

DESCRIPTIVE MODELLING ON THE EFFECTS OF CULTURAL VALUES ON
THE ASSESSMENT OF ECONOMIC DEVELOPMENT OF COUNTRIES

RIFAT ERSÖZLÜ

JANUARY, 2020

DESCRIPTIVE MODELLING ON THE EFFECTS OF CULTURAL VALUES ON
THE ASSESSMENT OF ECONOMIC DEVELOPMENT OF COUNTRIES

RIFAT ERSÖZLÜ



MASTER THESIS OF SOCIAL SCIENCES

IN BUSINESS

T.C.

YEDİTEPE ÜNİVERSİTESİ

JANUARY, 2020

Approval of the Institute of Social Sciences



Prof. M. Fazıl GÜLER
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master.


Prof. Dr. Dursun ARIKBOĞA
Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Arts.

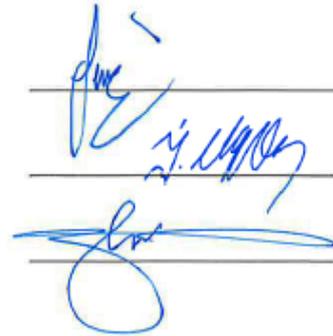

Doç. Dr. Senem GÖL BEŞER
Supervisor

Examining Committee Members

Doç. Dr. Senem GÖL BEŞER

Dr. Öğr. Üyesi İbrahim UZPEDER

Doç. Dr. Yusuf Can ERDEM



PLAGIARISM

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Last Name, Name : Rifat Ersözlu

Signature : 

ABSTRACT

Economics has an important place in human life. It is guided by people's socio-cultural and political decisions, lives and hence economic decisions. However, the effects of sociological, cultural and political values on the economy are controversial. Economic factors and social elements are a whole. Economic activity has emerged in a community and is gaining sociability in a social order (Abrams & Lewis, 1995). Transitioning economic measures and policies from an abstract state to a concrete ground is possible by shifting the social and cultural realities into reality.

The development is considered to be a departure from the usual trajectory of economic activity and to a new level of equilibrium. In order to prevent disruption in the new equilibrium, economic development and growth must be supported by social integration policies. In this study, the relations of the factors which have a great effect on social life and culture with the economy are examined.

Key Words: Economy, socio-culture, growth, cultural values.

ÖZET

İktisat insan yaşamında önemli bir yere sahiptir. İnsanların sosyo-kültürleri ve siyasi kararları, yaşamları ve dolayısıyla ekonomik kararlar tarafından yönlendirilir. Ancak, sosyolojik, kültürel ve politik değerlerin ekonomi üzerindeki etkileri tartışmalıdır. Ekonomik unsurlarla sosyal unsurlar bir bütündür. Ekonomik faaliyet, bir topluluğun içinde ortaya çıkmıştır ve bir sosyal düzen içinde sosyallik kazanmaktadır (Abrams & Lewis, 1995). Ekonomik tedbir ve politikaların soyut bir durumdan somut bir zemine geçiş, sosyal ve kültürel yapı gerçeklerine kaydırılmasıyla mümkündür.

Gelişme, ekonomik işleyişin alışılmış yörüngesinden ayrılarak daha üst seviyede yeni bir denge alanına sıçraması olarak değerlendirilmektedir. Yeni denge durumunda aksama olmaması için, ekonomik gelişme ve büyümenin sosyal bütünleşme politikalarıyla desteklenmesi zorunludur. Bu çalışmada, sosyal yaşam ve kültür üzerinde büyük etkisi olan faktörlerin ekonomi ile olan ilişkileri incelenmiştir.

Anahtar Kelimeler: Ekonomi, sosyo-kültür, büyüme, kültürel değerler.

ACKNOWLEDGEMENTS

I would like to thank my advisor, my family for their support during writing my thesis.



CONTENTS

Approval	i
Plagiarism	ii
Abstract	iii
Özet	iv
Acknowledgements	v
Contents	vi
List of Tables	viii
List of Figures	ix
1. INTRODUCTION	1
1.1. Purpose of the Study	2
1.2. Structure of the Thesis	2
1.3. Research Questions.....	2
1.4. Research Methodology	2
1.4.1. Historical Data Analysis	4
1.4.2. Descriptive Analytical Modelling	4
2. CULTURE AND ECONOMIC DEVELOPMENT	
2.1. Definition of Culture	7
2.2. Relations of Culture and Economic Development	12
2.3. Economic Growth and Socio-Cultural Impact	16
2.3.1. Democracy	18
2.3.2. Collectivism	20
2.3.3. Trust and Fairness	21

2.3.4. Government Attributes	23
2.3.5. Religions	24
2.3.6. Language	26
2.3.7. Schwartz Value System	28
2.4. Economic Growth and Cultural Development	33
2.5. Socio-Economic Analysis of Countries	38
2.5.1. Studies	38
3. METHODOLOGY	
3.1. Historical Data Analysis	48
3.1.1. Cultural Attributes	48
3.1.2. Economic Development of Countries	49
3.2. Descriptive Analytical Modelling – Decision Tree	52
3.3. Results and Discussion	55
4. CONCLUSION	
4.1. Religion	59
4.2. Tradition	60
4.3. Responsibility	61
4.4. Government and Judicial System	62
5. DISCUSSION	
5.1. Major Findings of the Study	67
5.2. Limitation of the Study	67
5.3. Suggestions for Further Research	68
REFERENCES	69

FIGURE LIST

Figure 1. Framework for Research Methods	16
Figure 2. Gini index values of selected countries in 1990 vs. 2015	22
Figure 3. Schwartz Value System with 4 major parts and 10 distinguishing values...28	
Figure 4. Most people can be trusted	40
Figure 5. Value Table	41
Figure 6. Democracy Index	44
Figure 7. Democracy and Government	47
Figure 8. Question Details	55
Figure 9. Classification Methods of Economic Development	65
Figure 10. Decision Tree Example	69
Figure 11. First Nodes of Decision Tree of Study	72
Figure 12. Question Details	73
Figure 13. Decision Nodes of Study.....	74
Figure 14. First Node of Decision Trees of Study	75
figure 15. Second Nodes of Decision Trees of Study	76
figure 16. Third Nodes of Decision Trees of Study	77

TABLE LIST

Table 1. Classification of Countries.....	68
---	----



1. INTRODUCTION

Culture and economic development relation is debated since Adam Smith (1759) first argued how morality, norms and culture affect economic development in his book named '*the theory of moral sentiments*'. He described in his book how social norm can be beneficial for all country members. But economists are generally much more interested in the '*Wealth of Nations*' book of Adam Smith which emphasis individual motivations and expertise which leading capitalist perspective, made morality theory underrated.

One of another significant contribution is done by Weber (1905) arguing how religion affect development which was Protestantism in his '*The Protestant Ethic and the Spirit of Capitalism*' book. In this book, he defended that economic development is leaded by work ethic of Protestantism during the development of Western and European countries (Francois & Zabochnik, 2005). He also underlined that Protestantism emphasizes the value of working life and introduce hard working as a key of Protestant life. In 20th and 21th centuries Landes (2000), Sen (2002), Boettke (2001), and Greif (1994) studied this relation and prove that this relation has long term effect on national development. But one problem is that all cultural norms do not effect as same degree to national development. Scholars select some cultural attributes separately like trust, entrepreneurship, economic freedom, democracy and collectivism etc.

Some group of scholars, on the other hand, selected multiple attribute of culture and tried to explain this relation with these cultural variables. Although some scholars proved their hypothesis with their studies, some scholars study prove insignificant relation.

1.1. Purpose of The Study

The purpose of the study is to try to understand which cultural and value attributes classify countries best according to their development level (underdeveloped, developing and developed). In total, 20 different cultural and value attributes will be added to model. We will try to interpret national development levels of countries with these 20 cultural values. In other words, we will examine the effect of cultural value on the assessment of development level of countries. These attributes will be explained in detail. We will employ supervised Machine Learning algorithm to gauge the importance of each attribute.

1.2. Research Questions

- 1- Is there a relation between tradition and economic development ?
- 2- Is there a relation between cultural attributes of society and economic development ?
- 3- Is there a relation between management/judicial system and economic development ?

1.3. Structure of The Thesis

In the first part, we will review the relation of culture and economic development concepts. Cultural variables which are used in the literature mostly will be used in this study. Those are democracy, religion, collectivism, individualism, trust, fairness and government attributes. In addition to these variables, Schwartz value survey answers (which also cover the above variables) and variables collected from World Value Survey will be added to model.

In the second part of the study, we will employ supervised machine learning technique to categorize similar countries according to cultural attributes which are used in the first part of the study.

On the last part, we will explain the findings of the Machine Learning algorithm output and importance of each cultural attributes on development level of countries.

1.4. Justification of Research Methodology

Research methodology contains a set of procedures that extensively describe how the study is conducted and more specifically provides various approaches regarding research design, data selection, data collection, data analysis. It could be defined as the foundation that supports basic element of the study.

Historically, three types of modern research paradigm have been created over the last two centuries. Their foundations go back to ancient times and the births of the philosophy. Philological aspects of research methodology consists of positivism, empiricism and rationalism. First and oldest type of research design, quantitative methodology, stems from the death and birth rates of citizens residing in London during 18th century. Later, following the sputnik era, second type of approach, quantitative approach, was developed due to the inefficiencies of shortcomings of quantitative methods for being too subtly and too numerical for in-depth description of the phenomena. Later, another groups of researchers claimed that both methods could be used jointly to satisfy their insufficiencies. Therefore, they proposed a new method called mixed research design, basically combination of quantitative and qualitative approaches.

Main advantages of quantitative research methodology could be summarized as providing numerical data, generalizing conclusion, collecting data in short period of time and allowing manipulation of context. Although it produces such important features in a study, criticized by many people due to relying only on numerical values and statistical procedures (e.g. average, standard deviation, range etc.) and little interaction between the researcher and participants. It uses deductive reasoning approach.

Quantitative research focuses on numerical analysis of extensive data to classify features and construct statistical models to clarify observed phenomena. It is designed before the initiation of the study. Quantitative researcher generally uses questionnaire, survey, and similar inventories to collect data in numerical forms. Main objective of a quantitative research is to support the hypothesis with relationships and correlations between different variables. Data analysis is done by statistical analysis software such as SPSS, SAS, and MATLAB. Most popular research methods for quantitative research includes experimental, survey, action research, and correlational approaches.

Qualitative research, on the other hand, needs non-numerical visual or narrative data. Collected data are extensively discussed and explained in great details. Main purpose of the qualitative design is to understand meaning and context of observable phenomena according to the researchers' perspectives, so its results are not subject to generalization. Extensive interaction between observer (researcher) and participants exists. Data collection takes longer time that quantitative research. Research is initiated with a questions and it evolves as it proceeds. There is not manipulation of the context. It utilizes inductive reasoning to achieve a generalized conclusion.

Qualitative data are collected in natural conditions with any involvement through individual or focus group interviews, observations, archives, field notes, historical data, and case studies. Major qualitative research methods include case study, grounded theory, ethnography, and phenomenology.

Beged-Dov and Klein (1970) classify scientific research in terms of formalism or empiricism. On the other hand, Reisman (1988) categorizes it as fundamental science and social science research strategies. Chase (1980) offers a matrix framework for classifying the research conducted in operations. A more generic and comprehensive framework constructed by Mitroff and Mason (1984) for business policy (Paulin, Coffey, and Spaulding, 1982) for the field of entrepreneurship. In this study, we present a generic framework for a classification of paradigms based on the framework generated by Mitroff and Mason (1984) in order to discuss the underlying metaphysical assumptions inherent in business. Mitroff and Mason (1984) specify two key dimensions that shape the philosophical basis for research: 'rational existential dimension', related to the nature of scientific phenomena and 'natural artificial', which deals with the natures and foundation of information. The following is the framework for research method in our research. (Figure 1)

A FRAMEWORK FOR RESEARCH METHODS

		NATURAL ← → ARTIFICIAL		
		DIRECT OBSERVATION OF OBJECT REALITY	PEOPLE'S PERCEPTIONS OF OBJECT REALITY	ARTIFICIAL RECONSTRUCTION OF OBJECT REALITY
RATIONAL ↑ ↓ EXISTENTIAL	AXIOMATIC			<ul style="list-style-type: none"> • REASON/LOGIC/THEOREMS • NORMATIVE MODELING • DESCRIPTIVE MODELING
	LOGICAL POSITIVIST/EMPIRICIST	<ul style="list-style-type: none"> • FIELD STUDIES • FIELD EXPERIMENTS 	<ul style="list-style-type: none"> • STRUCTURED INTERVIEWING • SURVEY RESEARCH 	<ul style="list-style-type: none"> • PROTOTYPING • PHYSICAL MODELING • LABORATORY EXPERIMENTATION • SIMULATION
	INTERPRETIVE	<ul style="list-style-type: none"> • ACTION RESEARCH • CASE STUDIES 	<ul style="list-style-type: none"> • HISTORICAL ANALYSIS • DELPHI • INTENSIVE INTERVIEWING • EXPERT PANELS • FUTURES/SCENARIOS 	<ul style="list-style-type: none"> • CONCEPTUAL MODELING • HERMENEUTICS
	CRITICAL THEORY		<ul style="list-style-type: none"> • INTROSPECTIVE REFLECTION 	

Figure 1. Framework for Research Methods (Meredith, et al., 1989)

1.4.1. Historical Data Analysis

Historical research method examines historical documents and achieves as focal data purposes to evaluate factors, construct comparisons, compare and contrast similarities and differences, and make inferences from certain perspectives over long period of time into a more interpretive conclusions (Meredith, et al., 1989).

Historical data (Meredith, 1989) obtained from World Values Survey (WVS) are used for the research purposes in this study. Responses of the participants for the items on the cultural attribute survey were collected from WVS database.

1.4.2. Descriptive Analytical Modeling

Descriptive analytical modeling was implemented at a macrolevel with relatively simple and closed form mathematical representation. Then, it was used to describe the actual mechanisms of a real-world system by mathematical emulation (Meredith, et al.,1989).

Analytical method was later applied to analyze the importance of cultural features for the classification of countries according to their economic developments. Although many different algorithms are used for classification, decision tree algorithm is used because of easy to interpret and visualize. The framework used for this study is illustrated on Figure 1.

There are many different algorithm for classification as a learning technic and pros and cons can be discussed for selecting one of them to train your model. Naive Bayesian, K-Nearest Neighborhood, Decision tree, Logical Regression and SVM are mostly used classification algorithm. Another major elements for gaining a better result is the data you used for model (distribution of your data, number of dependent variable, logical relation of your data etc.). When we considered those variances, we could conclude that the best way to find a better model is to compare all results of different algorithms.

Since the scope of the study is not to create a great model for forecasting, we selected the one which can be easily interpreted and visualized as Decision Tree.

2. CULTURE AND ECONOMIC DEVELOPMENT

Intellectual capital, which has become the most important economic input of knowledge, technological innovation, network economy and transnational cultural interaction, which have become the driving force of the economy as the dynamic of creativity, together constitute a whole. Culture operates in a wide area ranging from economic returns, social communication, art activities, local image and tourism. Within the context of knowledge economy shaped on the basis of difference, creativity and originality, many products, services, activities, institutions and actors are considered as an economic activity tool and constitute an innovative space. Cultural economy shaped and evaluated on the basis of understanding the places, cities, daily lives of civilizations and cultures, will be a means of transferring into the future. We can achieve the common value of art works and cultural areas by transforming cultural activities into economy. The aesthetic return of art as well as the monetary return is an investment value.

There is no common definition of the concept of "culture" as a social concept. According to Trifonovich, it is possible to define more than 450 definitions of culture (Long, 2010). If we make a general definition, culture can be thought of as "a complex whole that expresses the totality of knowledge, faith, art, morality, tradition and all kinds of skills and habits that a society has." It is a fact that culture and economic activities are an important factor in promoting and maintaining inter-country bilateral relations in the globalized world. Fukuyama claims that cultural value should be based on how things should be carried out in any country. In light of this view, it is explained that a large part of the failure of international commercial negotiations originates from the socio-cultural elements outside the product. In this

study, after a general definition of culture, the relationship between economic structure and social and cultural structure will be discussed.

