	-0.02	0.98	-0.80***	3.30	0.33***	7.41	-1.24***	4.06	-0.38**	2.19
Timor-Leste	-3.80***	8.31	-0.29***	7.29	0.13***	11.5	-0.18***	8.18	9.04***	4.51	3.20***	5.48
Armenia	4.93	1.33	-0.17***	5.53	-5.33***	4.34	-0.34***	8.67	6.27***	8.18	-1.14**	2.23
Cyprus	0.38***	3.55	-0.21***	2.68	-1.90***	6.50	-0.12***	8.41	0.65***	4.72	4.13***	4.45
Georgia	5.42***	4.91	0.04	1.41	-0.72***	7.77	0.30***	7.15	-3.73***	3.07	-2.33***	5.31
Israel	3.10***	9.61	0.21***	3.44	-2.22***	11.1	0.51***	4.55	-5.28***	9.30	-3.21***	5.80
Japan	2.89	1.56	0.17***	4.82	-0.63***	2.82	-0.06	0.63	0.62**	2.55	0.40	0.35
Korea, Dem.	-3.38***	4.06	0.14**	2.40	-2.18**	7.34	0.59***	7.01	3.74***	5.90	-4.82***	2.90
Malaysia	3.09***	7.54	0.06**	1.96	-0.01	0.12	0.25***	10.2	-1.79***	9.37	-3.15*	1.92
Maldives	-3.26***	7.10	0.00	0.00	-0.44**	2.48	-0.14**	2.25	1.43**	2.19	-2.64***	5.31
Singapore	2.52***	3.51	1.29***	5.37	-2.73***	9.20	-0.09*	1.71	-0.68***	3.62	-1.72***	11.4
Thailand	1.32***	4.84	0.06*	1.82	-1.64***	9.03	-0.11***	3.30	4.51***	3.40	-5.22*	1.71
Turkey	2.26***	3.58	0.01	0.52	-1.48***	7.13	0.90***	4.04	0.60	1.50	3.17***	3.15
Turkmenistan	0.97	0.71	0.79***	10.0	0.14	1.30	0.05	1.49	16.39***	5.37	-3.40***	2.87

Note: ***t<0.01; **p<0.05; *p<0.1

5.2.2.1 Democracy

The variable of democracy states a positive significant effect on GDP for India, Bangladesh, Philippines, Vietnam, Nepal, Kyrgyz republic, Cyprus, Georgia, Israel, Malaysia, Singapore, Thailand, and Turkey. Our finding is reliable and consistent with earlier literature, such as Rachdi & Saidi (2015), Durmaz (2017), Ray & Ray (2011) reported same findings for Turkey, MENA, and India.India with more GDP than Pakistan and bangladash . The variable of democracy shows a significant negative influence on economic growth in Myanmar, Sri Lanka, Bhutan, Lebanon, Timor-Leste, Korea Dem, Maldives. The variable of democracy explains the positive insignificant effect on economic development in Pakistan, Iran, Mongolia, Armenia, Japan, Turkmenistan.Rijul Alvan Das &Sidharth(2021) states that level of democracy is different all over the world. Britle democray is major reason of insignificiant effect of democracy on economic growth. The influence of militrisation and dogmatism is one of big reason of fragile democracy in south Asian countries.starvation, poverty ,low literacy ,high population, less health facialities are the other issues of south Asian countries(lee et al 2017) ,Devarajn & Nabi(2008), Nabi(2010). Asian countries are a major part of world poor (Islam et al.,2021).weak political and economic institutions are also main cause of fragile democracy.

5.2.2.2 Control of corruption

The variable of control of corruption shows a significant and positive impact on GDP in countries of India, Pakistan, Bangladesh, Vietnam, Iran, Bhutan, Mongolia, Israel, Japan, Korea, Malaysia, Singapore, Thailand, and Turkmenistan. Our outcomes are like by Huang (2016) and Sriyalatha et al. (2019), who noted that control of corruption has positive influence on economic growth for Asia-Pacific and South Asian. The variable of control of corruption states a negative significant influence on economic growth in Nepal, Sri lanka, Kyrgyz republic, Lebanon, Timor-Leste, Armenia, Cyprus. The positive insignificant effect on

economic development of control of corruption found in the countries of Philippines, Myanmar, Georgia, Maldives, Turkey. The negative insignificant effect on GDP of control of corruption found in the country of Nepal. Zubair and Smith (2021) by taking data of 42 Asian countries explain that Asian countries mostly involve in corruption. The negative insignificancy in Asian countries due to some reasons. High government spending the biggest reason of insignificant behaviour.The dimension of spending is more in military, rent seeking behaviour and on limited investment. The charecteristic of spending in more in private sector. Bribery and manipulation is more seen in Asian countries.

