

The Role of Culture in Economic Growth

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ABSTRACT

Many African countries are making slow progress in economic development, even in comparison to other developing countries. There are several theories of why this is the case; varying from globalization to political instability to colonization. This paper tests the role of culture in economic development, using civic trust as a measurement of culture and employment growth as an indicator of economic growth. Many assert that trust is critical to a thriving community and increases investment in public goods. Yet others argue that additional factors, such as globalization and institutions, are more important for growth. This study uses OLS regression models to test if there is any relationship between trust and employment growth using data from the World Value Survey and World Bank Enterprise Survey. I find more support for skeptical arguments of trust. Specifically, my findings show that trust is not associated with higher employment growth but that globalization, regulations of private sector, and colonial histories have empirical support. In this paper, the tests results show that culture does not matter in economic growth; however, it is important to keep in mind that there are other ways to observe the relationship between culture and economic growth, not just trust.

Introduction

The majority of the poorest nations in the world are found in Africa. For example, it is the region with the highest unemployment rate.¹ As a result, most Africans live in very poor conditions without access to basic goods and services. Countries such as Brazil, Argentina, Vietnam, and Thailand have experienced similar struggles with poverty; however, their economic performances have been improving². Africa as a region is not making the progress that Asian Tigers and Latin America seem to make. With Africa's richness in natural resources and raw materials, the ongoing realities of poverty and poor economic performances are puzzling. According to a report published by the World Bank in 2012, 43% of Africa's population lives in extreme poverty, which is living on \$1.25 or less a day.³ This study raises the broad theoretical question of what causes different countries to perform better than the others. One of the objectives of many social scientists is to understand this disparity in the development of different countries, both economic and social. In the perspective of political scientists, economies of different states are a concern to the international community because the state of the economy could be interrelated with different political aspects of countries. For instance, Feng (1997) looks at the "long-run interrelationships between growth, stability, and democracy" and he learns that all three are reciprocally related (p. 391). These three variables are suspected to be codependent of each other and this paper focuses on growth and how causes of slow growth can help developing states establish a more efficient government. To accomplish this, this paper looks at how trust of actors in the sample countries affects the success of their respective countries.

There is a debate that cultural attitudes can affect a country's opportunities for growth. From arguments as early as Weber (1905), slow economic performance has been attributed to social

¹ <http://www.businessinsider.com/the-25-poorest-countries-in-the-world-2016-4> accessed on 3/12/17

² <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG> accessed on 3/12/17

³ <http://www.worldbank.org/en/region/afr/publication/poverty-rising-africa-poverty-report> accessed on 4/24/17

norms and behavior that, on the aggregate, impede growth. More recently, others have turned to cultural explanations for economic disparities throughout the world (e.g. Ntibagiriwa, 2009, Harrison & Huntington, 2000, and Johnson & Lenartowicz, 1998). Even the World Bank (2000), asserts that culture is crucial to economic development, because “culture lies at the very heart of growth and communication; it is a vital component of identity and participation.” (p. 6). These arguments have come under much scrutiny. I approach this debate by exploring a key relationship: the effect of trust as a cultural variable on employment growth.

There are benefits to improving the economic performances of African nations, such as reduced poverty gap and improved labor market conditions (Fields, 1977). The development of Africa and its prosperity is of a great importance to the world because Africa has many untapped resources that the world heavily depends on. However, Africa does not have the necessary infrastructure to obtain these resources. This causes the rest of the world, as well as sub-Saharan Africa, to suffer possible disastrous economic losses. Understanding the root cause of underdevelopment in Africa would help the world take actions that can stimulate growth, resulting in increased gains that would allow the world to maximize its utility.

I am analyzing the effect of culture on the economic performance of 42 different countries. Specifically, I use OLS regression to test the effect of culture as measured by the percentage of trust that people have of strangers on economic performance, as measured by the percentage of employment growth for each country. I also test alternative explanations for growth, including globalization, political instability, colonialism, regulations of private sectors, population growth, and GDP per capita. I find no significant relationship between employment growth and trust. However, the second model shows a statistically significant result of globalization, regulations of private sectors, and colonialism.

The paper is divided into five parts: literature review, theory, data and methodology, results and discussion, and conclusion. The following section, the literature review, begins discussing the work that has been done on employment growth, which is the measure of economic growth in this paper. The next section addresses three of the many determinants that scholars believe might influence the economic growth of Africa. In the theory section, the paper highlights the logic of how culture might influence economic growth, and what it means to developing regions, like Africa. This section, also, points out the rationale behind the dependent and independent variables of choice. The data and methodology section briefly discusses each of the variables in the model and explains how these variables are measured. The results section shows the results of the OLS regressions test. Finally, the discussion section provides interpretations of the results, as well, as gives recommendations for further study.

