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Corruption's Effect on Socioeconomic Factors

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Accounting Capstone Final Paper

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Corruption's Effect on Socioeconomic Factors

A very pressing topic, not only in Jamaica, but in the Caribbean, is corruption. Governments are frequently accused of being “less than honest” in their dealings with the public. With that in mind I thought to myself that it would be interesting to see what effects, if any, a government's corruption has on the economy. This is how I arrived at my topic for my research. Initially, I wanted to do my project on my home country, The Bahamas, but there was not sufficient data. After doing an initial search and analysis, along with selecting a new country, I eventually came up with the research question, “How does political corruption affect socioeconomic factors in Jamaica?”

I believe that this topic is extremely important for two main reasons, the first of which being the fact that money is involved. Money is very important to a lot of people, and any time it enters the conversation, people's ears tend to perk up. The second reason this topic is important is because it can be very beneficial to the Jamaican people. It would be good for them to know the effects that corruption has had on its economy over the last few years and which political party was more corrupt. Once they are aware of these effects, then the Jamaican people can become better informed voters.

With regard to the specific audience I am gearing my presentation toward, first on the list is any economists. Because they study the economy, they would be interested in any research that

examines, or factors that affect it. Along with them, politicians in Jamaica would be interested in my research because it is about them. If they are aware of the effects of political corruption on the economy, they may be able to tailor their campaigns accordingly. For example, they may really advertise the fact that they intend to combat corruption in the event that they are elected. This just one of the many ways they may be able to use this information. The third group of people that would truly benefit from my research, as previously mentioned, is the Jamaican people. Like I said, this could better inform future voting if they know which party is more corrupt, as well as the possible effects of this corruption.

Existing Research

During the early stages of my research project, I took to the internet to see what existing information was out there in the general area of my topic. Fortunately, I found a study that was conducted by social scientists Michael Paulus and Ladislav Kristoufek at Charles University in the Czech Republic. In this study, they examined corruption and its effect on wealth in 134 different countries. The data used came from transparency international, which publishes a numeric score ranking the perceived level of corruption in each country. A higher score means that a country is cleaner, whereas a lower score indicates more corruption. They then compared this corruption score to the GDP per capita for each country to see if there was any relationship. The average linkage clustering approach is the method of comparison used and it can be explained as follows:

“It begins by assuming that each country represents a cluster in itself and then looking for the nearest neighbor in the ranking. This pair then becomes a new cluster and this cluster placed

back into the list as a single entity. The process is then repeated until it produces a single cluster of all the countries.” (MIT Technology Review)

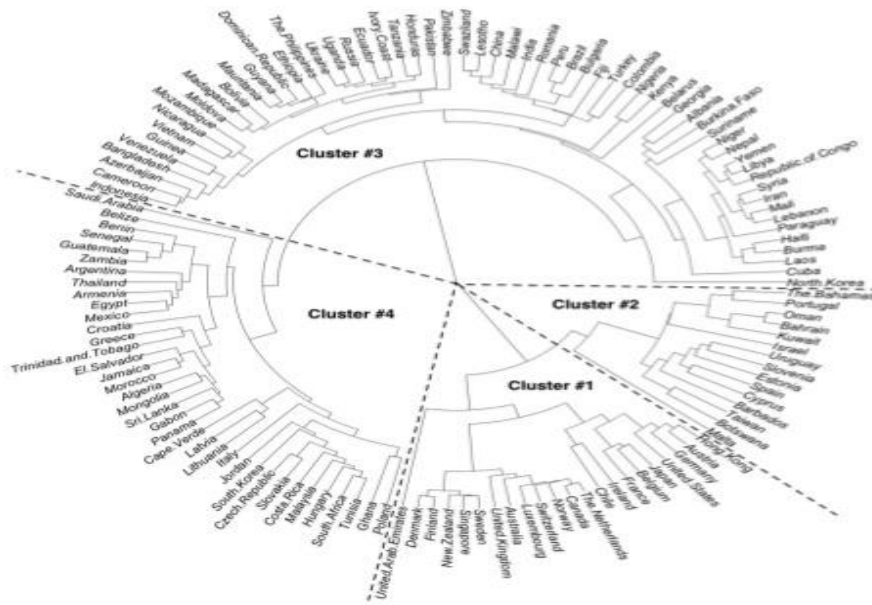


Figure 1: *Dendrogram of corruption perception.* The dendrogram is based on the average linkage clustering procedure using the Euclidean distance as a measure of dissimilarity. The spherical depiction gives a base of the tree in the centre and roots are growing centrifugally. The identified clusters are based on a visual inspection and for a better orientation, these are separated by dashed lines.

