



## The Impact of Cultural Values and Behaviours on Informal Economies

Anton Dimitri Eskelinen

Bachelor's Thesis

Instructor: Markku Anttonen

Date of submission: 08.04.2019

### Declaration

By completing this cover sheet and declaration, I confirm that this assignment is my own work, is not copied from the work (published or unpublished) of any other person, and has not previously been submitted for assessment either at Aalto University, or another educational establishment. Any direct or indirect uses of material (e.g.: text, visuals, ideas...) from other sources have been fully acknowledged and cited according to the conventions of the Harvard Referencing System.





## The Impact of Cultural Values and Behaviours on Informal Economies

Anton Dimitri Eskelinen

Bachelor's Thesis

Instructor: Markku Anttonen

Date of submission: 08.04.2019

### Declaration

By completing this cover sheet and declaration, I confirm that this assignment is my own work, is not copied from the work (published or unpublished) of any other person, and has not previously been submitted for assessment either at Aalto University, or another educational establishment. Any direct or indirect uses of material (e.g.: text, visuals, ideas...) from other sources have been fully acknowledged and cited according to the conventions of the Harvard Referencing System.

**Author:** Dimitri Eskelinen

**Title of thesis:** The Role of Cultural Aspects in Informal Economies

**Date:** 8 April 2019

**Degree:** Bachelor of Science in Economics and Business Administration

**Supervisor:** Markku Anttonen

### **Objectives**

The thesis has two main objectives. The first one is to generalize the impact of culture on informal economies by classifying the various influences into broader groups. The second is to look for patterns in countries with high levels of informality.

### **Summary**

The impact of cultural beliefs and behaviors has been an angle mostly neglected by the current research. A thematic network analysis was conducted, creating a tentative framework that identifies four organizing themes of how culture influences informal economies. In addition, 20 countries with high levels of informality were compared using Hofstede's cultural dimensions framework, specifically the power distance, individualism vs collectivism, and uncertainty avoidance dimensions.

### **Conclusions**

Influence on demand, perception of the government, labor markets, and status consumption are identified as ways in which culture can influence informal economies. The framework is tentative and is open to adjustments based on future research. The cultural dimensions analysis suggests a positive relationship between the combination of a high-power distance score and a low individualism vs collectivism score and the size of the informal economy. This applies to all part of the world except Europe. The correlation between uncertainty avoidance and informal economies is unclear and determined to require further research.

**Key words:** *Informal Economy, Culture, Influence, Thematic Network, Cultural Dimensions*

**Language:** English

**Grade:**

# Table of Contents

1	INTORUDCTION.....	1
1.1	Research Questions and Objectives.....	1
1.2	Importance of the Research.....	2
1.3	Contributions to Existing Knowledge.....	2
1.4	Outline.....	3
2	BACKGROUND RESEARCH.....	3
2.1	Definitions.....	4
2.2	Informal Economy Size and Measurements.....	7
2.2.1	Size.....	7
2.2.2	Informal Labour Markets.....	8
2.2.3	Measurement Difficulties.....	9
2.3	Causes of Informal Economies.....	9
2.4	Cultural Influence on Informal Economies.....	10
2.5	Impact of Informal Economies.....	12
2.5.1	Adverse Effects.....	12
2.5.2	Benefits.....	13
2.6	Summary of the Current Research.....	14
3	RESEARCH DESIGN.....	14
3.1	Methodology.....	15
3.2	Data Collection.....	16
4	CULTURAL EFFECTS.....	17
4.1	When Culture Creates Demand.....	17
4.2	Perception of the Government.....	17
4.3	Cultural Impact on the Informal Labour Market.....	18
4.4	Status Consumption.....	19
4.5	Thematic Framework.....	19
5	CULTURAL DIMENSIONS ANALYSIS.....	21
5.1	Selection of Cultural Dimensions.....	21
5.2	Country Selection.....	22
5.3	Initial Impressions.....	24
5.4	Latin America.....	24
5.5	Europe.....	24
5.6	Asia.....	25

5.7 Africa.....	25
5.8 Cultural Dimensions Analysis Conclusions .....	26
7 CONCLUDING DISCUSSION.....	26

# **1 INTORUDCTION**

“Under the table”, “off the books”, “underground”. These are just some names that are used when talking about unregulated economic activity. Numerous studies have looked at the phenomenon of informal economies, yet still many of the factors influencing these economies are still not understood or unknown. Many of the current models estimating the size of the informal sector in various countries leave many questions unanswered. Culture influences many aspects of individuals values and behaviours, which is why this thesis is going to take an in depth look at how culture affects the informal economy. In majority, the existing research about informal economies only mentions or simply does not acknowledge the impact culture can have. The main aim is to explore the relationship between culture and informal economies throughout the world.

## **1.1 Research Questions and Objectives**

This study attempts to answer two broad questions about the relationship between culture and informal economies. The first question is concerned with generalizing the impact of culture into specific manageable groups. To accomplish this, a thematic analysis of the literature is conducted to identify underlying themes.

The second question tries to determine if countries with high levels of informality have something in common. Whether there some specific national characteristics that are conducive to the development and flourishing of the informal sector. Hofstede’s framework of cultural dimensions is used to look for patterns among countries where the informal economy is contributing a substantial percentage to the overall GDP.

## **1.2 Importance of the Research**

A crucial point for looking into the influence of culture on informal economies is the inconsistency in empirical results (Frey & Weck, 1981). Researchers use various methods to estimate the size of the informal economy, but currently none of them have proven to show a reliable connection between their models and the size of the informal economy in specific countries. For example, it is widely accepted that higher taxation and regulation lead to an increase in the size of the informal economy. Switzerland, however, with its relatively high levels of taxation has one of the smallest informal economies in the world. This is only one example, but all the current models leave out too many “special cases” that cannot be explained with the existing methods. This leads to the conclusion that there are factors at play that are consistently not included in the existing approaches. While culture is probably not the only one of these factors that might be affecting the informal economy, exploring that relationship is still a step in the right direction.

## **1.3 Contributions to Existing Knowledge**

Currently the topic has been wholly or partly neglected by researchers. Bits and pieces acknowledge the potential influence of culture, but nobody has addressed the issue head on. By attempting to answer the research question this paper would be the first to implement such an angle. The analysis conducted in section 4 will yield a tentative thematic framework that will be open to adjustments by future research. The second part of the analysis might show some relationship between the specific cultural dimensions and a large informal economy. These deliverables could potentially open the gates for further research into the field to further the understanding of the factors that play a role in informal economies. The research questions are very broad and even if answered would probably not yield any immediate practical benefit to policy makers. However, answering these questions might lead to new questions being asked, which in turn might provide political institutions with information to help manage the issue of the informal sector.



## **1.4 Outline**

The next section of the paper takes a look at the previous research on the topic. Part 3 describes the methodology implemented in the writing of this thesis. Section 4 presents the findings of the thematic network analysis. Section 5 shows the findings of the second part of the analysis, which takes a look at countries with a high percentage of the informal economy contributing to GDP through the prism of cultural dimensions. The final section ends with conclusions, limitations, and ideas for further research.

## **2 BACKGROUND RESEARCH**

In the 1960s and 1970s it was expected that the informal economy would shrink with growth. On the contrary, findings have shown that with the advancement of globalization informal economies have only expanded (Sinha, 2009). From the perspective of governments, it can be very difficult to control or attempt to completely wipe them out. Casola (2007) points out that despite interference from the government, informal economies are still present in all known markets. His research investigates the factors that affect the willingness of customers to turn to the unofficial markets. Some of these factors are age, gender, income, and education. According to the paper, males and younger people are more acceptant of participation in the informal economy (Casola, 2007). The study did not find any correlation between income and the unofficial market. In addition, education has been somewhat poorly addressed, as most of the participants were recruited from a local university.

The section of the thesis will look at the previous research and attempt to identify the problematic areas of the field, while also defining the concepts that will be used in the paper.

## **2.1 Definitions**

One of the problems of the research in the field of formal economies is the lack of clarity and consensus regarding the terms. Some papers refer to “informal economies” as “grey markets” or “black markets”, using the words as synonyms and not differentiating between them. Other synonyms include: “underground economy”, “shadow economy”, “irregular economy”, “unofficial markets” etc. The clarification and definition of terms is at the mercy of each individual researcher. This creates confusion where the same concepts are referred to by different names, significant overlapping exists, and terms are mixed up. This issue has also been previously pointed out by Reenoy (1990), which shows that after more than 20 years the problem is still persistent in the field.

Generally, informal economies refer to economic activities that contribute to the overall GDP but are unregistered for various reasons (Schneider & Enste, 2000). While this definition leaves many questions unanswered, the authors provide a table (Table 1) as a consensus definition of all the activities included in the informal economy both legal and illegal.