Employment Growth as a Dimension of Economic Growth

There are myriad ways to measure economic growth. Often scholars use Growth Domestic Product (GDP) per Capita to get an idea of change in economic performances. Employment as an outcome is important because it influences economic development (Bae & Lawler (2000)). In their article, Acs and Armington (2004) use employment growth as one of their measures of economic growth among entrepreneurial activity and business size. Employment growth is essential to the decrease or increase of economic activities in a country, and these economic activities are one of the factors that determine economic growth.

Determinants of Economic Underdevelopment

This next section discusses the literature on causes of economic underdevelopment. The selected literatures all raise the broad theoretical research question: why are there still many underdeveloped states in our world today? The main determinants of economic

underdevelopment are colonial legacies, political instability, globalization, and culture. The next paragraphs consider works that have been done on the topic of economic growth, or lack of, and they are organized by the determinant of economic development.

Colonialism and Economic growth

Most developing countries in the world have one thing in common—colonialism. Most of Africa certainly experienced colonization up until the 1960s. Scholars have not ignored the possible role that colonization has on economic development. Grier (1999) tests for a relationship between the length of colonial rule in a state and its economic performance from the time of independence to 1990. He hypothesizes that there is a significant difference between what type of Western power colonized these African states, in which he compares former British colonies to French ones. Grier (1999) finds that “British colonies perform significantly better than their French counterparts” stating that this is evidently explained by human and physical capital present in British colonies (p. 321). He argues that this could be because the British gave their subjects some political freedom. This is also supported by Lee and Schultz (2011) whom learn that, “the British were marginally more respectful of traditional political arrangements... and they also allowed both traditional and non-traditional leaders a greater degree of autonomy than the French did” (p. 43). As a result, the British colonies do better today than the French ones. This freedom helped the development of the British colonies because they were able to organize themselves efficiently, and be leaders even though they were granted limited power. Once achieving independence, they had some leadership skills and they were somehow familiar with statecraft to help construct a new state. This is similar to the finding of Lee and Schultz (2011) when they did a comparison study of British Cameroon and French Cameroon. They learn that British colonies have higher economic growth, because their result shows that rural

areas in the British side of Cameroon have higher levels of wealth than French rural areas. Both articles present empirical evidence that point out the possible role of colonialization in economic development.

Political Instability and Economic Growth

After winning independence, African states had the potential to grow and it did experience a steady growth from roughly 1960-1973 (Collier & Gunning, 1999). However, its economic performance slowly faltered and even to this day, most of the sub-Saharan African economies have not recovered. As a result, many consider this region to be the lowest-income region in the world (Collier & Gunning, 1999). Another major theory that scholars have considered a cause of underdevelopment is political instability. The next couple of paragraphs discuss political instability as an explanatory variable of declining economic development.

Governance is what makes a state successful or not. There are scholars who have argued that the root of Africa's problem is in its poor ability to govern and maintain both economic and political institutions. Collier and Gunning (1999) mention that slow growth in Africa can be explained by poor governance decisions and policies, which are harmful to African economies. Such examples of these decisions/policies include: expansion of public sectors and too much control on private sectors, poor public services, high regulation on finance markets, poor trade policies, and ineffective exchange rates and trade policies that resulted in high foreign debts (1999). Addressing these issues, Collier and Gunning offers a solution in which they urge African leaders to work on improving its public services and intensify the growing policy reforms. They are not the only ones who have made this recommendation. Sachs and Warner (1997) also found that the cause of slow growth in Africa is concentrated in poor institutions and policies. They argue that African states are lagging behind due not only to each individual state

policy, but to those of their neighbors as well. They show a table of possible growth if certain key policy implications are put in place. These key policies can help with government stability and impact economic growth in a positive way.

Country's policies are not the only ways to measure political instability. Political instability can, also, be measured by counting the number of coup d'état or the democracy index. Some scholars have argued that political events can have an "adverse" impact on growth. For example, Fosu (2002) examines how coups influence economic growth in a sample of 31 countries from 1960-1986. He stresses the importance of studying political instability as a major determinant of economic growth, because it destabilizes the economy, thus "reduces the efficiency of the production process and, hence, economic growth" (Fosu, 2002, p. 332). Fosu highlights the importance of power in these political events, which shakes the economy. Power is what drives coups, and power is needed for governments to maintain order. Fosu also thinks that political institution determines political instability not economic events, which is a major question in this topic: whether the relationship is reversal or not, as in low economic performance causes political instability. To avoid this confusion of causal relationship between stability and economic growth, Fosu clarifies that it is unlikely for the economy to cause political instability—for coups often depend on relationship between military and other governmental institutions.

