DETERMINANTS OF THE SIZE OF THE GOVERNMENT

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DEDICATION

I would like to bestow my work to my mother for inspiring me all these years, my family for their unconditional love and nevertheless my mentor Dr. Karim Khan who has put his trust in me and had always been supportive and complaisant.

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"Let yourself be silently drawn by the beauty of what you love" Rumi.

Lala Rukh Tufail

TABLE OF CONTENT

ABSTRACT

The prerequisite to debate on the perspective of the determinants of size of public sector has increased after the World War 2. The urge of transition from authoritarian regimes to democracy is worth consideration. Since the advancement in the research in the political institutions, governance and its determinants are enormous and contradictory. This research work emphases on the pattern of Gross National Expenditure for the 96 countries including both developing and developed nations and estimates the determinants which have far and wide influenced the expenditures patterns throughout the years from 1960 till recent times. Using cross section data and ordinary least square technique, it is found out that authoritarian regimes negatively affect the size of the public sector due to less developmental expenditures which are the subtle justification as absolutism, self-interest, rent seeking, patronage and corruption. The Gross domestic product per capita, population and area have substantial impact on state sector. On contrary, the specification analysis favors the robustness of the baseline analysis hence the results remains integral.

CHAPTER 1

INTRODUCTION

For a considerable length of time there has been extraordinary level headed discussion with respect to the relationship between government estimates, its determinants and development. The type of examination is externally opposing, with a few researchers contending enormous government diminishes development in various administrations, and others denying this to be the situation.

1.1 CONCEPT OF DETERMINANTS OF SIZE OF PUBLIC SECTOR:

The government system either democratic or authoritarian greatly effects the decisions and performance of an economy. Different economies have different historical backgrounds and work under diverse government structures with the assistance of certain economic approaches in accordance with the interests of economic and political agents. The dissimilar government systems have priorities and manifestos which influences the size of public sector.

Public sector is a domineering part of an economy. It is everything that is possessed and run by the state which implies the activeness of government. Civilizations and countries need state as equipment which helps them to develop and prosper. The main public sector activities include government expenditure, government tax system, debt financing and states regulation of private market actions as in broader sense the fortitude of state institutions is planning and policy designing, service provision, audit and accountability. The extent of the state segment of

economy implies in economic terms the degree to which the government treats economic resources. We need public sector due to following reason:

- Allocative incompetence

- Bigoted distribution

- Under provision of public goods

- Lack of individual private property rights

- Common property rights (Tragedy of commons)

- Problem of market power and economies of scale

- Insufficient and asymmetric information

- Externalities and spillovers

- Issues of private ownership

- Welfare losses

As explained by Robinson and Acemoglu (2011), *"Why Nations Fail"*; Authoritarian regimes are associated with absolutism (in the limit), political institutions engaged power in the hands of a few without constraints and checks and balances or rule of law. Rental-pursuing is exhausting and exploiting resources for self-interest which would be common in dictatorship. Unlikely authoritarianism, Democracy is associated with pluralism (Broad participation regulation) for markets. Open free entry of new businesses, uphold contracts and access to education and opportunity for the great majority of citizens. When there are secure property rights and better rule of law there will be more scope of investment.

The markets will be efficient due to resource allocation and entry of firms. The inclusive institutions would result in broad based participation and the investment in skill. Growth of an economy is under the inclusive institutions not extractive institutions.

Throughout the history the dictatorship has been dominant in most of the countries and so does it now. Nonetheless some economies are also in transition states which are bringing in the changes in their government structures. The transition from extractive to inclusive institution i.e. The Glorious Revolution in 1688 brought inclusive political institution which resulted in inclusive or pluralistic economic institutions and then the Industrial Revolution. In Britain the inclusive institution evolved due to institutional drift and the critical junctures. The effects of industrial revolution in different economies were different due to differences in institutions as some were inclusive like North America and Australasia because the European colonizers set them that way. Many nations like Ottoman Empire and the Eastern Europe were extractive. Others have extractive institutions because of the imposition by European colonizers e.g. South Africa and Indian subcontinent. In different regimes like Russian they feared industrialization because of the fear of losing governmental powers. The failures of nations now a day is due to extractive institutions that still prevail and the nations are still poor today.

1.2 INFLUENCE OF THE GOVERNMENT STRUCTURE ON STATE SECTOR:

The logic that supports the existence of extractive institutions is the fear of inventive destruction because the political and economic agents would not want to lose the position and the rent seeking behavior due to patron-client relationship. The growth under extractive institution is also

possible due to activities of elites but that would not be sustained growth and the dynamic forces would be very different.

There are different approaches to growth which would be in conflict in different regimes along with size of public sector:

- Neoclassical approach
- Endogenous growth approach
- Institutional framework approach

Neoclassical approach explains about the decreasing returns to capital and the model does not describe the long run growth of the country. According to endogenous growth approach the long run growth is concerned with technological advancement and model explains it by using production functions and there are no decreasing returns to capital.

According to institutional framework approach the fundamentals of growth are the institutions; Institutions are collective choices and endogenous as they are humanly created set of choices that shape human interaction. They appear, continue and change from the social contacts of individuals. The essential part of institution generally defined as the rules that govern economic and political behavior. The risks of a breach of contract or government expropriation have clear negative effects on growth.

1.3 PATRONAGE, PUBLIC GOODS PROVISION AND DICTATORSHIP:

The strong social relations among the interest parties make it more advantageous and desirable for the unions to indulge in such activities and then maintain their privileged positions by being powerful. They maximize their self-interests through their privileged positions. They could take the money illegally from individuals. This could be another reason for persistence of dictatorship till now.

The main concern is that governance structure mainly impacts the public policy and the size of public sector and then the overall economic growth. Therefore when there are non-democratic regimes or Dictatorship the power would only be associated to the interest groups and purpose of state for the welfare of the society would be at stake. Interest groups would indulge in activities that would only benefit the particulars. The activities of coalition include patronage in terms of patron-client relationship, transfer of payments, political support, corruption, rents and aids. The welfare or the development of society would just be dwarfed by such activities of military for their own benefits. The government expenditure describes the competent magnitude of the public and private sectors in the economy. The government sector which we here measure by government expenditures approach, would be influenced in non-democratic regimes due to such activities. There will be huge amount of transfer to the clients like bureaucrats, judiciaries and other agents.