Table 1: A Taxonomy of Types of Underground Economic Activities (Schneider & Enste, 2000)

Type of Activity	Monetary Transactions		Non-Monetary Transactions	
Illegal Activities	Trade in stolen goods; drug dealing and manufacturing; prostitution; gambling; smuggling and fraud		Barter: drugs, stolen goods, smuggling etc. Produce or growing drugs for own use. Theft for own use.	
	Tax Evasion	Tax Avoidance	Tax Evasion	Tax Avoidance
Legal Activities	Unreported income from self-employment; Wages, salaries and assets from unreported work related to legal services and goods	Employee discounts, fringe benefits	Barter of legal services and goods	All do-it-yourself work and neighbour help

Feige (2016) takes a different approach, giving a broader description of the term:

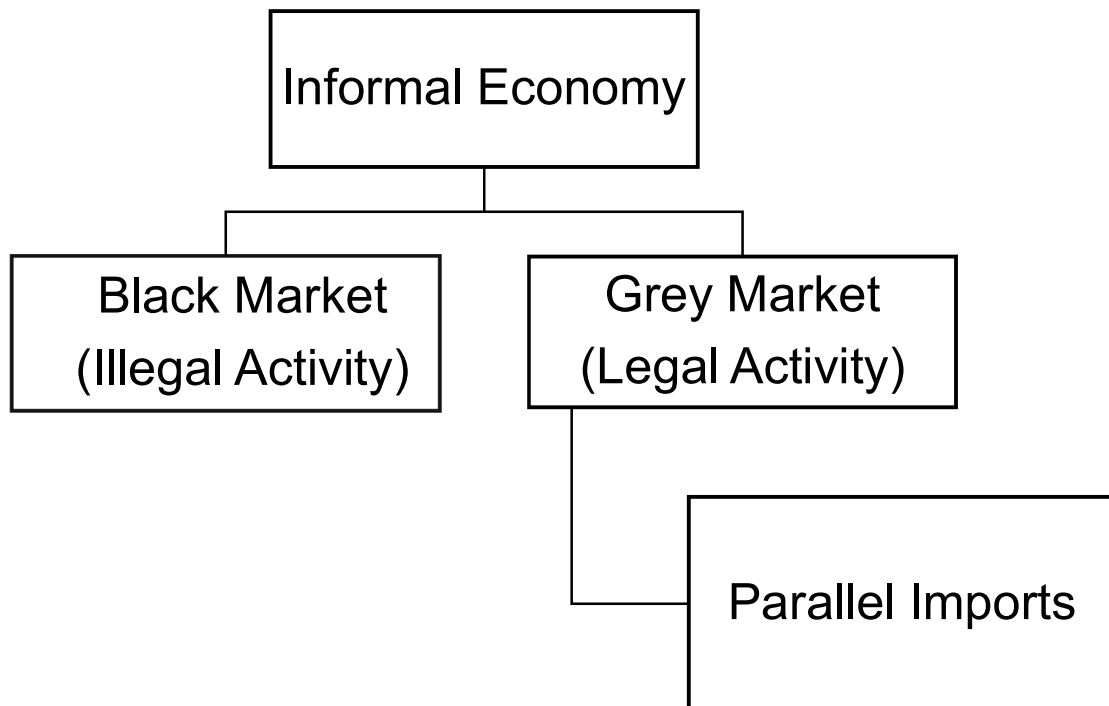
"I propose these economies are comprised of the activities of individuals, households and/or firms that evade, avoid, circumvent, elude, are excluded from, or not subject to the rules and conventions of established institutions. They all involve economic agents engaged in non-compliant behaviors that they seek to hide."

The most important way why this definition is better than the previous one is because it recognizes the fact that sometimes entities are excluded from the official economy, which implies that it is not a conscious decision to not be a part of the informal

economy, but rather an adaption to the circumstances in which they find themselves in.

Another problem in the general understanding of informal economies is the lack of distinguishing between legal and illegal activities. The illicit activities are referred to as the “black market” and include the trade of highly controlled or illegal products such as drugs, weapons, counterfeit products, human trafficking etc. Most of the informal economy, however, does not share the criminal nature of black markets. Businesses and individuals may prefer to not register their otherwise legal economic activity for various reasons which will be looked at later. These activities include anything from self or unofficial employment to do-it-yourself work. This includes parallel importation, which is the trading of authentic or branded goods outside the intended distribution channels of the manufacturer (Shao, Krishnan, McCormick 2016). All of these legal but unrecorded activities will be referred to as the “grey market”. Figure 1 demonstrates the hierarchy of the terms in the context of this thesis.

Figure 1: Hierarchy of term



In addition to the terms related to the informal economy itself, it is also important to describe what does culture mean in this context. Hofstede describes culture as "the collective programming of the mind which distinguishes the members of one group or category of people from another" (1991). This programming includes behaviours and values that are imbedded in different societies. The main interest of this paper is how these behaviours and values might affect the informal economies of their respective countries.

As previously stated, the definitions in this field can significantly vary from paper to paper. The definitions provided in here are relevant in the context of this thesis. Other researchers may use different words to define the same concepts.

## **2.2 Informal Economy Size and Measurements**

### **2.2.1 Size**

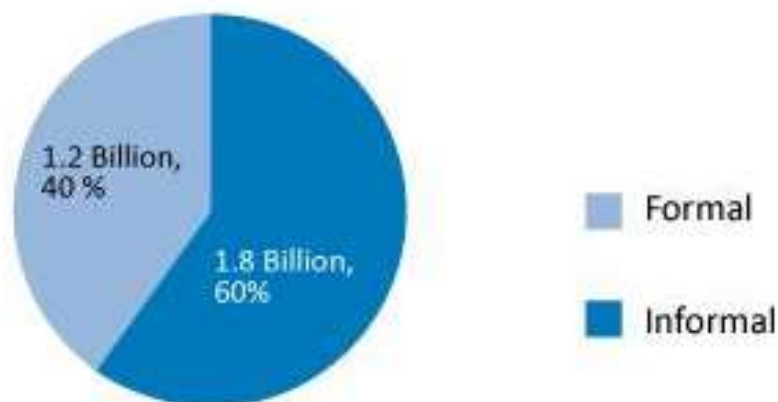
Schneider and Enste (2000) focus on making an exhaustive analysis of the available estimates of the size of the informal economy. Their study separates countries into developing, transitional and OECD. Several methods of measurement are implemented. These include the direct input or electricity method assumes that economic activity and the consumption of electricity are positively related. The currency demand and other macroeconomic models are also used. The statistics vary greatly from country to country, going from extreme cases such as Nigeria where the informal economy is three quarters the size of recorded GDP to Singapore, where the number is around 13% (Schneider & Enste, 2000). Regardless of the used method, the research shows increase in the size of the informal economy in all countries. While this study is one of the most extensive in the field, it is almost 20 years old at this point. The actual statistics have likely shifted, but a lot of the fundamental theory is still the same.

## 2.2.2 Informal Labour Markets

The International Labour Office has done significant statistical studies into labour markets around the world. Their 2018 study brings up some revealing statistics. Over 60 percent of the world's working population is employed in the informal economy, which amounts to more than 2 billion women and men. While informality exists in all countries regardless the economic and political circumstances, it is more prevalent in developing countries (International Labour Office, 2018). The study also shows evidence that most people turn to the informal economy because of lack of opportunities in the formal sector. In other words, individuals are forced to be unofficially employed to be able to support their livelihoods.

An OECD study estimates that 1.8 billion people are employed informally opposed to 1.2 billion formal workers (OECD, 2009). This is illustrated in figure 3. Although this study is considerably older, it still puts the estimates close to previous number. In addition, the source gives a country specific example. 9 out of 10 workers in India are employed in the informal economy, which amounts to approximately 370 million people

Figure 2: Worldwide Informal Employment (OECD, 2009)



### **2.2.3 Measurement Difficulties**

It is important to mention the difficulties of approaching the task of measuring the size of the informal economy. The activities that are considered part of the informal economy are performed with the specific intention of avoiding detection (Schneider Enste 2000). Furthermore, as mentioned in the previous section, the definition of what the informal economy is can significantly vary depending on the study, which also influences how it is measured.

### **2.3 Causes of Informal Economies**

Several reasons are highlighted as the most important causes of the informal economy. One of these reasons is the extent of regulations in an economy and how they are enforced. Several studies reach the conclusion that economies with higher levels of economic regulation correlate with a larger percentage of the informal economy in total GDP (Johnson et al. 1997; Friedman et al. 1999). Continuing the theme of regulation, taxation can also provide an incentive for businesses and individuals to turn to the informal economy. Schneider and Enste (2000) suggest that “higher indirect tax rates and higher marginal income tax rates tend to raise the amount of labor and goods, bought and sold in the underground sector”.

Due to the illegal or highly controlled nature of the products offered on black markets, acquiring them elsewhere would be impossible or very difficult. This brings on the conclusion that black markets arise either from the demand for illegal goods or services or from the convenience of acquiring them.

There are also instances when an informal market is created directly because of the involvement of an industry. This is the case with the luxury watch industry which has found several uses for these markets (Koltrowitz, 2017). Manufacturers often get rid of slow-selling models by selling them into informal economy, which in turn offers substantial discounts. While admitting the benefits of the practice, many specialists in

the industry consider it a necessary evil, as offering luxury products below their price may damage the carefully constructed aura of prestige around the brands.

## **2.4 Cultural Influence on Informal Economies**

The influence of culture on informal economies has been generally disregarded as an angle in the current research. Certain studies analyse specific phenomena that arises under the influence of a specific culture, but no general research about the topic has been done.