2.1. Definition of culture

All the forms of life thought and art in the state of tradition, which constitute a society of thought and thought, are culture. All kinds of means created in the historical and social development process, and the means used to convey them to the next generations and to measure the dominance of the human to the natural and social environment, are defined as culture (Bettig, 2018).

The concept of culture has a wide range of uses. E. Taylor (1871), in his book "Primitive Culture", suggested that human behavior and thought systems do not randomly occur and that they depend on natural laws and therefore can be examined scientifically. According to Taylor, culture is a complex whole that includes human knowledge, belief, tradition, artistic activity, law, moral values, and other abilities and habits gained as a member of a society. Taylor's definition is focused on the beliefs and behaviors that people have acquired in a particular cultural tradition, not in a genetic way. It is also protected by the culture ministry (Alvesson, 2016).

Culture is the most important fact that separates people from other living things. Human beings are seen as being weak and inadequate to achieve survival with their biological equipment in nature, compared to many other species. For example, it doesn't have any biological advantages like claws or fangs that can easily disassemble and disrupt it when it catches an advanced speed ability or prey to catch its prey or escape from a predator. It is the culture of human survival and the only advantage that keeps the species alive. Culture, in its most general definition, is the material and spiritual everything man has created and added to it outside of nature. It enters into

this, from the garment to the feeding system, from the accommodation style to the religious belief, from the social organization to the ideological frameworks that it expresses life. In short, in fact, cooking with technology, or ritual or spoken language are parts of the same reality. All living things are differentiated within the history of evolution. The human species is not otherwise.

Human beings, like other animals, underwent biological change under the influence of natural selection and adaptation processes, but in their evolution, the real leap is solved by means of cultural means, by means of a number of tools and institutions produced by itself, in the absence of biological equipment. Therefore, those who think about human beings have tried to explain the difference of human beings in the world of animals with the concept of *Homo faber*, the device that makes it first, but in the history of philosophy and thought many other concepts have been added to the definition of human being to explain this phenomenon.

The common place of all these adjectives is the cultural phenomenon. Because the features defined by these adjectives are not found in nature; they have created them, apart from nature, as the product of their own intelligence and dexterity. Therefore, the human species has succeeded in living and settling something that no other species has succeeded, that is to say, in all the climates and geographies of the world. There is no geography in the world where the human being is not adapted to become a homeland. From the hottest deserts to the coldest poles, from the arid steppes to the most humid tropical areas, all geographic and ecological thresholds have been settled by the human. The only weapon that accomplishes this is the processes we are trying to explain in terms of culture and adaptation strategies.

It is not easy to define the concept of culture that covers all aspects of human life and has a historical depth. For this reason, the concept is generally defined by looking at various aspects of it, and in the history of anthropology, many attempts have been made in various definitions. Anthropologists A. L. Kroeber and C. Kluckhohn, in their 1952 publication *Culture: The Critique of Concepts and Definitions*, included 164 different cultural definitions. However, it is evident that we need to fully understand the elements that determine the content of the concept, in order to make a definition of the word of the ancients, i.e. the mosque (i.e., those that exclude those who do not have the content, but contain the elements) (Burke, 2017).

Culture consists of abstract values, beliefs and perceptions of the world behind the human behavior and the reflections of this behavior. Culture functions as a picture that is learned through the language and combined with its parts.

Culture is expressed as a way of life of a society and knowledge, beliefs, traditions, customs, traditions, customs, art, technique and so on. it is a complex whole consisting of material and spiritual elements. Culture is a reality built by societies, but in a long period of time it is becoming natural and building new products. In this context, the roles, relationships, symbols and values that underlie the social institutions gain meaning by going through a social construction process.

It is possible to define culture as an individual's way of thinking, feeling and believing, the way of life of a society, the method of solution of problems, the total of learned behaviors, a normative system that regulates behaviors, everything that is created by people against what exists in nature, as a means of sovereignty and legitimacy. As can be understood from the event, the enterprises, especially the new world order, called the globalization of the economic system in order to grow in the

competitive environment of other countries to investigate the cultural and social structures are also required.

The culture was derived from a French word and is derived from a Latin word "colere", which means cultivate or practice.

Cristina De Rossi (1998), an Anthropologist, claimed that every distinct country has distinctive features regarding how people talk, how they wear, food, marriage, conversations, music, how they sit and eat, and how they behave each other, etc.

Culture is described as the features and understanding of a specific group of people including religion, language, custom, social habits, arts, and music (Zimmermann, 2017). It is very important to note that cultural diversity still remains an important issue in the modern world as it could be classified as Western, Eastern, Latin, middle eastern, and African cultures. There exist several differences between their cultural features.

Western culture defines cultures of European countries as well as the countries influenced by European immigration such as Canada, Australia, and the USA. Its roots go back to the Greco-Roman era and the rise of humanity against religion beliefs during the 14-15th centuries. The impacts of western culture can be easily observed in almost every country around the world today.

Eastern culture refers to the cultural features in such countries including far east nations such as Japan, China, and Korea as well as Indian peninsula. Like Western culture, it was heavily influenced by religious practices. Also, their agricultural products are dominated by rice. Religion in eastern culture is more

effective than western culture in terms of the relationship between secularism and religious philosophy.

Latin culture, on the other hand, was founded by Spanish and Portuguese invasions in central and South America during the 16th century. It is typically described as Spanish or Portuguese language speaking countries. Spain and Portuguese were the main influencers of Latin culture. Their languages are known as romance languages.

The Middle East is a region that hosted ancient civilizations and includes several countries with similar cultural roots. 20 different countries could be included in this area. The Arabic language is the common cultural feature in the region. It actually has other important characteristics for the whole nations since Judaism, Christianity, and Islam were born in the Middle East.

African culture is considered as the oldest culture of the human kind as the first human life is believed to originate in the continent. Its history goes back as far as 120,000 years. Africa is home to tribes, jungles, ethnic groups, and primitive human societies. Ethnic groups are widespread throughout the continent including as many as 54 countries. Some African countries have hundreds of distinctive tribes. African presently can be divided into two major parts: North Africa and sub-Saharan Africa. Although sub-Sahara countries share historical, social and physical characteristics, north African culture endures the harsh environment and several types of dishes, languages, art, and music styles.

The culture was maybe regarded as non-changing and constant features in the past, but today it has been proved that it has constant change as the world became

interconnected. Therefore, it is very difficult to define specific cultures since they are interrelated and transient.

Apart from different types of culture, the concept 'popular culture' has been becoming a significant topic in the area of culture and society. It incorporates instant and modern aspects of our lives including capitalism and economy. It is basically defined as "the accumulation of cultural products such as music, art, literature, fashion, dance, film, internet, TV, and radio consumed by the majority of a society's population" (Crossman, 2017). Its rise goes back to the end of World war II era following innovations in mass media. It led to substantial impacts and changes over cultural and social changes.

2.2. Relations of Culture and Economic Development

Economy and culture are the two most important forces that bring geographies closer together and connect people. The bazaars are located at the intersection of the roads, four roads are built, the agora is there, the cities are being built there. As people, societies and countries enter economic and cultural exchange with each other, wealth has arisen here. The current global economy is based on the institutionalization of this exchange and the development of new technologies. The many and necessary interactions between the mentioned phenomena lead to the emergence of contemporary creations. Imagination, decision-making and attractiveness form the basis of such creativity.

According to the definition of UNESCO and GATT, the culture industry is the name of the industry that has adopted the creation, production and dissemination of cultural property protected intellectual property rights as economic activity. This industry is characterized by concentration and the highest rate of spread in

international markets. Cultural economy, input is creative and cultural labor, output is protected by intellectual property rights products, works, activities and products are the sum of industries that provide products to meet with the consumer. The fact that culture is regarded as an economic activity area does not decrease its value, but the economic value of culture increases their communication values and impact areas. The cultural economy enables the eigenvalues and domestic gains to be opened to the world (Lousen & Pauwels, 2015).

The relationship between economic structure and social and cultural structure has gained importance with the evaluation of economic developments. Because it is not possible to analyze economic development only in economic terms, it is seen that the schemas formed while conducting economic development analyzes cannot get results unless the human element and reactions are included.

Developments in the analysis of economic growth are true of tangible and countable elements, incontestable and incontestable facts; If one side of the economy turns to matter and wealth, the other side is directed towards human behavior. No matter where and at any given time, economic life has a mindset behind human reality and its living norms.

Economic elements and social elements should be considered as a whole. Economic activity took place within a social structure, developed and gained sociality within the social structure. The transition from an abstract situation to a concrete base of economic measures and policies is possible by shifting the social and cultural realities into reality.

The development is considered to be a departure from the usual trajectory of economic activity and to a new level of equilibrium. Economic development and

growth must be supported by social integration policies in order to prevent disruption in the new equilibrium situation. Karl Marx adopted a deterministic approach to the interaction of economic structure and social cultural structure, but Max Weber opposed him. Weber acknowledges the impact of the economic structure on the social-cultural structure but opposes the consideration of this issue with a determinist and one-factor approach. According to Weber, the causal relationships of the economic, political or religious single element and the unity of a unilateral society are partial and probable (Weber, 2017).

In examining the relationship between culture and economic activity, Weber found that culture shaped economic activities. For Weber, every society has a culture, and society has its own system of beliefs and values through culture. According to Marx, all the relations of production constitute the economic structure of society; this is the true foundation where certain forms of social consciousness correspond, and the legal and political superstructures rise above. Marx argues that in every society the infrastructure and superstructure must be distinguished. According to him, infrastructure is economically based. The infrastructure consists of production forces and production relations. In the superstructure, legal and political institutions, modes of thought, determine the general quality of life, social, legal and spiritual processes.

The task of the superstructure, world view and morality is to show the interests of the owners of the production vehicles in the infrastructure as the reality itself. Other thinkers about the interaction of economic structure and social-cultural structure are; Schumpeter (1911) states that economic development cannot be analyzed in purely economic terms. According to Keynes, economic development analysis, the abstract elements behind the human elements and his reactions to take as long as the results cannot be taken. Hirschman argues that developments in the analysis of

economic growth are directed towards objective, tangible and quantifiable elements, and inexorable and uncountable facts. According to Marshall, if one side of the economy turns to substance and wealth, the other side is directed towards human behavior (Sahlins, 2017).

The relationship between economic structure and social-cultural structure has been evaluated by many thinkers as multidimensional. In the light of all these evaluations, the relationship between the two is an undeniable reality. It is not possible for an element of truth to be evaluated without being affected by the other aspects of the truth. In every society, economic development is based on elements outside the economy, i.e., the religious, aesthetic, cultural and social values of society. When all kinds of economic activity such as capital accumulation, investment movements, production, consumption and purchasing decisions are examined in depth, it leads to the inner world of the human phenomenon behind these activities and this inner world; it is shaped by the external environment of the human being, in other words its social and cultural environment.

Frederking (2002) investigated whether there is an implicit relationship between culture and economic development comparing pieces of evidence from two communities. They used surveys and interview protocols to collect data from a total of 800 employees, employers, and consumers in two separate communities. After analyzing data, they concluded that two groups of people presented a distinct culture protective mechanism. Also, it was found that economic actions represent cultural norms with the concentration of ethnic population within the societies. Researchers (Franke & Nadler, 2008; Kong, 2010; Frederking, 2002), in recent studies, suggested the promotion of progressive cultural change for undeveloped countries in order to

create higher economic developments. Culture and economic activities are also considered as two interrelated areas.

In similar research, Thompson (2001) conducted a study that explored the relationship between culture and economic development in the transition from modernization to globalization around the world. Modernity was defined as a development of global market domination originated in Europe after post war (WWII) era. On the other hand, globalization is a concept that basically describes the interdependence of the economies, cultures, and populations of the world nations by cross-border trade in products, services, technology, investment, and information. Culture and economic development affect each other by means of modernization. It is important to keep in mind that culture and economy relationship is rather complex. They concluded that culture does not change itself but evolves together with economic opportunities.

In addition, cultural values and corruptions are closely interrelated in terms of economic advances. Several studies (Husted, 1999; Richardson, 2008; Seleim & Bontis, 2009) investigated how reactions to any corruption in a society are affected by national dimensions of values. The findings mostly pointed out that there existed some uncertain avoidance of the individuals and individual practices against corruptions after negative impacts on economic development. Therefore, cultural values and cultural practices are believed to be two distinct concepts related to corruption.

2.3. Economic Growth and Socio-Cultural Impact

While doing economic analysis, the human phenomenon should not be ignored, but should be done through human beings. Economic elements and social

elements are a whole. The beginning of human life with an economic effort shows that economic activity emerged within a community. An economic union that does not have a spontaneous sociological nature gains sociality in a social order. In sociological terms, it is important to determine the location of economic activity; it is not only the technical features that bring an economic character to a business, but also the purpose it carries. The equilibrium of the economic act based on two principles, one of which is the wishing wish and the other one the necessity to resolve, depends on the result of the conflict between these two poles.

The sociological study of economic issues has revealed that the economy is an event occurring within a community and its order, and that such a purpose must be formed in order to become a verb economic. From the simplest to the most advanced forms, the economic life that occurs in various types of human organizations and on a social ground is within the scope of sociology that focuses on the unity of society. Economic events such as production, consumption, exchange, asset, division of labor, and distribution are also social events and they lead people to be in a social order. The material indicators of the population in society indicate its economic well-being and its social and cultural level shows social development.

The growth of the population, the increase of the labor force and the increase in the means of production are the changes in the growth scope. The differentiation in the roof and the roof is within the scope of development. Economic growth is measurable; however, this does not mean that it can fit in the numbers. Behind the growth are behaviors and institutions that cannot be expressed in numbers. These behaviors and institutions are the political order, the education system, the degree to which the people adopt innovations, the factors that stimulate the study and the stimulating factors.

It is the unique non-economic social and cultural elements of each country that will shape the validity of growth models in practice. In fact, it is possible to shift all economic measures and policies from an abstract situation to a concrete ground by shifting them to the social and cultural realities. Many examples can be given. For instance, in countries dominated by Islam with a value-prohibiting value, economic life is shaped by this value; deviations in this area are the result of the difference between cultural structure and social structure.

In traditional societies, the fact that the person does not want to leave his savings, to avoid entering the risk by converting to investment, the increase in income to drive more consumption than savings shows the role of social realities in economic saving. Today, economic and sociological elements are intertwined. It is possible to see this in the need to support the social integration of the changes created by the economic development and growth. Schumpeter (1911) interprets development as the economic trend separates from its usual trajectory and at a higher level, a new equilibrium. Complex modern societies have to open channels of entry into a new equilibrium. The failure here leads to problems in terms of social cohesion. Development and growth, which are not supported by social integration, may disrupt the system. Despite the fact that the individuals and social groups in the society get material satisfaction, the crisis is common (Alvesson, 2016).

People's persuasion of economic planning and policy is the first condition of support for these plans and policies, because the people know what they will end up and what they will achieve as a result, ensuring that they adapt. While creating plans for economic growth targets, the behavior of the society and the socio-cultural structure that constitute those behaviors cannot be ignored.

2.3.1. Democracy

Democracy is a form of government in which all members or citizens have equal rights in shaping organization or government policy. The discussion of the definition of democracy is still an ongoing debate. The reasons for this may be: Some institutions in countries use the definition of democracy in order to justify their views, the efforts of democratic states to introduce themselves democratically and the use of democracy as a general concept alone (constitutional democracy, social democracy, liberal democracy, etc.). Different references to democracy:

1. *Management of the majority*
2. *The management that guarantees minority rights;*
3. *Management of the poor;*
4. *Management trying to destroy social inequality;*
5. *Management trying to achieve equality of opportunity;*
6. *Administration based on public support for public service.*

There are different approaches to the relationship between democracy and economic growth. Some economists argue that democracy adversely affects economic growth, arguing that it has led to weak administrations in order to take the necessary decisions for economic activity. In another approach, it is argued that democracy will provide a broad public participation and that it will provide a mechanism by which governments can correct the wrong decisions. Finally, some economists argue that the relationship between economic growth and democratic or authoritarian regimes is weak. It can be argued that there is a two-way relationship between economic freedom and economic growth. However, economic freedom and economic growth

are processes that support and complement each other. The impact of democratic regimes on development and / or growth becomes more evident when the process of economic growth is dealt with in the development process.