The public sector is responsible for providing the main infrastructure, allocating economic resources, introducing inventions by investing on research and development, legislation, providing employment opportunities thus raising the standards of living of

individuals. According to The World Bank Report 1997, state is focus point to economic and communal progress not as a straight benefactor of growth but as a partner, catalyst and enabler. It protects the private property, regulates businesses activities, provides safety and helps private sector to increase productivity and social welfare by strategic decisions. When there will be poor public sector institutions, the private sector would also be pathetic due to pitiable socio-economic infrastructure, lack of confidence and trust and other incentives for investment.

When there will be a dictator as ruler, the provision of public goods would be less and of lower quality, there will be less research and development, the property rights would be insecure; the investments in the infrastructure would be only for benefits of the coalition. The results would be inevitable no matter how the country started the development process when the pitiless dictatorship exists because it will raise inequality and raises social tension. Although the democracy promotes pluralism, the policies are designed that enables distribution of economic resources but its unsuccessful in mobilizing those resources strategically to increase growth and it leads to stagnation and political instability which is another reason that size of public sector is more in dictatorships. *Leftwich* (2005) points out that democracies have great difficulty in taking rapid and far-reaching steps to reduce operational inequalities in wealth. Dictatorial parties can impact the spread of authority in a succeeding democracy by serving to guard the securities of controlling elites in new egalitarianisms, so they will bribe those democratic agents by offering patronage. In military regimes, leaders practice parties for assuring their communal safeties are protected, because dictatorial party arrangements can pledge at least specific interests of the departing leaders as well. The dictator will spend a huge amount of government expenditures in protecting the military's corporate interests, such as securing ample military budgets not even in

that present regime but also guarantee in upcoming regimes. Dictatorships are also better able to force savings and launch economic growth.

1.4 OBJECTIVE OF THE STUDY:

The non-democratic regimes have been determined throughout the history and the consequences are far more adverse. There is a need to research on this subject to conclude if democracy is compatible with ideal governance or the dictatorship. To empirically conclude that in which regime the self-consumption of state is supplementary. The foremost objective of research is to empirically analyze the determinants of the size of the regime. To what extent political institution determines the size of the public sector. What are the other factors besides governance which could influence the state sector? Which regime type could bring prosperity and welfare of the society? Institutions are one of the main dominating factors for the development of an economy; there is always a need to consider it on first basis because equilibrium can't be achieved if political disequilibrium prevails in a nation. The purpose of the study is to apply quantitative methods to the exploration of the relationship of authoritarian regimes and state sector along with other determinants.

1.5 CONCLUSION:

Public sector is a domineering part of an economy. It is everything that is possessed and run by the state which implies the activeness of government. Whereas authoritarian regimes are associated with absolutism (in the limit), political institutions engaged power in the hands of a

few without constraints and checks and balances or rule of law. Rental-pursuing is exhausting and exploiting resources for self-interest which would be common in dictatorship. Unlikely authoritarianism, Democracy is associated with pluralism which is Broad participation regulation.

The structure of radical regimes influences the state sector. The public sector is responsible for providing the main infrastructure, allocating economic resources, introducing inventions by investing on research and development, legislation, providing employment opportunities thus raising the standards of living of individuals. Therefore the political institutions determine the size of the government. We need to continue our analysis by looking deeper and reviewing the existing literature to prolong this perspective.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The present literature is contradictory to the sight of relationship between the political regime, determinants of size of government and growth; whereas it is clear that authoritarian regimes unfavorably affect the economy. The public sector across the world during the last century had steady growth; the public sector has grown substantially since the turn of the century[1].

2.2 IMPLICATIONS OF SIZE OF GOVERNMENT:

The 2015 world public sector report "*Responsive and Accountable Public Governance*" states 'The need for public governance to become more responsive and accountable for the state to lead the implementation of a collective vision of sustainable development. Social and technical innovations are providing an opportunity for the social contract between the state and the citizenry to shift towards more collaborative governance'. Therefore as state is the gear of an economy, its structure and the conduct is necessary to result in the development of an economy. Its structure depends upon the political institutions either democratic or authoritative. In authoritative institutions the rent seeking is common as explained by *Wu and Lin* (2010) that in

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[1]**Boix** (2002) empirically concludes that in the advanced world the Government Expenditures remained constant in 19th century, whereas after the World War 1 the state sector has increased (24% of GDP to 36%) in OECD and after then it got stabilized. The growth is also seen in the developing world. In the non-OECD it has increased (14% to 20% and then 27% in late 1970 and onwards.

the public sector rent seeking is entertained in some of the countries; individuals have patron client relationship with the state representatives to get uprights.

According to *Olson* (1991) a dictator's obligation is not trustworthy due to rental-pursuing which is using and exploiting resources for self-interest. The rent seekers are the monarchs and the representatives. The administrative institutions bureaucracy, military, judiciary organizes discrete interest groups. Hence the democracy plays just fine as related to dictatorship. Additional research shows that bureaucracy plays an important role in the enticement and political benefaction. *Andes and Posner* (1975) briefly explains that the representatives of the agencies have some unique power that will interest individuals. Along with structure, conduct of state sector is also important which is highly dependent upon the structure. According to *Ott and kesner et al* (2000) institutions need to be reformed in order to get better and managed public sector, the laws are enforced related to budget which then result in improved public sector institutions. *Organization for Economic Co-Operation and Development* (2003) concludes that government lucidity is not just good for private sector confidence but it also makes the government efficient. Transparency is beneficial to mitigate the bad governance effects and enhance development.

"An economy needs to be continually fine-tuned by an activist government to operate efficiently thus, as an economy grows, a growing government". Keynes further states that "The need for substantial increases in government spending during times of economic contractions[2]".

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[2] *Keynesians* explains that fiscal expansion is important to increase the economic development. Whereas on the contrary *Monetarists* oppose the activeness of government because according to them, it can cause instability and inefficiency in private sector. By the formation of coalition, interest groups increase the size of public sector. Opportunism and incompetence would lead to a policy that benefits the coalition but the costs would spread to common individuals.

Activist government is the one which interferes in order to stabilize the economy. Therefore there is a need for government to be efficient and active.

2.3 IMPACT OF AUTHORITARIAN REGIMES AND ITS CONSEQUENCES:

Since, dictators will and objectivity shows fluctuations in the economic development. Some could promote the welfare of the society and might be not. Their decisions are unpredictable hence the policies would have high variability and that would not let the society to interfere in decisions and planning, therefore the population would also be affected.