5.2.2.3 Consumption

The variable of consumption states a significant and positive influence on GDP of the countries named Bangladesh, Vietnam, Iran, Myanmar, Sri lanka, Timor-Leste. Our result is in line with the empirical findings of Wijeweera & Webb (2011) and Rahman et al. (2019), who reported same findings for South Asian nations. The variable of consumption shows a negative significant influence on the growth rate of the countries are Pakistan, Philippines, Nepal, Bhutan, Kyrgyz republic, Lebanon, Mongolia, Nepal, Armenia, Cyprus, Georgia, Israel, Japan, Korea, Maldives, Singapore, Turkey. The positive insignificant effect on economic growth of consumption level states in India and Turkmenistan. The negative insignificant effect on GDP of variable found in Malaysia. In the case of developing nations from where we see the weak institutional background, inflexible structures, administration, deficiency of transparency and frail supremacy(Ram, 1986; Asimakopoulos & Karavias, 2016),. For this, the excellence of institutional substructure is less, where people have no suitable info related to government financial actions like whole returns, definite government expenditure. In the same way, the tendency of government expenses explains the asymmetric structure. Another one, business cycle poisnters like government expenses is also show asymmetric structure (Combes et al., 2017). This indicates about fiscal cycle asymmetries may well conduct government

expenditure (Chen, 2014).Hae Kim (2017) by taking data of 52 Asian countries explain that different factors involve in consumption that have different effects on economic growth. For this 18 variables taken.some countries like hong kong ,Taiwan have positive significant effect due to its export oriented based industriliazation economy.Same political liberalization system become based of economic growth like in Brazil,Chile.Spending on defence effect negatively economic growth like in Pakistan. Likewise spending on innovation and knowledge has positive effect in growth level of countries.

5.2.2.4 Investment

The variable of investment states the positive significant effect on GDP of India, Pakistan, Bangladesh, Philippines, Myanmar, Bhutan, Sri lanka, Nepal, Kyrgyz republic, Mongolia, Lebanon, Georgia, Korea, Israel, Malaysia, Turkey. These results are empirical supported by (Latif et al. 2018; Dinh et al. 2019), who reported that investment positively contributes to economic growth for developing countries and BRICS nations. The negative significant impact on economic growth of the variable investment found in Iran, Armenia, Timor-Leste, Cyprus, Maldives, Singapore, Thailand. The positive insignificant effect on GDP of variable investment found in the country of Turkmenistan and negative insignificant impact on economic development found in Japan because of lack of independency means creativity, less freedom and future vision . Investment has an immediate impact on GDP, stock trading allows business to raise capital, launch new products and increase operation, and stock prices influence producers and consumers that in term effect overall economy (Xu, 2000; Obwona, 2001; Tang 2008; Nosheen, 2013; Albulescu, 2015; & ADB et al., 2016). Sean & Ross (2020) noted that economic growth occurs as a result of upsurge in the production of services and goods. The economic growth depends on consumer expenditure, international trade, stock of capital in an economy.