Fosu is just one of the many scholars who have explored the role of political instability in slow economic growth. Alesina et al (1996) learn that countries with high instability significantly have lower growth using a sample of 113 countries from different parts of the world. They define political instability as "the propensity of a government collapse" (Alesina et al, 1996, p. 189). Their approach is different because they compare countries that have abrupt change in economic performances. For example, they examine the economic growth of Japan and Argentina. For the

majority of 1900s, Argentina was thriving, and Japan's economic growth was sporadic in light of World War II. However, Japan's growth took a dramatic turn, and as a result, it is now a major economy. These drastic changes are puzzling, and Alesina and his colleagues study why, and how this happened. They learn that political instability and government changes are consistent with economic performances. They also find no difference in average growth between authoritarian regimes and democracies. This is nothing new in this field for scholars like Haggard and Helliwell have learned that democracies are not empirically a way to improve economic performances. Alesina et al discusses democracy and growth, in which they argue that there is no evidence of a relationship between the two.

Englebert is yet another scholar who has studied the relationship between economic growth and political stability. Englebert (2000) offers something different in this literature by explaining the varying amount of development within Africa. Africa is a vast region, with diverse economies, and past studies have not really considered this. Englebert's approach is concerned about the clash of post and pre-colonial statehood, such as institutions and structures before and after colonialism. Before Western powers came to colonize Africa, there were states. Englebert tests the impact of state capacity on economic performance using a sample of 40 sub-Saharan countries. Using regressions tests, he learns that, "a one-point increase in the governance index results in almost half a percent increase in annual per capita growth" (Englebert, 2000, p.18). He stresses the importance of state legitimacy, arguing that lack of legitimacy explains foregone growth in Africa.

Globalization in Relation to Economic Growth

Globalization is another factor that scholars have theorized might influence economic growth. However, it is unclear whether it affects growth positively or negatively. Sachs (2000)

discusses how globalization led to accelerated economic growth in many parts of the world. He hypothesizes that this is mainly due to the expansion of the world market. He, however, acknowledges that some parts of the world have suffered because of globalization. Sachs gets his ideas using Adam Smith's famous book, *Wealth of Nations*. He aims to explain why some countries benefit and why some suffer under globalization. Sachs (2000) finds economic policies, physical geography, and resource endowments as causes for countries to experience very different patterns of economic development. He advocates for globalization, arguing it is an opportunity for markets to expand, thus good for economic growth. For example, he recommends the cooperation of scientists and engineers at a global level to bring about more innovations. Nonetheless, he says that it is not the only way nor is it always guaranteed, because other factors need to be considered as well. Sachs (2000) is aware that globalization might not be working for Africa, saying "Africa's health and population dynamics have been unrelieved by technological advance or even by structural changes in the African economy" (p. 595). Globalization alone is not enough to understand the causes of underdevelopment in developing nations; this is why this paper considers culture as a determinant of growth.

Culture and Economic Growth

The explanations of economic development offered above tend to look at political and economic history, and scholars have used them because they provide substantial evidence. Culture, on the other hand, is more subjective and tends to get significant criticism in academia. In the words of Guiso, Sapienza, and Zingales (2006), culture is "broad, ubiquitous, and vague" (p. 23). Thus, social scientists tend to be wary to use culture as an explanatory variable of growth. Nonetheless, there are many scholars (Weber 1905, Harrison & Huntington 2000, Inglehart & Baker 2001, Guiso & Sapienza & Zingales 2006, Tabellini 2010) who have

considered and studied the influence of culture in human progress and economic development. Scholars in this field have used language (Mohochi, 2003), religion (Grier 1997), and civic trust (Tabellini 2010) for example to measure culture. Culture is difficult to measure and as a result, each scholar defines culture differently. For example, Matthews (2004) perceives African culture as people's values, and these values consist of speaking in vernacular languages, having an African style home, African food, and adopting Africa's world views. Meanwhile Tabellini (2010) and Putnam (1994) use civic trust as a measure of culture to understand government institutions in Italy.

Humans have culture and culture influences human behavior. Ntibagirirwa (2009) states that “economic growth and development is a product of the synergy of all actors: the state, the market, and the people” (p.307). Political leaders as well as policy makers, then, must be inclusive of people—including their cultures—to have a more productive market economy. Culture has been seen as a key component to economic development, and this paper aims to find the relationship, if there is any, between economic growth and culture.

