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Religion & Individualism-Collectivism in Nigeria

**A study on the role of religion in explaining a person's degree of
individualism-collectivism for Protestants and Muslims in Nigeria**

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Abstract

The dimension of individualism-collectivism in values has been shown to affect both innovation and growth. Cross-country differences generally indicate that Protestant countries are highly individualistic, Roman Catholic countries are less individualistic (i.e., more collectivistic) and Muslim countries – especially in Africa – are collectivistic. This cross-country difference makes one wonder about variation *within* countries, which has not received as much attention. Nigeria is one of the most collectivistic countries in the world and has large populations of Protestants and Muslims. Using data from World Value Survey (2018) and regional statistics, I am able to construct a regression-model for how religion is associated with differences in a person's degree of individualism-collectivism. I also perform models depending on whether a person is a religious minority or lives in a Nigerian state that implements Sharia. The main result of this paper is that being Protestant is associated with a higher degree of Individualism than being Muslim. This has, to the best of my knowledge, not been done in a development country before and is therefore the main contribution.

Keywords: Individualism, Collectivism, Protestantism, Catholicism, Islam, Sharia, Nigeria, Protestant Work Ethic, Development Economics, Africa, Reformation.

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1. Intro - Religion & Individualism-Collectivism in Nigeria

In development economics, the aspect of *culture* and *values* have had a part in answering why there are differences in institutions and economic outcomes between countries. If one were to observe the famous Inglehart–Welzel cultural map of the world (2020)¹, it is possible to make some interesting comments about how culture, social values and wealth differ between different nations and regions. Firstly, Protestant countries are individualistic and wealthy. Roman Catholic countries are, in general, more collectivistic than Protestant countries and less wealthy, though there is much variation. African Islamic countries, on the other hand, appear to be collectivist and poor, at least measured in GDP per capita.² Given that the above generalization on religion and the degree of individualism-collectivism holds when one makes cross-country-comparisons, this result leads to questions about *within-country* variation between Christians and Muslims in individualistic-collectivist values. More specifically one might ask; are Protestants more *individualistic* than Muslims even if they live in the same country?

This is of economic interest for many reasons. Firstly, the dimension of individualism-collectivism within a population is highly relevant in order to understand what long-term economic, institutional and democratic outcomes that one may expect for a country (Ho *et al.* 2021). For example, higher degrees of individualism have been shown to correlate with entrepreneurship and wealth (Gorodnichenko & Roland 2017; Muralidharan & Pathak 2017), while collectivism has been shown to correlate with more efficient public goods production (Ho *et al.* 2021). Nigeria is believed to be one of the most collectivist countries in the world (Gorodnichenko & Roland 2017, Clearly Cultural 2009). It is also the largest country by population in Africa and is a home for millions of Protestants, Roman Catholics and Muslims. Furthermore, Nigeria has a lot of data available and is currently the largest economy in Africa – measured in nominal GDP – and some expect that Nigeria eventually will become the ninth largest economy in the world in year 2100 (Gupta 2020). All this together makes Nigeria an interesting country to study.

In this thesis, I am using data from World Value Survey (WVS) and regional statistics from difference sources, such as research articles. This makes it possible to perform a set of

¹ The directions to find the Figure of the Inglehart–Welzel cultural map of the world (2020) is found both in the reference list and the Appendix.

² This generalization is confirmed by, for example, Muralidharan & Pathak (2017) who includes several world maps for differences in culture.

multivariate regressions that examines how religion might give rise to – or at least be associated with – different degrees of individualism-collectivism.

This study contributes to the existing knowledge in several ways. Besides Ho *et al.* (2021) article on Vietnam, there are few studies on individualism-collectivism that focus on within-variation in a developing country. More specifically: given that one observes a cross-country difference between, for example, Protestant Countries and Muslim countries regarding individualism-collectivism, there are few studies that have examined whether Protestants in *collectivistic countries* tend to be more individualistic.

Even though Roman Catholicism has a central part in this study, the focus in this study is to compare the two “opposites” in the dimension of individualism-collectivism, namely Protestantism and Islam. Additionally, economic development and structure will be mentioned occasionally throughout this thesis – mostly since Protestantism has received a lot of attention in its role in economic development through Max Weber’s *The Protestant Work Ethic* (1905/2001) – though the outcome variable is *individualism-collectivism*. Expressed differently; the interest in this study is to investigate potential differences in a person’s degree of individualism-collectivism considering whether an individual is Protestant or Muslim, rather than economic development. This being said, it is, as mentioned above, of high economic interest to understand individualism-collectivism. In fact, a greater understanding what factors that influence individualism-collectivism may help us predict the future economic structure in a developing country such as Nigeria (see for example Traindis 1995, Ho *et al.* 2021 and Gorodnichenko & Roland 2017).

Furthermore, this study will also analyze whether the degree of individualism-collectivism is changed if a person is a religious minority in one of the 36 states of Nigeria. This since it is sensible to believe that religious minorities have to rely more on themselves, rather than the majority culture, and could thus potentially lean more collectivistic. Lastly, this study will attempt to analyze if living in a Nigerian state that implements Sharia law influences a person’s degree of individualism-collectivism. Sharia is interesting since Islam is believed to be more collectivistic than Protestantism and Catholicism (Bradley 2017, Korte 1984), which implies that it potentially affects the degree of individualism-collectivism for those who live in a state that implements Sharia law.

The rest of the paper is structured as follows: firstly, a Literature review followed by a Theory-section. This is followed by Data & Methodology, Result, Analysis and Conclusion of the study.

2. Literature review

This chapter covers many areas. Firstly, the conceptual framework and definitions of individualism-collectivism, how it relates to economics, and a discussion on why religions are expected to differ on the spectrum of individualism-collectivism. Secondly, the chapter provides a historical and religious foundation for individualism in the West and a critique to the historical view of Protestantism and economic development. Additionally, the chapter presents a cross-country analysis for individualism-collectivism, Protestantism and Islam and ends with a short section describing the religious life in Nigeria.

2.1 Conceptual Framework & Literature Review on Individualism-Collectivism

“In Japan, a supervisor knows a great deal about the personal life of each subordinate and arranges for one of them to meet a nice girl he [the subordinate] can marry.” ... “In England, a subordinate does not mention to his supervisor that his father just died.” This quote is from the introduction of the book *Individualism & Collectivism* (1995) by the influential cross-country psychologist Harry C. Triandis. These two examples serve to illustrate how different a collectivist culture, such as Japan, is from individualist England.

Triandis (1995: page 44-47) points out four different variations of individualism-collectivism, where these are found in the Appendix Table A1. The Appendix table shows the different roles that social equality and *independence* versus *interdependence* play depending on if it is *vertical* or *horizontal* individualism-collectivism. Considering collectivist cultures, the horizontal dimension is characterized with a sense of *social cohesion* and *oneness* with other members of the in-group. Vertical collectivism, on the other hand, includes a sense of *serving* the in-group and *sacrificing* for the in-group according to a person's *duty*. Regarding vertical individualism, these cultures are *achievement-oriented*, accept *inequality* and value *independence*. Similarly, horizontal individualism values *independence* as well, though also places value on *equality*. These different kinds of individualism-collectivism have received limited attention for African countries, which makes it more difficult to conclude what category that best describes Nigeria. Therefore, the rest of this thesis will not consider Triandis (1995: 44-47) four different types of individualism-collectivism, though they are found in the Appendix Table A1 – which includes examples of different countries and cultural values as examples – for those who are interested.

Brinkemo (2014) and Brinkemo & Lundberg (2018: page 9) have a simpler definition of collectivism, which was used to describe *clan-structures*. They argue that the primary aspect of collectivism is that the individual is not *autonomous* as in a Western sense. This results in

two consequences that can help a person to understand collectivism. Firstly, the individual – for example in marriage – has to *submit* to the will of his or her family (or the “collective”). Secondly, *shame* has an important role in collectivism. This implies, in the following broad generalization, that if the cousin of an individual makes a poor decision, the individual feels *shame* over the cousin's decision both to a larger extent – and in a different manner – than what a person in an individualistic culture would experience in such a situation. Therefore, in collectivistic cultures, the individual always has to conduct himself with the rest of the *collective* in mind.