Becker (1983) claims that autocratic institutions permits the dictator to gain support by supplementary process e.g. the presence of coalition accordingly the conduct of a tyrant is similar to the conduct of a just legislator attempting to build its backing among residents and vested parties.

Meltzer and Richard's (1981) model confirms *Tocqueville's* (1835) stance that non-authoritarian regimes would redistribute from rich to poor. *Acemoglu and Robinson* (2003) are clear about this hypothetical consequence: "democratic regimes generally choose policies that are more favorable to the poor than nondemocratic regimes." Different contradictory consent has been made on the topic.

Alesina et al. (1992) empirically found the relation between economic growth and political instability for 32 years and 113 nations. Their results conclude that cutting government will boost the growth.

Mahmood, Aziz et al (2010) considered the relation of non-authoritarian regime and economic growth for Pakistan, their results showed that non-authoritarianism is significant in Pakistan. This result is supportive to what **Durham** (1999) assessed. He concludes that growth decreases as discretion increases. As we know that discretion is an attribute of dictatorship due to non-credibility and unpredictability of the military rulers.

Younis et al (2008) used OLS for 10 Asian economies for fifteen years to analyze different factors of political stability and their connection with growth. The results concluded that political stability plays crucial role in boosting growth and it is far more important than the economic liberty.

The inconsistent research exists on the subject. *Przeworski and Limongi* (1993) yet again considered the political regimes and economic growth. Their results determine that the political regimes matter but there are not such related differences in regimes. According to **Guseh** (2001), growth of government size has negative effect on economic growth but the negative effects are three times as large in dictator socialist systems as are in non-democratic systems. On the contrary, **Diamond** (1989) empirically investigated the effect of Government expenditure to the growth performance on some developing economies. He concludes that public expenditure did not apply a major impact on growth on the macroeconomic level. However he found that development expenditure on health, housing and welfare seemed to have a significant impact on growth in the short run. Infrastructure spending had little influence on real growth. Moreover, productive capital expenditure had a negative consequence, while creative current expenditure had a positive one.

Smith and Wahba (1994) describes that on the expenditure side, the results suggest that a society which devotes a high proportion of its GDP to social expenditure (on education, health etc.) may experience somewhat lower growth of GDP per capita in the short run. However, the long run sees benefits not only for economic growth but also for human development. In contrast, government expenditure on directly productive activity may have positive effects on economic growth in the short run, but negative effects on human development in the longer term.

Bergh and Henreskon (2010) studied the relationship of real gross domestic product (GDP) per capita and total public sector size for OECD and equally rich economies. The empirical findings revealed that ten percentage points increase in state sector is correlated with one percentage point fall in growth rate annually. The state sector proxy was average of tax revenue or expenditure as a share of gross domestic product.

Alesina and Ozler (1972), the main result of this paper is that in countries and time periods with a high propensity of government collapse, growth is significantly lower than otherwise.

2.4 THE OTHER DETERMINANTS OF SIZE OF GOVERNMENT:

Beside political institutions, many other factors can be counted as the determinants of the size of government such as *Savas* (2008) observed a positive and well-built relationship between population and economic growth. Competition, hence research and development, technological

advancements and innovations are the fruits of population growth. Nevertheless, a large population growth is not only associated with food problem but also inflicts limitations on the development of savings, foreign exchange and human resources, thus exerting pressure on government. Therefore it needs relatively more expenditures by the government to fulfill requirements of the larger population. His research paper aims to investigate how population and per capita economic growth are inter-related and influence each other studying the central Asian economies. *Savas* (2008) discovered confirmation of a long-run relationship amongst population and real per capita income and gives solid backing to the theory that population is driving growth. In general, the relationship amongst population and economic growth is highly correlated and positive in the cases over the time of the investigation.

Hallagan analysis depicts that the consequences of his model persuades a justification for the finding, that nations with relatively high heterogeneous population experience larger amounts of corruption and authoritarian regimes for long periods, and more serious discipline standards. The model is then evaluated utilizing worldwide nation level information. One speculation is that we ought to anticipate lower levels of corruption in vote based systems (democracies) characterized with having regular, political transparency, devolution of power, and a liberal media since these institutions have key role to play in exposing and penalizing the corrupt authorities.

Adsera` and Boix (2002) explained the strong and positive correlation found between trade openness and the size of the public sector. Their study supported the presence of a large size of public sector under a democratic system at all income level .Such big size of public sector

has been contempt as basic, an automatic and in some cases a functional, requirement of a free trade regime. This can be channelized from the two streams of links. Rodrick demonstrates that more elevated amounts of exchange combination (coupled with high sectoral concentration in the economy) expand the dangers connected with the universal business cycle and call for freely financed compensatory programs for the uncovered segments of the economy. Public expenditure, set by a state simply imagined as a social organizer, balances out total wage and conveys social peace and political steadiness. The outcomes appear, rather, that popularity based administration (Democracy) in genuinely immature and less developed economies has no motivating forces to spend more than tyrant administrations.

Gerring and Bond et al (2005) explains that democracy may have some positive indirect effects such as greater stability or more extensive property rights. On the contrary, higher aid coming in the economy could encourage the rent-seeking activities by different interest groups who enjoy tax evasions and duty exemptions and hence these activities results in declines in revenue (Clements, Gupta, Pivovarsky, Tiongson, 2004). It is also an argument (by critics) that critics argued that aid and financial supports, instead of increasing investment, may escort to relatively high public and private consumption, mostly in consumption-oriented economies, could lead to increased public and private consumption rather than investment, and could have contributed less to growth.

Khan in his research work "*Essays On Institutional Change: The Role Of Privileged Groups*" proclaims that the societies relied upon windfall gains like natural resources rents, foreign aid or with more corruption potential are predictable to endure with extractive

institutions. To alter this behavior in such societies, a huge amount of incentives and motivation is required to be provided to rulers, leaders and to the institutional agents. Only by this, such societies can be characterized to have inclusive institutions.

Cuaresma and Oberhofer (2010) using a dataset on 106 dictators, empirically investigated that oil-rich countries face a longer dictator regimes, though the size of country does matter. On other hand, highly populated countries experience a longer Log-time to failure. Conclusively, rent seeking from natural resources other than oil proclaims a positive but insignificant impact on the term for which dictator's stay. "Muammar al-Gadhafi being in power since 1969 in oil-rich Libya is a prominent example that oil can be a dictator's friend. In contrast, the large Amount of coup in Nigeria indicates that oil could become a curse for a dictator".