Religion as a measure of culture, and its role in economic growth

Religion is part of culture because it influences people's beliefs and values. Weber, a well-known social scientist, showed that culture explains differences in economic performances in Europe in the early 1900s. Weber (1905) uses religion—Protestantism—as one of the main reasons for the rise of capitalism, which transformed the Western world by improving their economic performances. He reasons that Protestants' choice of intense worldly activity was good to stimulate the economy, and this is why, Europe thrived under Protestantism. He says that Protestants tend to be hard worker as well as they do save more than Catholics. He received criticism for his work, and scholars like Blum and Dudley (2001) have replicated his work, and

gave their own critiques of how Weber did not take other factors into account, such as more access to the Atlantic for Protestant cities while Catholic cities had to spend much more for shipping costs.

Barro and McCleary (2003) published another paper that is major in the field of religion and economic growth. They offer an explanation concerning how certain religious beliefs, like condemnation in hell, drive people to behave kindly, thus affecting economic growth positively. They stress that, “Higher religious beliefs stimulate growth because they help to sustain aspects of individual behavior that enhance productivity” (Barro & McCleary, 2003, p. 37). The result from religious beliefs are thrift, work ethics, honest, and openness to strangers which they intend to learn more in future research. As their finding gets the attention of social scientists in the field, some have replicated their study while others explored in the area. In the case of Durlauf, Kourtellos, and Tan (2012), they learned that contrary to what Barro and McCleary find, there is no empirical evidence to support that religious beliefs have a direct robust relationship with economic development. The debate on the role of religion is ongoing, and there is a lot to be considered when it comes to the role of religion in different economies.

Another angle scholars haven taken on the effect of religion on developing states is the increase of human capital that missionaries bring. Nunn (2009) explores how Catholic and Protestant missions affect development in African states. He argues that missionaries bring education that in return helped Africans progress. Nunn (2009) finds that Protestant missions, like many scholars, have strong effects on educational attainment while Catholic ones showed no effect. However, his result supports positivity of Africa’s development just through the channel of education. Becker and Woessmen (2009) similarly find that Protestantism helps economic performance through education. These scholars emphasize the role of education in higher

economic growth because Protestants tend to have higher literacy rates that likely explain gap between economic developments among states.

Language and economic growth

In today's world, learning a new language is a method of immersing oneself in a new culture. Thus, some scholars have used language to measure culture. Some have promoted the benefits of keeping native culture of these developing nations to help with development. For example, Mohochi (2003) proposes using the vernacular languages to create a link between "the government and other development agencies on the one hand, and the public on the other, enabling an appropriate flow of information between the two" (p. 85), and this communication is crucial to development. In this paper, the conservation of culture is important because "culture is central to the mechanism through which past institutions influence the functioning of current institutions" (Tabellini, 2010, p.679). This is one way culture can influence a more efficient institution and therefore higher economic growth in the long run.

Religion and languages are two possible measurements of culture, and scholars have used them as data to study the relationship between culture and economic development. However, this paper looks into trust, and the next section provides the explanation of why trust data is chosen to measure culture in different countries.

THEORY

This section discusses the link between economic growth and culture. First, I explain what is civic trust using Robert Putnam's lead. Next, I address my theory of how trust and economic growth are related. Then, I state my hypothesis.

Trust is a vague term that is important to society because it influences the interactions between people in that society. And society is made of people, thus the more trust the better-off

the society is. People would want to cooperate and thrive together because they have trust in their neighbors and compatriots, and this is what Robert Putnam refers to as social capital. Putnam (1995) notices a trend in America, suggesting that American civil society is declining in recent years. He finds this alarming because less interaction between people means less civic engagement. In his other article, Putnam (1993) reasons that less civic engagement leads to less vibrancy of representative government, which can be harmful to democratic society. Putnam (1993) measures this vibrancy as social capital that includes “social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit” (p.2). He argues that working together is easier in a society with high social capital. Putnam believes it is key to a successful state because there is better collective action happening in that country and less of a free-rider problem. Furthermore, Putnam highlights trust level as a big part of social capital. This is so because of the “favor bank,” which is the expectation that in a society with high trust people do good to each other trusting that their favor will be returned by the same or different person one day. Having trust in a society is imperative for “a society that relies on generalized reciprocity is more efficient than a distrustful society” (Putnam, 1993, p.3). If trust declines, then stability in that society can be threatened, and this could affect the economy and alter growth.