Most studies at the theoretical and empirical level, which look at the relationship between growth and democracy, acknowledge the existence of a positive relationship between growth and economic freedom (Williamson & Mathers, 2010). Assuming that the best regimes in the protection and maintenance of economic freedoms are democratic regimes, we can say that the positive relationship between economic growth and democracy is stronger (Mathers & Williamson, 2011). In particular, the importance of democratic regimes in the protection of property rights is emerging.

2.3.2. Collectivism

The collective is a community of people who unite around a common purpose, which unites a concrete social homework that unites the interests of the individual. In socialist society, the socialist moral principle that regulates the mutual relations between the individual and the society, the individual and the collective, the social ownership of the means of production and the elimination of the exploitation of human beings constitute the social basis of collectivism. The point of view of the events and the way of solving the events, that is, the world view, being the same and participating in the solutions in this axis and acting in the point of solving them together is the strongest side of collectivism (Triandis, 2018).

Individualism begins with the emergence of class societies. Private property serves this understanding with all the institutions and organizations that make individualism strong and maintain it in class societies. Individualism brings the

individual into a special and unilateral position, which is the opposite of a collective understanding. In today's capitalist society, the endless accumulation of capital is one of the main obstacles to the creation of a new human being. In this society where exploitation is intense, the individual is isolated from society and is isolated. In the process, the individual becomes alienated from the society and the society. It becomes the person who thinks himself rather than society, who keeps his interests above the interests of society. In the field of economics, collectivism argues that some things must belong to the whole society and not to individuals or groups, and to be used for the common good of all. Economic management is largely collectivist.

2.3.3. Trust and Fairness

The justice approach, which focuses on evaluating decisions and behaviors on the extent to which the costs and benefits arising from the activities are distributed equally between individuals and groups, can be put forward as the main tool of valuation of moral behavior. In general, it can be said that the employees' perceptions of justice are high in an organization where the costs and benefits are evenly distributed, the rules are applied in an impartial way, and the losses of those who suffer from inequality and discrimination are met. Organizational justice, fair and moral practices and procedures within the organization to be dominated and encouraged. In other words, in a fair organization, employees evaluate the behavior of managers as just, morally and rationally. Research has shown that adverse reactions to low wages, organizational policies and organizational processes are less pronounced if the employee believes that the decision-making process is fair (Triandis, 2018).

Trust and fairness could be regarded as two faces of one characteristic related to judicial systems around the world. However, they should be studied as two distinct

factors in terms of economic development. They are sometimes treated as one socio-cultural issue due to their interrelated features. They both depend and are based on each other.

Trust matters to economic progress because it enables certain transactions that create important value in the economy. Absence of trust prevents economic growth. Trust theoretically is not considered as a factor on the economy in a modern world with the absolutely competitive market, but in reality, it produces such a huge balance on the economy (Ben-Ner & Putterman, 2002). The countries that have high-trust culture generally experience higher and better economic results. Trust depends on the maturity of the economic system in a community. Ben-Ner & Putterman (2002) claimed that trustworthiness in an economy depends on various factors such as reputation, third-party enforcement, preferences, and values.

Fairness has a critical effect over economic distributions in a community. It is expected by law that resources and opportunities within a society should be evenly distributed among people and generations (Throsby, 2001). Economic efficiency has been considered as a factor that prevents ideas of fairness and equity in general economic roles. Traditional economical perspectives advocate that economic efficiency is a separate process in regard to fairness and equal distributions of economic products.

Towards greater economic efficiency and economic development, governments enforce regulations, privatization and other measures to allow the markets more freely in their policies (Throsby, 1995). Despite many efforts on equal distributions of wealth produced in a country, unequal income distributions are still created. Therefore, the gap between rich and poor, called the Gini coefficient, has

been increasing between 1990 and today for most of the countries over the world (Figure 2).

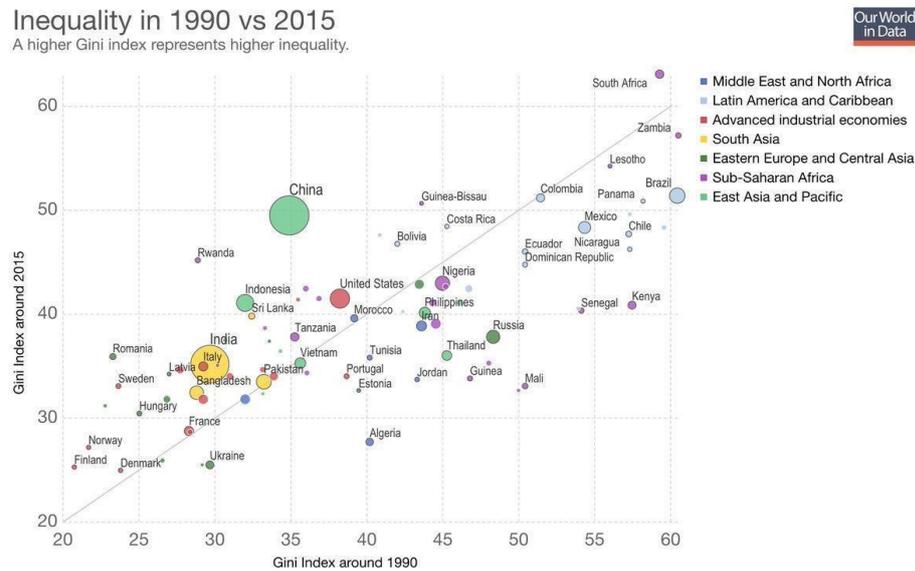


Figure 2. Gini index values of selected countries in 1990 vs. 2015 (Source: Povcal, 2018)

2.3.4. Government Attributes

The state is an institution based on public sovereignty. The nation determines its representatives who will lead it through free elections and to participate in management in democratic states. The democratic state is also an effective protection of the fundamental rights and freedoms of the citizens. For the good governance, it is important to limit the framework of the powers of government spending, taxation, borrowing and money printing to constitutional and legal norms. Transparency should be ensured in state administration. The right of citizens to obtain information and access to information about state administration must be guaranteed by constitutional and legal norms. The state should be an institution that does not discriminate between people, gender, race, religion, language and ethnic origin. All religions, languages, races and cultures in a country should be equally respected and treated equally. But

Weber argued that different religions create different cultures and finally economic scopes are different (Goldschmidt, 2006). This dimension of the ideal state can be called the Pluralist State. The state should be an institution with universal values. (Goldschmidt, 2006)

The culture, traditions, customs and customs of each country and nation must be respected.

2.3.5. Religions

In secular societies, the distribution of religions according to the majority / minority ratio may lead to the socio-cultural structure of other societies where religions are widespread and other religions respect the needs and styles of each other and may lead to unnecessary adversities such as racism and religious war.

The fact that some bigots (which include the bigots of each faith), even in societies that host people of many different faiths and who defend that they are secular, will bring with them the customs of the regions where religions have emerged. As a result, this means enrichment in good or bad sense (what should not be omitted here: faithlessness is a form of belief).

Today, religion represents one of the most important sociocultural effects on economic development. We could easily claim that it plays a very important and crucial role in economic growth. First religious living plans were first developed by Babylonians in ancient times as they started using seven days of a weekly calendar and developed certain days when working was allowed. It was associated with heavenly bodies known at those times. At some degree, types of religion and economic status of a nation highly correlates.

Recent researches (Eum, 2011; Barro & McCleary, 2003) on religion and economic development there existed a strong correlation between economic development and religious activities but not in constant progress. Barro and McCleary (2003), who made first investigations on the impacts of religion on economic growth, studied the relationship between economic growth and church attendance in six international surveys between 1981 and 1999. Religious activities are found to be positively related to education and economical advances. However, for some religious beliefs, church attendance was among the factors that reduce economic growth. Religious laws and regulations in the legal system is another factor that has an influence on economic growth.

Noland (2005), in a recent study, searched how religion is related to economic performance in cross-country and within-country regressions. They expressed that the idea that Islam does not support economic growth was not supported by the findings. Three potential hypotheses were mentioned in the study; intellectual, sociological and institutional to explain why most Muslim countries are among poorest nations. Islamic societies were accepted as underperformed on the past 50 years. Malaysia was found the only country that showed a negative correlation between religion and economic development. The findings also showed that Christianity rose from 1% to 40% in the last century. GDP rose at a similar rate in the same time period.

Durlauf, Kourtellos and Tan (2011) examined and evaluated the claims that the role of religion in economic growth extensively by using Bayesian MA methods to account for model uncertainty. They investigated and replicated Barro & McCleary (2003) model statistically with basic growth regression framework and compared their results with their previous findings. They used data collected by the international Social Survey Programme (ISSP) and the World Values Survey (WVS) involving

responses of the questions from individuals on Monthly Church attendance, belief in hell and heaven.

Also, per capita GDP data in 1965, 1975, and 1985 along with the college attendance, life expectancy, investments, fertility, and government spending information were included in the analysis. They mostly found similar results except in a few areas. For example, their descriptive analysis resulted in a stronger correlation in regard to belief in heaven and a weaker correlation for belief in hell. In other words, belief in heaven was found as an important criterion of religious belief that affects economic growth in general. They concluded that there existed no evidence that supported religious beliefs having a strong relationship with economic growth. They also mentioned that only a few and weak impacts between monthly church attendance and economic growth. In conclusion, their empirical study did not support the idea of religion being good and beneficial for economic advances.

2.3.6. Language

It is almost impossible to think about language and culture. Without language, culture is similar to a baseless building. The language of a non-cultured nation is like a river whose source is to dry. As the societies that do not give importance to their language have lost their culture, those who do not have the culture do not have the option to keep their language dynamic.

The emotions and thoughts that individuals have come into being with the language, are revealed. It becomes the common value of society as it is accepted by other individuals. Because the emotions and thoughts of the individuals that make up the society are a reflection of the culture.

Language is another factor that influences economic growth worldwide. New empirical results suggest that language plays an important role in cultural perspectives. It affects the economy via cognition, decision-making, and other related issues. The economics of language is a study that explores the effects of language skills on income and trade of economy.

Recent studies (Archand & Grin, 2013; Walsh, 2006; Chong, Guillen & Rios, 2010; Galor, Ozak & Sarid, 2016) revealed that pervasive proficiency in a leading language such as English and Chinese is not associated with higher economic growth. Particularly, Chong, Guillen & Rios (2010) asserted that language provides communication between agents, which enables formal and informal institutions to function properly and that eventually are correlated with social capital and economic progress.

In a recent study, Galor, Ozak & Sarid (2016) investigated empirical economic factors and consequences of language from a general perspective in pre-industrial geographical characteristics including agricultural investment and productivity. They suggested that although language structures reveal the remnants of early human experience and traits in particulate societies, they explicitly disturbed human activities and economic growth.

With a different perspective, multilingualism is strongly correlating with a higher economic outcome. For example, countries such as England and Switzerland benefit from employees with multilingual heritage as much as 3.5% and 10% of their GDP, respectively. The USA hosts about millions of bilingual people equal to %20 of its total population. For example, in Florida, such citizens who can speak English and Spanish earn at least \$7,000 per year more than who only speaks English. In Canada,

bilingual men and women earn 3.6% and 6.6%, respectively, more than their English-only colleagues. The studies (Grin & Vaillancourt, 1997; Duchêne & Heller, 2012; Fidrmuc, 2011) showed that linguistic diversity promotes a powerful economic condition. However, many languages face a risk of extinction.

2.3.7. Schwartz Value System

Schwartz grouped personal values into ten value systems (Seligman, C., Olson, J.M., Zanna, M.P., 1996., pp. 1-24)). Those value systems include 56 specific universal (personal) values, 30 terminal and 26 instrumental values (Ivanić, 2015. pp.86, 87.) .

Values could be described according to six main features (Schwartz, 1992; Schwartz, 2012). Firstly, they are based on beliefs and their effects on feeling and human life. And, they generate desirable goals that stimulate actions. They can overlap particular actions and situations.

Values are accepted as criteria or standards for actions, policies, people, and events. Then, they are generally ordered according to their importance levels. Finally, multiple values initiate and conduct human attitudes or behaviors. Their impacts depend on the levels of being relevant for the context and importance to the actor.

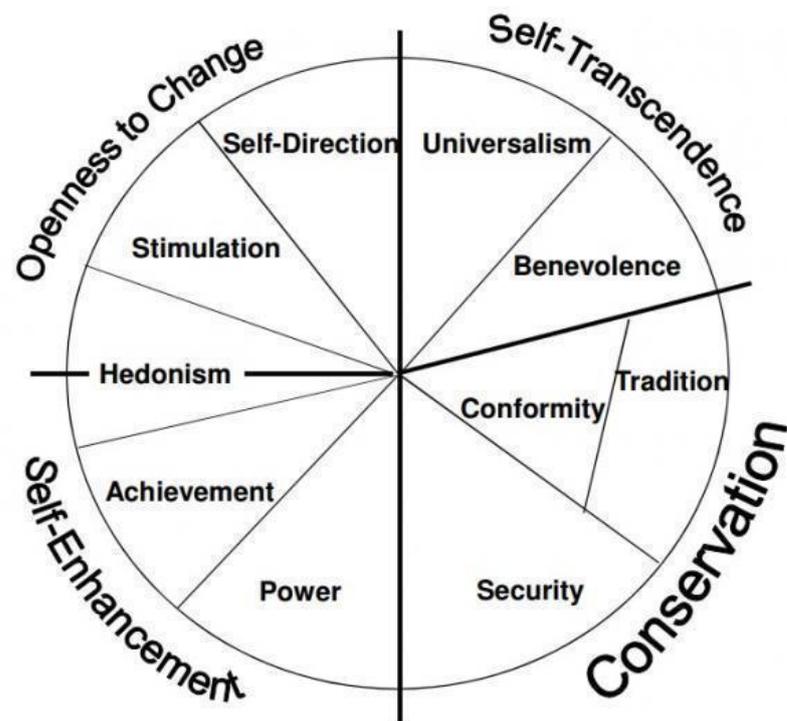


Figure 3. Schwartz Value System with 4 major parts and 10 distinguishing values
(Schwartz, 2010)

The Schwartz Value Survey (SVS) is the original inventory that contains 56 items measuring the relative importance of 10 distinctive values with 9-point Likert scale (9-being the most important and -1 being opposed to values). This survey has been conducted so far on more than 65,000 individuals in 70 nations around the world (Fischer & Schwartz, 2011).

Additional value measuring inventory is known as the Portrait Values Questionnaire (PVQ) and later developed by Schwartz and colleagues (Schwartz et al., 2001). It is more concrete than SVS and requires fewer fine distinctions. It is designed with 40 questions with a 6-point Likert scale for responding to the statements. Males and females respond to the items separately according to their best ideas and knowledge for themselves.

Schwartz value system or Schwartz theory of basic values identifies ten fundamental values accepted across cultures and explanations of their sources. They are as follows: “Self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence, universalism”. This value system was created as a circular scheme with conflicting values on opposite sides and similar values were inserted adjacent along the circle.

Balliet et al. (2008) investigated 10 universal values of Schwartz and compared them with Davis' individual differences in empathy (Davis, 1983). They included 284 business students at a large university as one sample in the study. Genders of the participants were kept equal with 135 males and 139 females in order to eliminate sex differences. The second sample consisted of (n=179) psychology majors at a liberal arts university. It contained 136 women and 42 men since the majority of the population were females. The participants at both groups were asked to complete two questionnaires, the Schwartz Value Survey (SVS) and the Interpersonal Reactive Index (IRI). Their findings revealed that benevolence values were strongly correlated with the trait empathy as hypothesized and this showed that benevolence values were critical values that needed to be investigated in more details. They also showed that the 10 universal value system formed a complete structure and could be considered a compact model. They have a strong relationship with specific traits and the relationship between values and traits could be tested to uncover other potential explanations for their existence.

Those personal value groups are detailed below;

1. *Self-Direction*

Defining goal: making individual decision with self-independent thoughts. Self-direction is related and explained with creativity, freedom, choosing own goals, curious, self-respect, intelligent privacy (Ivanić, 2016).