2.1.1 Individualism-Collectivism & Economic Outcomes

The research on individualism-collectivism has received a lot of attention in economics and social psychology.³ It is relevant both in order to understand social relations in societies, where the cultural differences on individualism-collectivism have even challenged the applicability and relevance of western psychological theories (Triandis 1995). Gorodnichenko & Roland (2017) argues that a more individualistic culture leads to economic outcomes, such as more innovation and higher growth. The mechanism is, according to them, that individualistic cultures reward the innovator of a business with higher social status than in collectivistic cultures. This relationship between individualism, growth and innovation holds in their analysis even after controlling for the quality of institutions. Similarly, Muralidharan & Pathak (2017) also finds that entrepreneurship is more prevalent in individualistic countries in their study on group-collectivism and interpersonal trust.

Another recent study, Ho *et al.* (2021), investigated the effects of individualism-collectivism in Vietnam. Their study emphasizes the fact that culture and norms often differ *within* countries, in this case Northern and Southern Vietnam. They propose the so-called “*self-domestication/selective migration hypothesis*”, which states that (regional) differences along individualism-collectivism are explained through the outmigration of people with more individualistic values, where those who stay behind are more collectivistic. In the case of Vietnam, individualistic individuals migrated south, while the collectivist individuals remained in the North to a larger extent. Through both historical data and household-surveys, they find that collectivists in northern Vietnam contribute more to collective goods. More specifically, the household-survey illustrates that regions annexed earlier to historical Vietnam have higher degrees of voluntary labor contribution to public goods production, which Ho *et al.* (2021) also

³ For clarification – the concept of individualism-collectivism has received attention in economics, though not as much considering how it is related to religion.

confirmed through complementing their study with an experiment using high school children from these different parts of Vietnam. The high school children were asked how much they were willing to contribute to a public good, where those from northern (collectivist) Vietnam were willing to contribute more than those from the southern (individualist) part of Vietnam.

2.2 Literature review on Religion & The Spectrum of Individualism-Collectivism

Below, there will be a short overview on how the three religions – Protestantism, Roman Catholicism, and Islam⁴ – are expected to lean on the spectrum of individualism-collectivism. This is of primary importance in order to formulate Hypotheses and Theory for the rest of the thesis. After a short overview, there will be a more thorough discussion on why Protestants are believed to differ from Catholicism from a historical and theological perspective. This since Protestantism was a rejection of Roman Catholicism, and these two religions are those most compared in the literature. After that, there will be a section that lifts some of the critiques to Max Weber's theory on Protestant Working Ethic (1905/2001) and a set of cross-country scatterplots with important variables with the purpose to get an understanding of what one might expect today considering the relationship between Protestantism and Islam on the individualism-collectivism spectrum.

2.2.1 Protestantism

The idea that the Protestant faith is believed to have given rise to a more individualistic culture, and its effect on economic outcomes, was perhaps most famously presented by Max Weber (1905/2001) in his book *The Protestant Ethic and the Spirit of Capitalism*. Weber argues that so-called “Calvinist-ethic” influenced and – in large extent – developed modern capitalism.⁵ This since Weber observed a historical shift after the reformation where Europe's economic center shifted from Catholic countries – such as Italy, France and Spain – into Protestant countries such as the Netherlands, England and Germany who developed more capitalist economies. With this in mind, Weber claimed that the Roman Catholic Church suppressed the economic development of the West, similarly to Confucianism and Buddhism in parts of Asia. Weber's main argument for the Protestant economic development was, in a simplified manner, that the Protestant (Calvinist) ethic induced the believers to work hard, be successful in trade

⁴ Due to the dataset used (WVS 2018), it is not possible to split Islam into Shia and Sunni. On the other hand, there are not really any studies – to the best of my knowledge – suggesting why Sunni and Shia Muslims would differ in the degree of individualism-collectivism.

⁵ “Calvinism”, which Weber (1905/2001) referred to, is a branch of the Protestant religion taking its name from the Swiss reformer John Calvin (MacCulloch 2003).

and reinvest their profits. Weber's argument for individualism was that, according to the Protestant ethic, each individual had to act *themselves* in order to achieve their personal salvation. In other words, relying on a membership in a church or receiving the sacraments would not be enough to go to heaven (Triandis 1995: 135; Gorodnichenko & Roland 2017: 402). The emphasis on the believer to act *themselves* is of course important in understanding why Protestants are expected to be more individualist than other religions (Triandis 1995).

2.2.2 Roman Catholicism

In Roman Catholicism, on the other hand, the religious life of the individual person is dependent on worshipping with others (Triandis 1995: 135). More specifically: the forgiveness of sins is mediated through a priest during confession and some Roman Catholics pray in the name of a saint, believing that the saints are close to God in heaven and can therefore intercede for them. Additionally, there are dogmas such as *Papal infallibility*, which implies that the Pope can give an infallible interpretation of Christian doctrines and the Bible, which is in contrast to the Protestant view that every *individual* has the knowledge to interpret the Bible – possibly even better than the Pope (Agrell, Ajaxén & Strömmer 2017: 80-81). These examples, where the religious life of the Roman Catholic is more dependent on others, such as reception of the sacraments from the church, are reasons why one would suspect that Roman Catholics are less individualistic, i.e more collectivistic, than Protestants. This difference in collectivism between Roman Catholics and Protestants has been confirmed empirically by studies within the USA (Triandis 1995: page 125, Hsu 1983).

2.2.3 Islam

Considering Islam, Brinkemo & Lundberg (2018) have refuted the statement that it is the religion itself that has given rise to collectivistic ideas observed in *clan-structures*. This since, according to Brinkemo & Lundberg (2018), collectivist clan-structures existed *before* the religion of Islam was founded. Clan-structures are, on average, more common in Muslim countries than in Christian countries. On the other hand, Korte (1984) found that collectivism in Turkish villages could, to some extent, be explained by the traditional Islamic context, which emphasizes values such as generosity and responsibility towards other people in the community. Other studies, such as Landes (1998), have argued that Muslim countries, compared to Protestant countries, developed cultures of intolerance and xenophobia. Additionally, Kyriacou (2016) claims that Islam (and Catholicism) is more hierarchical and Muslim cultures are therefore less likely to challenge public officials than what an individualist culture would be inclined to, which are traits associated with collectivism (Triandis 1995).

Additionally, through observing cross-country differences – such as the Inglehart–Welzel Cultural Map of The World (2020) – one concludes that Islamic countries has relatively low scores on individualism, at least measured in “Self-expression”-values. Protestant countries, on the other hand, tend to score high on self-expression. Bradley (2017) also argues that, despite that the religion of Islam emphasize free will and personal accountability, the Quranic principles of Islam are in a large degree collectivistic. These are principles such as working together for the collective good and the importance of social responsibility for others. One can, for example, think of the *Zakat*, which is a mandatory action for Muslims that is the giving to the poor and one of Islam’s five canonical pillars (Kuran 2020). Bradley (2017) also argues that the Quran also have principles that urges its followers to maintain unity during threats. Thus, collectivism has a central role in Muslim communities.

2.2.4 Summary of the Religious Overview

Figure 1 below summarizes the discussion above considering where there three religions are expected to range on a curve of individualism-collectivism.

Figure 1 – Summary of religions and individualism-collectivism



2.3 A Further Discussion on Protestantism & Individualism-Collectivism

Since the primary aim of this thesis is the comparison between Protestants and Muslims regarding individualism-collectivism, the above discussion should be complemented with more thorough explanations outside the discipline of Economics and Social Psychology, which have been the primary sources above. Therefore, this section will provide an additional historical and theological explanation of individualism as consequence of the Protestant Reformation. After that, the thesis will return to Economics, Political Science and Social Psychology.