Acemoglu and Ticchi et al (2008) in their latest studies viewed the role of the military in non-democratic regimes. In their model the military can act as the dictatorship's tool of repression. In any case, in situations where the decision world class deficiently remunerates the commanders and officers, the armed force may organize an overthrow and supplant the current democratic government by a military autocracy. Adding natural resources to their model results in two restricting impacts for the administration: from one point, more noteworthy characteristic asset plenitude permits the non-popularity based administration to fund control through the military and hence improves dictatorship to persist. Then again, more noteworthy natural resources endowment expands the advantages of the armed force to arrange an overthrow introduce a military Dictatorship and along these lines diminishes the survival probability of the current administration.

Khan and Shah (2011) discuss and empirically estimate the hypothesis that states that military is the more needy segment which provides a dictator with political back instead of depending on other sections in the arena and it is why their military expenditures are more than spending in public sector. They compiled a result which depicts that in authoritarian regimes, secondary school rate remains significantly less showing the negative impact whereas, military spending as percentage of GDP is quite high showing positive impact. It could be a reason of tenacity of dictatorships in many societies. Thus, high tax revenues are collected in military base government along with under-provision of public goods. Distinguished, spending more on public goods is in huge interest of democratic rulers.

Assiotis and Sylwester (2010) using cross-country for annual data from 1984 to 2007, they relapsed development on the reverse of the level of debasement, the level of popular government, and a communication term joining the two. It was evaluated that the endless supply of controlling debasement are really more noteworthy in dictator administrations.

Kane (2004) Public officials follow big number of public projects and economic development activities for the sake of generating welfare in general. Such initiatives includes employment opportunities, increase income for local residents, raise property values and proper property rights, expand the tax base, better living standards, stabilize communities, eliminating poverty from the country, and even lower crime rates. In the drive to influence regional economies, policy makers commit public resources to economic development efforts. The predictable returns are development and growth, but for this, all institutions should function

efficiently as public resources may be misapplied or worn out if state and local governments are unable to reap benefits from opportunities and behave extrovertly in constraints. The behavior of public sector in this regard is important for economic development and regional growth.

Buscaglia and Van (2003) the results of the analyses reported here have shown that performance of institutions (i.e. Police), trail or prosecution and the courts primarily determines the level of crimes and corruption in the public sector. Extent of development does not matter here. It is also obvious that the institutional forces active in introducing improvements in the permissible fight against corruption and organized crime must be detained accountable.

Doessel and Valadkhani (2003) using annual time series data for the period 1964-1999 establish result that government expenditure exercises a strong beneficial impact on economic Growth. Nonetheless, compared to the private segment of economy, marginal factor productivity in the government sector is found to be little. The two reasons behind low productivity are: low level of market benefits and the result of the lack of market incentives and indictors in public sector. Further, for socio-political aims of the Fijian government, the Fiji's government interventions in activities were in exercise.

Guseh (2001) explains the case of Africa and said that it is the government which has a key role to play in the development of Africa. Resultantly, public sector is expanded with non-private business undertakings and activities. In contrast, throughout the years there has been a lull in economic growth, particularly in agrarian yield. Now a large number of African economies are emphasizing and focusing extensive shares in private sector with a specific goal

of lessening the public sector size and to enhance the functioning of their economies. It is also argued in different papers that there may be high intervention in regard of efficiency and economic prosperity if there is a large share of public sector. This argument is justified with the following rationales: "inefficient running of government operations, high economic costs of regulatory procedures, ineffective monetary and fiscal drives by the rule which in result halt economic benefits and efficiency of the system".

Kumbers and Birch (2006) directed a contextual analysis and reasoned that Scottish public sector institutions are basic to the achievement of the Scottish economy through giving essential foundations, human and technological resources for emergent sectors such as biotechnology.

Bergh and Henrekson (2011) utilized an optional methodology of restricting the center to investigations of the relationship in rich nations, measuring government size as aggregate taxes or aggregate expenditures relative to GDP and relying on panel data estimations with variation over time reveal a more consistent picture. The latest workings find a noteworthy negative correlation: an increase in government size by 10 percentage points is associated with a 0.5 to 1 percent lower annual growth rate. Therefore, our outcome does not imply that size of public sector must be reduced for high rates of growth. For a given public sector extent, the negative impact can be curtailed by reforming the taxes and spending. In addition, countries are likely to cluster to institutions that perform efficiently jointly.

2.5 CONCLUSION:

The existing literature shows contradictory views, some view size of public sector as spurring economic growth and others as seizing it. The important and mutual point observed is that authoritarian regimes do not result in furtherance of an economy. The literature provides us with different determinants and their channels of impact on public sector and growth. Now the next step is to empirically investigate and conclude results.

CHAPTER 3

DATA, EMPIRICAL RESULTS AND DISCUSSION

3.1 INTRODUCTION

The main purpose of the analysis is to empirically justify the questionable matters by the help of regressions. The technique used is cross section analysis due to three main reasons, the Gross domestic product is endogenous; the averaged values of the variables would dissipate the issue of missing data for some years as the panel data is not balanced and due to the persistence of the explanatory variable that is dictatorship throughout the history (Khan and Shah 2011, Khan and Batool et Al 2016). The method of the regression is the ordinary least square. According to estimates by deacon, 68% of the world countries had monarch system during the last half of the twentieth century and one third remained dictatorships as of 2000. The dependent variable is the Gross National Expenditure US$. It is the proxy for size of open segment; characterized as the earlier local assimilation, entirety of family last utilization use (in the past private utilization), general government last utilization use (in the past general (government utilization), and gross capital arrangement (once net household speculation). The data is in current US$ and is averaged from 1960 to 2014 for all the countries described in following Table A. The summary is showing that China, France, Germany, Japan, United States and United kingdom have greatest size of public sector (1.555 1.2371, 1.7869, 2.7972, 7.2617, 1.1862) Trillion US$ respectively.