Chinese culture has given birth to several instances of unique informal economies. One example would be the case of widespread production of counterfeit products referred to as “Shanzhai Culture” (Li, 2010). The meaning of the term has evolved and currently suggests “cleverness and ingenuity of Chinese people”. While the ethical side of this practice is a topic for another discussion, “Shanzhai” has given a possibility for many low-income individuals to use products that would have otherwise been out of their price range. The “Shanzhai” phenomenon has also been fostering innovation, producing electric cars for under 3000 USD (Reineman, 2011). Inarguably, the local communities continue to reap the benefits of the unorthodox approach to manufacturing and innovation.

Another example of the unique informal economy in China would be the shopping practices of “Haitao” and “Daigou” (Feng & Zhang, 2017; Li et al. 2018). This refers to the process of Chinese nationals travelling abroad and purchasing goods to resell on the domestic market, acting as shopping agents. Some studies estimate that in 2014 around 70% of all luxury shopping was done through these shopping agents (Li et al. 2018). Finally, culture has also had an impact on the demand for ivory in China, which takes its origins from the cultural heritage of the country (Gao & Clark, 2014). The authors investigate the factors that have influenced the demand for ivory in China and how the material is traded in official and unofficial markets. While the informal market has provided a stable source of ivory for the Chinese population, the elephant as a



species is now at risk due to lack of regulation and without proper policies the situation will continue to deteriorate. While other countries are not likely to be as rich in examples, there is still hope for other unique phenomena in other parts of the world.

A 2012 study investigates the factors that influence purchase intent of grey market goods in Iran (Mollahosseini et al 2012). An interesting part of the model the paper proposes is status consumption. The authors suggest that consumers who desire to be perceived as belonging to a higher status are more willing to purchase goods from grey markets. Although the study takes into account only a limited area, namely the South-East of Iran, it brings up a potential avenue of research. The idea that the importance of social status varies from culture to culture and has an impact on the demand for grey market goods could be worthwhile to investigate. Furthermore, the pursuit of social status can be linked to the power distance dimension in Hofstede's (1991) cultural dimensions.

An industry specific example of an informal market, Liao (2010) looks at what determines the willingness of consumers to purchase grey market smartphones. While not focusing on cultural determinants, the study does bring up several aspects that may affect the model it proposes. These aspects include personality traits, socioeconomic attributes, and cultural attributes. The paper also suggests that the influence of these aspects may differ from culture to culture. This study is somewhat similar to Casola's (2007) study about the behaviour of informal economy consumers, although Liao has a much narrower focus.

Researchers have also looked at the relationship between structural corruption and informal economies. In this case corruption refers to activities such as bribery and extortion. Friedman et al. (2000) suggests that corruption and informal economies are complements, as corruption encourages businesses "to hide their activities underground". In support of this argument the study brings up the fact that poor institutions usually go hand in hand with tax revenue having a smaller share of GDP. Other studies, on the other hand, argue that corruption and informal economies are

substitutes rather than complements, meaning they have a negative relationship (Choi & Thum, 2004). As officials lower their bribes, businesses have more incentive to transition into the official economy.

## **2.5 Impact of Informal Economies**

### **2.5.1 Adverse Effects**

The negative effects have been widely covered by the current literature. The most obvious effect is that governments lose out on the tax revenue from the unregistered economic activity (Bustamante & Fandl, 2017). This study looks at the potential incentives that can be provided to encourage entrepreneurs to transition from the informal to the formal economy. In addition to lost tax revenue, the hidden nature of the informal economy makes it difficult to accurately estimate the GDP or other economic indicators.

Streit (1984) analyses the informal economy as a “challenge to the welfare state”. The existence of the informal economy undermines the existing governmental institutions, which leads to their loss of acceptance in society. Eventually this leads to a situation where political institutions do not have the loyalty of the people and are not able to develop it, which can be witnessed in the countries of the former Soviet Union (Streit, 1984).

Looking at a more specific example, the previously mentioned study about the informal market for ivory in China has put elephants at risk (Gao & Clark, 2014). While the lack of regulation can sometimes be beneficial to efficiency, it can also have consequences such as endangering animal species and harming the environment.

## 2.5.2 Benefits

With the considerable negative impact on informal economies, the positive aspects can be easily overlooked. As the International Labour Office (2018) study points out, the informal economy provides employment to people when the formal sector fails to provide opportunities. Without this employment, these people would have no way to support their livelihoods. In addition, developing countries may experience an increase in quality of life because of informal market activity as they would otherwise not have access to the same products (Adeleke et al. 2017). Finally, while companies tend to view the informal sector as a negative phenomenon, some analysts view it as an untapped source of market research that very few companies have utilized (Wele 2018):

*“Informal businesses are good at deciphering and interpreting trends then creating goods and services that meet the demand. This indicates an intelligence not only in anticipating consumer needs but an innovation capacity that allows the sector to translate consumer desires in products available for sale.”*

Just like the Chinese counterfeit electronics industry, this is another instance of how informality fosters innovation when individuals must adapt in the face of poverty or other unfortunate circumstances. This adaptation could be analysed, and the approaches implemented in the formal economy. In fact, an anonymous shoe manufacturer stated that counterfeit products are an indication that the original product is good enough to be worth copying (TED 2012).

It can be argued that these positives are merely excuses and that the existence of informal economies itself is contributing to the problem. However, in the current system getting completely rid of the informal economy will harm many more people than it will benefit.

## **2.6 Summary of the Current Research**

A lot of the existing research has undertaken the task of estimating the size of the informal economy on different scales. However, issues such as differences in definitions and the hidden nature of the activities in informal economies complicates the attempt, leading to varying and inconclusive results. One of the main identified causes of informality is the extent of economic regulation, where stricter laws and harsh enforcement incentivizes economic agents to conduct activities in the informal economy.

Currently, culture has been mostly neglected as a research topic in the field. Some papers mention it as a potential influence or look at specific instances, but nowhere is that impact analysed in depth. Attempting to analyse and generalize this influence would be a potentially worthwhile research avenue that could be a substantial step in the direction of better comprehension of informal economies and culture itself.

Both beneficial and adverse effects of informality are identified, although the focus tends to be on the latter. Commonly identified harms include decreased tax revenue for governments, inaccuracies in measuring GDP and other national wealth indicators, and the loss of credibility of political institutions. As the formal economy is not always able to provide income opportunity, 60 percent of the working population in the world relies on the informal economy to sustain their livelihoods. Evidently, in the current system getting rid of the informal economy is near impossible, which shows that deep structural change needs to occur before any progress is made.

## **3 RESEARCH DESIGN**

The impact of culture on informal economies is a conceptual topic that has previously been covered by researchers to a limited extent. More specifically, most research papers only mention it as a potential influence but do not explore the concept in any way. As the first paper to focus solely on this angle, it is exploratory in nature. Unlike

previous research, the focus of this paper is not on the usual causes of informal economies such as taxation and regulation, but rather on the specific cultural attributes and behaviours that might be adding to or otherwise impacting the standard causes. The research is based on secondary sources. Potentially the study could serve as a stepping stone for further research with larger scopes and ambitions.

### **3.1 Methodology**

The analysis of the data is conducted in in two parts. Section 4 is focused on creating a thematic network, which is a method of qualitative data analysis. The method focuses on identifying underlying themes in a dataset and organizing them into a web-like representational structure (Sterling, 2009). The method separates the data into 3 groups with a hierarchical structure: basic themes, organizing themes, and global themes. Basic themes are specific cases, which support the broader organizing themes. Organizing themes are more abstract and collect basic themes into clusters of similar issues. Global themes summarize and bring together the lower ordered themes, acting as the uniting idea between the clusters of more specific groups. Sterling (2009) states that the analysis is conducted by starting with the identification of basic themes and working from that towards a global theme. In the case of this paper, however, the global theme is already known, which is the influence of culture on informal economies. Unlike the original method, the main goal here will be to identify the organizing themes, which in the context of this thesis are the general ways in which culture influences informal economies.

The second part of the analysis will look at countries with a high percentage of informality through Hofstede's Cultural Dimension (1991). The original framework consisted of 4 scales or dimensions, with 2 more added in later additions: Power Distance, Collectivism vs Individualism, Femininity vs Masculinity, Uncertainty Avoidance, Long vs Short Term Orientation, Indulgence. These Dimensions show how culture affects the values of a society and how that affects the behaviour of its members. Trompenaars's cultural framework (Trompenaars & Turner, 1997), which

slightly varies from Hofstede's dimensions, was also considered, but ultimately Hofstede was chosen because of the comprehensive database and easily accessible information. The scores of the countries are available through an updated and convenient country comparison tool at Hofstede Insights (n.d.). The goal is to compare countries and look for similarities across their scores in the cultural dimensions, which could identify trends that these societies have in common and help understand informal economies in other parts of the world as well. The countries were selected based on Schneider's most recent study estimating the size of the informal economy in 162 countries (2010). The study was selected because of the recency and the fact that it currently is has the largest scope in the field. Geographical location and the size of the informal economy were the two main factors when selecting the countries to include in the analysis.

### **3.2 Data Collection**

Finding relevant sources proved to be more difficult than initially expected because no current research has focused purely on the cultural side of informal economies. While there are numerous papers on informal economies, only some of them have parts that touch the focus of this thesis. The Aalto Finna database and google scholar were the primary source of most of the research cited here. Several keywords were used to conduct the research such as "informal economy", "culture", "black markets" etc. As mentioned previously, the fact that many papers use different terms for the same concepts also complicated the research. The literature search yielded over 30 sources, most of which were academic articles published by various journals and universities. Several articles from internet publications were used as well. More specifically, the cited sources include bachelor's and master's theses, conference documents, journal articles, and internet articles. Professor Friedrich Schneider from the University of Johannes Kepler in Linz has been one of the most cited authors in the field of informal economies, who according to Research Gate has over 500 publications and 15 000 citations (n.d.).