The above image containing 4 different clusters is the diagram which they came up with. They found that the more developed countries which made up cluster 1, such as the United States and United Kingdom, had lower corruption scores along with a higher GDP per capita. These are the results which they were expecting to find.

A second piece of existing research that I found was done by the Journal of International Business Studies. Their methodology was similar to that of the study done at Charles University,

in that they examined the relationship between corruption and wealth. Also, similar to the Charles University study, this project found that the higher the corruption score, the higher the GDP per capita. The one thing which I found particularly interesting about this study in comparison to the previous study was that they incorporated Geert Hofstede's Cultural Dimension's Theory. This is a framework which examines and rates different aspects of a country's culture. Examples include whether a particular culture is more masculine or feminine, or if the culture is more individualistic or collectivistic. Their research found that those countries that were more masculine and collectivistic had higher levels of corruption. I thought it was interesting that they were able to tie cultural values into their research.

My Research Methodology

For my own research, there were several steps which I had to follow. Firstly, I went to transparency.org so that I could access the corruptions perceptions index (CPI). Like I mentioned in the section on existing research, this index rates perceived levels of corruption in a country and assigns a score, with a high score meaning the country is clean and a lower score meaning that the country is corrupt. I pulled the Jamaica's score for the CPI for 2001-2014.

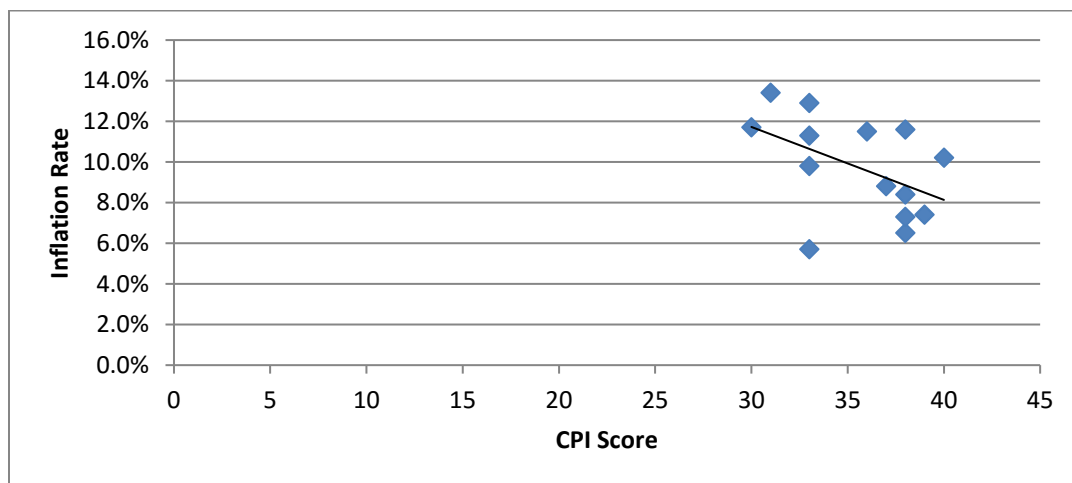
Next, I went to worldbank.org and I got the historical data for various socioeconomic factors in Jamaica between 2001 and 2014. These factors include:

- Unemployment Rate
- Inflation Rate
- GDP Per Capita
- Capital Formation
- Interest Rates
- GDP Growth Rate (Jamaica)
- World Average GDP Growth Rate