Table A: Summary of dependent variable					
COUNTRIES	**GNE**	**COUNTRIES**	**GNE**	**COUNTRIES**	**GNE**
Algeria	0.0605	Haiti	0.006	Saudi Arabia	0.1675
Angola	0.0283	Honduras	0.0066	Senegal	0.0062
Argentina	0.1879	India	0.5253	Sierra Leone	0.0011
Australia	0.4159	Indonesia	0.2099	Vietnam	0.0595
Austria	0.1714	Iran	0.1586	South Africa	0.1363
Bangladesh	0.0468	Ireland	0.0747	Zimbabwe	0.0079
Belgium	0.2125	Israel	0.0884	Spain	0.5724
Bolivia	0.0078	Italy	0.99	Sudan	0.0195
Botswana	0.0044	Jamaica	0.0067	Sweden	0.2214
Brazil	0.6639	Japan	2.7972	Switzerland	0.2799
Bulgaria	0.0272	Kenya	0.0152	Syria	0.0138
Cameroon	0.011	Korea, South	0.4053	Togo	0.0017
Canada	0.6399	Kuwait	0.03	Trinidad and Tobago	0.0073
Central African Republic	0.0011	Libya	0.0352	United Arab Emirates	0.2131
Sri Lanka	0.0129	Madagascar	0.0045	Tunisia	0.0183
Chad	0.0033	Malaysia	0.0738	Turkey	0.2417
Chile	0.0686	Mali	0.0036	Uganda	0.0072
China	1.555	Mauritania	0.0018	Egypt	0.0763
Colombia	0.0948	Mexico	0.4402	United Kingdom	1.1862
Congo, Democratic Republic	0.0117	Morocco	0.0391	Tanzania	0.019
Costa Rica	0.013	Mozambique	0.0076	United States	7.2617
Denmark	0.1376	Oman	0.0155	Burkina Faso	0.0038
Dominican Republic	0.0194	Netherlands	0.3357	Uruguay	0.0157
Ecuador	0.027	New Zealand	0.0636	Venezuela	0.0889
El Salvador	0.0103	Nicaragua	0.0046	Zambia	0.0111
Ethiopia	0.0521	Niger	0.0028		
Finland	0.1099	Nigeria	0.0813		
France	1.2371	Norway	0.1448		
Gabon	0.0044	Pakistan	0.0715		
Gambia	0.0005	Panama	0.0114		
Germany	1.7869	Papua New Guinea	0.0027		
Ghana	0.0113	Paraguay	0.0121		
Greece	0.1298	Peru	0.0494		
Guatemala	0.0178	Poland	0.2801		
Guinea	0.004	Portugal	0.1021		
Guyana	0.001	Qatar	0.0438		

Note: Each value is the average of the size of the public sector that is Gross National Expenditures from 1960 to 2014. The data is converted in the trillion US$ for better understanding.

The explanatory variables are the dictatorship1 and dictatorhsip2 which are taken from the polity4 dataset. The former ranges from 1(extreme dictatorship) to 0(least dictatorship or ideal democracy) averaged from 1964 to 2009. The latter is introduced with dummy variable, it takes 0 value when democracy and 1 when its dictatorship, It is averaged from 1960 to 2000 from Golder 2005. The other variables are openness of an economy, the proxy variable used is trade as percentage of GDP, the sum of exports and imports of goods and services measured as a share of gross domestic product averaged from 1960 to 2014 depending upon the availability of the data.

Adsera` and Boix (2002) explained the strong and positive correlation found between trade openness and the size of the public sector. Different economic agents have different material interests, and therefore distinct policy preferences, depending on their position in the international economy. The attitudes of economic actors toward trade and trade policy may be determined by two factors: the potential benefits to be derived from trade, which go from net gains to net losses; and second, the variability of the returns derived from trade, that is, the probability that trade will lead to gains or losses given the nature of the actor's assets. Population is estimated by the Population density (people per sq. km of land area), Population density is mid-year population divided by l and area in square kilometers. The data is taken from world development indication averaged from 1960 to 2014 for 96 countries mentioned in the Table D. Population is associated with the area as the dense population would need large area for residential as well as other purposes therefore government has to spend more for infrastructure and enough services.

We have controlled for bunch of variables like AIDPC, ELF, SXP, AfD, AsD and ED for sensitivity analysis. There exists the negative relationship between aid and development because when a nation start relying on reliefs from other countries the situation starts worsening which is a symbol of bad governance and weak political institutions. When there will be no aid people would be responsible to work and that would eventually result in inclusive institutions. When the rules are collated they are instigated by the organizations like bureaucracy, martial and the law and order. It does not matter how much rich a country is in terms of natural and human resources, where there is corruption of resources which seems to be favorable in authoritarian regimes. Ethno-linguistic fractionalization is the probability that two individuals living in the same country belongs to the same ethno-linguistic group. The data is taken from the easterly and Levine 1997, the values are averaged. The less probability will imply the less diverse society. The more diverse society will demand numerous expenditures which lead to big size of the government. The other control variable is the share of the natural resources rents as % of GDP. The data is taken from World Development Indicators (WDI) and averaged from 1960 to 2000. The rest of the control variables are the dummies if country belongs to Africa or otherwise, Asia or otherwise and Europe or otherwise. The data is averaged and taken from khan and shah (2015). The following are the models for concerned regression analysis.

BASELINE MODEL:

$$GNE = \alpha + \beta 1 Pol + \beta 2 GDPPc + \beta 3 Popn + \beta 4 ARE + \beta 5 Open + \mu \qquad (1)$$

SENSITIVITY ANALYSIS:

$$GNE = \alpha + \beta 1 DIC + \beta 2 GDPPc + \beta 3 Popn + \beta 4 ARE + \beta 5 Open + \beta 6 AIDPc + \mu \qquad (2)$$

$$GNE = \alpha + \beta 1 DIC + \beta 2 GDPPc + \beta 3 Popn + \beta 4 ARE + \beta 5 Open + \beta 6 ELF + \mu \quad (3)$$

$$GNE = \alpha + \beta 1 DIC + \beta 2 GDPPc + \beta 3 Popn + \beta 4 ARE + \beta 5 Open + \beta 6 SXP + \mu \quad (4)$$

$$GNE = \alpha + \beta 1 DIC + \beta 2 GDPPc + \beta 3 Popn + \beta 4 ARE + \beta 5 Open + \beta 6 AfD + \mu \quad (5)$$

$$GNE = \alpha + \beta 1 DIC + \beta 2 GDPPc + \beta 3 Popn + \beta 4 ARE + \beta 5 Open + \beta 6 AsD + \mu \quad (6)$$

$$GNE = \alpha + \beta 1 DIC + \beta 2 GDPPc + \beta 3 Popn + \beta 4 ARE + \beta 5 Open + \beta 6 ED + \mu \quad (7)$$

The variables and their codes are:

GNE = Gross National Expenditure

Pol= Polity

DIC= Dictatorship

GDPPc= Gross Domestic Product per capita

Popn= Population density

ARE= Area

Open= Trade openness

AIDPc= Net official development assistance and official aid per capita

ELF= Ethno-linguistic fractionalization

SXP= Share of Natural Resources

AfD= African Dummy

AsD= Asian Dummy

ED=European Dummy

The models for our analysis are mentioned above with the well-thought-out variables. All the variables are averaged over the years for all the countries. The summary of variables, description and data sources are mentioned in the Table D in the appendix section.