## **4 CULTURAL EFFECTS**

After a thematic analysis of the literature that studies the impact of culture on informal economies, four underlying themes were identified to form a thematic network. As a tentative framework, the design of the thematic network is not final. Further examples can be used to enforce or adapt these categories to more accurately represent the effects that culture has on the informal economy. The thematic network (Figure 5) is presented in section 4.5 after the description of the themes.

### **4.1 When Culture Creates Demand**

Perhaps the first and most obvious way in which culture can influence an informal economy is how it creates demand for certain products. Each country has its own history, traditions, and heritage and often some products are part of that heritage. This way culture creates demand that is not necessarily found in other parts of the world. This could be classified as a form of artificial demand, meaning that that without an external influence, the demand would not exist. Looking at the Ivory trade in China, the material has an important role in the country's heritage. Ivory is seen a precious material, used in jewelry and ornaments and has also been used in traditional Chinese medicine (Gao & Clark, 2014). Estimates show that 70% of the world's Ivory trade is being done in China. While it is impossible to say whether demand would completely disappear if the cultural heritage was taken out of the equation, it is rather safe to say that it would not be as high.

### **4.2 Perception of the Government**

Another way culture is affecting the informal economy is through the relationship between the government and the people. Various factors have played a role in forming the attitude of the people towards the government. The separation of power, accountability, and levels of corruption are all potential reasons why individuals might

turn to the informal sector. Although not always a sign of rebellion, often not agreeing with the government is reason enough to implement “under the table practices”. Countries with a historical rocky relationship between the government and the people might experience a lack of trust towards political institutions, which also could motivate individuals to stay away from the formal economy. The enforcement of regulation and criminal law also can vary from country to country due to historical reasons (Krakowski, 2005).

### **4.3 Cultural Impact on the Informal Labour Market**

As previously stated, over 60% of the working population is employed in the informal economy. In many cases the reason is simply that there are no better or no other available opportunities. For example, according to a WIEGO (Women in Informal Employment: Globalizing and Organizing) study, it is much easier for women to get employed in the informal sector (Chen, 2001). However, in some cases traditions and religion come into play. In some countries, the freedom for women of pursuing employment is limited by the traditional distribution of roles, religious practices, and commitment to family. This is the case in Bangladesh, where all of these factors contribute to the inability for women to get a job in the formal sector (Jahiruddin et al. 2011). The same study points out illiteracy as another potential factor, although previous studies have not found significant correlation between education and the size of the informal economy (Casola, 2007).

Krakowski (2005) states that there is a general perception that the majority of the workers in the informal sector in Latin America belong to indigenous groups. His research shows a positive correlation between the amount of indigenous people and the size of the informal economy in Latin American Countries. The author does note that this does not necessarily apply in other parts of the world. This brings up several potential issues, such as whether equal opportunities are offered to all ethnic groups



## **4.4 Status Consumption**

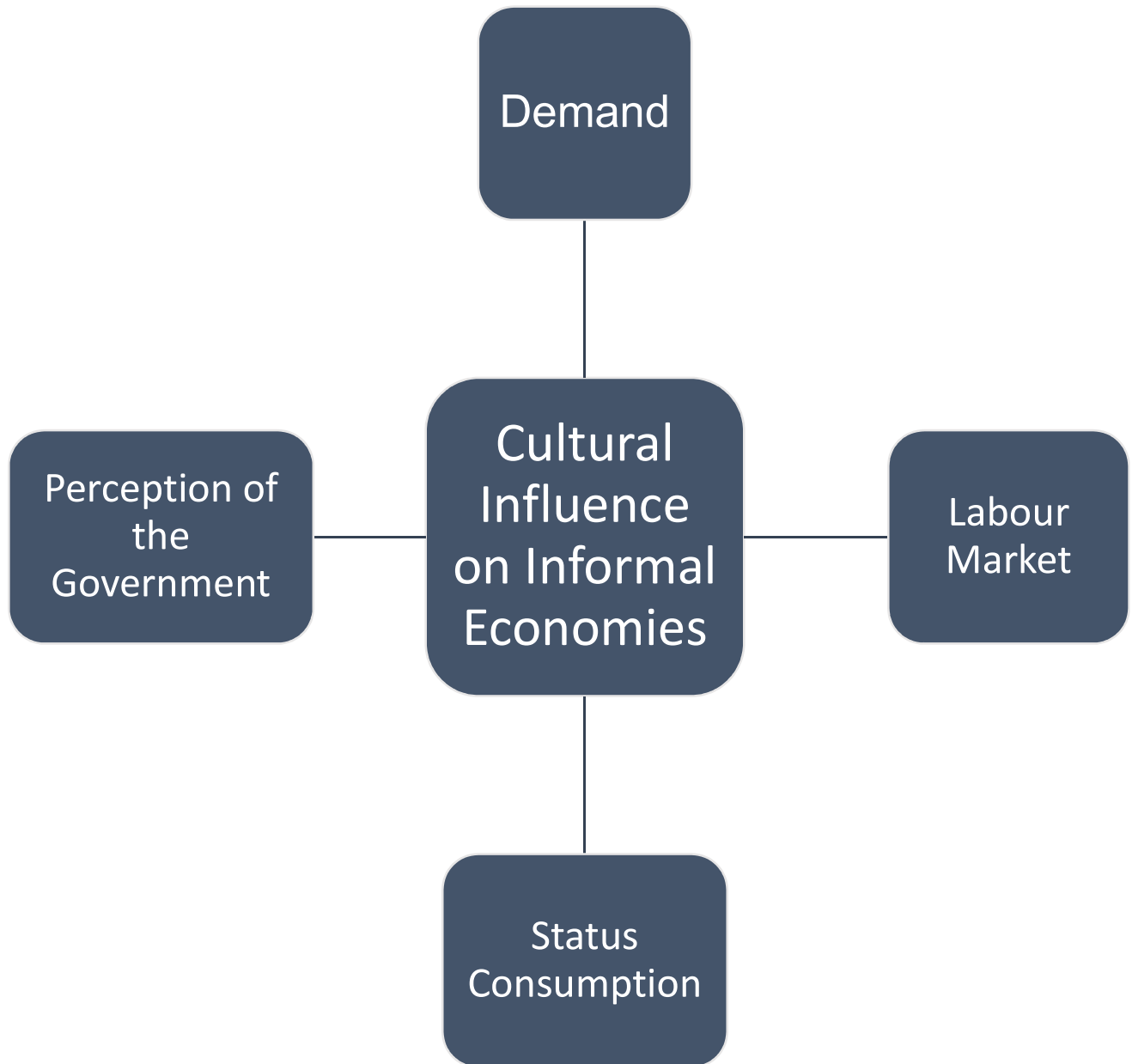
Status consumption is defined as the consumption of goods and services that affect the perceived status of the consumer (Eastman et al. 1999). While the concept exists in every culture to some extent, it varies from country to country based on numerous factors (van Kempen, 2005). Mason (1993) points out that status consumption can be significantly affected by societies that value ascribed status over achieved status. In this case, some benefits of status consumption are lost as status is mainly assigned and not achieved. In addition, the effect of culture on status consumption is reduced to some extent due to globalization and “commercially sponsored value systems (Mason, 1993).

Section 2.4 mentions the Chinese shopping practices of “Haitao” and “Daigou”, which is a perfect example of how pursuit of status creates a market for parallel importation, which is a specific part of the informal economy. This suggests that status consumption in combination with a lack of appropriate funds can lead consumers to the informal market in a search of a better deal.

## **4.5 Thematic Framework**

The thematic analysis concluded in the creation of a thematic network presented below (Figure 3). As mentioned in the methodology section, the global theme of this network was known from the start. The focus was on deriving organizing themes from the instances of cultural influence on informal economies identified in the analysis. The themes can be considered as general ways in which culture influences the informal economy. The framework is considered to be tentative and is open for adjustments by further research.