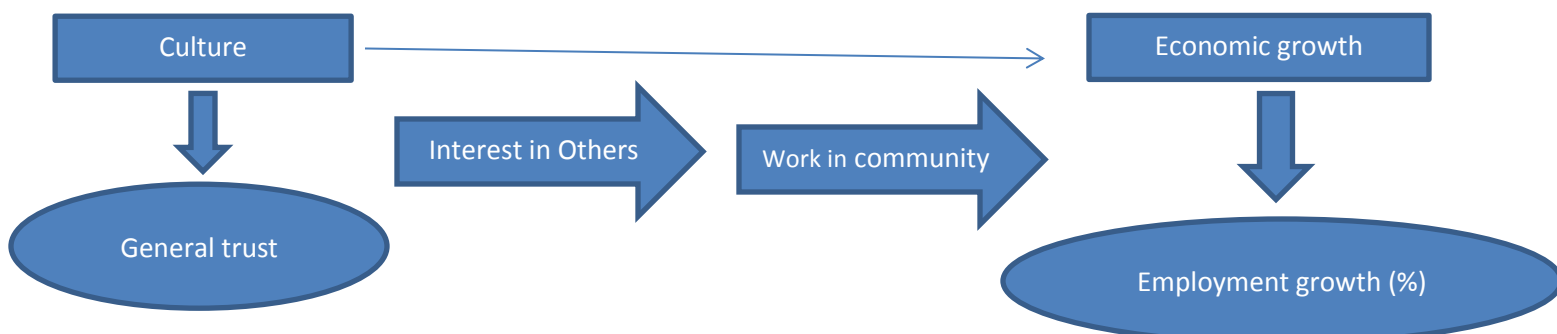
Using Putnam’s work, I theorize that trust likely has a positive influence in economic growth because it determines the relationship between people in a community, and this is a major component of a successful market place. A market place without civic trust fails, because interactions between actors are minimal and it does not allow the opportunity for them to expand what is already in place. Entrepreneurial activities are not flourishing, and distrust among the members of the community makes it challenging to start new businesses. According to Tabellini

(2010), the consequence of lack of trust is “suspicion and fear of fraud” (p.683). In the study of Northern and Southern Italy, the South seems to lack civic trust, which explains why it is not as “well-off” as the North. The developing African states are likely to have little civic trust, and this is one reason why they are trailing behind even amongst third world states.

As shown in the diagram below, culture in this study is measured by people’s general trust. I theorize that countries with high general trust would have high economic growth, which is measured by employment growth in this paper. The link that ties the two variables is the interest that arises from people trusting and possibly caring for strangers. This interest then drives people to work in their community, thus leading to prosperity and possibly economic growth. Trust, however, is not always present, and can be hard to establish. Trusting others can be a challenge for many societies, and this can be the result of traumatic events like colonialism.

The advantage of having high general trust in a country is the rise of interest in other people. If people trust their compatriots and their government, for example, they will be invested in working to improve their community. This interest in others sparks patriotism, which can be beneficial to the country as a whole. People who are devoted to their country are more passionate about being active and involved and they are the ones who bring about change. This change is what many countries in the world, and this type of patriotism likely would help employment growth, which can stimulate the economy.

Diagram 1: Theory on the link between trust and employment growth



The choice for economic growth is the percentage annual employment growth and this is related to the economy because growth of employment means there are more jobs added in the economy. Employment growth allows people to have more income. As a result, there are more spending, thus increasing economic activities. The annual employment growth in this dataset is collected from firms all over the world and is averaged out. Data from firms are commonly used to study economic growth among scholars. Bae and Lawler (2000) use performance of firms in an emerging economy, South Korea, to show how the performances of these firms affect economic development. They look at South Korea only, whereas this paper takes a cross-country approach to compare firms' employment growth as a measure of economic growth. For this reason, I have decided to utilize country employment growth as a form of measurement for economic growth.

For the independent variable, trust among people across different states is used as the measurement of culture. Some scholars, such as Knack and Keefer (1996), have linked it, both directly and indirectly, to higher economic performances. Scholars like Fukuyama (1995) and Putnam (1994) published papers that highlight the relationship between "generalized" trust and economic development and better political institution respectively. However, there are criticisms to using trust as a cultural variable. Guiso, Sapienza, and Zingales (2006) stress that, "culture is not just an inherited cultural variable" (p.29). Axelrod (2006) for example argues that people can develop trust as a result of the quality of the legal system or strategic interactions. Some scholars have argued that there are other ways to measure culture, such as people's preferences and beliefs. However, I am going to use trust because it is the most critical indicator of social capital, which is itself crucial to the development of a nation as a whole (Knack & Keefer, 1997).

I hypothesize that people with limited social capital, or trust, are less likely to have high economic growth, because they tend to be self-interested, therefore they are not as concerned about the well-being of the community as a whole. Consequently, countries with lower social trust tend to have slower economic growth.