3.2 DATA AND SUMMARY STATISTICS

As mentioned above, we have used cross country analysis and the values are the averages of annual data. The economic rationale for using cross country analysis is the persistence of the independent variable that is the dictatorship, the endogeneity problem in the explanatory variables and the data is not balanced, it is missing for some years.

Table B explains the summary statistics of the variable, there are six main divisions of the regions that are world, Europe, Asia, Sub Saharan Africa, Neo Europe and others. The countries within these regions are explained in the table D in the appendix. The data is showing that almost 44% of the world has faced dictatorship since 1960. The Asia and Africa has faced it relatively more than others.

Table B: Summary Statistics of Variables

Variable	World	Europe	Asia	Sub-Saharan Africa	Neo-Europe	Others
Dictatorship1	0.44	0.10	0.58	0.62	0	0.44
	(0.32)	(0.18)	(0.36)	(0.17)	(0)	(0.26)
Dictatorship2	0.59	0.16	0.71	0.93	0	0.57
	(0.42)	(0.29)	(0.40)	(0.10)	(0)	(0.37)
GDP Per Capita	3973	7651	6695	850	11592	1733
	(6925)	(4370)	(12939)	(2060)	(4558)	(1624)
Gross National Expenditure (trillion US$)	0.67	0.43	0.37	0.02	2.09	0.07
	(0.72)	(0.52)	(0.70)	(0.03)	(3.45)	(0.14)
Population (in million)	26.7	20.11	81.53	7.3	52.8	9.25
	(82.5)	(21.39)	(172.56)	(9.4)	(85.5)	(14.71)
Openness	54	72	56.99	43.84	36.15	52.14
	(40.4)	(76.5)	(31.44)	(16.22)	(16.22)	(26.82)
Area (in thousands square Kilometers)	1050.9	229	1165.5	691.21	6955.1	995.9
	(2024.8)	(184.6)	(2234.2)	(538.17)	(4574)	(1638.2)
Aid Per Capita	14.73	3.9	11.92	20.97	0	19.56
	(19.01)	(11.4)	(26.61)	(11.25)	(0)	(20.11)
Asian dummy	0.19	0	0.89	0	0	0.09
	(0.4)	(0)	(0.32)	(0)	(0)	(0.3)
South African dummy	0.31	0	0	0.96	0	0.18
	(0.46)	(0)	(0)	(0.2)	(0)	(0.39)
Europe dummy	0.19	1	0	0	0	0.03
	(0.39)	(0)	(0)	(0)	(0)	(0.17)
Natural Resources Rents	16.13	9.7	19.70	15.68	10.25	18.66
	(13.29)	(9.8)	(17.73)	(11.03)	(6.29)	(13.26)
Ethno-Linguistic Fractionalization	0.29	0.22	0.29	0.30	0.56	0.28
	(0.29)	(0.28)	(0.33)	(0.24)	(0.43)	(0.26)
N	97	18	19	26	4	30

Note: Each value is the average of these variables and standard deviation in the parenthesis. The proxy for size of public sector is Gross National Expenditure which is defined as the formerly domestic absorption, sum of household final consumption expenditure (formerly private consumption), general government final consumption expenditure (formerly general government consumption), and gross capital formation (formerly gross domestic investment). The data is in current US$ and for better understanding it is converted into trillion US$. The further explanation of the variables is given in Table A.

The Neo Europe has almost never faced authoritarian regimes since 1960. The other variable for dictatorship is also showing the same result with slightly higher values. The Neo Europe is dominating the other region in terms of gross national expenditure with highest value 2.09 trillion US $. On contrary, the Asia and Sub Saharan Africa have small size of public sectors. The summary statistics is showing the same results as regression analysis. According to GDPpc, area, ethno linguistic fragmentation Neo Europe dominates the other regions. Sub Saharan Africa and Asia dominates in terms of aid per capita somewhat to the rest of the world.

3.3 EMPIRICAL RESULTS AND DISCUSSION:

Table C summarizes the ordinary least regression for gross national expenditures which is the proxy for the size of the government. The economic rationale for choosing expenditure as measure of size of government rather than consumption approach as used in many studies, that it includes the capital formation whereas later does not. The tax as percentage of GDP, as proxy of size of public sector is not the reliable measure as it is more about redistribution and distortions in the tax system leads to distort incentives for productive investment which can impede growth.

In column III IV the baseline model is estimated which includes the gross domestic product per capita, population, openness and area for two different measures of the dictatorship that are dictatorship1 and dictatorship2. The former is the range from 0 (ideal democracy) to 1 (dictatorship), whereas the latter is the dummy, takes value of 1 when dictatorship and 0 when ideal democracy. The result is showing that dictatorship is depressingly affecting the gross national expenditure. When there will be authoritarian regime rather than the ideal democracy the size of the government will be small because dictators are more concerned about self-interest somewhat than the welfare of the society. Therefore the development expenditures including health, education, and social infrastructure would be least relatively to non-authoritarian regimes. Development expenditures are classified into social and community services, economic services and grants- in-aid to states and union territories. Economic services which are largest component include general economic services, agriculture and allied services, industry; and minerals, water and power and power development, transport and communication, railways, post and telegraphs

etc. The results portray that political institutions have huge influence on the size of the government.

The estimated values for both the measures dictatorship1 and dictatorship2 are showing that gross domestic product per capita, population and area are significantly influencing the size of the government whereas openness is insignificant. Economies of scale are measured by the both population density and openness and that could be the justification for the insignificance of the trade openness and significance of the population density. These baseline variables show 40 percent variation in the independent variable shown by the R^2.