2. *Stimulation*

Defining goal: excitement, novelty, and challenge in life. Stimulation values can be explained with the need of excitement of life and action-oriented life style. This need is derived from person to make change, taking action and achievement in a competitive environment (Ivanić, 2016).

3. *Hedonism*

Defining goal: pleasure or sensuous gratification for oneself. Hedonism values derive from organismic needs which focus on self-satisfaction. Theorists describe hedonism with pleasure, enjoying life, self-indulgent needs.

4. *Achievement*

Defining goal: personal success with competence which gives a social place and acceptance. Achievements that generates value is necessary for individuals to survive and for groups and institutions to accomplish their objectives. As defined here, achievement values also can be defined as competence in terms of ambitious, successful, capable, influential, social recognition (Ivanić, 2016).

5. *Power*

Defining goal: social status and prestige, control or dominance over people and resources. Power values may also be transformations of individual needs for

dominance and control. Value analysts have mentioned power values as well (authority, wealth, social power) (Ivanić, 2016).

6. *Security*

Defining goal: the basic needs to survive and sustain stability of society, of relationships, and of self. Not only individually also security for groups as well as nations can one of the basic need and value of person. The goal of the security values is to protect survival of person and survival of the groups which person care and feel commit. Security value is comprised of social order, family security, national security, clean environment , reciprocation of favors (Ivanić, 2016).

7. *Conformity*

Defining goal: behaving in a manner with social expectations or norms. Conformity values derive from the requirement to act in a way that caring about others and not to disturb social regulations and non-regulated rules. Conformity values emphasize self-restraint, obedient, self-discipline, politeness, honoring parents and elders, loyal, responsible on our interactions with the rest of the society, especially close relations (Ivanić, 2016).

8. *Tradition*

Defining goal: respect, commitment, and acceptance of the customs and ideas that one's culture or religion provides. Groups everywhere develop practices, symbols, ideas, and beliefs that represent their shared experience and fate (Ivanić, 2016).

They symbolize the group's solidarity, express its unique worth, and contribute to its survival, form of religious rites, beliefs, and norms of behavior. (respect for tradition, humble, devout, accepting my portion in life) (Ivanić, 2016).

9. *Benevolence*

Defining goal: preserving and enhancing the welfare of those with whom one is in frequent personal contact (the 'in-group').

Benevolence values derive from the basic requirement for smooth group functioning and from the organismic need for affiliation. Benevolence values emphasize voluntary concern for others' welfare. (helpful, honest, forgiving, responsible, loyal, true friendship, mature love) (Ivanis, 2016).

10. *Universalism*

Defining goal: understanding, appreciation, tolerance, and protection for the welfare of all people and for nature. Universalism combines two subtypes of concern—for the welfare of those in the larger society and world and for nature (broadminded, social justice, equality, world at peace, world of beauty, unity with nature, wisdom, protecting the environment) (Ivanis, 2016).

2.4. Economic Growth and Cultural Development

Max Weber (1905) accepts the effects of the economic structure on the social-cultural structure but opposes the consideration of the subject matter with a determinist and one-factor approach.

Weber (1905) has proved that the economic order has a very important effect on the shaping of religious life, showing a great deal of such loyalties in his writings, the social order in which a religious movement which completely devalues the world life to the account of the Hereafter, can only be established in certain social order and can win fans. as they searched with examples; Thus, while it is possible or even necessary to demonstrate the effects of economic factors on the formation of religion,

the main task of the system it has developed has been to determine the effects of religion on economic life.

Max Weber put it as follows: "*No religion alone has determined the system of economic ethics. (...) The religious factor of life style is one of the determinants of economic ethics. It is highly influenced by the economic and political elements that are valid within the political, social and national boundaries*" (Cantoni, 2015).

In another place, Max Weber (1905) makes the following determinations: The happiness or rebirth that any religion pursued as the supreme value was clearly and necessarily complying with the character of the most prominent stratum of adopting that religion. The religious tendencies of the intellectuals were, of course, different., These tendencies did not in itself determine the psychological character of a religion, but it had a very long-lasting effect on religion: the contrast between the warrior and peasant classes, the intellectuals and the merchant classes had special significance. The intellectuals have always been rationalists, theirs is a rationalist rationalism, and the business circles (traders and craftsmen) have at least tended to advocate more practical (useful) rationality. also, religious attitudes have always been very affected.

In other words, according to Weber, the causal relationships of the economic, political or religious one element and the unity of the unilateral society are partial and probable. This partial and analytic theory of causality of sociology, which rejects an element of truth as being unaffected by the other aspects of reality, is the refutation of the simple interpretation of historical materialism.

Max Weber, who recognizes that the economic structure makes certain effects on the social-cultural structure, rejects the system that Karl Marx established on the economic structure and based on the economic structure and explains the reasons for

this. Max Weber opposes Marxism for scientific reasons; He argues that strict economic reductionism will not be enough to comprehend not only economic phenomena. The fact that the economy is not sufficient to play the role of universal savior because it is confined to its own means like every activity, and that a collectivized economy may turn into a bureaucratic network of oppression leading to anarchy that is worse than on the market, and that their advocates tend to divide society into two opposing camps, in case of an intolerant imposition of the issues, such as the reasons for his opposition to Marxism (Cantoni, 2015).

The relationship between economic structure and social-cultural structure has been evaluated by many thinkers. In order to understand economic history, it is necessary to consider the history of the mentality. Traces of societies' mentalities, cultural values and belief systems are seen in their economic systems. This means that people's economic activities and preferences are marked by a mentality. The demand of stocks and bonds, or the demand for gold and real estate, is related to the shape of the economic mentality that people carry.

According to the economic mentality, an economic activity becomes productive or speculative. All economic activities are the work of a mindset world that guides them. When the human and his behavior are deduced from the science of economic life, which forms part of interpersonal relations, nothing is achieved. Mentality research is closely related to contemporary philosophical movements. As a matter of fact, researches of the first economic mentality started in Germany, where the related philosophical movements found the widest areas of development. Thus, a broad horizon was opened to the history of economics. In the scientific researches related to the history of economics, a significant turning point emerged by putting human instead of real-external data, and the importance of issues related to mentality

started to be understood. Behind the technical structure and the legal order, there is a mentality front which is spiritual and intellectual.

Economic systems are more spiritual and intellectual than material ones. There are tight links between the major theoretical / theoretical systems and the economic mentality that cannot be recognized by the superficial view. An economic system, for example capitalism, is not just a collection of capital, it is the work of the human mind, which is thoughtful and willful. Only the members of the community that encouraged work for this world have revealed capitalism as the economic system of this mindset, as individuals who are passionate about earnings. Economic life is not a world of matter formed by external data; The human behind it is the truth. It is the norms of human behavior that reveals the economic systems.

The human element, which manifests itself both in the production activities, in the consumption activities and in the economic prosperity created by the benefit of consumption, is both the actor and the target of the economic activities. The market economy model is a whole with its institutions, mechanism and human mindset and behavior. Kenneth Boulding seeks to demonstrate the importance of man and his mentality by stating that for those who have the will to develop, for economic development, those who have the will to develop must gain power. According to him, it is easy to allocate resources to sectors for economic development; what is difficult is the desire and will of development; In determining the desire and will of the person, the cultural structure of the society in which he / she lives plays an important role (Thomson, 2017).

Religious and moral ideas and institutions representing them should be considered for economic development. Developments in science increase the effect of

the human element, its desire, will, mentality. There has been a great change in the way of knowledge, which has led to the development of science. Economic elements and social elements are a whole. The beginning of human life with economic dynamics shows that economic activity emerged in a community. An economic unity that does not have a sociological nature in itself is gaining sociability in a social order. In sociological terms, it is important to determine the location of economic activity; it is not only the technical features that bring an economic character to a business, but also the purpose it carries. The equilibrium of the economic act based on two principles, one of which is the wishing wish and the other one the necessity to resolve, depends on the result of the conflict between these two poles. The sociological study of economic issues has revealed that the economy is a phenomenon occurring within a community and its order, and that such an aim must be created in order for an act to become economic.

From the simplest to the most advanced forms, the economic life that occurs in various types of human organizations and on a social ground is within the scope of the sociology that addresses the whole of society. Economic events, such as production, consumption, exchange, value, division of labor, and distribution, are also social events, which lead people to be in a social order. The material indicators of the population in society indicate its economic welfare and social and cultural level of social development.

When the effects of the social and cultural structure on the economic structure are explained by the dimensions of the effects of the mentality, the multifaceted explanation can be obtained on all grounds. A tool is required for implementation. As it is seen, economic and sociological elements are intertwined. It is possible to see this in the need to support the social integration of the changes created by the economic

development and growth. Social integration policies, which are the most effective tool in social policy and economic policy coordination, will be emphasized here.

2.5. Socio-Economic Analysis of Countries

The effects of sosyo economic factors on the classification of countries according to their level of development are quite high. Socio-economic development includes not only the increase in per capita income, but also all social variables that include structural and human development. When indicators are analyzed by main groups, demographic, employment, education, health, infrastructure and other indicators of welfare, economic indicators, manufacturing industry, construction, agriculture and financial indicators are discussed.

2.5.1. Studies

Social- cultural factors are elements of the socio-cultural environment. Social and cultural approaches, beliefs and traditions in a community constitute the sociocultural environment. When economic dimensions are to be emphasized, socioeconomic environment is mentioned. The social environment encompasses all identical or similar social situations and social roles affecting individuals of a group. It is the culture where the individual lives or is educated, and the society and institutions that he / she interacts with (Sue et. all, 2018).

Social, cultural factors are gaining importance together with different psychological factors. Common stress in contemporary life and so on. situations; social, cultural and economic factors affect human health positively or negatively. Socioeconomic factors are the most difficult factors to measure and evaluate, especially those affecting the life and health of a person. Statistics show that there is a

striking relationship between disease and deaths and socioeconomic status. People living in economically low regions are less healthy than those in more affluent regions (WHO, 2018).

The effects of sosyo economic factors on the classification of countries according to their level of development are quite high. Socio-economic development includes not only the increase in per capita income, but also all social variables that include structural and human development. When indicators are analyzed by main groups, demographic, employment, education, health, infrastructure and other indicators of welfare, economic indicators, manufacturing industry, construction, agriculture and financial indicators are discussed.

Historical, economic, social, geographical, climatic and strategic factors determine the development levels of countries; depending on these factors, similarities and differences occur between countries. Any inequalities between countries or regions of a country are characterized as regional imbalance and these imbalances reveal the difference in socio-economic development.

For the “trust” element the Chinese most trust each other according to World Value Survey report between 2010-2014. It is followed by Russia and USA. These three of countries have different social-cultural values inside. In summary USA has the highest ranking in economy (Nai et. all, 2018). In Asian countries emphasis is strong (Staniszki, 2007).

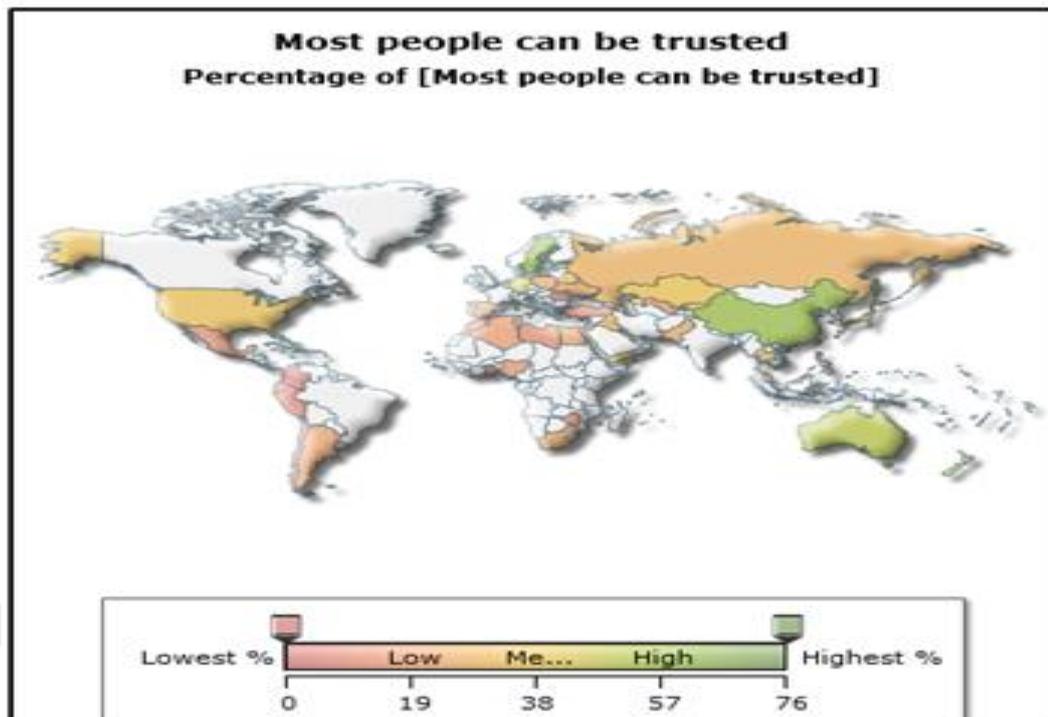


Figure 4. Most People Can be Trusted

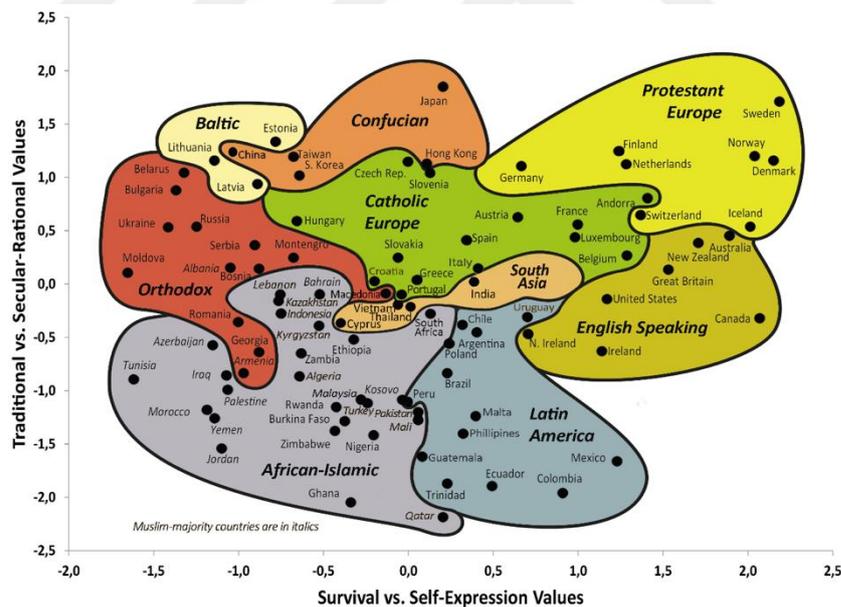
(Resource: World Values Survey, 2014

<http://www.worldvaluessurvey.org/WVSContents.jsp?CMSID=DataDoc>)

For a specific example of GDP and social-cultural relationship ;today, one of the regions where the difference of development is high is seen among the countries that have gained independence by the dissolution of the Union of Soviet Socialist Republics (USSR). Between 1918 and 1922, the Bolsheviks sought to dominate the Russian Empire over military interventions and officially declared the Union of Soviet Socialist Republics on 30 December 1922. The USSR was officially disbanded in 1991 and 15 republics became independent. The countries that emerged with the disintegration of the USSR have different socio-economic and cultural characteristics due to the policies pursued before independence. These countries are geographically comprised of Eastern Europe (Russia, Belarus, Ukraine, Moldova), Baltic (Estonia, Latvia, Lithuania), Caucasus (Georgia, Armenia, Azerbaijan) and Central Asian

countries (Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Tajikistan). . At the same time, there are Russians, Slavs, Turks, Georgians and Armenians as race, Catholics, Orthodox, Gregorian and Muslims as religion (Libman, 2012). So, Russia has changing elements in years. The IMF expects the Russian economy to grow by 1.6% and 1.5% in 2018 and 2019, respectively (Kubaniwa, 2016).