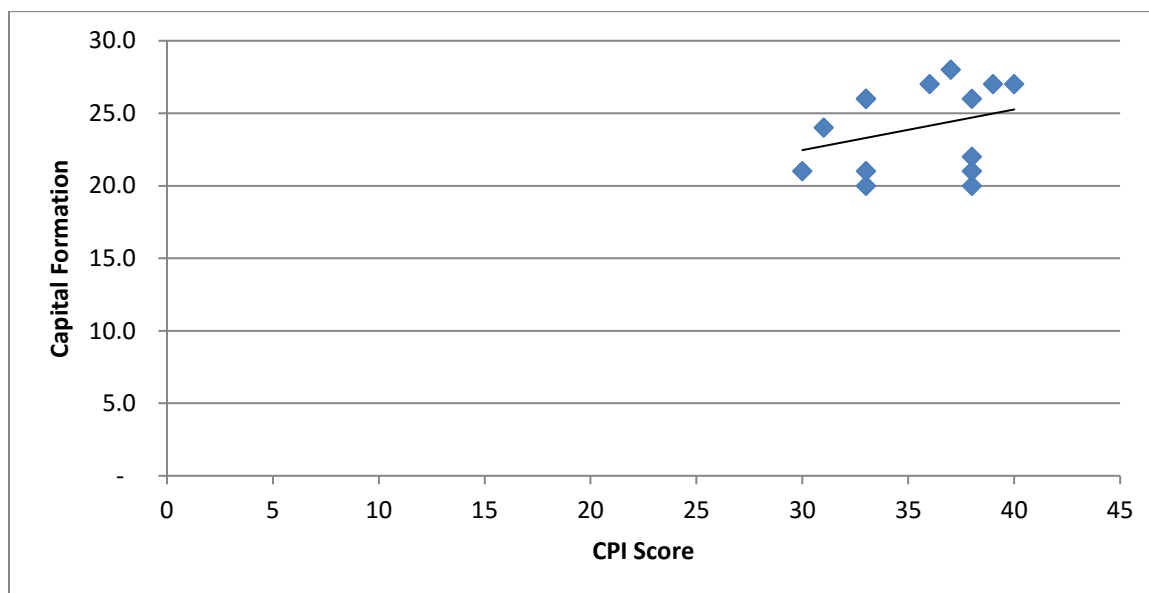
The third step was to examine the relationship between each factor and the CPI score. As you will see in my discussion of results later on in the paper, I will highlight a few of these relationships. The last relationship I examined was between the CPI score and the difference between Jamaica's and the world average GDP growth rate. I was very intrigued by the relationship here, subsequently; I ran a regression analysis to further examine it. Specifically, I wanted to see the factors that impact the difference between the two growth rates.

Results

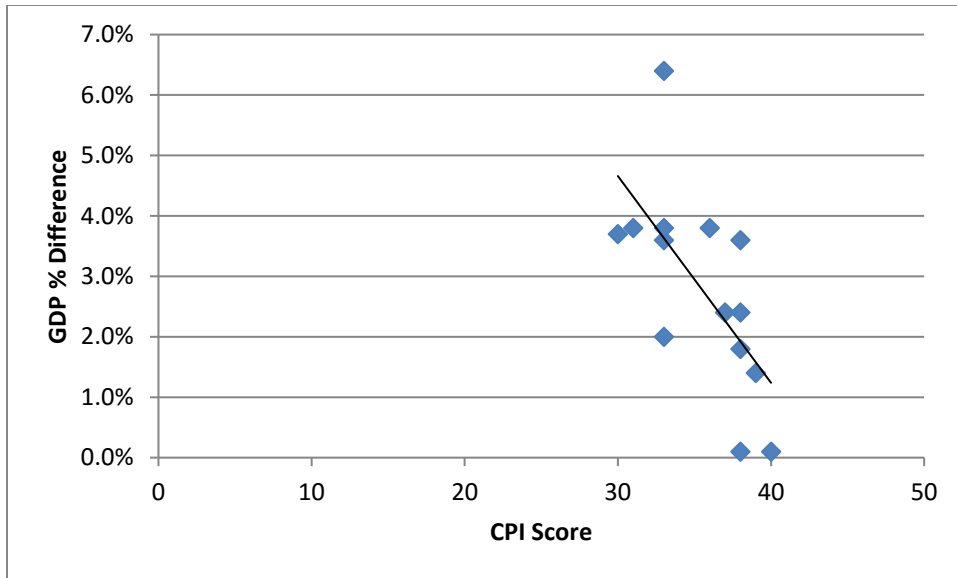
The first relationship which I highlighted was the one between the CPI and the inflation rate. When I examined the correlation in Microsoft Excel, I came up with a correlation coefficient of -0.475. This correlation coefficient tells us the nature of the relationship between the two variables. The fact that it is negative is telling us that as one variable goes up, the other goes down. Additionally, the number portion tells us the strength of the relationship. That being said, I can describe this relationship as negative and moderate in strength. As illustrated by the graph below, as the CPI score increases, the inflation rate is going down, which is what I expected.