The columns V VI VII VIII IX X are for the sensitivity analysis to check the robustness of the baseline model results. The control variables are aid per capita, ethno linguistic fractionalization, share of natural resources and dummies for Asia, Africa and Europe. The column V results show that Aid per capita has no significant impact on the gross national expenditure which is contradictory to the literature or empirical evidence. The reason could be high multicollinearity between aid pc and dictatorship and GDppc. We add other variables like share of natural resources and dummies in the next columns VII VIII IX X and discover out that dummy variables have no noteworthy impact on the size of government. Whereas the second control variable ethno-linguistic fractionalization is positively associated with gross national expenditure. The more diversified society on the basis of ethnic values, the government has to spend greater amount in order to protect their values and control the scenarios of conflicts. The other control variable share of natural resources rent is negatively related to size of public sector, *Cuaresma and Oberhofer* (2010) using a dataset on 106

dictators, empirically investigated that oil-rich countries face a longer dictator regimes, though the size of country does matter. On other hand, highly populated countries experience a longer Log-time to failure. "Muammar al-Gadhafi being in power since 1969 in oil-rich Libya is a prominent example that oil can be a dictator's friend. In contrast, the large Amount of coup in Nigeria indicates that oil could become a curse for a dictator". Accordingly the natural resources rents are common in the dictatorship and it can become the subtle reason to do corruption. Regardless of the results of sensitivity analysis the significance of baseline explanatory variables remains integral.

Explanatory Variables	Dependent Variable: Gross National Expenditure									
	I	II	III	IV	V	VI	VII	VIII	IX	X
constant	5.83E+11 (1.38E+11)	6.22E+11 (1.41E+11)	3.33E+11 (1.67E+11)	2.9E+11 (1.7E+11)	2.8E+11 (1.8E+11)	2.8E+11 (1.7E+11)	2.8E+11 (1.7E+11)	2.8E+11 (1.7E+11)	2.9E+11 (1.8E+11)	2.4E+11 (2E+11)
Dictatorship1	-7.3E+11*** (2.57E+11)		-6.5E+11*** (2.12E+11)							
Dictatorship2		-6.1E+11*** (1.95E+11)		-4.2E+11*** (1.7E+11)	-4.3E+11*** (1.7E+11)	-4.8E+11*** (1.7E+11)	-3.2E+11* (1.8E+11)	-4.8E+11*** (1.8E+11)	-4.2E+11*** (1.7E+11)	-3.63E+11* (1.95E+11)
GDP Per Capita			29230457*** (9782081)	26774725*** (1011992)	27353322*** (10544309)	26222189*** (10010949)	29893075*** (10263096)	27962795*** (10354962)	26884093*** (10208892)	25649235*** (10332892)
Population			1980.7*** (958.5)	1910.5** (975.2)	1931.9** (985.6)	1788.3** (966.7)	1645.8* (984.4)	2008** (992.5)	1963.7* (1061)	1845.651* (985)
Openness			-2.07E+9 (1.71E+9)	-1.7E+9 (1.7E+9)	-1.8E+9 (1.7E+9)	-2.2E+9 (1.7E+9)	1.9E+8 (2.1E+9)	-1.6E+9 (1.7E+9)	-1.7E+9 (1.7E+9)	-1.8E+9 (1.7E+9)
Area			150341.6*** (39879.5)	148755.8*** (40688.9)	149544*** (40998.5)	125469*** (42288.5)	153172.7*** (40439.9)	147799*** (40788)	147884*** (41367.8)	155995*** (42554.6)
Per Capita Foreign Aid					8.1E+8 (3.9E+11)					
Ethnolinguistic fractionalization						4.64E+11* (2.6E+11)				
Share of natural resources rent							-1E+10* (6.8E+9)			
African Dummy								1.1E+11 (1.8E+11)		
Asian Dummy									-2.4E+10 (1.9E+11)	
European dummy										1.3E+11 (2.1E+11)
R^2	0.078	0.09	0.42	0.40	0.40	0.42	0.42	0.40	0.40	0.40
F-Statistic	8.11	9.6	13.23	12.22	10.08	10.93	10.7	10.17	10.1	10.17
N	96	96	96	96	96	96	96	96	96	96

Note: Robust Standard Errors in the Parenthesis. There are no significant differences between estimation with dictatorship1 and dictatorship2; therefore we use dictatorship1 in all the sensitivity specifications. *** Significant at 1%, ** significant at 5%, * significant at 10%.

3.4 CONCLUSION:

The determination of the study is to empirically justify the debatable issues. The OLS technique is used with cross sectional data. The dependent variable is the Gross National Expenditure US$. It is the proxy for size of public sector. The independent variable is the dictatorship; the two measures are dictatorship1 (pol) and dictatorship2 (DIC). The baseline model is:

$$GNE = \alpha + \beta 1 Pol + \beta 2 GDPPc + \beta 3 Popn + \beta 4 ARE + \beta 5 Open + \mu$$

The regression shows that dictatorship is inversely related to the GNE which is surprising. The dictatorship is associated with the formation of coalition; interest groups increase the size of public sector. Opportunism and incompetence would lead to a policy that benefits the coalition but the costs would spread to common individuals. On the contrary, results are showing the reverse scenario. The less development expenditures could be one reason for this. However the dictators are not concerned about the health, education and provision of services to the society.

The size of public sector is positively linked with GDPpc, population and area. The openness is insignificant. The reason could be that it is a measure of economies of scale along with population, whereas population is significant. The coefficient of determination tells about how good regression line fits the data. The explanatory variables are 40% influencing the size of the public sector. ($R^2 = 0.4$)

The sensitivity analysis is to check the robustness of the results. The share of natural resources and dummies for Asia, Africa and Europe are the variables, the results show that dummy variables are insignificant; the presence of multicollinearity could be one justification for this. Whereas the second control variable ethno-linguistic fractionalization is positively associated with gross national expenditure. The more diversified society on the basis of ethnic values is, the government has to spend greater amount in order to protect their values and avoid conflicts. The other control variable share of natural resources rent is negatively related to size of public sector. Nonetheless the baseline model result remains intact.

CHAPTER 4

SUMMARY AND CONCLUSION

The government system either democratic or authoritarian greatly effects the decisions and performance of an economy. Different economies have different historical backgrounds and work under diverse government structures with the assistance of certain economic approaches in accordance with the interests of economic and political agents. The dissimilar government systems have priorities and manifestos which influences the size of public sector. The differences in political regimes results in differences in per capita incomes. Different political systems are results of different collective set of choices given by institutions.

The size of the public sector implies in economic terms the degree to which the government treats economic resources. The government spending defines the qualified size of the public and private sectors in the economy.

Throughout the history the dictatorship has been dominant in most of the countries and so does it now. Nonetheless some economies are also in transition states which are bringing in the changes in their government structures. There is a need to research on this subject to conclude if democracy is compatible with ideal governance or the dictatorship. To empirically conclude that in which regime the self-consumption of state is supplementary. The main purpose of this research is to empirically analyze the determinants of the size of the government.