In 2017, the public deficit declined to 2.1% of the GNP. Inflation declined to 4.2% and is expected to continue its downward trend with the appreciation of the ruble. The banking sector deteriorated after the Russian Central Bank rescued two major banks in August and September 2017. Russia's daily crude oil production reached its highest level in the last 25 years (11.2 million barrels a day) in 2016, and continued to increase in 2017, although it made a commitment to OPEC.



Figure

5. Value

Table

(Resource: World Values Survey, 2014)

<http://www.worldvaluessurvey.org/WVSContents.jsp?CMSID=Findings>)

Russia's public borrowing is at low levels and the country has a wide range of foreign exchange reserves thanks to its asset funds. Russia's 2018 budget aims to increase social spending by reducing spending in other areas. Russia has a *quarterly* GDP per capita, of \$2,371,55 higher than the same quarter last year, it was . If we order the countries according to their GDP per capita, Russia is in 40th position (Kubaniwa, 2016).

According to a study by Barro and McClery (2006), the increase in participation in the church, with religious beliefs fixed, constitutes a tendency to decrease in economic growth. Conversely, while church attendance is steady, the rise in some religious beliefs, such as heaven, hell and the hereafter, causes an upward trend in economic growth. In other words, stronger religious beliefs help to maintain and maintain specific individual behaviors in the same way, and this increases productivity. It is determined that fear of hell is stronger and more effective than other beliefs on economic growth. This shows that religion has an undeniable influence on the economy.

If religion had no impact on the economic structures of societies, the same economic systems had to be established and functioning in all societies. The lack of the same economic system in all societies, the different levels of development of societies, have different cultural accumulation, as well as living in different geographies, societies have different characteristics and different value judgments (Baudrillard, 2016). The influence of religion on these values, especially the influence of religion, is changing the economic life and changing the social structure and human behaviors in societies and causing different economic structures to emerge.

The two most important theories of classical social change are undoubtedly Karl Marx and Max Weber's theories. Karl Marx evaluates the phenomenon of great

social change occurring by modernity through the ownership of the means of production; Evaluates with the concept of rationalization. It is a rational action to achieve a rational purpose with rational means. This is the example of a lawyer who wants to convince a judge, a teacher who makes an effective teaching and the businessman who produces the optimum production at low cost. For rational action towards value; parents who spend money to raise their child well and people who do not drink alcohol due to their beliefs.

Figure 5 at above shows us to compare country's attitude, exactly when we choose Sweden and Iraq, we can say Sweden has better conditions, so Sweden's GDP is higher than Iraq. When rational values is increasing, also GDP is increasing. The social status determines the social classes, life style and social relations. The subjective evaluations of people about their social positions differ according to the status groups in society (Thompson, 2017). It is a good table to compare Islamic countries and protestants.

One of the most important factors for the arrival of Sweden is that it has an extremely strong education system. 9 years of primary education is compulsory in the country. However, it is forbidden to grade students until the 6th grade. They believe that the note has a negative impact on the motivation of young children. Students are taught their rights at a younger age. In this way, they will have the ability to protect themselves against the challenges of life.

Sweden is currently the 4th most valuable country in the world in branding. As of last year, among the top 100 brands in the world, there are 7 Swedish-based companies among 2 top 500 brands. Volvo, Scania, Saab, Ikea, Ericsson, Skype are some of the brands that Sweden has brought to the world. This branding culture has a big share in the fact that Sweden is the world's 24th largest economy despite the

population of 9.5 million. Table at the above shows another interesting points, for that table, the best economic conditions are Protestant Europe and English-Speaking countries (Power et. all, 2017). They have rational values and self-expressions.

Another common point is they have higher life standards. When we mentioned Russia above, we can see them in survival part and has lower conditions than USA and Europe. It is same for some of other old USSR countries, they stay at same nearby regions. And they share similar cultural values.

Another part is governments. The concept of culture is divided into sub-cultural areas within the broad meaning of it from economy to politics, from our eating habits to our political preferences. In this respect, political culture corresponds to a lower and private area.

Political culture refers to the whole of beliefs, values and attitudes that play a role in shaping the political order of any society. In this sense, political culture refers to the whole of the attitude, belief, emotion and value judgments of the members of a society. However, changes in social, economic and political spheres over time can change the content and form of political culture

(Ulrich & Duncan, 2018).

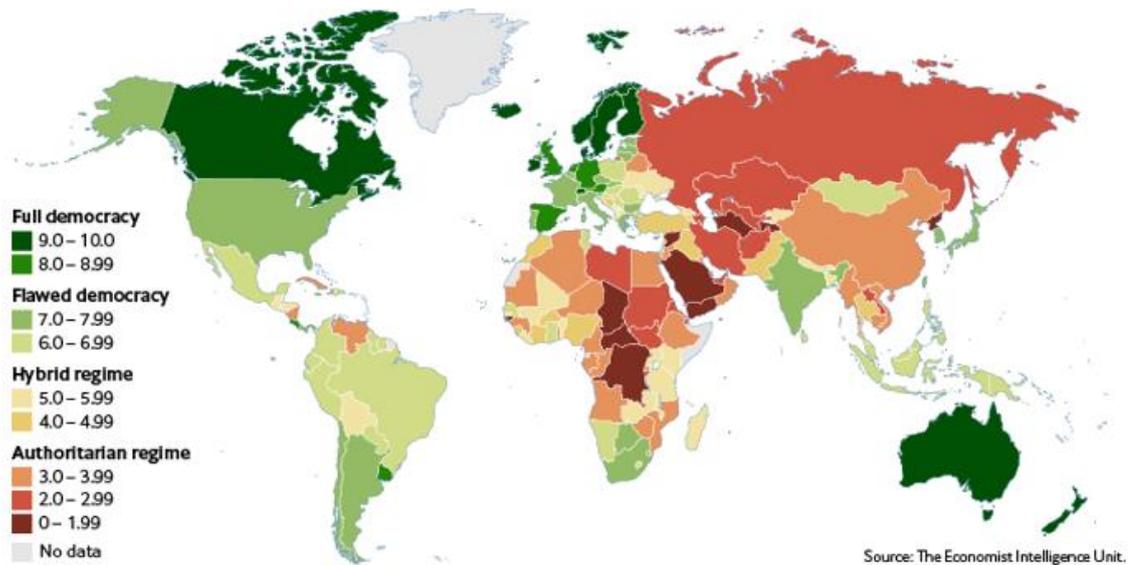


Figure 6. Democracy Index

(Resource: World Values Survey, 2018

<http://www.worldvaluessurvey.org/WVSNewsShow.jsp?ID=392>)

For example, Figure at the above, it is seen that the participatory citizenship culture that exists in the USA and the UK is the basis of the power of government systems in this country (although there are different government systems in the US and UK). In this context, Mexico and Turkey are closely related to the implementation of economic and democratic institutionalization of the developing countries and the poor stability of the government in the political culture of democracy (Haggard & Kaufman, 2018).

One of the economists who stated that the indirect relationship between democracy and economic development is important is Jagdish N. Bhagwati. According to Bhagwati, democracies tend to facilitate a lasting economic development by creating an environment that facilitates more innovation and entrepreneurship, and that if markets and competition find a wide spread, democracy could create more positive effects for economic development. Bhagwati emphasizes

that two important pillars of a permanent economic development are democracy and markets (Bhagwati, 1995).

According to some scientists who think that the relationship between democracy and economic development is positive, as a result of liberal democracies freedom of expression and organization, rule of law, multi-partyism and elections, protection of human rights and separation of powers, institutional conditions and processes for economic development occur (Salahodjaev, 2015). Thus, even if democracy does not directly affect economic growth, it provides an institutional basis for economic growth.

Baum and Lake (2003) also think that the effect of democracy on growth is indirect. The authors investigated the impact of democracy on growth for a period of thirty years, with a focus on 128 countries. As a result of these studies, it is concluded that the direct effect of democracy on growth is not statistically significant, but a relationship between democracy and growth is more important (by extending life expectancy in poor countries and increasing secondary education in non-poor countries) (Baum and Lake, 2003).

Some of those who argue that there is a positive interaction between democracy and economic growth, illustrates this by giving an example from history. For example, for the relationship between democracy in history and economic growth, Athens and Sparta are given. The fact that the Athens economy is stronger than the Spartan economy is often attributed to the fact that Athens has a flexible democracy (Lyttkens et. all, 2018). Another example of the history can be given to South Korea. It should be noted that South Korea's relatively low-income per capita income is almost comparable to that of a single-party dictatorship with a relatively well-

functioning electoral democracy (with a slight delay), with almost one-time income (Afonso, 2016).

Djankov et al. (2008) state that, unlike the non-democratic countries, there is a strong relationship between public disclosure in democratic countries and a lower level of corruption. The existence of such a relationship indicates the existence of a complementary relationship between transparency and democracy. If democracy brings transparency, it is possible to say that while the other conditions are fixed, the markets in which the democratic system is valid will approach the competitive market.

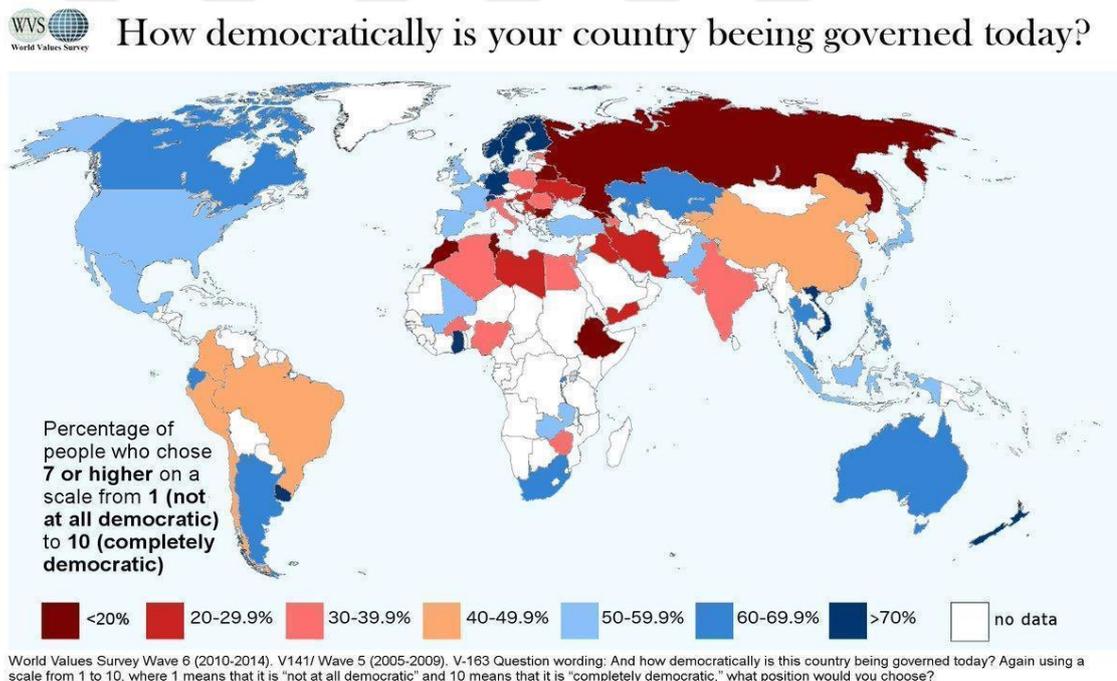


Figure 7. Democracy and Government

(Resource: World Values Survey, 2016 <http://www.worldvaluessurvey.org/WVSONline.jsp>)

Because when a democratic system of government compatible with political culture is implemented in a country, politics in that country is stabilized and as a result economic growth and prosperity are increasing. Besides, the quality of democracy increases with economic growth. Indeed, when we look at the developed

democracies of the world, we are facing economically developed countries. The important common point of these countries is that the discussions of the change of government system in their political agendas do not have an important place. Because these countries have a system of government compatible with their political culture for at least a century.

3. METHODOLOGY

Quantitative analysis is used on this research. Quantitative analysis helps to validate your research question with data analysis and techniques and help to make conclusion and recommendation based on findings from data. With the help of developing technology, researchers collect comprehensive data much more easily about their research topics.

Quantitative research is mainly using data to validate the research question objectively. In quantitative analysis, the data can be collected from either available resource online, in-house (secondary data) etc. or survey/questionnaire result which is prepared by researcher. In other words, this research technique is used to make a representation of data analysis outputs related to research questions. We collected survey results of 60 countries about world values and beliefs from www.worldvaluessurvey.com. 20 cultural attributes of 60 different countries are analyzed in this study.

On data analysis phase, Decision Tree is employed from static discipline which is used for classification of different determined group which in this case economic development level of counties. Below decision tree algorithm will be explained in detail.

3.1. Historical Data Analysis

3.1.1. Cultural attributes

3.1.1.1 Aim:

Aim of the collect specific cultural attributes is to adding model to define development level of countries only with these cultural criteria. Even economist mostly explain development level with production, education level or income level etc., our scope is to evaluate economic situation with cultural features.

For this reason, 20 cultural attributes of 60 different countries are analyzed in this study.

3.1.1.2 Method:

Cultural attributes related questions are collected from worldvaluessurvey.com. 2010-2014 survey results are referred. Question segment details are given below on figure 8. For each country approximately 1200 respondents have answer on WVS. Only percentage of 'totally agreed', 'completely describe myself' and 'Yes' answers are collected for the model.

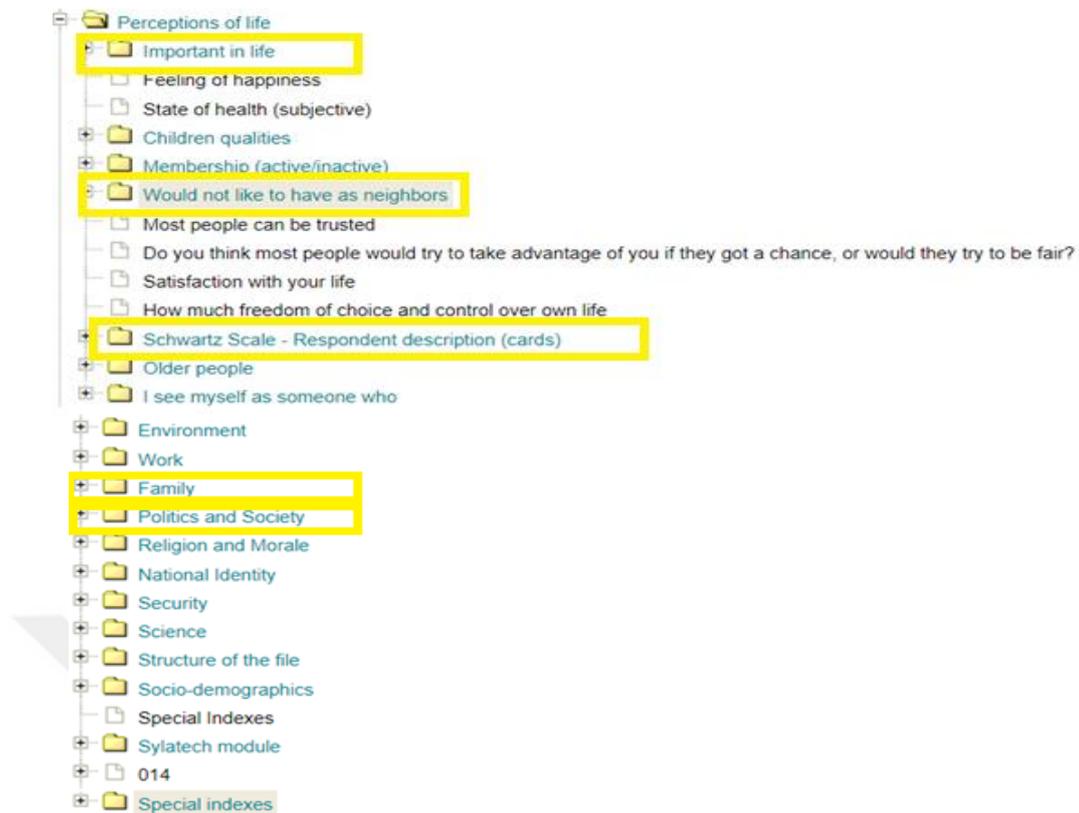


Figure 8. Question Categories

(Resource: World Values Survey, 2016 <http://www.worldvaluessurvey.org/WVSONline.jsp>)

3.1.2. Economic Development of Countries

3.1.2.1 Aim:

World Values Survey surveys periodically citizens of 60 different countries. We collected all of these countries for making better decision criteria since algorithms can make better decisions with more data.