The second relationship which I want to highlight is between CPI and capital formation. Just to clarify, capital formation refers to any expenditure by the government to improve the fixed assets of the country. Examples of capital formation would be if the government built a hospital or school, paved a new highway, or put up a fence etc. This relationship yielded a coefficient of 0.301. So here we see a positive relationship but one which is not very strong. Nonetheless, as the CPI score increases, so does the level of capital formation. This is once again, something that I expected.



The final relationship I looked at and perhaps the most interesting, was the one between the CPI score and the difference in GDP growth. This difference that I am talking about is the difference between the world average, and Jamaica over the years. In each year I examined, Jamaica's growth was below the world's average. What I found to be interesting was that as the CPI score increased, this difference became smaller. This tells me that Jamaica's GDP growth rate improves and gets closer to the world average as the country's perceived level of corruption decreases.



After examining this relationship, I wondered to myself just how much of the change in this gap can be explained by the factors that I have looked at. That being said, I did regression analysis on the difference between the two GDP growth rates, examining how it is influenced by the CPI score, inflation rate, unemployment rate, interest rate and capital formation

<i>Regression Statistics</i>	
Multiple R	0.895
R Square	0.802
Adjusted R Square	0.678
Standard Error	0.010
Observations	14

	<i>Coefficients</i>	<i>P-value</i>
Intercept	-0.034	0.660
Corruption Index	0.003	0.202
Inflation Rate	1.512	0.011
Capital Formation	-0.006	0.009
Unemployment		
Rate	-0.918	0.017
Interest Rates	1.026	0.010

The first number I want to draw attention to is the highlighted 0.678. This tells me that %67 percent of the change in the difference can be explained by the five factors which I mentioned. This is a very high percentage and is a good thing. The next set of figures I would want to highlight are the values in the “coefficients” column. They explain how much change there is with the increase of those variables. For example, if the corruption score goes up by one, then the gap between the World GDP growth rate and Jamaica’s GDP growth rate goes up by .003%. Right beside this figure is the p-value of 0.202, which was disappointing. This tells me that, not only does the CPI not have much effect on the change in the gap, but there is not much significance. Usually, for a p-value to be significant, it must be around 0.01. It was disappointing to see that corruption did not have much of an effect but on the other hand, all of the other factors had significant p-values and accounted for a bit more of the change. For instance, as the inflation rate goes up by 1, the gap between the two GDP growth rates increases by 1.5%, which is what would be expected. This is a very big change, and the 0.011 p-value indicates strong significance.

Limitations

Now that I am done, I look back at my work and there are two main things which I would’ve done, had I had more time. First of all, I would’ve examined the distribution of wealth as an additional factor. I would’ve assumed that as the CPI score decreased, or countries got more corrupt, that this distribution would become greater. In other words, I would’ve expected the rich to become richer and the poor to become poorer. Secondly, I would expand my research to other countries in the Caribbean if I had more time, provided the information was available. This was the reason I did not research my home country, The Bahamas. The Corruption

Perception Index only had a few years of data for The Bahamas, making it difficult to draw any significant conclusions.

Overall, I would say that my favorite part of the project was the excel analysis. It was very fun to be able to apply all of the excel skills that I learnt to manipulate the data. I think that these very skills will be not only helpful but lifesaving as I go throughout my working career.

(Boz: And a 1, 2, 3!! *CLAP!!*)

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