2.3.1 Sola Scriptura and the Universal Priesthood – A Theological Explanation for The Foundation of Individualism in The West

The Protestant Reformation was a religious movement which started in Wittenberg, Germany, in year 1517 when Martin Luther – an Augustinian Catholic monk and a professor at the university of Wittenberg – nailed up a document that is called his “95 theses”. This document

was nailed to the door of a church in Wittenberg, with the purpose that Luther wanted to invite other theologians to a debate (Agrell *et al.* 2017). The 95 theses, and different books that Luther wrote during the next couple of years, included Luther's thought of where he believed that the Catholic Church was in theological error (MacCulloch 2003). The error that is particularly important regarding individualism was Luther's opposition to the Catholic doctrine of so-called "*Papal Infallibility*". As mentioned earlier, Papal Infallibility is the idea that only the head of the Roman Catholic Church, i.e., the Pope, can give infallible interpretation of Christian doctrines and the Bible. Consequently, any other person who disagrees with the Pope in theology was considered wrong by the Catholic Church (Agrell *et al.* 2017: 80-81). Luther, on the other hand, believed that the only authority a Christian has when it comes to theology is the Bible, whom Luther believed to be to be the inspired word of God. As a consequence, Luther thought that any time that the Pope, as head of the Roman Catholic Church, presented a theological statement which is in contrast to the Bible – where the Bible is commonly referred to as "the Scriptures" – it should be rejected (MacCulloch 2003). Pope Leo X condemned 41 of Luther's 95 theses in year 1520 and gave Luther the opportunity to *recant* his, according to the Catholic Church, incorrect theses and writings – which means that Luther was asked to renounce his ideas. The Pope, therefore, issued a so-called "papal bull", which is a public decree from the Pope. After receiving the Pope's public decree, Luther publicly burned it and thus refused to change his mind. Therefore, Luther was excommunicated – which means that he got excluded from the Catholic Church – and got summoned to the city of Worms in 1521, where he was asked formally to recant again.⁶ In Worms, Luther's response in defending his doctrines illustrate the pivotal difference between Catholic and Protestant theology:

*"Unless I [Martin Luther] am **convinced by the testimony of the Scriptures** [the Bible] or by **clear reason** (for I do not trust either in the pope or in the councils alone, since it is well known that they have often erred and contradicted themselves), I am bound by the Scriptures I have quoted, and my conscience is captive to the Word of God."* (Roland 1978: page 182).⁷

Note that Luther made two (2) different appeals for authority in order to motivate why he would not recant his writings. Firstly, and most importantly, Luther appealed to the Bible. Secondly, his *individual reason*. This response captures well the Protestant doctrine called "*Sola Scriptura*", which is Latin for "*only Scripture [Bible]*", where the only authority a Christian need is Gods revealed word in the Bible. The doctrine of Sola Scriptura is a cornerstone in

⁶ In church history this is called "The Diet of Worms" (MacCulloch 2003).

⁷ Not bold in the text.

Protestant Theology not shared by other branches of Christianity. On two other occasions, Luther stated that:

“A simple layman armed with Scripture is to be believed above a pope or cardinal without it [the Scripture].” (Roland 1978: page 107).

and:

“For the sake of Scripture, we should reject Pope and [Catholic Vatican] Councils.” (Murray 2017).

The Protestant belief that all Christians are able to read and interpret the Bible is referred to as the doctrine of “*Universal Priesthood*”, where every individual Christian is a Priest, and does therefore not need an ordained (Catholic) Priest to mediate for them before God. This doctrine is in contrast to Roman Catholicism who is highly dependent on the Catholic religious authorities for interpretation of the Bible and Christian doctrine (Agrell *et al.* 2017: 118-19).⁸

In conclusion, these historical quotes illustrate the theological basis for why individualism is believed to have risen as a consequence of the Protestants Reformation. With the spread of Protestantism, individualism spread as well. As Roman Catholicism and Islam lacks an equivalent view of the role of the Bible (or the Quran), they are believed to be more collectivist (Triandis 1995, Bradley 2017). This ends the strictly theological discussion on the emergence of individualism in during the Reformation.

2.3.2 Was Weber Wrong Considering Protestantism and Economic Development?

The influential work of Weber, regarding the Protestant Work Ethic (1905/2001) and its impact on individualism and economic wealth, has not been without questioning. One of these critiques is presented by Becker & Woessmann (2009) in the article *Was Weber Wrong? A Human Capital Theory of Protestant Economic History*. In their article, they study the economic development of late nineteenth-century Prussia. Note that Prussia is in Germany, which was the country where Martin Luther started what later has been referred to as the Protestant Reformation (MacCulloch 2003).

Becker & Woessmann (2009) acknowledge that Protestant economies prospered more than Catholic economies, though they, unlike Weber, claim that it was not due to any specific form of Protestant theology. Weber, as mentioned earlier, believed that it was the Protestant theology that induced its followers to save more and work harder (1905/2001). Becker & Woessmann (2009), on the other hand, claim that the real reason that Protestant economies prospered is human capital development. In other words, the fact that the Protestant

⁸ Orthodox Christianity also rejects the doctrine of Scripture alone, and it is thus unique to Protestantism.

Reformation had a strong emphasis on that every person should *individually* be able to study the Bible themselves induced human capital among its followers. As an example, it is well known that Martin Luther championed universal schooling with the purpose that all Protestants could read the Gospels in the Bible (Becker & Woessman, 2009: 531). The same is true for the Scottish Reformer John Knox, who also favored universal schooling for boys and girls, with the same motivation as Luther. (Farquharson 2016). Note, once again, that the emphasis is on a *personal understanding* of the Scriptures and God, which is in line with the previous discussion on how Protestantism gave rise to individualism.

Becker & Woessmann (2009) are thus not rejecting the role of Protestantism in creating *individualism*, though rather that it was the increase in human capital due to literacy, and not Protestant theology, that gave rise to *economic development*. The authors use Prussian data on, for example, income tax revenues, income, labor force in services and manufacturing. Additionally, they used distance from Wittenberg, which is the location where Martin Luther nailed his 95 theses in year 1517, as an instrument for Protestantism. Their result is that higher literacy is accounting for the major share of the gap in economic prosperity between Protestants and Catholics. In other words, even though Luther and the other Protestant Reformers did not have economic development in mind, their emphasis on expanding education so that all Christians could read the Bible gave rise to a gap in human capital between Protestants and Catholics. According to this human capital theory, Becker & Woessmann (2009: 541) claim that:

*“... a simple economic model predicts that when optimizing individual utility, **in equilibrium Protestants will have more education on average than Catholics** because they have lower costs and higher benefits of schooling.”⁹*

They argue that the Protestant doctrine of Universal Priesthood, which was defined earlier, implied that all Protestant parents had a responsibility to ensure that their offspring, both boys and girls, were provided with high quality education.¹⁰ Therefore, the individual benefit of education is expected to be higher for Protestants than Roman Catholics (Becker & Woessmann 2009).

The next section includes a descriptive cross-country comparison with the purpose to get an idea of what one might expect when testing the relationship between Protestantism & Individualism-Collectivism in Nigeria.

⁹ Not bold in the article.

¹⁰ This is outside of the discussion of Weber, though notice the connection between Quran-schools where muslim children are learning to study the Quran, which would increase literacy.

2.4 A brief Cross-country Descriptive Analysis of The Relationship Between Protestantism, Islam & Individualism-Collectivism

As pointed out several times earlier, according to Max Weber (1905/2001), Protestantism gave rise to individualism and the creation of capitalist economies. This has been described more in detail above. One may then wonder if there is any relationship between religion and individualism-collectivism today. Below, there is a descriptive cross-country presentation of bivariate relations examining this. I will also use separate regional scatterplots for Africa, since Nigeria is an African country, and for Europe since the Reformation started there. The measurement for individualism comes from Clearly Cultural (2009)¹¹ and has data for 65 countries in the world. As Clearly Cultural states, the opposite of individualism is collectivism, which is important in how the relationships below are interpreted. The statistics for the share of Protestants and the Muslims comes from a variety of sources.¹² Nigeria is marked with a bold red dot in each graph that includes the country.