Figure 3: Thematic Network of Cultural Influences on Informal Economies



## **5 CULTURAL DIMENSIONS ANALYSIS**

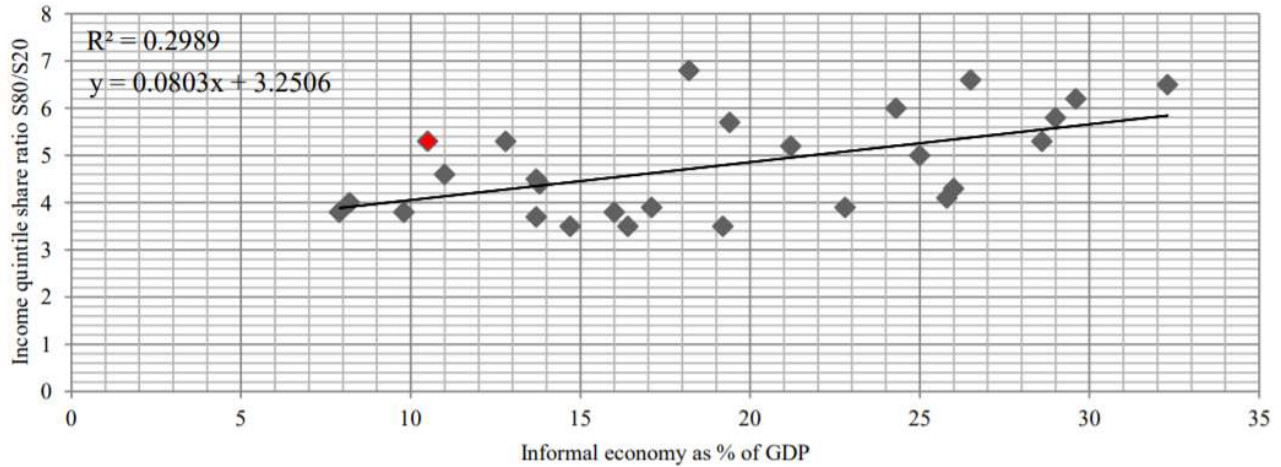
This part of the thesis takes a look at the similarities between countries with high levels of informality through Hofstede's Cultural Dimensions Framework (1991). Instead of using all 6 of the cultural dimensions, three specific ones were selected based on the relevance to the topic. The three being Power Distance, Individualism vs Collectivism, and Uncertainty Avoidance. Power Distance refers to the acceptance and expectance of members of a society about how economic and political power is distributed. Countries with low scores in this dimension tend to have structures with more equally distributed power, meaning that individuals and entities possess limited amounts of economic or political influence. Countries with higher power distance scores, on the other hand, accept and expect some individuals and entities to wield considerable economic and political influence over others. Individualism vs Collectivism shows how members of a society perceive individuals and groups. Members of individualistic societies tend to be concerned with themselves and their close family. Collectivist societies, on the other hand, are inclined to care about the group or community. As the name indicates, Uncertainty Avoidance refers to how comfortable citizens are with uncertainty, ambiguity, and unpredictability.

### **5.1 Selection of Cultural Dimensions**

These three specific dimensions were selected because of empirical evidence in previous research suggesting a connection between these dimensions and informal economies as well as logical reasoning. Williamson's research indicates a positive correlation between income inequality and the size of the informal economy (2014), which can be observed in Figure 4. Income inequality in this case is a representation of the power distance dimension. The individualism vs collectivism dimension was selected because of the expectation of collectivistic societies to have larger informal economies due to the communal nature of an informal economy. Similarly, low uncertainty avoidance indicates a risk-taking attitude, which would be in line with the type of activities associated with informal economies. Masculinity vs femininity, short

vs long-term orientation, and indulgence were left out because of lack of a direct link to the cause of informal economies.

Figure 4: Relationship between income inequality and size of informal economy (Williamson, 2014)



## 5.2 Country Selection

The countries were selected based on Schneider's 2010 study estimating the size of the informal economy in 162 countries. The full chart is included in the appendices. The analysis will compare the scores of the countries in geographical clusters in an attempt to identify similarities. Table 2 presents the cultural dimension scores with the average size of the informal economy as a percentage of total GDP. The average is taken from a period between 1999 and 2007.

Table 2: Comparison of Cultural Dimension Scores and Size of Informal Economy in 20 Countries

	<b>Country</b>	<b>Power Distance</b>	<b>Individualism vs Collectivism</b>	<b>Uncertainty Avoidance</b>	<b>Average size of Informal Economy (1999-2007)</b>
Europe	Greece	60	35	100	29.9
	Italy	50	76	75	27.2
	Spain	57	51	86	22.9
	Portugal	65	27	99	22.5
	Bulgaria	70	80	85	38.5
	Hungary	46	80	82	25.8
	Poland	68	60	93	28.0
	Ukraine	92	25	95	54.9
Latin America	Guatemala	95	6	99	53.5
	Mexico	81	30	82	30.2
	Peru	64	16	87	61.8
	Panama	95	11	86	64.7
Africa	Egypt	70	25	80	35.3
	Nigeria	80	30	55	59.7
	Mozambique	85	15	44	40.8
	Tanzania	70	25	50	60.2
Asia	Thailand	64	20	64	54.7
	Philippines	94	32	36	45.1
	South Korea	60	18	85	28.2
	Malaysia	100	26	44	31.3

### **5.3 Initial Impressions**

At first glance there are no evident tendencies throughout all the countries. Perhaps the only noteworthy thing is that all of the countries except Nigeria, Philippines, Thailand and Malaysia scored quite high on the uncertainty avoidance scale. All of the scores were above 75, showing a strong preference. This is a rather unexpected outcome, as countries with low scores in uncertainty avoidance are considered to be more entrepreneurial and risk taking, more akin to the approach of the informal economy. Evidently the research between the size of the informal economy and uncertainty avoidance can and should be further explored.

### **5.4 Latin America**

Taking a closer look at the geographical groups shows some patterns that can be explained more easily. The countries in Latin America have a strong difference between the power distance and individualism dimensions. All the countries scored relatively high on the power distance scale, which indicates that people generally accept the uneven distribution of power in the society. At the same time, the scores on the individualism scale were very low, showing the collectivistic nature of society. The relationship of this combination to the size of the informal economy could be explained by the acceptance of society of the unequal distribution of power and working together towards surviving under this inequality. The high-power distance score can also explain the lack of progress in moving the informal economy into formal one, as society generally accepts the status quo and is not working towards change.

### **5.5 Europe**

The situation in Europe, on the other hand, is much more unclear. The individualism scores had quite a bit of variety to them. The power distance scores tended to be in the middle with the exception of Ukraine, showing no strong preference towards one

or the other. The only consistent pattern was the high uncertainty avoidance score, which was already determined to have an unclear relationship with the size of the informal economy. Obviously, some other factors are at play here. Perhaps more research is needed specifically about the diverse European cultures and their relationship with the informal economies in their respective countries.

## **5.6 Asia**

Asia seems to have a similar situation as Latin America, although not as clearly defined. The countries have a big difference between the individualism and power distance dimensions in favour of the latter. As in Latin America, this shows a society that accepts the uneven distribution of power and works collectively to improve their conditions under that inequality. The difference between the other parts of the world is the variance in the uncertainty avoidance scores. The countries do not seem to have any pattern regarding them. Considering the Philippines and Malaysia, these two countries seem to be the perfect candidates for a flourishing informal economy. The combination of a high-power distance score and low individualism score in addition to a low uncertainty avoidance score creates a society that has the uneven power balance and entrepreneurial and risk-taking spirit that would be ideal for an informal economy.

## **5.7 Africa**

Africa, once again, shows a picture similar to Latin America and Asia. High power distance score with a low individualism score. The unclear uncertainty avoidance persists in this case as well.

## **5.8 Cultural Dimensions Analysis Conclusions**

The analysis provided some expected and unexpected results. The relationship between informality and uncertainty avoidance clearly requires more research. In addition, the European countries seem to lack a certain pattern, which indicates to other factors not considered in this analysis. From the patterns above, it is impossible to identify a single one that would indicate a large informal economy without mistake. However, separating the various geographical segments showed that various combinations of 2 or 3 of the dimensions could be a possible indicator of the size of the informal economy. Although limited to this sample, it can be concluded that a high-power distance score in combination with a low individualism score indicates a larger informal economy.

## **6 CONCLUDING DISCUSSION**

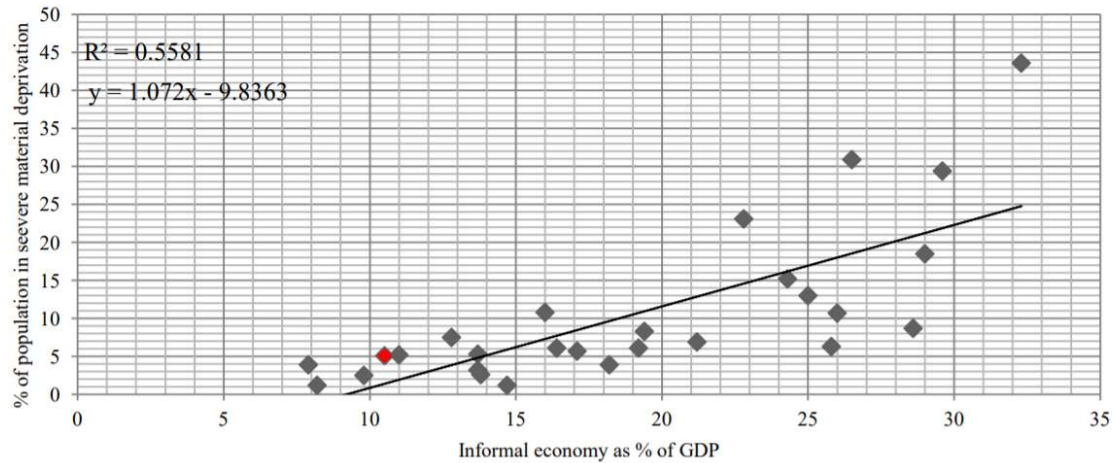
The current research of the phenomenon of informal economies has largely neglected culture as an area of research. In addition, current models leave out quite a few unexplainable exceptions, which leads to the conclusions that they are not taking into account some important factors. This study considered culture as this unaccounted factor by conducting a two-part analysis. The first part used a modified version of thematic analysis to derive four generalized themes or ways in how culture influences informal economies. The first theme is the impact on demand, for example through the increased value of some materials in the cultural heritage of the country. The second way is through the impact on labour markets, whether members of different ethnic groups are offered similar opportunities in the formal economy. Next is how culture influences the perception of the government, issues like structural corruption and trust towards political institutions. Finally, culture also affects status consumption, which may lead individuals to pursue goods from the informal economy in pursuit of affordability.