DATA AND METHODOLOGY

Measurements of dependent and independent variables

The purpose of this paper is to see the effect of culture, if there is any, on economic development among developing states. To observe this relationship, I will run a regression test. To measure economic development, I use data for annual employment growth in percentage. This data comes from the World Bank Enterprise Survey between the years 2010-2014, which I calculated to give an average. For the dependent variable, annual employment growth, the mean is 4.18 and the standard deviation is 4.177. The independent variable that is used to measure culture in this paper is the average level of trust that people have of others. This data comes from the most recent wave of the World Value Survey from 2010-2014. For the independent variable, trust level toward strangers, the mean is 18.67 and the standard deviation is 1.962.

After combining the results of the two surveys to give the percentage of employment growth and the level of trust people have of others, the number of observations is forty-two. The sample is small because I had to match the data, thus, the countries selected appear in both the World Value Survey wave six, and the most recent data from World Bank Enterprise Survey. If a country has one, but not the other, then it cannot be included in the sample. This eliminated many of the countries. The World Value Survey provides data for sixty different nations, while the World Bank Enterprise Survey has the average of annual employment growth for 138 states. Nonetheless, some countries only appear in one, thus they are not included in the sample.

Control Variables

In addition to the dependent and independent variables, control variables were added to account for factors that can contribute to causes of economic growth. The control variables include: population growth and GDP per capita from the World Development Indicators; globalization level from the KOF Index of Globalization; government regulations for private sector and government instability index from the Worldwide Governance Indicators, and colonialism from the World Factbook. These are a few of important influences of economic growth, especially for employment growth. Globalization, as seen in the literature, can influence growth in businesses in a country. Colonialism looks at whether a country has gone through this traumatic event, which can influence their level of trust. Government regulations tell us the amount of restriction that companies face, which in turn can interfere with employment growth. Government stability is key to understand how stable the country is as a whole, for if the country is unstable economic growth is likely to decline. GDP per capita measures the well-being of the people in the country. Lastly, population growth tells us whether the labor force is increasing or decreasing and this definitely has an effect on employment growth. These factors need to be considered before testing if there is a relationship between employment growth and trust level.

Using two OLS regression tests, I observe the effects of trust on annual employment growth using a sample of forty-two countries. Then, I look at what happens to the dependent variable if the independent variables were set to their means, minimums, and maximums. In the subsequent sections, I will discuss the results of the test and my interpretations.

RESULTS AND DISCUSSION

The first test is a bivariate regression test between trust and employment growth. As indicated by Table 1, the result is statistically insignificant. The R-square is very low at .0095,

meaning that less than 1% of the variation in employment growth is explained by trust in this model. The negative coefficient means that the relationship between trust and employment growth is negatively sloping. The p-value is -.032, with no statistical significance. This result does not support my hypothesis, and I added a few other explanatory variables to try to understand what other factors can influence employment growth.

Table 1: OLS Regression result on how trust affects employment growth.

VARIABLES	Model 1
TRUST	-0.032 (.052)
Constant	4.782*** (1.163)
R2	.0095
N	42

*p<.10. **p<.05. ***p<.01
Standard errors in parentheses

The second model, with the control variables, is summarized in Table 2. The model as a whole is, again, not significant with high p-value. The whole model explains about 21.91% of the cause of employment growth, as indicated by the R-square. The control variables are factors that can affect employment growth in these forty-two countries. The measures of globalization, colonialism, and regulations of private sectors are all significant at the 10% level. This means that for every one-unit increase in globalization, there is a .19 decrease in employment growth. For every one unit-increase in regulation for private sectors, there is a 2.5 percentage increase in employment growth. Lastly, for colonized nations, there is a 5.1 percentage decrease in employment growth. The rest of the variables are not significant in this model.

Table 2: OLS Regression Result with control variables.

VARIABLES	MODEL 2
Trust	-0.029 (0.060)
Globalization	-0.195* (0.104)
GDP per capita	-0.0001 (0.0001)
Government Stability	0.962 (1.012)
Regulatory for private sector	2.505* (1.331)
Population Growth	-0.212 (.768)
Colonialism	-5.099* (2.950)
Constant	23.135** (7.329)
R ²	.2191
N	42

*p<.10. **p<.05. ***p<.01
Standard errors in parentheses

Setting variables to their minimums and maximums

After the OLS regression tests, I did post-estimation tests in which I set the three significant variables equal to their minimum and maximum. I, then, observe the predicted change in employment growth. The result is shown in Table 3. If regulations for private sector is at its minimum of -1.685, employment growth is at 3.78% (standard. error is 2.28) and if it is at its maximum of 1.808, employment growth is at 12.29% (standard. error is 4.15). If overall globalization is at its minimum of 39.97, then the predicted employment growth is 7.75% (standard. error is 2.28), and if it is at its maximum of 87.57, then predicted employment growth would be -1.20% (standard. error is 2.89). Finally, if a country were ever colonized, then predicted employment growth is 3.83% (.70), and if it were never colonized, the expected growth

would be 8.88% (standard error is 2.78). This suggests that changes in level of globalization and government regulations for private sectors likely influence employment growth. In addition, colonization might matter on economic growth according to the model. However, there is only three countries in the sample who were not colonized and this likely affected the model.