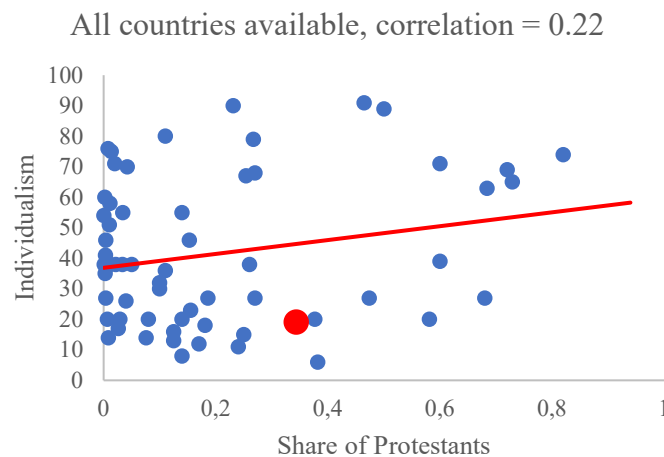
2.4.1 Cross-country – Protestantism, Islam & Individualism-Collectivism

Starting with the relationship between Protestantism and Individualism for all available countries, which is found in Figure a) below, the relationship between the share of protestants and individualism is positive. The United States of America and Australia, both Anglo-Saxon countries, are the most individualistic countries in the Clearly Cultural (2009) dataset. The countries with the largest Protestant share of the population is Norway, South Africa, and Finland, which also have high values of individualism in the scatter plot. Guatemala, on the other hand, is the most collectivist country in the dataset, which has a rather large Protestant share of the population of 38 percent. That Guatemala has such a low value for individualism is therefore unexpected. The red dot for Nigeria is found quite far below the trendline, which confirms that Nigeria is – overall – a rather collectivist country (Gorodnichenko & Roland 2017).

¹¹ Clearly cultural uses Geert Hofstede's Cultural Dimensions for measuring Individualism. In this approach, Individualism is measured through achievement-oriented attitudes and high values on individual freedoms.

¹² It was very limiting to get shares of the religions from the same source. Therefore, I used the database available from Wikipedia, who uses a variety of sources.

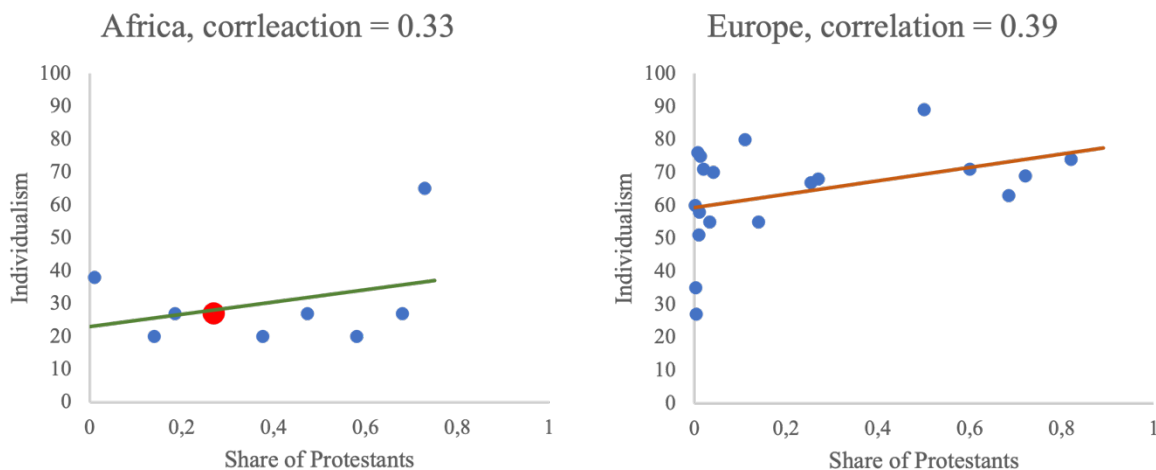
Figure a) Share of Protestants and Individualism



Source for individualism: Clearly Cultural (2009)

Since there are regional differences, the Figure below includes the same relationship between share of protestants and individualism, though for Africa and Europe.

Figure b) Share of Protestants and Individualism for Africa and Europe

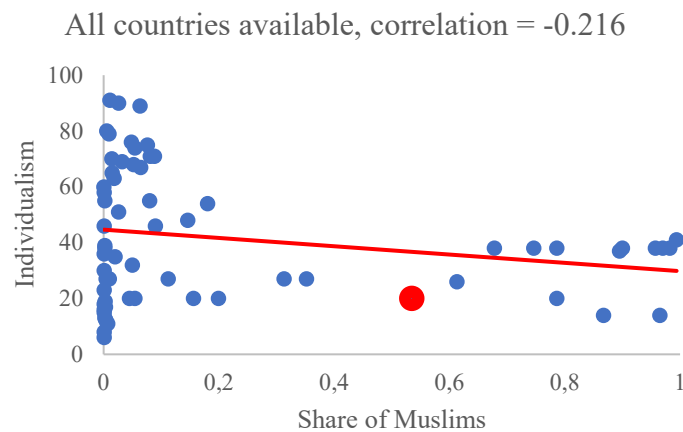


Source for individualism: Clearly Cultural (2009)

Both the figures are positive, though slightly steeper for Europe. Also note that the mean value for individualism is much higher for Europe than Africa. Additionally, Africa's positive slope is likely driven by the outlier in the upper right corner, namely South Africa.

In the graph below, the scatter presents the relationship between the share of Muslims and individualism, where every observation is one country. The relationship is, as expected from the literature review, negative. Once again, Nigeria is a bit below the trendline.

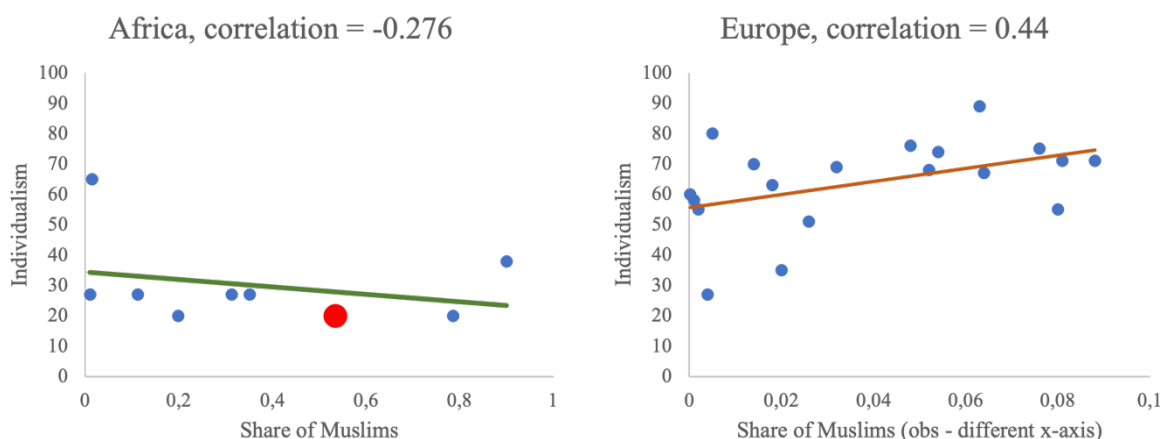
Figure c) Share of Muslims and Individualism



Source for individualism: Clearly Cultural (2009)

If one tests the same correlation for Africa and Europe, Africa is negative, though the scatter for Europe has a rather high positive high correlation. The result for Europe is not expected, though it is still sensible. This since the share of Muslims in all European countries that had data available is relatively low compared to Africa, where those countries who actually have the highest share of Muslims in Europe are Protestant countries, such as Sweden and Germany. One should therefore remember that the share of Protestants is also positively correlated with the share of Muslims in Europe, which explains the positive slope. Also note that, once again, South Africa is an outlier in the African graph with a high value for individualism and a low share of Muslims.