3.1.2.2 Method:

Figure 9 provides an overview of the development taxonomies used in the three international organizations. Note that over the last twenty years the shares of ‘developed’ countries in the World Bank and IMF’s systems have increased relative to the share of developed countries in UNDP’s system. The reason is that the UNDP’s development threshold is relative while the Bank’s and (probably) the Funds are absolute. While the three organizations use very different development thresholds, there is a lack of clarity around how these thresholds have been established in all organizations.

World Bank classification method is employed for examination. World bank looks income per capita of countries for classification of economic development.

	IMF	UNDP	World Bank
Name of 'developed countries'	Advanced countries	Developed countries	High-income countries
Name of 'developing countries'	Emerging and developing countries	Developing countries	Low- and middle-income countries
Development threshold	Not explicit	75 percentile in the HDI distribution	US\$6,000 GNI per capita in 1987-prices
Type of development threshold	Most likely absolute	Relative	Absolute
Share of countries 'developed' in 1990	13 percent	25 percent	16 percent
Share of countries 'developed' in 2010	17 percent	25 percent	26 percent
Subcategories of 'developing countries'	(1) Low-income developing countries and (2) Emerging and other developing countries	(1) Low human development countries, (2) Medium human development countries, and (3) High human development countries	(1) Low-income countries and (2) Middle-income countries

Figure 9. Classification methods of Economic development (src: worldbank.org)

Among 60 countries, 35 of them are labeled as high-income developing countries, 18 of them are labeled as developed country whereas 7 of them are labeled as low-income developing country.

Table 1. classification of countries

(Resource:World Values Survey, 2016 <http://www.worldvaluessurvey.org/WVSONline.jsp>)

Developed	Developing - High Income	Developing - Low Income
Australia	Algeria	Zimbabwe
Cyprus	Azerbaijan	Palestine
Estonia	Argentina	Ghana
Germany	Armenia	Haiti
Hong Kong	Brazil	Kyrgyzstan
Japan	Belarus	Rwanda
South Korea	Chile	Taiwan
Kuwait	China	
Netherlands	Colombia	
New Zealand	Ecuador	
Poland	Georgia	
Qatar	India	
Singapore	Iraq	
Slovenia	Kazakhstan	
Spain	Jordan	
Sweden	Lebanon	
Trinidad and Tobago	Libya	
United States	Malaysia	
	Mexico	
	Morocco	
	Nigeria	
	Pakistan	
	Peru	
	Philippines	

	Romania	
	Russia	
	South Africa	
	Thailand	
	Tunisia	
	Turkey	
	Ukraine	
	Egypt	
	Uruguay	
	Uzbekistan	
	Yemen	

3.2. Descriptive Analytical Modelling - Decision Tree

3.2.1 Aim:

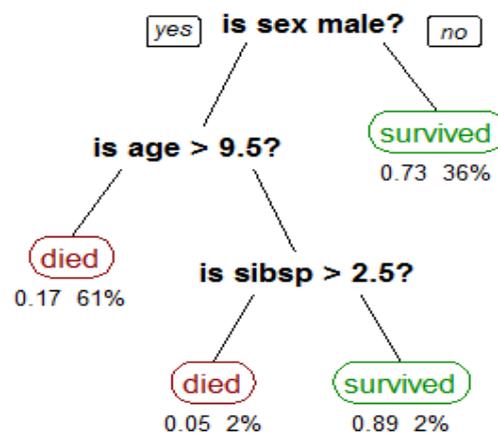
Decision tree is a simple representation for classifying similar features and an algorithm and analytical classification method, considered as one of the popular Machine Learning algorithm. It basically measures all possible decision conditions and make/prepare conditions for best information gain. It is commonly used for controlled knowledge problems including regression or classification. It is also called ‘classification tree’ in which each decision or leaf node represent an input feature.

A decision tree breaks down a data set into smaller branches and subcategories with decision or leaf nodes. Each decision nodes consists of two or more branches. Each leaf node represents decision or classification. Decision tree is comprised of root node with an edge and a decision node connected to root nodes.

3.2.2 Method: Decision Tree

Decision tree is defined as an analytical modelling method in statistics, data mining, and more importantly in machine learning (ML). For this reason, Decision Tree ML algorithm was implemented for simplicity and visual interpretation in this study.

Decision tree algorithm is utilized to classify most useful attribute of the selected countries for the study purposes. The study data provides how well a cultural attribute separates the countries according to study purposes. In order to define information gain, we use a measure commonly used in information theory, called entropy that characterizes the (im)purity of an arbitrary collection of examples. (Cicekli, 2016)



Figure

10. Decision Tree Example (Titanic)

A decision tree example which is used for forecasting in Titanic accident on Figure 10, as displayed above represent upside down feature with the roots at the top. Bolds indicates an internal node. The tree splits into branches or subgroups. Last subgroup doesn't split because it is the last leaf of the tree, or otherwise called leaf or

decision. Above example is called learning decision tree from data or classification tree. Regression tree is constructed in a similar manner. Decision tree algorithm is generally known as CART, classification and regression trees.

CART has several advantages. It is easy to interpret or understand the features and it could effortlessly accomplish variables or characters. Numerical or categorical values could be represented. Also, they require little efforts for data preparation and interpretation of data. However, decisions trees lead to biased trees if any of the classes are dominating. They are subject to being unstable due to unexpected data variations. Sometimes, they may not be optimum to produce optimal decision tree.

For example, collection S , containing positive and negative examples of some target concept, its entropy, relative to this boolean classification, could be calculated as,

$$Entropy(S) = -p^+ \log_2 p^+ - p^- \log_2 p^-$$

** S is sum of all training class examples; p^+ is the proportion of first-class examples; p^- is the proportion of second-class example*

Entropy is considered as an important parameter for decision tree to collect best possible attributes. Each internal node breaks down an instance space into two or more nodes with the best information gain at the training stage. Then, every path from the root node to the leaf node forms a decision rule, which determines class type a new instance or example belongs (Wei Dai, 2104).

Although decision tree is generally used for classification, this algorithm also present some limitations. Especially, huge data technology, such as hadoop platforms,

are able to store several terabytes of data, but such a feature causes failure and serious problems in the algorithm performance. For this reason, this technology provides solutions to this issue by pruning unnecessary nodes in the decision tree.

Scikit-Learn, one of the most popular and well-known Machine Learning Algorithm of Python library, was employed. Its version was 0.20.2. CART decision tree is the successor algorithm of ID3 and C4.5, was executed for data classification. Below results were numerically acquired for the training model. Only some of the unanimous responses were included to the standard training tree. Python v.3 codes was created on Jupyter notebook.

The below studies are developed based on the descriptive modelling on literature by using decision tree algorithm;

Edi Winarko and Ai Munandar (2015) applied decision tree approach in a very similar research topic with ours. they compared the performance of 3 different decision tree algorithm to classify regional economic development performance of Banden and Central Java province .

Eleftherios Giovanis (2011) used decision tree technique to forecast economic crisis of USA and reached very accurate results with %90. In the same study, logit and Probit algorithms performed lower accuracy.

Burak Erkut (2016) conducted a research to find similarities of developed economies in terms of competitive advantage by using decision tree algorithm.

Decision tree results showed that the structural similarities like infrastructure, legislature and financing and support possibilities for entrepreneurs are significantly related with economic development.

Silvana Tomic Rotim and Jasminka Dobsa (2013) used decision tree for extracting relevant information from NRI (Network readiness index) with 68 indicators of 134 countries about ICT (Information and Communication technology) usage performance. Venture capital, latest technologies and utility patents, accessibility of digital content, legal infrastructure, access to internet, education and collaboration between university and university are found the most relevant indicators according to decision tree results.

3.2.2.1 Definitions of Decision Node Variables

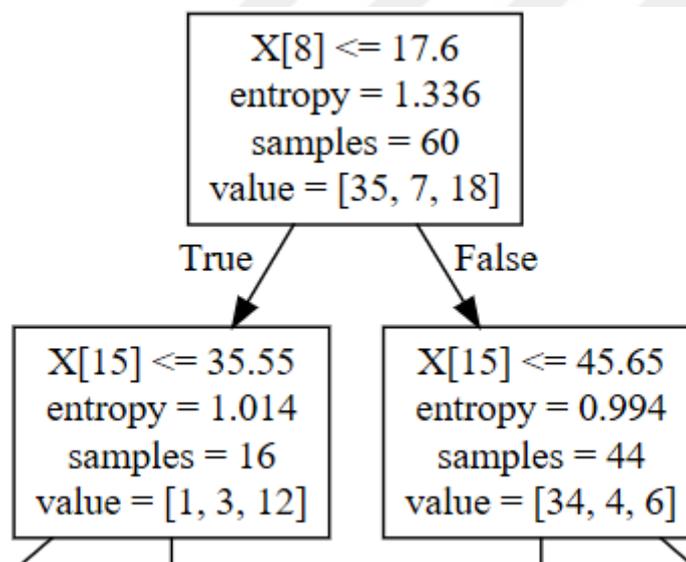


Figure 11. First Nodes For Explanation

1. $X[n]$: Definition of the cultural attribute of the countries. N ranges between 0 ($X[0]$) and 9 ($X[8]$) as the cultural attribute in the model.
2. Entropy: Definition of the degree of homogeneous classification, done by model. '0' Entropy defines a perfect classification.(Figure 11)
3. Samples: Total number of countries. 60 countries were obtained from WVS.(Figure 11)

4. Value: Number of the countries in a specific group. In our case, 35 low income (underdeveloped), 7 medium income (developing), and 18 underdeveloped countries.(Figure 11)

Feature Number in Model	Question Details
	Now I will briefly describe some people. Using this card, would you please indicate for each description whether that person is very much like you, like you, somewhat like you, not like you, or not at all like you?
1	It is important to this person to think up new ideas and be creative; to do things one's own way.
2	"It is important to this person to be rich; to have a lot of money and expensive things"
3	"Living in secure surroundings is important to this person; to avoid anything that might be dangerous"
4	"It is important to this person to have a good time; to "spoil" oneself"
7	"Being very successful is important to this person; to have people recognize one's achievements"
8	"Adventure and taking risks are important to this person; to have an exciting life"
9	"It is important to this person to always behave properly; to avoid doing anything people would say is wrong"
10	"Looking after the environment is important to this person; to care for nature and save life resources"
11	"Tradition is important to this person; to follow the customs handed down by one's religion or family"
Feature Number in Model	Question Details
	I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?:
12	The Courts
13	The government (in your nation's capital)
14	And how democratically is this country being governed today? Again using a scale from 1 to 10, where 1 means that it is "not at all democratic" and 10 means that it is "completely democratic," what position would you choose?
15	Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?
Feature Number in Model	Question Details
	Question wording Now I'd like you to tell me your views on various issues. How would you place your views on this scale? 1 means you agree completely with the statement on the left; 10 means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between.
16	"Competition is good. It stimulates people to work hard and develop new ideas" vs. "Competition is harmful. It brings out the worst in people"
Feature Number in Model	Question Details
	Now I'd like you to tell me your views on various issues. How would you place your views on this scale? 1 means you agree completely with the statement on the left; 10 means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between.
17	"Incomes should be made more equal" vs. "We need larger income differences as incentives for individual effort"
Feature Number in Model	Question Details
	Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important
18	Hard Work
19	Determination and perseverance
20	Feeling of responsibility
Feature Number in Model	Question Details
	For each of the following, indicate how important it is in your life. Would you say it is:
23	Leisure Time
24	family

Figure 12. Question Details

5. True & False Directions: Defines whether sample countries fit to $x[n]$ condition.

For example, true direction, countries with $x[8]$ and false direction, countries without $x[8]$ as illustrated below figure.

The questions details taken from worldvaluessurvey.com are shown on Figure 12.

3.3. Result and Discussion

The level of development of countries is more related to the economy. Depending on the economic situation, social life and cultural structure are also among the criteria of development. According to these criteria, countries can be discussed in three groups as developed and developing and underdeveloped.

The most commonly used of these criteria is national income per capita. In addition, some data on the values, religion and democracy attributes are also used for this model. Due to the differences in economic, social and political structures of countries, their level of development is different. Different criteria mentioned above are used to determine the level of development of a country.

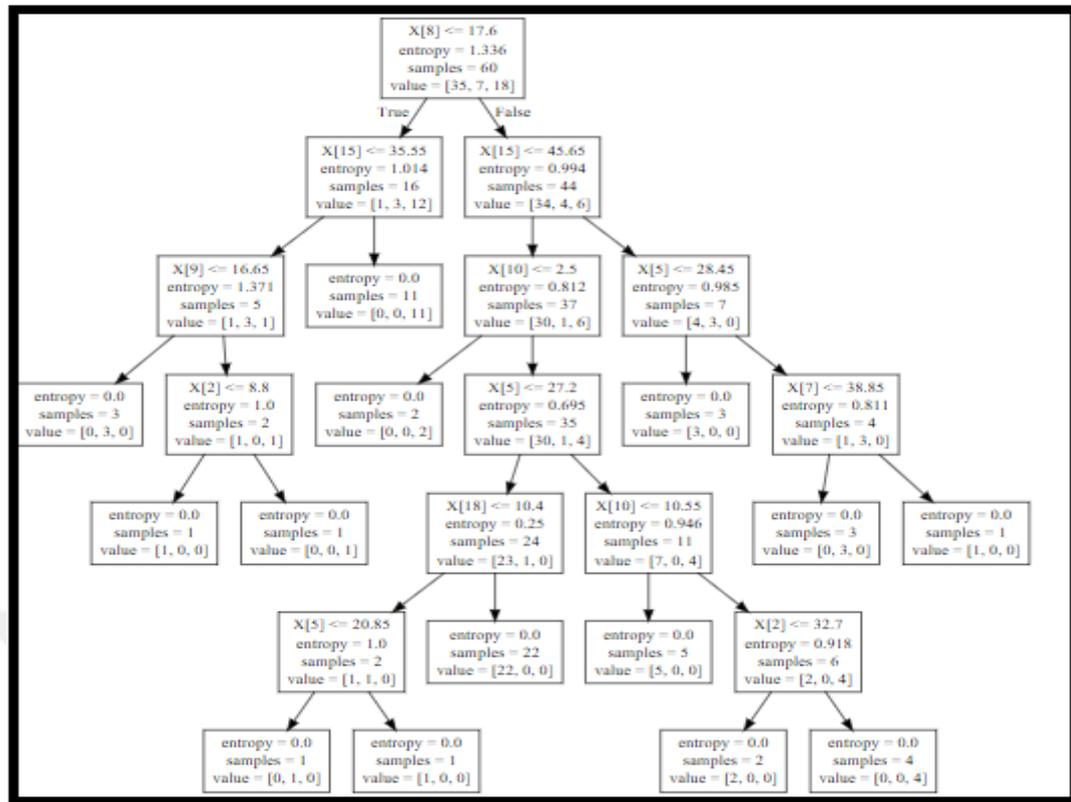


Figure 13. All Nodes of Decision Trees of Study

Nodes of decision tree is shown above figure 19 is the result of decision tree classification approach which is populated with 20 different attributes. Model emphasize the importance of 5 different cultural features among 20 features.

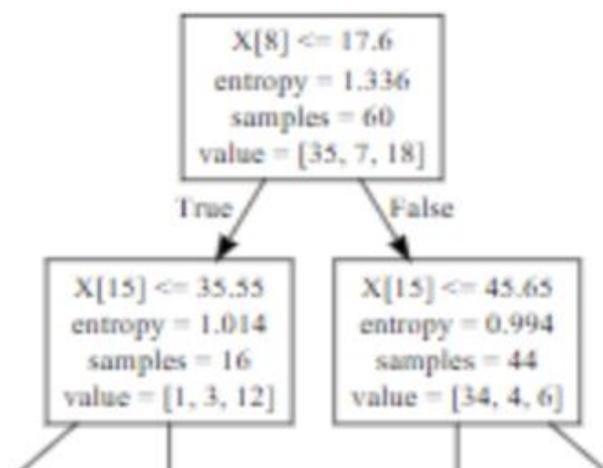


Figure 14. First Nodes of Decision Trees of Study

X[8] refers to variable 9 which assess how a person made decision based on her religion or tradition. This variable is the best segment divider for developed countries. First classification node indicates if score of agreed respondents to this question of a specific country is below 17.6, those respondents are belonging to 12 developed countries and 1 high- income and 2 low-income countries. Although this result is very good pattern indicator, there are still 6 developed country which respondents doesn't fit this pattern.