Table 3: Predicted unemployment growth

Variable	Min	Max
Regulations for Private sector	3.78	12.29
Overall Globalization	7.75	-1.20
Colonized	8.88 No colony	3.83 Yes colony

CONCLUSION

Compared to other developing regions, economic development in Africa has been slow. Some scholars have argued the root cause of the problem, from lack of social capital (Fukuyama, 1995), to globalization (Sachs, 2000), to political instability (Alesina et al., 1996), to colonization (Lee & Schultz, 2011). While Africa's underdevelopment has been closely studied, its growth compared to Southeast Asia and South America requires much exploration. The aim of this paper is to understand the role that culture plays in economic development. It uses annual employment growth to measure economic growth, and general trust as a measure of culture.

The sample consists of forty-two countries from all over the world, both developed and developing states. African nations are especially the focus of this paper because I seek to understand the causes of falling economic growth in this ancient continent. There are several reasons for this underdevelopment, many of which the literature review section addresses.

However, I focus on culture as an explanatory variable for economic development. The OLS regression models show that there is no relationship between economic growth and culture. Therefore, I reject my hypothesis and that culture—measured by trust in this model—might not play a role in economic growth. Moreover, the results suggest that globalization, regulations of private sectors, and colonialism affect economic growth with a statistical significance at the 10 percent level. The result section, also, has predicted employment growth for the globalization, regulations of private sectors, and colonialism if they are set to their minimums and maximums.

There are limitations to the models that might have influenced the results. Trust as a measurement of culture might not be enough, and the model could have included religion and language for example. For future research, another suggestion that can improve the research is to have a mixture of qualitative and quantitative method, which provides more information to capture the level of culture for the sample countries. Additionally, my sample is very small, and there are mixtures of countries that are at different stages in their economies. This is a weakness to this model, and I could have made the samples bigger with more countries. This study has its limitations, and I encourage others to explore more on the subject because Africa is a major player in the international market, and its state of development affects the entire world.

Culture is a major part of people's identities and it can influence their decisions and participation in the market. There is growth of research on culture and the debate on its role in economic development is ongoing ever since Weber's well-known paper published in 1905. Based on the results of the OLS regressions tests, there is no evidence that suggest a relationship between employment growth and trust of strangers. There are other possible reasons of why economic growth slows. There are different debates on this subject, and three reasons remain consistent: institutional, political, and cultural reasons. As indicated by the results, cultural

reasons cannot be explained in this study. There is supremacy for the other two alternatives, as suggested by the significance of the globalization, regulations of private sectors, and colonialism effect variables. These variables are part of institutions and political reasons of slow growth. This means that institutions and politics in countries might matter more in the economy. This paper explored a possible explanation of underdevelopment that many social scientists shy away from. It would be interesting to see other scholars in this field use multiple variables other than trust to measure culture in addition to using a qualitative method. Culture is very complex and to understand its role in the economy might require scholars to interview people and hear their whole stories. Although studying culture is hard, it is fundamental to our understanding of both local and global economies. This can help us understand how identity, traditions, and other similar cultural variables affect the economy and once we understand this, we can make progress on how to better the world, and raise the standard of living for many people.

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APPENDIX A: List of countries and variables used in the models.