Figure c) Share of Muslims and Individualism for Africa and Europe



Source for individualism: Clearly Cultural (2009)

These cross-country comparisons are important in order to get an idea of what one can expect when performing a study using micro-data to analyze what associated effect religion might have

on a persons' degree of Individualism-Collectivism *within* a country. The scatters above illustrated that for all 65 countries available, there is a positive relationship between the share of Protestants and the degree of individualism when every country is one observation. As mentioned earlier, there are very limited studies that have taken an interest in this. To the best of my knowledge, zero studies has focused on the effect from religion and Individualism-Collectivism in a development country. The fact that Nigeria has been considered one of the most collectivist countries (Gorodnichenko & Roland 2017) in the world makes it a very interesting country to analyze.

2.5 Religion in Nigeria

Nigeria has the largest population in Africa with over 200 million citizens. As mentioned earlier, some expect the country to become the ninth largest economy in the world year 2100 (Gupta 2020). It is also a diverse country with many different languages and ethnicities. (Stonawski, Potančoková, Cantele & Skirbekk 2016).

Islam entered Nigeria in the 11th century, where it initially grew in the Northeast part of the country. It later spread to the Northwest and Islam was the religion of the court and commerce for some time. Another example of the spread of Islam is that Usman Dan Fodio (AD 1754–1817) started a caliphate in Sokoto, which covered parts of Nigeria and current neighboring countries (Hodgkin 2022, Metz 1991). Sunni Islam – where the word “Sunna” refers to the tradition of Muhammed” – is the largest branch of Islam in Nigeria. Nigeria also has a large Shia minority – where “Shia” stands for “followers of Ali” – which is mostly located in the Northwest of the country. Christianity in turn is believed to have firstly entered Nigeria during the 15th century through Roman Catholic Monks accompanying traders from Portugal. The Church of England arrived later and was initially established in Lagos and Ibadan, both areas in the Southern part of the country, in year 1842. During that period, many Protestant missionaries from different denominations arrived, mostly from Great Britain, Canada, and the United States (Metz 1991).

Today, Muslims are primarily located in the North of the country, where 12 Nigerian states in different degrees even has incorporated Sharia courts in their judicial system.¹³ The Christian population is most densely populated in the South. Nigeria is the only state in the world with an (almost) equal proportion of Christians and Muslims (Stonawski *et al.* 2016). According to PEW (2011), about three quarters of the Christians belong to a Protestant

¹³ Sharia – also referred to as “Islamic Law” – will be explained later in the thesis.

denomination, one quarter is Roman Catholic, and less than one million are Orthodox. In the dataset for WVS Nigeria (2018), which will be used in this thesis, the Table A2 in the Appendix shows the distribution of the religions in Nigeria. The distribution from the survey mirrors relatively well what Stonawski *et al.* (2016) found, where Muslims and Christians are almost equal in size.

3. Theory, Research Questions & Hypotheses

In this section, I will summarize the theory from the literature review and use it to derive three (3) research questions. Each research question will be accompanied with two more specific testable hypotheses. These will also be discussed more under the Method section.

3.1 Part I – Protestants & Muslims degree of Individualism-Collectivism

The main research question in this study, and the focus of Part I in the result, is the following:

Research Question I – Do Protestants and Muslims differ in their degree of Individualism-Collectivism in Nigeria?

More specifically, the above research question could be split into two (2) specific testable hypotheses, which both imply the same thing:

- ***I a). Protestants are more individualistic than Muslims in Nigeria***

Or:

- ***I b). Muslims are more collectivistic than Protestants in Nigeria***

In other words: I hypothesize that being Muslim in Nigeria is associated with more collectivistic values than being Protestant. This implies, if true, that the cross-country difference in collectivist values that one can observe between nations dominated by Islam or Protestantism (Muralidharan & Pathak 2017) is also true *within* Nigeria. It would also give support for the religious mechanisms on individualism-collectivism discussed above under the literature review (see for example, Gorodnichenko & Roland 2017, Triandis 1995, Korte 1984, Bradley 2017).

As mentioned thoroughly in the literature review, the theory is derived from the fact that the Protestant religion – compared to Islam (and Roman Catholicism) – uses a great emphasis on the relationship between the *individual* and God. This is observed in, for example, Protestant theology such as *Sola Scriptura* and the idea of the *Universal Priesthood*. Thus, according to Protestantism, grace and salvation are mediated only between the *individual* and *God* through faith in Jesus Christ, not through the sacraments or rituals from other authorities in the Church (Becker & Woessmann 2009: 541, Agrell *et al.* 2017: 118-19).

As also mentioned earlier, Korte (1985) found that the traditional Islamic context in Turkish villages, such as generosity and a sense of responsibility for others, could explain some of the collectivism exhibited by the inhabitants. Similarly, Bradley (2017) argued that the

Quranic principles of Islam are in a large degree collectivistic. Therefore, I expect that Muslims in Nigeria have on average more collectivist values than Protestants in Nigeria.

3.2 Part II – The degree of Individualism-Collectivism of Religious Minorities

The purpose of Part II is to test whether being a religious minority increases a person's degree of collectivism. This since one can imagine that being in minority implies that the "smaller group" must be more on their watch and protect each other from the majority. One can think of the previously mentioned collectivist clan-structures (Brinkemo & Lundberg 2018), where clans often find themselves in the minority, not the least from other more powerful clans. Additionally, there has been some research concerning minority and individualism-collectivism, at least in the United States, though primarily concerning ethnic and racial minority rather than religious minority. The results for individualism-collectivism among ethnic and racial minorities differ in the literature. Vargas & Kimmelmeier (2013) found no ethnic or racial differences in collectivism for the four largest minorities in the United States: namely African, Asian, Latino and European Americans. An earlier study from Coon & Kimmelmeier (2001) found, on the other hand, that Asian Americans and African Americans score higher in collectivism than European Americans in the United States. The authors interpret the result that minority groups – such as African American and Asian American – keep cultural traits from their more collectivist country of origin (Coon & Kimmelmeier 2001: page 359, Triandis 1995). That being said, Coon & Kimmelmeier (2001: page 359) claim that it is possible that the exclusion from the majority – through being a *minority* – still may give rise to a sense of connection between other members in the same group, though they fail to bring any evidence supporting such a hypothesis. It is this particular theory that Part II in my thesis is focusing on considering religious minorities in Nigeria, where the research question is the following:

Research Question II – Do Protestants and Muslims in Nigerian states, that are dominated by either Christians – Protestants, Roman Catholics and Orthodox – or Muslims, differ in their degree of Individualism-Collectivism?

Note that the Research Question II above uses *Christian minority* and not *Protestant minority*. As has been thoroughly discussed in this thesis, much of the religious division in individualism-collectivism has been between Roman Catholics and Protestants (See for example Triandis 1995 and Weber 1905/2001). However, even though there are theological differences between Protestants and Catholics, they still share several common Christian confessions and doctrines. Therefore, it is sensible to assume that there should, in general, be a stronger sense of identity

between different branches of Christianity than between Christians and Muslims. Thus, Research Question II uses *Christian minority* instead of *Protestant minority*.¹⁴

With this in mind, it is possible to formulate two specific testable hypotheses from the second research question according to the following:

- ***II a). Protestants living in a Nigerian state inhabited mostly by Muslims are less individualist/more collectivistic than Protestants living in a Nigerian state inhabited by mostly Christians***

And:

- ***II b). Muslims living in a Nigerian state inhabited mostly by Christians are less individualist/more collectivistic than Muslims living in a Nigerian state inhabited by mostly Muslims***

How this is solved econometrically is discussed during the method-section. It differs from Part I through the use of religious interaction-terms.