5.2.2.5 Education

The variable of education explains a positive influence on GDP in India, Pakistan, Philippines, Vietnam, Iran, Timor-Leste, Armenia, Cyprus, Japan, Korea, Maldives, Turkmenistan. The result is in accordance with Yang (2020), Abdouli & Omri (2021), and Matousek & Tzeremes (2021), who reported same findings for developing, mediterranean, and global countries. The negative significant effect of education on GDP in Bangladesh, Nepal, Myanmar, Sri lanka, Bhutan, Kyrgyz Republic, Lebanon, Mongolia, Georgia, Israel, Malaysia, Singapore. The positive insignificant effect of education on economic development is found in Turkey.). Education affected economic growth via different mechanisms (Ogundari & Awokuse, 2018). First, the human capital of labor increases through education, which results in an increase in labor production and transitional growth which leads to a ssssshigher level of equilibrium level of output. Second, in the domestic growth theories, the innovative capacity increased economic growth through education. . Holland, Rienzo, Liadze & Wilkinson [2] described that four groups explain about education effect 1. Education per years measures human capital stock 2. Flow of human capital examined through registration ratio in school 3. By looking GDP , public expenditure on education measured, which increase venture in human capital 4. Educational standard and its system a represent for world-wide exam scores Economic results of corruption consist of low output, reduced investment, and poor quality of growth. According to Ahmad (2012) corruption not only hinder economic development but also reduce domestic and foreign investment, overblown government expenditure, unfair allocation of education and health expenditure, and maintenance of digital infrastructure and reduce government projecs.thus educated people comes on merit and this reduce corruption. Rodrik's (2000) highlighted that growth is the upsurge in what a country produce over time, it is a strong factor that is used to measure the performance of economy, when GDP growth is strong, firm empoly more labor forces and able to pays more, it lead more people to hire, increase wealth of a country (Fischer & Easterly, 1990; Alesina & Perotti, 1994; Tung, 2018;

and Mohsin et al. 2021).Paravee Maneejuk and Woraphon Yamaka(2021)takes 5-Asian countries(Thailand, Malaysia , Indonesia, Singapore and Philipine) explain indicator for education:government expance on advance level education according to per student, registration rate in school level secondery and advanced level, eduacated labor power,and ratio of unemployment with advanced education.they found negative significant effect of economic growth in Thailand, Malaysia with respect of primary level , positive effect find in Indonesia.

5.2.2.6 Population

The variable of Population shows a positive significant effect on GDP of India, Pakistan, Philippines, Kyrgyz republic, Nepal, Timor-Leste, Turkey. This finding similar from the outcome of Bala et al. (2020), who demonstrated the favourable influence of population on economic growth in Pakistan. The variable of population shows a negative significant effect on economic growth of Bangladesh, Vietnam, Iran, Myanmar Nepal, Bhutan, Lebanon, Armenia, Georgia, Israel, Korea, Malaysia, Singapore, Maldives, Thailand, Turkmenistan. The variable of population explains a positive insignificant effect on GDP which is found in Magnolia and Japan. The negative insignificant effect of population on economic growth found in Sri lanka.Danghyun Park and Kwanho Shin (2011) takes 12 population aging countries data and describe demographical changes which are necessary to sustain ecomic growth. They takes India ,Pakistan , China , Hong kong , Philipines, Singapore , Malaysia , Indonasia, Thailand, Veitnam , Taipei.by taking data they explain that following changes are necessary for population aging .1)youthful population are more better than aging population .2)rising living standard decrease mortality rates.3)better health care programme. 4) enhance education level. 4)lower birth rate 5) great participation of women in work force.6)government provide such policies for better child cares and need policies for legal retirement age.7)start suitable income support programme and health care programme especially for eldery.

CHAPTER 6

POLICY IMPLICATIONS AND CONCLUSION

6.1 Conclusion

The linkage between democracy and economic growth dates back to Aristotle and Plato's debate regarding the question that, which kind of government can ensure the most economic and political gains in society. Since more than two eras, it is still inconclusive whether democratic government produces more economic growth or other types of governments produce more economic growth. An enormous body of literature tries to explore the influence of democratic government's performance on economic growth. However, the studies provide ambiguous findings on the linkage between economic growth and democracy. Several contradictory arguments are put forward to interpret the effect of democracy on growth and development. In this study, we try to elaborate the transmissions channels through which democracy affects economic growth. Advocates of the positive effect of democracy on economic growth suggest various channels through which democracy could influence economic growth. The first channel is described through property rights. It is argued that democracy provides better protection to property rights, thus enhancing economic growth. Second channel is described through political stability. It is argued that stable political regime exerts a beneficial influence on economic growth. Democracy can influence through the channel of human capital, as the growth of human capital increases economic growth. Another channel is described through technological innovation. As democracy enhances technological progress and innovation and thus enhances economic development.