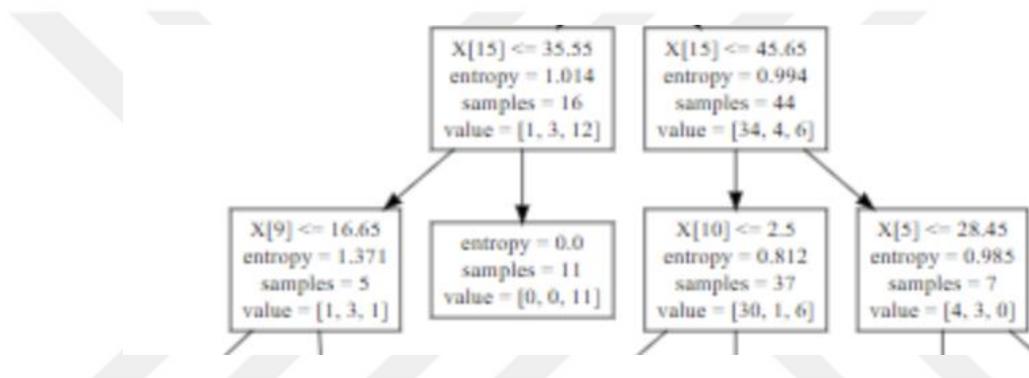


Figure 15. Second Nodes of Decision Tree of Study

X[15] refers to variable number 16 which assess how important to grow responsible child. This variable is the best classifier for the sub 1 and 2 class that we obtain after first classification. First subgroup are consisting of 1 high-income and 2 low-income and 12 developed countries while second subgroup consist of 34 high-income, 4 low-income developing countries and 6 developed country.

First subgroup condition is below or above %35.55 for variable number 16. below this condition describe 1 high-income, 3 low-income developing and 1 developed countries whereas above this condition describe only 11 developed country.

Second subgroup condition is below or under %45.65 for variable number 16. below this condition consist of 30 high- income, 1 low-income developing countries and 2 developed countries whereas above this condition consist of 4 high- income and 3 low-income.

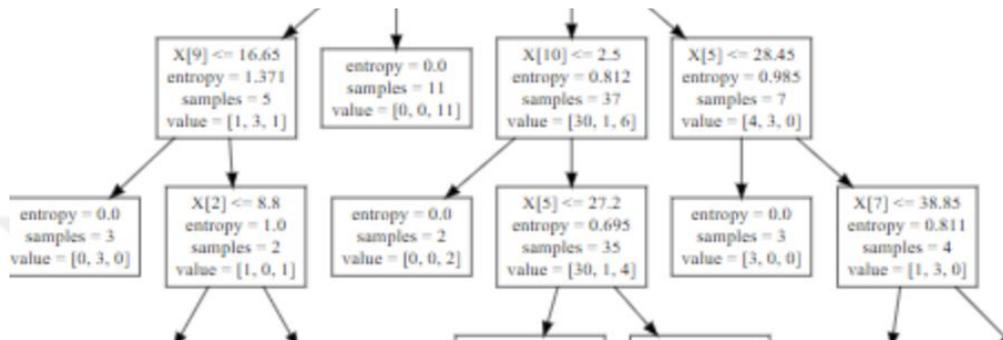


Figure 16. Third Nodes of Decision Trees of Study

Now we have 4 subgroup or other words nodes.

X[9] refers to 10. variable on figure 16 which gauge how respondents are confident on courts in their countries. First subgroup condition is below or above %16,65 for variable number 10. below this condition describe 3 developed countries whereas above this condition consist of 1 high- income and 1 low-income countries. Since second subgroup is totally homogenous with developed countries, the node is not being divided further sub-groups.

X[10] refers to 11. variable on figure 16 which gauge how respondents are confident on government in their countries. 3. subgroup condition is below or above %2,5 for variable number 11. below this condition describe 2 developed countries whereas above this condition consist of 30 high-income, 1 low-income and 4 developed countries .

X[5] refers to 6. variable on figure 16 which gauge how respondents are risk-taker on their decision. 4. subgroup condition is below or above %28,45 for variable number 11. below this condition describe 3 high-income countries whereas above this condition consist of 1 high-income and 3 low-income countries.



4. CONCLUSION

In this section, we will review and discuss the major findings. It summarizes key outcomes and compares them with previous researches. This study was designed to investigate cultural features that principally affect for classifying countries according to their economic advancement. Our initial hypothesis included that religion, the judicial system, responsibility, and democracy would be top elements for the economic status of the chosen countries. The features were found to be somewhat positively or relatively correlated with economic development.

Development levels of a country could be categorized according to economic progress in three distinct groups: underdeveloped, developing, and developed. Our findings are limited to the group of countries (60 countries). Decision tree of ML algorithm was utilized for data analysis. The countries were mostly (N=35) high-income developing country, 7 were low-income developing country, and 18 were developed. They were only generalized to similar groups in the world.

Our study generated significant findings related to the features that affect the economy in implicit and explicit means. In addition to other factors (e.g. resource, geographic features), constructing and applying a strong legal system, associating cultural traditions and religious perspectives with scientific and modern approaches (e.g. Japan) would certainly establish a modern, financially rich and happy country.

Policymakers and leaders could benefit from the results such that successful cultural issues including religion, democracy, and judicial system affect economic development for the countries. The findings could also be profited by education systems, families, and intellectuals. For example, teaching its citizens responsibility,

democracy, and scientific facts and realities would benefit a country with a robust and high-status economy.

One of the findings of the researchers today is that the economy is not a branch of science that can only be explained by economic indicators. There is a human element on the basis of economics. As it is understood from its definition, it is possible to talk about the existence of economic activities wherever there is human as a science that examines how human needs will be met with scarce resources. It is not possible to think separately of the society and sociological structure formed by the people. At that time, it is inevitable that the sociological structure affects the economic relations. This shows how the economy is affected by the sociological, political and cultural understanding of society. Many economists did not disregard the impact of social, cultural and political factors, especially when examining economic development. The basic indicators of economic development are emphasized as well as the importance of social indicators. The economy is intertwined with sociology.

When examining socio-cultural factors, cultural values which are an important factor in the formation of common values of society together with some social indicators explaining the structure of society are of great importance. These indicators are particularly important data showing the country's level of development. Numerical data gives more than one reason for development. In other words, the more economic recovery in a country, the more positive it is for health, housing and poverty. In fact, the researchers predict that even though economic growth is not achieved, countries that cannot improve these indicators cannot be considered as a developed country. However, education within these indicators is in fact a cause rather than a result. Increasing the level of education and knowledge of the society, especially with the investment made in education, increases the human capital. In this way, qualified

labor is provided for transition to industrial and technology-based production and economic development is accelerating. In the socio-economic development process, societies have undergone different stages of development in the form of transition from primitive society to agricultural society, from agriculture to industrial society and from industrial society to information society. Now, there is no end to education for the human being who has reached the information age beyond the industrialization. Countries give more importance to technology and, consequently, to information and research in order to excel. Education actually plays an important role in preparing sociological structure for economic development by educating individuals who are open to innovations and can think multidimensionally and more freely.

In addition to the views on the effects of education on the sociological structure of the society, economists examined the effects of education on economic growth and development. Today, underdeveloped countries, which try to realize their economic growth through technology transfer from developed countries, are not successful enough. Developments in countries that cannot develop their own technologies and creativity are limited and remain dependent on other developed countries. However, instead of transferring their own research and development opportunities, they can meet the need for trained staff, and they can reach an economic system that is self-feeding and developing. Developed countries can always go one step ahead of other countries by spending huge resources on research and development. The most important factor besides the natural resources, capital and equipment which are the requirements of production is the trained human factor.

Language is an element that is at the top of the common values of a society or even a nation. In fact, even in a country, speaking more than one language is an

indication that many different communities live in the same region. The language, which is often identified with the name of the society or the nation, is no longer valid for only one society or one country, with events such as migration, war and colonialism. It should not be forgotten that some countries still have economic factors as well as cultural change in the use of colonial time languages. In particular, colonialist states have established an economic link with the mainland country by using the resources of the countries in which they have traveled. For the establishment and continuation of such political and economic relations, the dominance of some languages in the world has increased.

Some researchers, especially in the history of the Islamic countries, although many scientists have been struggling to explain why it has remained back in the last centuries. Especially in the economic sense, it is seen that the Islamic countries are far behind (Panayotou, 2016). Although Muslims constitute approximately 20% of the world population, they can only get 6% of the world's income (Uçal, 2013). Foreign researchers and non-Christian societies in the economy to explain why they remain behind in the understanding and misinterpretation of Islam in some Muslim and Turkish writers who think they have contributed to the literature with their own work. In the past, researchers have looked at this more sociologically. Rather, they focused on the economic mentality and how the economic characteristics of the society formed an economic mentality and how it affected the economic development.

Conclusion is written as propositions below with subtitles. Because variables on culture and tradition are subjective and can not be considered itself to cause economic development. But the results of our study suggest that we can not ignore the importance of them when assessing the economic development of different countries.

4.1. Religion

Proposition 1: Belief and religion have a relationship with economic development

Religion, according to every heavenly and earthly belief system, is known as maybe the oldest human tradition as first human species walked on the earth. Its major effects on every area of the societies are more evident than ever. Although it is not widely accepted as a decisive factor for economic development, specific belief systems and their applications in particular societies have implicit impacts on advances on finance and business. Since the publication of the first book on the relationship between religion and economy (The protestant ethic and the spirit of capitalism) by Weber in 1905, numerous studies (Landes, 200; Sen, 2002; Boettke, 2001; Grief, 1994;) have been conducted to verify this strong relation between economy and religion. It is not surprising that religion emerged as a factor that indirectly affects any economy. Our results somewhat supported Weber's hypothesis regarding this obvious correlation between religion and economic, because Protestantism, a branch of Christianity, mostly shaped modern capitalist system today.

Religion and economic development were found to be positively correlated by recent empirical studies (Constantin & Alexandra, 2015; Karaçuka, 2018). In other words, religious beliefs and perspectives of individuals, groups, and countries significantly affect growth Gross Domestic Product (GDP) (Eum, 2011). For example, the higher religious levels (e.g. participating in religious activities) of a nation, the higher economic growth the country have. Individuals' regular attendance to certain religious activities positively influences economic growth in society (Eum, 2011). Above findings were somewhat supported by our research finding, which showed that there existed a relationship between religion and economic development.

4.2. Tradition

Proposition 2: Tradition has a relationship with economic development

Another critical cultural issue that shape economic status and development is general living and structural traditions (custom, ritual, practice) in the nation. Its role in economy explicitly and implicitly was recognized by previous studies (Yoshino, 1969; Ayres, 2000). Tradition is closely associated with many important financial areas that have powerful consequences on economic development such as entrepreneurship, education, and legal systems.

For example, forward improvements from tradition to modernity influence entrepreneurial behavior in the search of investment decisions (Lindner & Strulik, 2014). Specifically, tradition has big impacts on any business sector, size, and efficiency. Eventually, such factors increase economic growth as long as they function properly, fully, and plentifully.

Education could be named as another sector that ultimately leads to economic growth via tradition (Ayres, 2000). Education reforms and crisis mainly depend on the traditions of the society for any country. Education policy and curriculums are coordinated by cultural traditions that affect how commercial organizations work. Since such huge impacts of traditional perspectives on the economy, it is on our final list wasn't surprising at all as suggested by the previous studies (Welch, 1985; Platteau, 2015; Njoh, 2016; van der Gaag, 1997).

4.3. Responsibility

Proposition 3: Growing responsible citizens in a country has a relationship with economic development of country

Having high responsible citizens for a country means having greater productivity of manpower. Responsibility towards other citizens, society, and environment is generally learned at young ages within the educational and social environment, therefore public education and family awareness create economically a significant value. It is an important feature for a society to function together as a whole. Finally, it has a big impact on the economy since every citizen is considered as a responsible worker, producer, and consumer. Therefore, it was no surprise to discover responsibility as an economic factor in our study, similar to previous researches (Rudolph, 2003; Tunc, Turut-Asik & Akbostanci, 2007).

Responsibility is considered at the center of democratic theories (Rudolph, 2003). Democracy lies at the heart of economic development for the society. It is a system of power and ruling a country with equal rights for all citizens. It offers freedom and equal rights for everyone in a country. Wealthiest people of the world live mostly in the nations with high democracy index (Figures 5 and 6) such as Canada, UK, and Canada. Also, such countries hold higher economic power and uniform distribution of wealth among individuals inequality are the lowest.

Democracy affects contingencies for the levels of economic development. As discussed by previous studies (Baum & Lake, 2003), our results proved its significant influences on economic development.

4.4. Government and Judicial System

Proposition 4: Government and judicial system of a country has a relationship with economic development

Our modeling results also suggested that trust in the political power and legal system is another issue that affects economic development. Judicial systems have been present since when people started to build societies and live together. It basically balances the governing entity (state) and the citizens. Thus, it has positive impacts on economic situations in the country.

Many studies stated that supporting the rulers and trusting in government result in more prosperity because it generates trust towards economic growth. Trust is an especially very important topic when it comes to citizens' perspectives, beliefs, works, and inputs to the economy.

Judicial system by no means contributes to general living conditions in a country that ultimately create positive impacts on the economy. Historically, along with the scientific advances, judicial revolutions construct countries (e.g. UK, France, USA) economically strong nations. Same rules still apply in modern days. For example, North American and East European countries would not become the richest countries if it wasn't for convincing and rational judicial structures. The poorest countries in the world apparently are the ones that have lower demographic legal systems.

Recent studies (Ball & Kesan, 2010; Constantin & Smarandoui, 2015) strongly claimed judicial system as one of the most important attributes to economic developments for any country. Our finding on the judicial system and economic progress closely correlates with the previous studies (Dam, 2006; Ball & Kesan,

2010). The judicial system is an essential factor for the economic advancement of nations as it enforces property rights for the citizens. Moreover, citizens' trust in the legal system reflects judicial efficiency and accountability.



5. DISCUSSION

5.1. Major Findings of The Study

Our findings revealed that best features that allow us classifying country's economic development were as follows: religion, tradition, citizen responsibility, trust in government and Judicial system.

The main purpose of this study was to investigate how the cultural and values structure economic development of countries and allow us for classification based on their economic status such as underdeveloped, developing and developed economy. That way, we aimed to uncover how social, cultural, and economic features of societies are interrelated at certain levels.

For this purpose, descriptive modeling was employed with a list of 60 countries selected from a worldwide list of economic classification along with 24 cultural and value features. Certain countries, classified economically according to IMF, UNDP and World Bank, were included. Decision tree, a method of Machine Learning algorithm, was utilized for the descriptive modeling to discover factors that are the most influential for economic development.

5.2. Limitation of The Study

Data for this study was collected from only 60 nations (out of 195 countries in the world) listed in IMF, UNDP and World Bank in 2018. For this reason, the results are limited to this information. Also, a number of countries cause another limitation for this study.

Also, more information was gathered from developed countries, so it is important to keep in mind that it applies mostly to such certain nations. Additionally,

we didn't divide them based on their geographic locations. The results should be evaluated based on unequal geographic distributions of various nations.

Statistical and ML techniques that we used don't prove causality. Most of the ML algorithms are limited in performance with how logical data we used for training. Even logically we can propose a relationship, algorithms don't know other information that we didn't use for training.

5.3. Suggestions for Further Research

Since our study sample was limited to only 60 nations, it is somewhat generalizable to the world nations. For such reason, it would be crucial to increase the number of participated countries. More importantly a number of country in each economic status list (underdeveloped, developed and developing) should be comparable, which would increase more accurate statistical conclusions of the modeling.