3.3 Part III – The degree of Individualism-Collectivism from Living under Sharia

Additionally, Nigeria is a large country with vast institutional, demographic, and economic differences within the country. 12 of the Nigerian states even – in different degrees – implement *Sharia law* (Stonawski *et al.* 2016). *Sharia law*, which is also referred to as “*Islamic law*”, are religious laws that form the Islamic tradition. It has its origins from Islamic scriptures, such as the *Quran* – which Muslims believe to be the immutable, perfectly dictated words from Allah – and the *Hadith*. The Hadiths are, on the other hand, what Muslims believe to be the records of words and actions by the prophet Mohammad. The word “*Hadith*” could be translated to “*tradition*” or “*talk*”. Unlike the Quran, the Hadiths are not the dictated words of Allah (God) though are, according to Muslim theology, transmitted through a chain of narrators since Muhammed was alive A.D 570-632 (Partridge 2005).¹⁵

As mentioned above, Korte (1984) found that collectivism in Turkish villages could be explained by the traditional Islamic context, which emphasizes values such as generosity and responsibility towards other people in the community. Additionally, cross-country differences

¹⁴ Another practical reason that it would not be possible to use *Protestant Majority* is that there would be much fewer states that took *Majority* value = 1 if one does not use *Christian Majority* (which includes all Christian denominations).

¹⁵ There is a dispute within the religion of Islam considering which of the Hadiths that are reliable, where different Muslims approve different Hadiths.

– such as the Inglehart–Welzel Cultural Map of The World (2020) clearly illustrates that Islamic countries has low scores on individualism, at least measured in “Self-expression”-values. Bradley (2017) also argues that despite that the religion of Islam emphasize free will and personal accountability, the Quranic principles of Islam are in a large degree collectivistic.

With the above in mind, it would be interesting to test whether being Muslim or Protestant in a Nigerian state that implements Sharia law increases that person’s degree of collectivism. Even though Sharia Law only applies to Muslims (Stonawski *et al.* 2016: page 364), one can imagine that there is a possible spill-over effect from collectivistic Sharia laws for both Christians and Muslims. If this is true, then Protestants in Sharia states would be more collectivist in states that does not implement Sharia law. Therefore, the third research question could be stated as:

Research Question III – Do Protestants and Muslims that live in Nigerian states that implement Sharia law differ in their degree of Individualism-Collectivism compared to Protestants and Muslims living in Nigerian states that does not implement Sharia law?

This could be specified through the following two specific testable hypotheses:

- ***III a). Protestants living in a Nigerian state that implement Sharia law less individualistic/more collectivistic than Protestants living in a Nigerian state that does not implement Sharia law***

And:

- ***III b). Muslims living in a Nigerian state that implement Sharia law less individualistic/more collectivistic than Muslims living in a Nigerian state that does not implement Sharia law***

This can also be tested through interaction-terms, which will be discussed below during the econometric approach.

4. Data & Methodology

4.1 Description of The Data

In this chapter, the data and models will be presented and discussed through an econometrical perspective. The focus is on what the variables aim to capture, how they should be interpreted and potential limitations with using them. In other words, evaluate the strengths and weaknesses of the models.

4.1.1 Index for Individualism-Collectivism

The data for measuring individualism-collectivism comes from World Value Survey (WVS) Nigeria 2018, where each observation is a person who has answered the survey. It is therefore possible to build an index that measures individualism-collectivism as a dependent variable, where all survey questions are found in Table A3 in the Appendix. The index should be interpreted as higher values implies more individualism, and lower values imply more collectivism.

In order to build the index, I will, similarly as Muralidharan & Pathak (2017), include a question about whether the respondents believe that most “*most people can be trusted*”, where collectivists tend to distrust to a larger degree. I also add another question considering trust, though asked in a slightly different manner, as: “*Could you tell me... whether you trust people from this group [People you met for the first time] completely, somewhat, not very much or not at all?*”. Additionally, I will include two questions that asks the respondent to prioritize between either “*freedom or equality?*”, and another questions that asks the respondent to prioritize between “*freedom or security?*”, where collectivists tend to prioritize freedom less (Muralidharan & Pathak 2017, Triandis 1995).

Furthermore, I will also include two questions on whether a girl or boy should “*obey their family regarding whom to marry*”, which is in line with Brinkemo & Lundberg’s (2018) view of collectivism. This since the individual is asked whether or not to *submit* to the collective, in this case their family. It is worth to mention that Dutta, Giddings, & Sobel (2022) also included a question about the individual person’s relationship to their parents in their index for individualism-collectivism.

In sum; there are six questions in total found in Table A3 in the Appendix for the index. Note that there are actually two questions that captures trust, two questions for freedom, and two questions that measures whether or not a person should submit to their family. It did not appear suitable to use the exact indices from an earlier study, such as Muralidharan & Pathak (2017) or Dutta *et al.* (2022) for several reasons. Firstly, since the two cited articles use different

WVS Waves than this thesis¹⁶ does and that some questions was therefore not available. Secondly, they included variables that did not appear sensible in this case. For example, Dutta *et al.* (2022) included questions about homosexuality and abortions in their index, which may have been reasonable due to the fact that their focus was on individualism-collectivism and gender roles, though not as sensible in this particular study. Therefore, even though I took inspiration from the indices of Muralidharan & Pathak (2017) and Dutta *et al.* (2022) I choose not to replicate them entirely and thus used some different questions for WVS (2018).

Additionally, it is at least in some extent beneficial to only use three areas for the index – i.e., trust, freedom and the individuals' submission to the family collective – for interpretation purposes. This since it becomes clear what values that the index for the dependent variable actually captures, which is stated above and commented in the Appendix table.

4.1.2 Independent Variables of Interest & Controls from World Value Survey (2018)

From WVS (2018), it is possible to construct *religious dummies* for whether a person is Protestant, Roman Catholic, Muslim, Atheist, or other minor religions. The main interest is the comparison between the variable for Protestant and Muslim. WVS Nigeria (2018) also includes controls such as education, social class, income, age, gender, and other important control variables.

The independent variables for education and social class are potentially endogenous given the use of an index for individualism-collectivism as the dependent variable. For example, one can imagine that there is a causal relationship from education – such as taking a bachelor's degree (x) – and a person becoming more individualistic (y) as a consequence from having increased his or her personal skill level ($x \rightarrow y$). On the other hand, it is also likely that a person who *already* has individualistic values (y) is more likely to attend an educational facility (x) in order to get a degree, which would make the relationship endogenous and thus difficult to make comments about casualty ($x \leftrightarrow y$). The same is true for variables measuring social class. A person may very well become more individualistic (y) as a consequence of belong to an upper social class (x). On the other hand – given the research about individualism, innovation and growth (Gorodnichenko & Roland 2017; Muralidharan & Pathak 2017) – perhaps it is also the already individualistic traits (y) that a person has that allows he or she to earn money, through starting a business, and thus reaching an upper social class (x)? Once again, it results in

¹⁶ This thesis uses World Value Survey (2018) Nigeria.

difficulties regarding endogeneity and interpretation of causality. With this in mind, it appears sensible to omit the potentially endogenous controls in some of the regressions.

4.1.3 Independent Variables from other Data Sources

It is not enough to only use statistics from the WVS (2018). There are other important explanatory variables that may influence a person's degree of individualism-collectivism that one does not find in micro-level survey responses. These are discussed below.

4.1.3.1 Institutional Difference between Nigerian States

The institutional quality is an important factor in shaping culture and development both between and within countries (Rothstein 2011). A variable measuring institutional strength – or influence – should thus be included as a control. Given that there are no unbiased statistics on the quality of institutions between the 36 states of Nigeria, it becomes more difficult. One could imagine using another variable that – at least in some way – would capture the institutional satiability of a particular state in Nigeria. One of these variables could be the Nigerian Security Tracker (2022). This variable measures the number of deaths in every Nigerian state committed by either Boko Haram (terrorist), State Actor (military or police) or a Sectarian actor. These statistics are reported by the Council on Foreign Relations (2022). Even though Nigeria Security Tracker would capture institutional stability, it would likely introduce issues with reversed causality. This since the instability of a particular state very well may affect the degree of individualism-collectivism among the inhabitants living there, though it could also be the opposite. In other words, that the degree of individualism-collectivism might also affect the instability and violence in a Nigerian state. There is research suggesting that individualist countries, such as the United States, have more violence between individuals, though also that collectivist countries – especially where there are several collectivist groups in the same country – have more violence as well (Catalá-Miñana, Walker, Bowen & Lila 2014, Triandis 1995). Therefore, one must find an exogenous variable to use that captures difference in institutions.