This study explores the association between democracy and economic growth for developing and developed democratic Asian economies for the period 1996 to 2019. To draw efficient empirical estimates, various diagnostic tests have been performed such as CADF and CIPS panel unit root tests, cross sectional dependence test, and panel co-integration test. Panel

FMOLS technique has been used to estimate the long-run link between democracy and economic growth. Democracy is found to increase economic growth in developing, developed, and Asian economies. It implies that a 1 percent upsurge in democracy increases economic growth by 1.23 percent in developing countries, 2.78 percent in developed economies, and 2.37 percent in Asian economies. It indicates that democratic regime tends to enhance economic growth. It is found that control of corruption significantly increases economic growth in developed and developing countries. However, control of corruption does not produce a significant effect on economic growth in Asian economies. An increase in consumption reduces economic growth in developing, developed, and Asian economies. Whereas investment, education, and population reports an increasing impact on economic growth in case of developing, developed, and Asian economies.

6.1 Policy implications

Based on the findings, several policy implications are put forward. It is suggested that the promotion of democracy is crucial in order to minimize the impact of corruption. As the monitoring system progresses due to improvement in democracy and investment expands that enhances economic growth. Thus, it is suggested that corruption must be controlled in order to obtain fruitful impacts of democracy on economic growth like by making rules and systems transparent means establishing accountability in institutions to remove bribery and commission taking system, govt spends in a productive way, improving and free tax collection system, political system improve motivate patriot leaders. It is suggested that democratic governments should increase developmental consumption expenditures that generate more employment opportunities and more sources of income, thus boost up economic growth.

Public and private investment should be increased that can positively improve living standards, hence improving economic development significantly. It is also suggested that democratic government should increase expenditures on human capital as the accumulation of

human capital have a tendency to increase economic growth. Institutional quality should be increased that good-quality institutions can promote the performance of democratic governments which can result is improving economic growth.

Governments should prioritize initiatives that promote digital literacy and skills development among citizens to enable them to fully participate in e-governance initiatives. This includes providing access to training programs and resources that help individuals understand and navigate e-government services. Governments should ensure that e-governance services are accessible to all citizens, including those with disabilities, through the use of accessible technology and user-friendly interfaces. Governments should invest in the necessary infrastructure, such as high-speed internet and digital devices, to ensure that citizens have access to e-governance services. This will facilitate the use of e-governance services and promote economic growth through increased productivity and efficiency. E-governance initiatives can promote economic growth by increasing productivity and efficiency, reducing corruption, and improving public finance management.

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Appendix

Table 1A: Descriptive statistics with time-trend

Developing economies								
	Variable	**GDP**	**Democracy**	**COC**	**Consumption**	**Investment**	**Education**	**Population**
1996-2000	Mean	2.976	1.040	37.302	20.071	24.516	4.976	1.628
	Std. Dev.	2.676	0.796	19.057	31.399	7.475	2.672	0.629
	Min	-2.762	0.000	1.613	4.727	6.620	1.314	0.506
	Max	12.435	2.000	83.756	142.297	50.344	10.000	2.870
2001-2005	Mean	3.704	0.973	34.063	17.570	26.870	5.573	1.662
	Std. Dev.	3.982	0.788	19.769	25.252	11.843	2.707	0.834
	Min	-8.873	0.000	0.976	4.846	11.830	1.743	0.712
	Max	14.173	2.000	84.022	147.733	66.495	10.400	4.812
2006-2010	Mean	4.968	1.080	27.649	17.656	30.412	6.247	1.239
	Std. Dev.	3.686	0.731	18.248	23.686	9.831	2.800	0.521
	Min	-6.116	0.000	0.476	5.075	12.140	2.300	-0.055
	Max	17.031	2.000	79.048	115.933	63.189	11.000	2.868
2011-2015	Mean	3.636	1.493	31.374	15.366	33.524	6.835	1.478
	ssStd. Dev.	3.623	0.503	17.151	16.158	12.263	2.691	1.282
	Min	-8.553	1.000	0.474	5.039	14.121	2.300	-0.268
	Max	15.155	2.000	87.500	88.669	69.510	10.900	6.559
2016-2019	Mean	3.267	1.450	33.037	14.593	31.468	7.297	1.375
	Std. Dev.	4.231	0.622	18.589	11.218	8.139	2.547	0.516
	Min	-8.036	0.000	12.019	5.892	15.611	3.100	-0.054
	Max	16.415	2.000	91.827	56.410	57.006	11.051	2.742