The second part of the analysis takes a look at 20 countries with high percentages of informality through Hofstede's cultural dimensions framework (1991). The analysis compares the scores of these countries in three out of six dimensions, namely power distance, individualism vs collectivism, and uncertainty avoidance. Several patterns are recognized, such as the tendency of a high-power distance score in combination with a low individualism vs collectivism score leading to a larger informal economy. This pattern, however, does not hold up Europe. This shows that European informal economies follow somewhat different rules and can be further explored in future research. In addition, uncertainty avoidance is also a potential avenue of research as the analysis did not show clear relationship. Lastly, the sample in this study is somewhat limited. In the future, more ambitious studies with wider scopes could be undertaken to provide more conclusive results.

Some other limitations are also important to mention. The definitions in the field of informal economies are still inconsistent from paper to paper, which often leads to varying estimates, which in turn may result in contradicting results. Another issue is the correlation between poverty and informality. Figure 5 shows that severe levels of income go hand in hand with larger informal economies. This brings on the conclusion that after a certain level of poverty, cultural behaviors and values stop playing any significant role as individuals are attempting to sustain their livelihoods regardless of the formality of their activities.

Figure 5: Relationship between percent of population in severe material deprivation and size of informal economy (Williamson, 2014)



Conducting a survey was considered while developing the main idea for the thesis but was ultimately decided against because of several factors. Due to time and resource limitations, it would have been impossible to collect an adequate amount of responses to cover the scope of the topic. In addition, the conceptual nature of the research does not lend itself very well to the format of a brief survey. In depth interviews would be more appropriate, but again the previous constraints would apply even more in this case.

As mentioned in the introduction, the answers to the research questions provided in this thesis are unlikely to be helpful to any policy makers, but it could provide the launching pad for further research that could in turn actually bring out some practical information that could be used to more efficiently manage informal economies.

Overall, this paper is a step in the direction of understanding what kind of effect culture has on informal economies. However, it is no way the final step. Concepts like culture are often hard to put into frameworks, which only makes the need for more research that looks at the issue from fresh and new angles increasingly evident. The conclusions in this thesis are up for debate and serve as a stepping stone for more

studies to improve the comprehension about the ways in which the unique culture of each country affects the life of its citizens.

## REFERENCES

Adeleke, B. S. (2017) 'The Effects of Gray Markets in the International Product Distribution Systems' *European Journal of Business and Management* 9 (2)

BBC (2015) 'Why is Ivory so Popular in China?' Available from: <https://www.bbc.co.uk/newsround/34571732> [Accessed on 16 March 2019]

Bustamante J. P. & Fandl K. J. (2017) 'Incentivizing Gray Market Entrepreneurs' *Northwestern Journal of International Law & Business* 37 (3)

Casola, L. (2007) *Black Markets: Empirical studies into the economic behavior of the black-market consumer*. M.A. Thesis. Canterbury, England: University of Canterbury [published]

Chen, M (2001) 'Women in the informal sector: a global picture, the global movement.' *SAIS Review* 21(1)

Choi, J. P. & Thum, M. (2005) 'Corruption and the Shadow Economy' *International Economic Review* 46 (3)

Eastman, J.K., Goldsmith, R.E., Flynn, L.R. (1999) 'Status Consumption in Consumer Behavior: Scale Development and Validation' *Journal of Marketing Theory and Practice* 7 (3)

Feige, E. L. (2016) 'Reflections on the Meaning and Measurement of Unobserved Economies: What do we really know about the "Shadow Economy"?' *Journal of Tax Administration* 2 (1)

Frey, B.S. & Weck, H., (1981). 'Bureaucracy and the Shadow Economy: A Macro-approach' *Anatomy of Government Deficiencies*

Friedman, E., Johnson, S., Kauffman, D. & Zoido-Lobaton, P. (2000) 'Dodging the grabbing hand: the determinants of unofficial activity in 69 countries' *Journal of Public Economics* 76 (3)

Gao, Y. & Clark, S. G. (2014) 'Elephant ivory trade in China: Trends and drivers' *Biological Conservation* 180

Hofstede Insights (n.d.) Country Comparison Tool Available from: <https://www.hofstede-insights.com/product/compare-countries/> [Accessed on 15 March 2019]

Hofstede, G. (1991). *Cultures and Organizations: Software of the Mind*. London: McGraw-Hill.

International Labour Office (2018) *Women and Men in the Informal Economy: A Statistical Picture* (3rd Edition). Geneva, Switzerland: ILO

Jahiruddin, A; Short, P; Dressler, W & Khan, A (2011). 'Can Microcredit Worsen Poverty? Cases of Exacerbated Poverty in Bangladesh' *Development in Practice*

Johnson, S., Kaufmann, D. & Andrei Shleifer (1997) *The Unofficial Economy in Transition*. Brookings Papers on Economic Activity, Fall, Washington D.C.

van Kempen, L.A.C.M. (2005). *Status consumption and poverty in developing countries*. Tilburg: CentER Center for Economic Research.

Koltrowitz, S. (2017) Gray market has become a necessary evil for luxury watchmakers Available at: <https://www.reuters.com/article/us-swiss-watches-grey-market/gray-market-has-become-a-necessary-evil-for-luxury-watchmakers-idUSKBN17E2E8> [Accessed on 3 February 2019]

Krakowski, M. (2005) 'Determinants of the Informal Economy: The Importance of Regional Factors.' *Hamburg Institute of International Economics*

Liao, C.H. (2013) 'Determinants of Consumer's Willingness to Purchase Gray-Market Smartphones' *Journal of Business Ethics* 114 (3)

Li, H., Shao, J. & Zhu, S. X. (2018) 'Parallel importation in a supply Chain: The impact of gray market structure' *Transportation Research: Logistics and Transportation Review* 114

Li, Y. (2010) "Shanzhai" as an innovation in a competitive market environment. Reykjavik, Iceland: University of Iceland

Mason, R. (1993) Cross-Cultural Influences on the Demand For Status Goods *European Advances in Consumer Research* 1

Mollahosseini, A., et al. (2012) 'Investigating the Influential Factors on Purchase Intention the 'Gray Market' Goods in South-East of Iran' *International Business and Management* 4

OECD (2009) 'Rising informal employment will increase poverty' Available from: <http://www.oecd.org/dev/risinginformalemploymentwillincreasepoverty.htm>  
[Accessed on 17 March 2019]

Reineman, R. (2011) 'Chinese Commuters Charging to Cheap Shanzhai Electric Cars' Available at: <https://www.roelofreineman.com/blog/uncategorized/chinese-commuters-charging-to-cheap-shanzhai> [Accessed on 7 April 2019]

Renooy, P.H., 1990. The Informal Economy: Meaning, Measurement and Social Significance. Netherlands Geographical Studies, Amsterdam.

Research Gate (n.d.) Friedrich Schneider Profile Available from:  
[https://www.researchgate.net/profile/Friedrich\\_Schneider](https://www.researchgate.net/profile/Friedrich_Schneider) [Accessed on 5 April 2019]

Schneider, F. & Enste, D.H. (2000) 'Shadow economies: Sizes, causes, and consequences.' *Journal of Economic Literature*, 38

Schneider, F. (2010) New Estimates for The Shadow Economies all over the World  
*International Economic Journal*

Shao, J., Krishnan, H., McCormick S. (2016) 'Gray Markets and Supply Chain Incentives' *Production and Operations Management* 25 (11)

Sinha, A. (2009) 'Trade and Informal Economy' *Expert meeting on Assessing and Addressing the Effects of Trade on Employment*; Geneva, Switzerland: 14-15 December. Geneva: ILO

Sterling, J.A. (2001) 'Thematic networks: an analytic tool for qualitative research' *Qualitative Research, Vol. 1(3): 385-405.*

Streit, M. E. (1984) 'The Shadow Economy: A Challenge to the Welfare State?' *Ordo Yearbook* 35

TED (2012) 'Robert Neuwirth: The power of the informal economy' [Video Recording].  
YouTube Post, 5 September. Available from:  
<https://www.youtube.com/watch?v=ONM4JupBzE&t=613s> [Accessed on 15 March 2019]

Trompenaars, F. & Turner, C.H. (1997) *Riding The Waves of Culture: Understanding Diversity in Global Business McGraw-Hill* 2

Wele, A. (2018) '*Informal economy untapped source of market intelligence*' Available from: <https://www.businessdailyafrica.com/analysis/ideas/Informal-economy-untapped-source-of-market-intelligence/4259414-4377634-vpsbpr/index.html>

[Accessed on 14 March 2019]

Williamson, C.C. (2014) 'The Informal Economy and Poverty: Evidence and Policy Review' Joseph Rowntree Foundation

Zhang, Z. & Feng, J. (2017) 'Price of Identical Product with Gray Market Sales: An Analytical Model and Empirical Analysis' *Information Systems Research* 28 (2)