An exogenous variable that would capture the closeness, or influence, of institutions is the distance from the central capital. It is not a perfect variable, though the easiest exogenous measurement that is both accessible and would not result in issues with, for example, reversed causality. WVS (2018) does not include the coordinates for each respondent, though there is information on which of the 36 Nigerian states that each respondent live in. It is thus possible to create a variable – using Google Maps – that measures the distance from Abuja, which is the capitol where the central government is present – and the capitol of each of the 36 Nigerian states. Distance from Abuja will, therefore, be used as a control for the weakness, or influence,

of institutions. It is relatively common to use a distance-variable in a regression model. For example, the previously cited article by Becker & Woessmann (2009) used “Distance from Wittenberg” as a measurement of the spread of Protestantism in their statistical model.

4.1.3.2 Soil

Another important variable to account for is soil. There are several studies that have used landscape elements – such as native vegetation, water resources and the presence of forests – as explanatory variables (Rojo-Mendoza, Salinas-Silva & Alvarado-Peterson 2022). At first glance, it does not appear that sensible to include such a variable, though it is highly important when it comes to explaining a person’s values. For example, the possibility to produce rice depends on the soil, where rise-cropping is a method that requires a lot of cooperation. Some scholars argue that it is not by coincidence that many collectivist countries in the world are found where there has been much rise farming (Biello 2014). These are countries such as China, which even became a communist dictatorship. Other countries, such as Japan, who has a lot of rice-farming though still is a democracy, is very collectivistic as well (Triandis 1995).

Therefore, the result in this thesis will include variables that control for the different types of soil – more specifically the *agroecological zones* – that each Nigerian State has trough using data from an article by Alamu, Amao, Nwokedi, Oke & Lawa (2013).¹⁷ Some of the sates have overlapping kinds of soil. If that is the case, then the state gates assigned the dummy-value corresponding to the “soil-type” it has the most of. These agroecological zones are are Sudan Savannah, Northern and Sothern Guinea Savannah, Derived Savannah and Humid Forest.

4.1.3.3 Religious Minority

It is possible to get statistics on the majority religion through comparing the survey responses in each state. However, there are only slightly more than 1200 responses in the survey, which are divided in 36 states. Therefore, a better source for the religious compositions of every Nigerian state comes from an article written by Stonawski *et al.* (2016). In the article, the authors have gathered more reliable statistics on which religion that is the largest in each state. This implies that it is possible to, besides only using two religious dummies for Protestant and Muslim, is also possible to add an interaction-term. Such a term that takes value if = 1, where the hypothesis is that being a religious minority in a Nigerian state should, on average, increase an individual’s degree of collectivism.

¹⁷ Figure 2 in Alamu *et al.* (2013) includes a map for the agroecological zones per Nigerian state.

4.1.3.4 Sharia Law

In the same article by Stonawski *et al.* (2016), they have data on which Nigerian States that implement *Sharia law*. There are 12 such states in Nigeria, where all of them are in the Northern part, which also have the largest Muslim population.

4.2 Econometric Models

The Result is divided into three parts. Each part performs a set of OLS-regressions. These three parts will be discussed below; Part I is the main hypothesis and deals with whether Protestants and Muslims differ in their degree of individualism-collectivism in Nigeria. Part II tests whether religious minorities differ from religious majorities in individualism-collectivism. The last part, Part III, examines if Protestants and Christians living in a Nigerian state that implements Sharia is different from those living in states that does not implement Sharia law.

Throughout all the regressions, I will use robust standard errors with the purpose to obtain unbiased OLS-estimators. Robust standard errors account for heteroskedasticity in the unexplained variation of a model and is important since the presence of heteroscedasticity would make a model fail the fulfillment of the Gauss-Markov assumptions.

4.2.1 Part I – Religion & Individualism-Collectivism

For Part I, I will perform six (6) OLS- regressions, which are different combinations of Equation (1) below.

Equation (1)

$$\begin{aligned} IndividualismCollectivism_i = & \alpha_0 + \beta_1 Protestant_i + \beta_2 Muslim_i + \beta_3 OtherReligions_i \\ & + \gamma Controls_i + \Phi RegionalDummy_{is} + \lambda Distance_{is} + \delta Soil_{is} + \varepsilon_i \end{aligned}$$

The hypothesis is that Protestants and Muslims are different from each other in their degree of individualism-collectivism, where Protestants are hypothesized to be more individualistic than Muslims. The dependent variable is *IndividualismCollectivism_i*, which is a previously discussed index that measures the degree of individualism-collectivism (WVS). α_0 is the reference group consisting of Roman Catholics (WVS). $\beta_1 Protestant_i$ is a dummy-variable which takes the value = 1 if individual *i* is a Protestant (WVS). $\beta_2 Muslim_i$ is a dummy-variable which takes the value = 1 if individual *i* is a Muslim (WVS). $\beta_3 OtherReligions_i$ is a dummy-variable which takes the value = 1 if individual *i* belongs to some of the other religions than Protestantism, Catholicism, or Islam (WVS). $\gamma Controls_i$ is a vector of control

variables for individual i , with variables from WVS. These controls are many, such as being married or not, living urban or rural, several different dummies for social class and education. All of the $\gamma Controls_i$ will not be included in all six regressions. ε_i is the error term.

Some of the regressions will include different combinations for other variables. One of these is the State Fixed effects $\Phi RegionalDummy_{is}$, which is a vector of dummy variables for which of the 36 Nigerian states that the individual i lives in (WVS). Additionally, $\lambda Distance_{is}$ is a variable that measures the distance from the country capital Abuja and each state capital. Also, there are different variables for $\delta Soil_{is}$ where these controls for what kind of soil there is in the ground (Alamu *et al.* 2013).

For post-estimation, I will use *lincom* for $\beta_1 Protestant_i - \beta_2 Muslim_i$. If the difference is positive, it implies that Protestants are more individualist than Muslims in the model, which is the main question for this thesis.

4.2.2 Part II – Religious Minority & Individualism-Collectivism

Part II is investigating whether individualistic-collectivistic values are, to some extent, determined by whether a person lives as a religious minority or not. All the minor religions – previously modelled as *Other Religions* in Part I – will be *omitted*, which only make up very few observations. This makes the interpretation easier and gives no reason to include variables that would control for other religions in minority. The regressions will be different combinations of equation (2) below

Equation (2)

$$\begin{aligned} IndividualismCollectivism_i = & \alpha_0 + \beta_1 Protestant_i + \beta_2 Muslim_i \\ & + \beta_3 Protestant * Christian Minority_i + \beta_4 Muslim * Muslim Minority_i \\ & + \beta_5 Catholic * Christian Minority_i + \gamma Controls_i \\ & + \Phi RegionalDummy_{is} + \lambda Distance_{is} + \delta Soil_{is} + \varepsilon_i \end{aligned}$$

These regressions will use the same six (6) steps as in Part I above, though we introduce three (3) new variables. Firstly, $\beta_3 Protestant * Christian Minority_i$, which is an interaction term if individual i is a Protestant and lives in Nigerian state s where Christians are in minority, in which the dummy-variable for *Christian Minority_i* then takes value = 1. Secondly, $\beta_4 Muslim * Muslim Minority_i$ is an interaction term if individual i is a Muslim and lives in Nigerian state s where Muslims are in minority, where the dummy-variable for *Muslim Minority_i* then takes value = 1. Notice that α_0 – consisting of Roman Catholics – is

still the reference group¹⁸, and thus the interaction term $\beta_5 \text{Catholic} * \text{Christian Minority}_i$ consists of Catholics living in Nigerian state s where Catholics are in minority. Similarly for Catholics in minority, the dummy-variable for $\text{Christian Minority}_i$ then takes value = 1.