Developed economies								
	Variable	GDP	Democracy	COC	Consumption	Investment	Education	Population
1996-2000	Mean	3.466	1.550	51.246	15.121	27.837	8.743	1.100

	Std. Dev.	5.194	1.048	31.709	6.962	7.663	2.642	1.577
	Min	-12.779	0.000	1.075	7.699	17.837	3.000	-3.630
	Max	15.310	3.000	97.462	34.181	49.421	12.000	4.064
2001-2005	Mean	3.948	1.650	52.114	15.330	25.074	9.213	1.023
	Std. Dev.	5.215	1.071	30.607	5.748	4.231	2.643	1.119
	Min	-15.396	0.000	1.951	8.119	17.225	3.100	-1.551
	Max	14.643	3.000	98.990	29.897	35.765	12.300	2.847
2006-2010	Mean	3.616	1.783	52.089	15.256	27.335	9.760	1.163
	Std. Dev.	6.025	1.010	31.020	4.893	7.756	2.467	1.284
	Min	-13.519	0.000	1.429	7.031	13.986	3.600	-0.888
	Max	23.075	3.000	98.571	25.613	51.881	12.600	5.322
2011-2015	Mean	3.056	1.800	55.137	15.096	26.814	10.417	1.209
	Std. Dev.	3.255	0.953	30.275	4.474	7.676	2.224	1.233
	Min	-6.336	0.000	1.422	5.941	12.925	5.200	-0.802
	Max	12.774	3.000	97.156	22.780	51.932	13.000	4.568
2016-2019	Mean	3.086	1.688	53.886	14.599	28.410	10.786	1.060
	Std. Dev.	1.820	1.035	30.799	4.247	9.882	2.153	1.102
	Min	-0.401	0.000	1.923	3.961	17.439	6.300	-0.209
	Max	7.382	3.000	99.519	22.864	52.039	13.155	4.427

Asia

	Variable	GDP	Democracy	COC	Consumption	Investment	Education	Population
1996-2000	Mean	3.194	1.267	43.499	17.871	25.992	6.650	1.394
	Std. Dev.	3.987	0.948	26.299	23.914	7.711	3.247	1.176
	Min	-12.779	0.000	1.075	4.727	6.620	1.314	-3.630
	Max	15.310	3.000	97.462	142.297	50.344	12.000	4.064
2001-2005	Mean	3.813	1.274	42.086	16.574	26.072	7.191	1.378
	Std. Dev.	4.555	0.981	26.633	19.182	9.281	3.228	1.018
	Min	-15.396	0.000	0.976	4.846	11.830	1.743	-1.551
	Max	14.643	3.000	98.990	147.733	66.495	12.300	4.812

2006-2010	Mean	4.367	1.393	38.511	16.589	29.044	7.808	1.205
	Std. Dev.	4.893	0.931	27.498	17.939	9.067	3.175	0.937
	Min	-13.519	0.000	0.476	5.075	12.140	2.300	-0.888
	Max	23.075	3.000	98.571	115.933	63.189	12.600	5.322
2011-2015	Mean	3.378	1.630	41.935	15.246	30.542	8.427	1.358
	Std. Dev.	3.464	0.751	26.580	12.370	10.963	3.061	1.263
	Min	-8.553	0.000	0.474	5.039	12.925	2.300	-0.802
	Max	15.155	3.000	97.156	88.669	69.510	13.000	6.559
2016-2019	Mean	3.186	1.556	42.303	14.596	30.109	8.848	1.235
	Std. Dev.	3.366	0.835	26.749	8.793	9.041	2.941	0.840
	Min	-8.036	0.000	1.923	3.961	15.611	3.100	-0.209
	Max	16.415	3.000	99.519	56.410	57.006	13.155	4.427