## Appendices

Appendix 1: Ranking of 162 Countries in Alphabetical Order (Schneider et al, 2010)

No.	Country	Years									Country Av.
		1999	2000	2001	2002	2003	2004	2005	2006	2007	
1	Albania	34.9	35.3	35.7	35.9	36.2	36.7	36.9	37.3	37.7	36.3
2	Algeria	34	34.1	34.4	34.9	35.8	36.6	37.3	37.3	37.1	35.7
3	Angola	41.6	41.6	41.9	42.8	43	43.1	45	45.9	47.6	43.6
4	Argentina	25.6	25.4	24.7	23.3	24.4	25.3	26.1	27	27.8	25.5
5	Armenia	46	46.3	47.2	48.1	48.8	49.1	50	50.7	51.7	48.7
6	Australia	14.2	14.3	14.3	14.4	14.7	14.8	14.8	14.9	15	14.6
7	Austria	9.6	9.8	9.9	9.8	9.8	9.8	9.8	10	10.1	9.8
8	Azerbaijan	60.2	60.6	60.9	61.2	62.2	62.7	64.7	67.6	69.6	63.3
9	Bahamas, The	26.1	26.2	26	26	25.5	25.1	25.8	26.2	26.2	25.9
10	Bahrain	18.2	18.4	18.6	18.8	19	19.3	19.7	-	-	18.9
11	Bangladesh	35.2	35.6	35.7	35.5	35.6	35.7	36	36.7	37	35.9
12	Belarus	47.9	48.1	48.3	48.6	49.2	50.1	51.1	52.1	53	49.8
13	Belgium	21.7	22.2	22.3	22.4	22.4	22.6	22.6	22.9	23.1	22.5
14	Belize	42.4	43.8	44.3	44.2	45.2	45.5	45.4	45.9	45.6	44.7
15	Benin	48.5	49.4	49.8	50	50.2	50.1	49.8	50	50.4	49.8
16	Bhutan	29.2	29.4	29.6	29.7	30.1	30.1	30.5	30.6	31.1	30.0
17	Bolivia	67.2	67.1	66.6	66.5	66.5	67.3	69.9	71.3	70.7	68.1
18	Bosnia & Herzegovina	33.9	34.1	34.2	34.3	34.7	34.6	35	35.3	35.4	34.6
19	Botswana	33	33.4	33.6	33.5	33.8	34	34.1	34.5	34.8	33.9
20	Brazil	38.8	39.8	39.7	39.7	40	40.9	41.1	41.8	43	40.5
21	Brunei Darussalam	30.8	31.1	31.2	32	32.3	31	30.4	31.4	31	31.2
22	Bulgaria	36.5	36.9	37.2	37.7	38.3	39	39.7	40.4	41.2	38.5
23	Burkina Faso	41.5	41.4	41.5	41.4	42.4	42.7	43	43	43.1	42.2
24	Burundi	40.4	40	39.8	40	39.8	39.8	39.7	39.8	39.8	39.9
25	Cambodia	49.8	50.1	50.6	50.2	51	51.4	52.4	53.4	54.2	51.5
26	Cameroon	32.3	32.8	33.2	33.4	33.9	34	33.9	34.2	34.2	33.5
27	Canada	15.7	16	16.1	16.2	16.3	16.4	16.5	16.6	16.6	16.3
28	Cape Verde	35.7	36.1	36.3	36.3	36.5	36.4	36.8	38	38.7	36.8
29	Central African Rep.	51.5	51.7	51.2	50.1	46.9	46.5	46.9	48.1	48.9	49.1
30	Chad	46.6	46.2	46.9	47.4	48.4	51.2	51.6	51	50.5	48.9
31	Chile	19.7	19.8	20	20	20.2	20.5	20.7	20.9	21.1	20.3
32	China	13	13.1	13.2	13.3	13.4	13.6	13.7	14	14.3	13.5
33	Colombia	38.8	39.1	39.3	39.4	40.4	41.2	42.3	43.4	45.1	41.0
34	Comoros	40	39.6	40.2	41.6	41.7	40.2	41.3	40.9	39.8	40.6
35	Congo, Dem. Rep.	48.8	48	47.8	47.9	49	49.2	49.3	49.3	49.4	48.7
36	Congo, Rep.	46.8	48.2	49.2	49.7	49.7	50.3	51.9	53.3	52	50.1
37	Costa Rica	26.3	26.2	26	26	26.3	26.5	26.8	27.4	28.3	26.6
38	Côte d'Ivoire	44.9	43.2	42.1	41	40.5	40.4	40.2	39.7	39.6	41.3
39	Croatia	33	33.4	33.6	34.2	34.7	35.2	35.5	36	36.5	34.7
40	Cyprus	28.3	28.7	29.2	29.6	29.2	29.3	29.7	30.1	30.8	29.4
41	Czech Republic	18.9	19.1	19.3	19.4	19.5	19.8	20.4	20.9	21.2	19.8
42	Denmark	17.7	18	18	18	18	18.2	18.4	18.9	19	18.2
43	Dominican Republic	31.8	32.1	31.8	32.1	32.1	31.8	32.5	33.2	33.6	32.3
44	Ecuador	34.7	34.4	35.2	35.6	36.1	37.4	38.3	38.7	38.8	36.6

45	Egypt, Arab Rep.	34.7	35.1	35	34.5	34.8	35.2	35.4	36.1	37	35.3
46	El Salvador	46.1	46.3	46.4	47	47.4	47.6	48	48.7	49.5	47.4
47	Equatorial Guinea	33	32.8	33.7	34.1	34.4	34.9	35.1	35	35.5	34.3
48	Eritrea	42.6	40.3	41.2	41.3	40.3	40	40	39.4	39.2	40.5
49	Estonia	-	38.4	38.8	39.3	40	40.3	41.1	41.9	42.3	40.3
50	Ethiopia	39.9	40.3	41.2	41	40.5	42	43.1	44.5	45.7	42.0
51	Fiji	34.3	33.6	33.9	34.6	34.7	35.3	35.8	36.2	34.6	34.8
52	Finland	17.8	18.1	18.3	18.4	18.5	18.6	18.8	19.1	19.2	18.5
53	France	14.8	15.2	15.4	15.3	15.4	15.5	15.6	15.6	15.7	15.4
54	Gabon	49.9	48	48.7	48.4	48.5	48	48.3	48	48.8	48.5
55	Gambia, The	44.1	45.1	45.5	43.1	44.8	46.4	46.6	47.8	49.3	45.9
56	Georgia	66.2	67.3	67.4	67.4	68.7	69.2	69.5	71.1	72.5	68.8
57	Germany	15.6	16	16.1	16	15.8	15.9	16	16.4	16.7	16.1
58	Ghana	41.8	41.9	42	42.2	42.5	42.9	44.3	45.3	45.6	43.2
59	Greece	28.9	28.7	29.2	29.4	30	30.4	30.6	31	31	29.9
60	Guatemala	51.4	51.5	51.4	51.8	52.3	52.5	52.7	53.9	55	52.5
61	Guinea	39.5	39.6	39.9	40.4	40.4	40.6	40.8	40.3	40	40.2
62	Guinea-Bissau	38.8	39.6	39.6	38.5	37.7	37.3	37.5	37.7	37.6	38.3
63	Guyana	33.8	33.6	33.8	33.5	33.3	33.8	33	33.4	33.3	33.5
64	Haiti	56	55.4	54.7	54.3	54.4	53.4	53.7	53.8	53.7	54.4
65	Honduras	48.9	49.6	49.4	49.6	50.3	50.9	52	53.1	54.2	50.9
66	Hong Kong, China	16.2	16.6	16.6	16.6	16.8	17.3	17.7	18.2	18.6	17.2
67	Hungary	24.8	25.1	25.4	25.7	25.8	26.1	26.2	26.5	26.4	25.8
68	Iceland	15.8	15.9	16	15.8	15.9	16.3	16.7	16.7	16.8	16.2
69	India	23	23.1	23.4	23.6	24	24.2	24.5	25	25.6	24.0
70	Indonesia	19.1	19.4	19.4	19.5	19.7	20	20.2	20.5	20.9	19.9
71	Iran, Islamic Rep.	18.7	18.9	18.8	19.1	19.6	19.9	19.7	20.1	20.5	19.5
72	Ireland	15.7	15.9	15.9	15.9	15.8	16	16.2	16.3	16.4	16.0
73	Israel	21.2	21.9	21.6	21.1	21.2	21.7	22	22.6	23	21.8
74	Italy	26.5	27.1	27.5	27.4	27.2	27.2	27.1	27.3	27.4	27.2
75	Jamaica	36.4	36.4	36.6	36.6	38.6	39.1	38.9	40.2	40.5	38.1
76	Japan	11	11.2	11.2	11.1	11.2	11.5	11.7	12	12.1	11.4
77	Jordan	19.4	19.4	19.6	19.9	20.1	20.6	20.9	21.4	21.7	20.3
78	Kazakhstan	42.6	43.2	43.9	44.5	45.4	45.9	46.7	47.7	48.2	45.3
79	Kenya	35	34.3	34.7	33.8	33.9	34.9	36	37.7	39.4	35.5
80	Korea, Rep.	26.7	27.5	27.7	28.1	28.2	28.5	28.7	29	29.4	28.2
81	Kuwait	20.1	20.1	19.9	19.9	20.9	21.5	22.2	22.5	-	20.9
82	Kyrgyz Republic	41	41.2	41.6	41	41.9	42.6	42.4	42.6	43.6	42.0
83	Lao PDR	30.3	30.6	31	31.2	31.4	31.8	32.3	32.8	33.2	31.6
84	Latvia	39.6	39.9	40.4	40.9	41.4	42	42.7	43.7	44.3	41.7
85	Lebanon	34.1	34.1	34.5	34.7	35	35.9	35.9	35.4	36.2	35.1
86	Lesotho	30.9	31.3	31.5	31.6	31.9	32.5	32.4	33.3	33.8	32.1
87	Liberia	42.3	43.2	43.2	43.3	41.6	41.2	41.6	42	42.3	42.3
88	Libyan Arab Jamahiria	35.5	35.1	35.8	36.5	35.3	36.4	37.3	38.5	39.6	36.7
89	Lithuania	30.2	30.3	30.7	31.2	31.9	32.2	32.8	33.4	34	31.9
90	Luxembourg	9.6	9.8	9.8	9.8	9.8	9.8	9.9	10	10.2	9.9
91	Macao, China	12.9	13.1	13.2	13.4	13.7	14.2	14.4	14.6	15.3	13.9