According to The World Bank Report 1997 state is center to economic and social development not as a direct provider of growth but as a partner, catalyst and facilitator. It protects the private property, regulates businesses activities, provides safety and helps private sector to increase productivity and social welfare by strategic decisions. when there will be poor public sector institutions, the private sector would also be pathetic due to pitiable socio-economic infrastructure, lack of confidence and trust and other incentives for investment.

The main purpose of the analysis is to empirically justify the debatable matters by the help of regressions. The technique used is cross section analysis and the values are the averages of annual data for 96 countries. The dependent variable is the Gross National Expenditure US$ which is the proxy for size of public sector. There are two measures for the dictatorship; dictatorship1 and dictatorhsip2 which are taken from the polity4 dataset. The result is showing that dictatorship is depressingly affecting the gross national expenditure. When there will be authoritarian regime rather than the ideal democracy the size of the government will be small. The public sector is responsible for providing the main infrastructure, allocating economic resources, introducing inventions by investing on research and development, legislation, providing employment opportunities thus raising the standards of living of individuals. Olson (1991) studied that a dictator's commitment is not credible. The democratic regimes play very well as compared to dictatorship. Therefore the development expenditures which are the main part of the government expenditures including health, education, and social infrastructure would be least in authoritative regimes relatively to democracy. Dictatorships are regimes in which political rulers accede to and maintain themselves in power by force. They use force to prevent people from expressing their opposition and to repress workers. Because they rule by force, they

are highly vulnerable to any visible signs of dissent. Since in dictatorships policies depend on the will, they exhibit high variance of economic performance: Some generate miracles, some disasters, and many generate both. Because their policies and their performance are so unpredictable, they do not allow people to plan their lives, inducing households to hoard the least risky asset, namely children.

The estimation shows that gross domestic product per capita, population and area are significant and positively influencing the size of the government whereas openness is insignificant. The sensitivity analysis is done to check the robustness of the baseline model results for the control variables aid per capita, ethno-linguistic fractionalization, share of natural resources and dummies for Asia, Africa and Europe. Nevertheless, the important finding is that the significance of baseline explanatory variables remains integral which concludes that size of the government is negatively associated with the authoritarian regimes.

Although, the findings are clear but there is a need to outspread the research for generality and commendations. The narrow approach is used and need further econometric analysis to comprehend the precise channels of causation.

CHAPTER 5

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CHAPTER 5

APPENDIX

TABLE D. SUMMARY DEFINITIONS AND SOURCES OF VARIABLES

VARIABLES	DESCRIPTION	SOURCES
Gross national expenditure (current US$)	Gross national expenditure (formerly domestic absorption) is the sum of household final consumption expenditure (formerly private consumption), general government final consumption expenditure (formerly general government consumption), and gross capital formation (formerly gross domestic investment). Data are in current U.S. dollars.	World Bank national accounts data, and OECD National Accounts data files.
Dictatorship1	Polity IV project data on Polity=democracy-autocracy. It is constructed such that it ranges from 1 (Extreme Dictatorship) to 0 (Ideal democracy), averaged from 1964-2009, depending upon availability.	Polity IV, (Marshall and Jaggers, 2000)
Dictatorship2	This indicator is based on regime type by a dummy variable where democracy takes a value 0 while dictatorship takes a value of 1 in a Particular year. It is averaged from 1960 to 2000, so that it becomes an index ranging from 1 (Extreme Dictatorship) to 0 (Ideal Democracy)	The data on Yearly regime type is taken from Golder (2005)
Trade (% of GDP)	Trade is the sum of exports and imports of goods and services measured as a share of gross domestic product.	World Bank national accounts data, and OECD National Accounts data

		files.
Population density (people per sq. km of land area)	Population density is midyear population divided by land area in square kilometers. Land area is a country's total area, excluding area under inland water bodies, national claims to continental shelf, and exclusive economic zones.	Food and Agriculture Organization and World Bank population estimates.
Net official development assistance and official aid received (current US$)	Net official development assistance (ODA) consists of disbursements of loans made on concessional terms (net of repayments of principal) and grants by official agencies of the members of the Development Assistance Committee (DAC).	Development Assistance Committee of the Organization for Economic Co-operation and Development..
GDP per capita	GDP per capital purchaser's prices is the sum of gross value added by individual resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products.	World Development Indicators, World Bank
Area (sq. km)	Land area is a country's total area, excluding area under inland water bodies, national claims to continental shelf, and exclusive economic zones. In most cases the definition of inland water bodies includes major rivers and lakes.	Food and Agriculture Organization, electronic files and web site.
Total natural	Total natural resources rents are the sum of oil rents,	Estimates

resources rents (% of GDP)	natural gas rents, coal rents (hard and soft), mineral rents, and forest rents.	based on sources and methods described in "The Changing Wealth of Nations: Measuring Sustainable Development in the New Millennium" (World Bank, 2011).
Asian, African, European	The dummy variables are used. If AsD (Asian dummy) takes value of 1 the country belongs to Asia, if 0 otherwise. If AFD (African Dummy) takes value of 1, country belongs to Africa 0 otherwise. If ED (European dummy) takes value of 1, country belongs to Europe 0 otherwise.	Khan and shah (2015).
Ethno linguistic fractionalization	It is probability that two individuals living in the same country belong to same ethno group. Small value means less diverse society.	Khan and Shah(2015)

Table E: Regional Divide of countries.

Regions	No. of Countries	List of Countries
Europe	18	Austria, Belgium, Bulgaria, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, United Kingdom
Asia	18	Bangladesh, Sri Lanka, China, India, Indonesia, Iran, Japan, Kuwait, Malaysia, Oman, Pakistan, Qatar, Saudi Arabia, Vietnam, Syria, Turkey, South Korea, UAE
Sub- Saharan Africa	24	Angola, Botswana, Cameroon, Central African Republic, Chad, Democratic Republic, Ethiopia, Gabon, Ghana, Guinea, Kenya, Madagascar, Mozambique, Niger, Nigeria, Senegal, Sierra Leone, South Africa, Zimbabwe, Togo, Uganda, Tanzania, Burkina Faso, Zambia, Mali
Neo- Europe	4	Australia, Canada, New Zealand, United States of America
Others	28	Algeria, Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Libya, Mexico, Morocco, Nicaragua, Panama, Papua New Guinea, Paraguay, Peru, Sudan, Trinidad and Tobago, Uruguay, Venezuela, Tunisia, Egypt