C *	States	Annual employ ment growth (%) 2010- 2014	Most people can be trusted (%) 2010- 2014	Overall (AVG) globalization 2009-2013	2015 gov. stability (-2.5-2.5)	2015 Regulatory for private sector (-2.5, 2.5)	Populatio n growth (%) 2015	GDP per capita avg 2010- 2014 (2010 Constant \$)
1	Argentina	3.5	19.2	58.59	-0.07	-0.96	1.01	10589.14
1	Armenia	2.4	10.9	55.34	-0.29	0.25	0.38	3433.91
1	Azerbaijan	0.8	14.8	56.6	-0.69	-0.25	1.21	5927.03
1	Belarus	5.6	32.6	57.42	0.00	-1.00	0.32	6199.10
1	Brazil	8	7.1	60.05	-0.38	-0.21	0.86	11525.63
1	Chile	4.3	12.4	72.28	0.40	1.35	1.04	13795.55
0	China	9.1	40.3	60.66	-0.56	-0.27	0.51	5339.61
1	Colombia	1	4.1	58.61	-1.06	0.45	0.91	6795.01
1	Ecuador	5.4	7.2	54.22	-0.10	-1.14	1.51	5098.36
1	Egypt, Arab Rep.	-1.3	21.5	59.1	-1.34	-0.80	2.13	2658.98
1	Estonia	5.2	39	78.68	0.62	1.66	-0.19	16233.00
1	Georgia	12.2	8.8	62.67	-0.40	0.92	-1.30	3428.00
1	Ghana	5.7	5	52.76512	0.03	-0.03	2.30	1536.11
1	India	5.2	32.1	51.09	-0.92	-0.39	1.21	1488.15
1	Iraq	8.5	30	39.97	-2.29	-1.23	3.21	4949.32
1	Jordan	3.9	13.2	69.31	-0.58	0.05	2.38	3996.57
1	Kazakhstan	4.2	38.3	57.91	-0.10	-0.03	1.46	9922.44
1	Kyrgyz Republic	2.2	36.3	54.73	-0.87	-0.47	2.06	938.83
1	Lebanon	1.6	9.8	65.49	-1.72	-0.28	4.16	8012.49
1	Lesotho	4.2	9.8	44.48	-0.10	-0.39	1.22	1289.63
1	Malaysia	2.8	8.5	78.83	0.19	0.77	1.42	9760.07
1	Mexico	5.3	12.4	61.15	-0.87	0.40	1.29	9197.51
1	Morocco	5.6	12.3	63.89	-0.34	-0.17	1.34	3017.79
1	Nigeria	9.7	15	52.7	-2.07	-0.84	2.63	2417.64
1	Pakistan	5.4	22.2	51.24	-2.54	-0.62	2.08	1071.56
1	Peru	9.3	8.4	65.7	-0.51	0.49	1.29	5479.44
1	Philippines	3.2	3.2	57.48	-0.84	-0.04	1.56	2317.45
1	Poland	0.2	22.2	79.79	0.87	1.00	-0.03	13396.64

1	Romania	3.4	7.7	73.98	0.20	0.59	-0.39	8650.553
1	Rwanda	10.5	16.6	42.53	-0.08	0.25	2.34	609.2221
1	Slovenia	-0.6	19.9	76.67	0.92	0.62	0.09	23136.79
1	South Africa	8.5	23.3	64.76928	-0.18	0.30	1.65	7545.597
0	Sweden	1.3	60.1	87.57	0.97	1.81	1.05	52788.64
1	Thailand	1.8	32.1	66.97	-0.96	0.30	0.34	5397.38
1	Trinidad and Tobago	6.9	3.2	60.35	0.27	0.15	0.41	16763.57
1	Tunisia	0.4	15.5	59.86	-0.87	-0.39	1.01	4194.811
0	Turkey	8.1	11.6	70.09	-1.28	0.33	1.46	10825.64
1	Ukraine	-3	23.1	69.25	-1.93	-0.58	-0.36	3108.27
1	Uruguay	4.7	13.8	66.53	0.99	0.45	0.35	12937.82
1	Uzbekistan	10.8	13.9	41.16	-0.42	-1.69	1.75	1554.47
1	Yemen, Rep.	-4.7	38.5	45.59	-2.63	-1.10	2.45	1154.21
1	Zimbabwe	-7.2	8.3	48.46	-0.58	-1.65	2.31	772.31

*Colonized dummy variable 1=yes, 0=no

APPENDIX B

Summary Statistics

Variables	Mean	Standard Error	Standard Deviation	Min	Max
Employment growth %	4.18	.645	4.177	-7.2	12.2
Trust level %	18.67	1.962	12.72	3.2	60.1
Population growth %	1.248	.162	1.047	-1.296	.326
Total globalization (1-100)	60.82	1.695	10.984	39.97	87.57
Govt. regulations (-2.5,2.5)	-.057	.124	.807	-1.685	1.808
Govt. stability (-2.5,2.5)	-.526	.140	.910	-2.63	.9899
GDP per capita (2010 constant \$)	7,601.29	8,804	1,358.58	609.2	52,788
No. of Observations	42				

APPENDIX C

Sample Questions from the World Value Survey

***Generally speaking would you say that most people can be trusted or that you need to be very careful in dealing with people

All things considered, how satisfied are you with your life as a whole these days? Using this card on which 1 means you are “completely dissatisfied” and 10 means you are “completely satisfied” where would you put your satisfaction with your life as a whole?

Do you agree, disagree or neither agree nor disagree with the following statements?:

"When jobs are scarce, men should have more right to a job than women"

Of course, we all hope that there will not be another war, but if it were to come to that, would you be willing to fight for your country?

*** This question was used in the trust variable data.