92	Macedonia, FYR	34.9	35.7	34.8	35.1	35.5	36.4	36.9	37.7	38.8	36.2
93	Madagascar	39.1	39.6	40.4	34.7	36	37.7	38.5	39.5	40.6	38.5
94	Malawi	40.7	40.3	38.3	36.5	37.5	38.3	38.2	39.4	41.1	38.9
95	Malaysia	30.1	31.1	30.6	30.7	31	31.4	31.7	32.2	32.6	31.3
96	Maldives	30.3	30.3	30.6	31.2	31.4	31.8	31	31.3	32.1	31.1
97	Mali	42.1	42.3	43.8	44.4	44.7	44	44.5	44.7	44.7	43.9
98	Malta	26.8	27.1	26.9	27	26.7	26.7	26.9	27.2	27.7	27.0
99	Mauritania	36.7	36.1	36.2	36.4	36.4	37.2	37.9	40.8	-	37.2
100	Mauritius	22.9	23.1	23.3	23.2	23.5	23.8	23.8	24	24.3	23.5
101	Mexico	29.5	30.1	30	29.9	29.7	30.1	30.3	31	31.3	30.2
102	Moldova	44.6	45.1	46.1	45.8	45.7	46.2	46.8	46	-	45.8
103	Mongolia	18.5	18.4	18.5	18.8	19.1	19.5	19.8	20.1	20.5	19.2
104	Morocco	36.3	36.4	37.1	37.3	37.8	38.7	37.9	39.8	39.8	37.9
105	Mozambique	39.5	40.3	40.2	40.8	40.8	40.9	41.6	42	-	40.8
106	Myanmar	53.6	52.6	53.7	54.5	56.3	56.2	57.4	-	-	54.9
107	Namibia	31.4	31.4	31.6	31.5	32.2	33.1	33.3	34.1	34.4	32.6
108	Nepal	36.4	36.8	36.9	36.5	36.7	36.8	36.9	37.3	37.5	36.9
109	Netherlands	12.9	13.1	13.1	13	12.9	13	13	13	13.2	13.0
110	New Zealand	12.6	12.8	13	13.2	13.4	13.6	13.5	13.5	13.6	13.2
111	Nicaragua	44.7	45.2	45.1	44.9	45.4	46.2	46.6	46.8	47.2	45.8
112	Niger	42.1	41.9	43	43.7	44.4	43.2	44.4	45.6	-	43.5
113	Nigeria	57.8	57.9	58	58.2	59.5	60.8	62.1	62.9	-	59.7
114	Norway	19	19.1	19.2	19.2	19.2	19.7	19.7	20	20.2	19.5
115	Oman	18.7	18.9	19.3	19.3	19.4	19.5	19.8	20.2	-	19.4
116	Pakistan	36.6	36.8	36.6	36.8	37.4	38.3	38.8	39.8	40.1	37.9
117	Panama	63.4	64.1	63.5	63.1	63.9	64.7	66.4	68.1	-	64.7
118	Papua New Guinea	36.7	36.1	35.4	35.1	35.1	35.2	34.9	35.1	35.7	35.5
119	Paraguay	41.8	39.8	39.9	39.5	40.6	41.5	41.6	42.5	-	40.9
120	Peru	59.7	59.9	59.6	60.8	61.2	61.9	62.7	64.2	66.3	61.8
121	Philippines	42.7	43.3	43.6	44.1	44.7	45	46.6	47.2	48.4	45.1
122	Poland	27.5	27.6	27.6	27.5	27.7	27.9	28.3	28.7	29.1	28.0
123	Portugal	22.4	22.7	22.8	22.7	22.4	22.3	22.2	22.2	22.5	22.5
124	Quatar	-	17.8	17.5	17.8	17.3	19.4	18.4	-	-	18.0
125	Romania	34.6	34.4	35.1	35.4	36.1	37	37.3	38.3	38.9	36.3
126	Russian Federation	45.1	46.1	47	47.8	48.8	49.5	50.1	50.8	52	48.6
127	Rwanda	40.1	40.3	40	40.7	39.9	40.4	41.4	41.5	-	40.5
128	Saudi Arabia	18.1	18.4	18	17.5	18.5	19.1	19.4	19.5	20	18.7
129	Senegal	45.2	45.1	45.6	45.1	45.8	46.9	47.8	47.8	48.4	46.4
130	Sierra Leone	40.3	40.2	41.2	43.3	43.8	44.2	44.3	45	45.6	43.1
131	Singapore	12.9	13.1	12.9	12.9	13.1	13.4	13.5	13.8	14	13.3
132	Slovak Republic	18.9	18.9	19	19.2	19.5	19.7	20.2	20.6	21.1	19.7
133	Slovenia	26.9	27.1	27.5	27.6	27.8	28	28.4	28.9	29.5	28.0
134	Solomon Islands	35.1	33.4	32.3	31.9	32.1	33	33.4	33.6	34.2	33.2
135	South Africa	28.4	28.4	28.4	28.8	29	29.7	30.4	30.9	31.7	29.5
136	Spain	22.4	22.7	22.9	23	23	22.9	23	23	23.1	22.9
137	Sri Lanka	44	44.6	44.6	45.1	45.3	45.2	45.7	46.2	47	45.3
138	Sudan	34.1	-	-	-	-	-	-	-	-	34.1
139	Suriname	39.9	39.8	40.3	40.8	41.5	42.9	43.3	43.9	44.7	41.9

140	Swaziland	39.4	41.4	41.5	41.8	42.5	42.7	43.4	43.8	-	42.1
141	Sweden	18.9	19.2	19.3	19.4	19.6	19.9	19.8	20.2	20.4	19.6
142	Switzerland	8.4	8.6	8.6	8.6	8.4	8.6	8.7	8.9	9.1	8.7
143	Syrian Arab Republic	19.3	19.3	19.4	19.5	19.3	19.5	19.6	19.9	20.1	19.5
144	Taiwan	25.1	25.4	25.1	25.4	25.6	26	26.2	26.6	26.9	25.8
145	Tajikistan	42.9	43.2	43.5	43.8	44.3	44.8	45	45.3	45.5	44.3
146	Tanzania	58	58.3	58.9	59.7	60.1	60.6	61.3	61.9	63	60.2
147	Thailand	51.8	52.6	52.8	53.8	55.1	55.8	56.4	56.9	57.2	54.7
148	Togo	35.8	35.1	34.8	35.7	35.3	35.2	35.2	35.6	-	35.3
149	Trinidad and Tobago	34.1	34.4	34.5	34.4	35.4	35.7	35.9	36.8	37.3	35.4
150	Tunisia	38.1	38.4	38.9	39	39.4	39.9	40	40.9	41.4	39.6
151	Turkey	31.5	32.1	31.4	31.8	32.4	33.2	34.2	34.7	35.2	32.9
152	Uganda	42.7	43.1	43.3	43.3	43.7	43.8	44	45.1	45.8	43.9
153	Ukraine	51.7	52.2	53	53.7	55	55.9	57	57.5	58.1	54.9
154	United Arab Emirates	26.5	26.4	25.8	25.3	26.5	27.5	28	29.4	-	26.9
155	United Kingdom	12.6	12.7	12.8	12.8	12.9	13	13	13.1	13.2	12.9
156	United States	8.6	8.7	8.7	8.6	8.7	8.8	8.9	8.9	9	8.8
157	Uruguay	51.7	51.1	50.5	48.2	48.6	51.1	53	53.7	56	51.5
158	Venezuela, RB	33.4	33.6	33.7	31.7	30.2	32.3	33.7	35.3	36.3	33.4
159	Vietnam	15.4	15.6	15.7	15.9	16	16.1	16.5	16.6	16.8	16.1
160	Yemen, Rep.	27.1	27.4	27.5	27.6	27.7	27.8	28.2	28	28	27.7
161	Zambia	48.5	48.9	49.5	49.7	50.4	51.2	51.7	53.1	54.3	50.8
162	Zimbabwe	59.2	59.4	57.4	56.1	55.2	56.6	56.8	56.6	56.1	57.0