Since religion is a significant issue for economic status, branches of religions should be studied in more details to find out what lies behind economic differences in a nation. Few studies (Hart, 1996; Mandaville, 2013) were conducted for the branches of Christianity (e.g. Catholics vs. orthodox) in some east European countries. Similar studies could be undergone for the branches of Islam (e.g. Sunni vs. Shia) in a Muslim country such as Turkey. That would be able to explain specific details of economic conditions for small groups that have beliefs in the same religion. Furthermore, a similar study would contribute profession preferences of individuals related to their economic status.

There are plenty of classification techniques to increase accuracy and prediction performance of the model. Those algorithm performance can be compared

and professionals and managers can refer to the best model that match their needs with best performed technique.

There existed several subfactors that form responsibility attributions. It was not our goal in this study, but it would be a good idea to elaborate on these factors to reveal more in-depth data and provide qualitative results behind economic development.

5.4. Managerial Implication

Finding of research also can be used by policy makers, managers and citizens. Especially better management and judicial system of a country which accelerate economic development lead to provide equal opportunity. Merit should be the only criteria for giving responsibility and citizens should take care of this when they have to change in order to impact the future of the country. Responsibility is another key behavior of citizens for helping their countries to reach a satisfying development level of their country. Parents and teachers should be a role model to grow responsible children. Changing a tradition mostly needs a fundamental change over time which is not very easy in a short period of time.

REFERENCES

- Abrams, B. A., & Lewis, K. A. (1995). Cultural and institutional determinants of economic growth: a cross-section analysis. *Public Choice*, 83(3-4), 273-289.
- Arcand, J. L., & Grin, F. (2013). 11 Language in Economic Development: Is English Special and is Linguistic Fragmentation Bad? *English and development: Policy, pedagogy, and globalization*, 17, 243.
- Ayres, D. M. (2000). Tradition, modernity, and the development of education in Cambodia. *Comparative education review*, 44(4), 440-463.
- Alvesson, M. (Ed.). (2016). *Organizational culture*. Sage.
https://books.google.com.tr/books?hl=tr&lr=&id=VrdyAwAAQBAJ&oi=fnd&pg=PA11&dq=culture+taylor+definition&ots=2V0KJTIFk-&sig=jXgGdkMlczkfLEdSXi7AANPazPo&redir_esc=y#v=onepage&q&f=false
- Afonso, A. (2016). *Political Economies of the Asian Welfare State-A Comparative Study of India & Pakistan* (Master's thesis).
https://openaccess.leidenuniv.nl/bitstream/handle/1887/54335/2016_Tahir_PA_PM.pdf?sequence=1
- Bairoch, P. (2013). *The economic development of the Third World since 1900*. Routledge.
- Baldwin, K., & Huber, J. D. (2010). Economic versus cultural differences: Forms of ethnic diversity and public goods provision. *American Political Science Review*, 104(4), 644-662.
- Ball, G. G., & Kesan, J. P. (2010). Judges, courts and economic development: the impact of judicial human capital on the efficiency and accuracy of the court

system. In *15th Annual Conference of the International Society for New Institutional Economics, Stanford University, Stanford, CA, June* (Vol. 16, p. 18).

Balliet, D., Joireman, J., Daniels, D., & George-Falvy, J. (2008). Empathy and the Schwartz Value System: A Test of an Integrated Hypothesis. *Individual Differences Research*, 6(4).

Barro, R. J., & McCleary, R. (2003). *Religion and economic growth* (No. w9682). National Bureau of Economic Research.

Baum, M. A., & Lake, D. A. (2003). The political economy of growth: democracy and human capital. *American Journal of Political Science*, 47(2), 333-347.
<http://quote.ucsd.edu/lake/files/2014/07/AJPS-47-2-2003.pdf>

Baudrillard, J. (2016). *The consumer society: Myths and structures*. Sage.
https://monoskop.org/images/d/de/Baudrillard_Jean_The_consumer_society_myths_and_structures_1970.pdf

Ben-Ner, A., & Putterman, L. (2003). Trust in the new economy. *DC Jones, Handbook of the New Economy*. New York: Elsevier Science, 1069-93.

Bettig, R. V. (2018). *Copyrighting culture: The political economy of intellectual property*. Routledge. <https://www.taylorfrancis.com/books/9780429969850>

Burke, P. (2017). *Popular culture in early modern Europe*. Routledge.
<http://rabestread.info/popular-culture-in-early-modern-europe-by-peter-burke-search-book-online.pdf>

Bhagwati, J. (1995). Democracy and Development: new thinking on an old question. *Indian Economic Review*, 1-18.

http://www.columbia.edu/cu/libraries/inside/working/Econ/ldpd_econ_9495_727.pdf

Cantoni, D. (2015). The economic effects of the Protestant Reformation: testing the Weber hypothesis in the German lands. *Journal of the European Economic Association*, 13(4), 561-598.
<https://repositori.upf.edu/bitstream/handle/10230/11729/1260.pdf?sequence=1>

Chong, A., Guillen, J., & Rios, V. (2010). Language nuances, trust, and economic growth. *Public Choice*, 143(1-2), 191-208.

Constantin, S. D., Smarandoui, L. A. (2015). The influence of religion on economic development. A critical perspective of recent qualitative and quantitative studies. *Annals of Constantin Brancusi University of Targu-Jiu. Economy Series 3*.

Crossman, A. (2017). Sociological Definition of Popular Culture. Retrieved June 15, 2019.

Dam, K. W. (2006). The judiciary and economic development. *U Chicago Law & Economics, Olin Working Paper*, 287.

Djankov, S. La Porta, R., Silanes, F. L. De ve Shleifer, A. (2008). Transparency and Accountability, http://www.edhecristisk.com/edhec_publications/all_publications/RISKReview.2008

Dejbord, P. T. (1998). *Cristina Peri Rossi: escritora del exilio*. Editorial Galerna.

Duchêne, A., & Heller, M. (2012). *Multilingualism and the new economy*: Routledge.

- Durlauf, S. N., Kourtellos, A., & Tan, C. M. (2012). Is God in the details? A reexamination of the role of religion in economic growth. *Journal of Applied Econometrics*, 27(7), 1059-1075.
- Eum, W. (2011). Religion and Economic Development-A study on Religious variables influencing GDP growth over countries. *University of California, Berkeley*. Retrieved from https://www.econ.berkeley.edu/sites/default/files/eum_wonsub.pdf
- Francois, P., & Zabojnik, J. (2005). Trust, social capital, and economic development. *Journal of the European Economic Association*, 3(1), 51-94.
- Franke, G. R., & Nadler, S. S. (2008). Culture, economic development, and national ethical attitudes. *Journal of business research*, 61(3), 254-264.
- Frederking, L. C. (2002). Is there an endogenous relationship between culture and economic development? *Journal of Economic Behavior & Organization*, 48(2), 105-126.
- Fidrmuc, J. (2011). The economics of multilingualism in the EU. Retrieved from <https://bura.brunel.ac.uk/bitstream/2438/5033/1/1104%5B1%5D.pdf>
- Fischer, R., & Schwartz, S. (2011). Whence differences in value priorities? Individual, cultural, or artifactual sources. *Journal of Cross-Cultural Psychology*, 42(7), 1127-1144.
- Galor, O., Ozak, Ö., & Sarid, A. (2016). Geographical origins and economic consequences of language structures.
- Goldschmidt, N., (2006). Culture and economics. *Intereconomics*, 41(4), 176-199.

- Grin, F., & Vaillancourt, F. (1997). The economics of multilingualism: Overview and analytical framework. *Annual review of applied linguistics*, 17, 43-65.
- Haggard, S., & Kaufman, R. R. (2018). *The political economy of democratic transitions*. Princeton University Press.
https://www.researchgate.net/profile/Stephan_Haggard/publication/247946685_The_Political_Economy_of_Democratic_Transition/links/542be83d0cf29bbc126abe2d.pdf
- Hart, S. (1996). *What does the Lord require? How American Christians think about economic justice*. New Jersey, USA: Rutgers University Press.
- Husted, B. W. (1999). Wealth, culture, and corruption. *Journal of international business studies*, 30(2), 339-359.
- Jones, E. L. (1995). Culture and its relationship to economic change. *Journal of Institutional and Theoretical Economics (JITE)/Zeitschrift für die gesamte Staatswissenschaft*, 269-285.
- Karaçuka, M. (2018). Religion and Economic Development in History: Institutions and the Role of Religious Networks. *Journal of Economic Issues*, 52(1), 57-79.
- Kong, L. (2010). Introduction: culture, economy, policy: trends and developments. *Geoforum*, 31(4), 385.
https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=3061&context=soss_research
- Kuboniwa, M. (2016). Estimating GDP and Foreign Rents of the Oil and Gas Sector in the USSR then and Russia now.

<https://helda.helsinki.fi/bof/bitstream/handle/123456789/14404/bpb1016.pdf?sequence=1>

Libman, A. (2012). Democracy, size of bureaucracy, and economic growth: evidence from Russian regions. *Empirical Economics*, 43(3), 1321-1352.

Lindner, I., & Strulik, H. (2014). From tradition to modernity: Economic growth in a small world. *Journal of Development Economics*, 109, 17-29.

Loisen, J., & Pauwels, C. (2015). Competing Perspectives? WTO and UNESCO on Cultural Diversity in Global Trade. In *Globalization, Culture, and Development* (pp. 43-58). Palgrave MacMillan, London.
<http://dl.ilam.ac.ir/bitstream/Hannan/142859/1/9781349679607.pdf#page=59>

Lyttkens, C. H., Tridimas, G., & Lindgren, A. (2018). Making direct democracy work: a rational-actor perspective on the graphed paranomon in ancient Athens. *Constitutional Political Economy*, 1-24.
<https://link.springer.com/article/10.1007/s10602-018-9263-4>

Mandaville, P. (2013). How do religious beliefs affect politics? In *Global Politics* (pp. 136-159). Routledge.

Mathers, R. L., & Williamson, C. R. (2011). Cultural context: explaining the productivity of capitalism. *Kyklos*, 64(2), 231-252.

McCleary, R. M., & Barro, R. J. (2006). Religion and economy. *Journal of Economic perspectives*, 20(2), 49-72.
<https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.20.2.49>

Nai, J., Narayanan, J., Hernandez, I., & Savani, K. (2018). People in more racially diverse neighborhoods are more prosocial. *Journal of personality and social psychology*, 114(4), 497.

- Njoh, A. J. (2016). *Tradition, culture, and development in Africa: Historical lessons for modern development planning*. London, UK: Routledge.
https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?referer=https://scholar.google.com.tr/&httpsredir=1&article=6358&context=lkcsb_research
- Noland, M. (2005). Religion and economic performance. *World development*, 33(8), 1215-1232.
- Panayotou, T. (2016). Economic growth and the environment. *The environment in anthropology*, 140-148.
<https://www.unece.org/fileadmin/DAM/ead/sem/sem2003/papers/panayotou.pdf>
- Platteau, J. P. (2015). *Institutions, social norms, and economic development*. London, UK: Routledge.
- Power, D., & Hallencreutz, D. (2017). Cultural industry cluster building in Sweden. In *Proximity, Distance and Diversity* (pp. 33-54). Routledge.
https://www.researchgate.net/profile/Dominic_Power2/publication/233894599_Cultural_industry_cluster_building/links/550178230cf2d60c0e5ef0de/Cultural-industry-cluster-building.pdf
- Richardson, G. (2008). The relationship between culture and tax evasion across countries: Additional evidence and extensions. *Journal of International Accounting, Auditing, and Taxation*, 17(2), 67-78.
- Rudolph, T. J. (2003). Who's responsible for the economy? The formation and consequences of responsibility attributions. *American Journal of Political Science*, 47(4), 698-713.

- Sahlins, M. (2017). *Stone age economics*. Routledge. <http://daypdfweek.com/stone-age-economics-marshall-david-sahlins-free-high-speed-downloads-textbook.pdf>
- Sakamoto, A., Woo, H., Takei, I., & Murase, Y. (2012). Cultural constraints on rising income inequality: A US–Japan comparison. *The Journal of Economic Inequality*, 10(4), 565-581.
- Salahodjaev, R. (2015). Democracy and economic growth: The role of intelligence in cross-country regressions. *Intelligence*, 50, 228-234. https://mpira.ub.uni-muenchen.de/65716/1/MPRA_paper_65716.pdf
- Su, R., Bramwell, B., & Whalley, P. A. (2018). Cultural political economy and urban heritage tourism. *Annals of Tourism Research*, 68, 30-40. <https://www.sciencedirect.com/science/article/abs/pii/S0160738317301469>
- Schwab, K. (2017). *The fourth industrial revolution*. Crown Business. <http://vassp.org.au/webpages/Documents2016/PDevents/The%20Fourth%20Industrial%20Revolution%20by%20Klaus%20Schwab.pdf>
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In *Advances in experimental social psychology* (Vol. 25, pp. 1-65). Academic Press.
- Schwartz, S. H., Melech, G., Lehnami, A., Burgess, S., Harris, M., Owens, V. (2001). Extending the cross-cultural validity of the theory of basic human values with a different method of measurement. *Journal of Cross-Cultural Psychology* 32. 519-42
- Schwartz, S. H. (2012). An Overview of the Schwartz Theory of Basic Values. *Online Readings in Psychology and Culture*, 2, 1.

- Seleim, A., & Bontis, N. (2009). The relationship between culture and corruption: a cross-national study. *Journal of Intellectual Capital, 10*(1), 165-184.
- Staniszki, J. (2007). Global Challenges, Culture and Development. *Polish Sociological Review, (159)*.
- Tabellini, G. (2010). Culture and institutions: economic development in the regions of Europe. *Journal of the European Economic Association, 8*(4), 677-716.
- Thompson, H. (2001). Culture and economic development: modernization to globalization. *Theory & Science, 2*(2).
- Thompson, J. D. (2017). *Organizations in action: Social science bases of administrative theory*. Routledge.
<https://files.eric.ed.gov/fulltext/ED302951.pdf#page=10>
- Throsby, D. (2001). *Economics and culture*. Cambridge university press.
- Triandis, H. C. (2018). *Individualism and collectivism*. Routledge.
- Tunc, G. I., Turut-Asik, S., & Akbostanci, E. (2007). CO2 emissions vs. CO2 responsibility: an input-output approach for the Turkish economy. *Energy Policy, 35*(2), 855-868.
- Uçal, H. (2013). Sosyo-kültürel ve politik faktörlerin seçilmiş makroekonomik değişkenler üzerine etkisi.
- Ulrich-Schad, J. D., & Duncan, C. M. (2018). People and places left behind: work, culture and politics in the rural United States. *The Journal of Peasant Studies, 45*(1), 59-79.

- Van der Gaag, J. (1997). Early child development: An economic perspective. *Early Child Development: Investing in our Children's Future. The Netherlands: Elsevier Science*, 287-95.
- Yoshino, M. Y. (1969). Japan's managerial system: Tradition and innovation. *IMR; Industrial Management Review (pre-1986)*, 10(3), 82.
- Walsh, J. (2006). Language and socio-economic development: Towards a theoretical framework. *Language Problems and Language Planning*, 30(2), 127-148.
- Weber, M. (2017). *Methodology of social sciences*. Routledge.
<https://www.hispacultur.org/book/1048214691/download-on-the-methodology-of-the-social-sciences-max-weber.pdf>
- Welch, A. R. (1985). The functionalist tradition and comparative education. *Comparative Education*, 21(1), 5-19.
- World Health Organization. (2018). *Global status report on alcohol and health 2018*.
 World Health Organization.
<https://apps.who.int/iris/bitstream/handle/10665/274603/9789241565639-eng.pdf>
- Williamson, C. R., & Mathers, R. L. (2010). Economic freedom, culture, and growth. *Public Choice*, 148(3-4), 313-335.
- Wiedmann, T. O., Schandl, H., Lenzen, M., Moran, D., Suh, S., West, J., & Kanemoto, K. (2015). The material footprint of nations. *Proceedings of the National Academy of Sciences*, 112(20), 6271-6276.
<https://www.pnas.org/content/pnas/112/20/6271.full.pdf>
- Zimmermann, K. A. (2015). What is culture? Definition of culture. *Live Science*

Contributor. Retrieved from <https://www.livescience.com/21478-what-is-culture-definition-of-culture.html>