From the above, it becomes clear that the effect for Protestants in majority is β_1 , and the effect for Protestants in minority interaction term β_3 . If the interaction term is negative and significant, then being a Protestant, living in a Nigerian state where Muslims are in majority, is associated with less individualism, as expected according to the previously discussed theory. The same interpretation is true for the Muslim interaction term. Note also that there are six (6) "groups" in each regression, which are presented in Table A4 in the Appendix. I will perform the same combinations of different controls as in Part I. I.e, omitting some of the controls and testing different combinations of $\Phi \text{RegionalDummy}_{is}$, $\lambda \text{Distance}_{is}$ and δSoil_{is} .

In order to avoid potential confusion concerning equation (2), it is important to clarify that the minority variable used in the interactions – i.e, *Christian Minority* and *Muslim Minority* are just different names for the same variable for *Minority*, though different labels in order to better read the regression table. Additionally, since there are only three religions in the model, and the reference group *Catholic_i* (α_o) is interacted through $\beta_5 \text{Catholic} * \text{Christian Minority}_i$, there is no need to use the variable separate in the model.

Additionally, there are potential issues with using *Minority* interactions. It is sensible to believe – from articles such as Ho *et al.* (2021) – that differences in individualism-collectivism, i.e. the *dependent* variable, also influences migration within the country, which is an *omitted independent* variable likely correlation with the error term. Such movements are problematic since migration also influences whether a person of a particular religion is a minority or not. In other words, there is a potential situation where the dependent variable *IndividualismCollectivism* is *influencing* and being *influenced* by migration, which in term makes it difficult to interpret the causal effect from the -interactions. This issue is discussed more in depth in the next section considering *Sharia*.

¹⁸ For clarification - the "reference group" (α_o) implies that all variables, including the religion-dummies, take the value zero. Being Catholic is not modelled with a separate dummy, as $\beta_1 \text{Protestant}_i$ and $\beta_2 \text{Muslim}_i$, though it has an interaction-term, namely $\beta_5 \text{Christian Minority}_i * \text{Catholic}_i$.

4.2.3 Part III – Living under Sharia & Individualism-Collectivism

Part III is focusing on, as mentioned under the Theory-section, whether living under Sharia is associated with different values within the same religion. It is an interesting subject, though this approach has a lot of limitations. These limitations are valid *given* that Sharia is more collectivistic than at least Western influence rule of law (Bradley 2017; Korte 1984).

One of these limitations is, as mentioned above, considering migration. Namely that Muslims that are highly collectivistic may potentially tend to move to states where Sharia is implemented. In other words, more collectivist (Muslims) individuals may be more inclined to move to collectivist states that implement Sharia than less collectivist Muslims. In the previously cited article by Ho *et al.* (2021), the authors propose a so-called “*self-domestication/selective migration hypothesis*” which states that (regional) differences along individualism-collectivism are explained through the outmigration of people with more individualistic values, where those who stay behind are more collectivistic. The hypothesis Ho *et al.* (2021) was considering Vietnam, though it highlights that migration may influence what degree of individualism-collectivism that citizens in a region, on average, exhibits. It is therefore at least possible that migration could have an influence in Nigeria as well, and thus influencing both those who chose to remain in more collectivist Sharia implementing states and those who migrate away from such states.

It does not only concern Muslims since one can also imagine that Christians who are either poor or lean collectivist themselves, might not have much reason to leave such a state either. This therefore presents an econometrical issue since those of a particular religion, such as Islam, might already have different values which in term determines whether they live in, or move to, a state that implements Sharia. This would imply that it is not a causal effect from living under Sharia that would determine the potential difference in values within the same religion depending on where you live. One has to have these limitations in mind during interpretation.

As earlier, the Result for Part III will be a set of regressions with different combinations of the equation below.

Equation (3)

$$\begin{aligned} IndividualismCollectivism_i = & \alpha_0 + \beta_1 Protestant_i + \beta_2 Muslim_i \\ & + \beta_3 Sharia_s * Protestant_i + \beta_4 Sharia_s * Muslim_i \\ & + \beta_5 Sharia * Catholic_i + \gamma Controls_i + \lambda Distance_{is} + \delta Soil_{is} + \varepsilon_i \end{aligned}$$

Note that there are three (3) new variables introduced: $\beta_3 Sharia_s * Protestant_i$ is an interaction term if individual i is a Protestant and lives in Nigerian state s which implement Sharia law in which the dummy-variable for $Sharia_s$ then takes value = 1. Similarly, $\beta_4 Sharia_s * Muslim_i$ is an interaction term if individual i is a Muslims and lives in Nigerian state s which implement Sharia law, where the dummy-variable for $Sharia_s$ then takes value = 1. As earlier, α_0 is the reference group consisting of Roman Catholics, and $\beta_5 Sharia * Catholic$ is therefore to be interpreted as the other interaction terms. It is not possible to use $\Phi RegionalDummy_i$ together with $Sharia_s$. The reason is that $Sharia_s$ takes the same value for every respondent living in that particular state, which is the same for the State Fixed effects ($\Phi RegionalDummy_i$). Therefore, there is no variation in state-level for those living in Nigerian state s that implements Sharia, and as a consequence it is not possible to use both - Sharia-interaction and State Fixed effects in the same model. The interaction-terms should be interpreted in a similar manner as in Part II. If the interaction-term is negative and significant – for example $\beta_3 Sharia_s * Protestant_i$ – it would imply that being Protestant and living under Sharia is associated with less individualism, which is the result expected for all religions. Note that, as in Part II, there are six “groups” in each model, where these are found in Table A5 in the Appendix. Also, remember that – as in Part II – since there are only three religions in the dataset, and the reference group α_0 is interacted in $\beta_5 Sharia * Catholic_i$, there is no need to include a coefficient for only $Catholic_i$ without it being interacted.

5. Result

5.1 Result Part I – Religion & Individualism-Collectivism

The result for Part I is presented below in Table 1. Note that there are six (6) columns in total. The controls for education and social class are, due to the length of the table, not presented. The same is true for the State Fixed Effects.

In sum, the six (6) regressions for Part I are: Column (1)-(3) which is omitting most of the $\gamma Controls_i$, more specifically the variables that measure education and social class. Column (1) uses State Fixed Effects ($\Phi RegionalDummy_i$). Column (2) is using $\lambda Distance_i$ instead of $\Phi RegionalDummy_i$ and column (3) includes $\lambda Distance_i$ and $\delta Soil_i$ though not $\Phi RegionalDummy_i$. Column (4)-(6) has the same steps as (1)-(3) above though it accounts for the $\gamma Controls_i$ for social class and education.¹⁹

5.1.1 The Result of Religion & Individualism-Collectivism in Part I

The most interesting result is the *Protestant* and *Muslim* coefficient. It is worth reminding that the reference group consists of *Catholics*. As has been discussed thoroughly in this thesis, Roman Catholics are believed to be more collectivist than Protestants (see Triandis 1995, Weber 1905/2001 among others). This is due to the theological emphasis of the Protestant religion in the personal interpretation of the Bible and individual relation to God. Therefore, one should expect the Protestant coefficient to be positive and significant. This is not the case in none of the regressions. The coefficient for Protestant is negative and not significant. Muslims are in turn expected to be more collectivist than Christians overall, especially Protestants (Triandis 1995). This is also what one observes in all six regressions, namely that the *Muslim* dummy is negative and significant.

The main interest of this study is, on the other hand, the comparison of Protestants and Muslims in their degree of individualism-collectivism. All six regressions find support for this thesis since the *Muslim* coefficient is negative and significant, while the *Protestant* coefficient is not significant. The t-tests at the bottom of the table confirms that there is indeed a significant difference between Muslims and Protestants through all six regressions. In order to help the interpretation further, at the bottom of the table there is a linear combination for *Protestant – Muslim*. Remember that the dependent variable *IndividualismCollectivism* is interpreted as higher value implies *more* individualism, or less collectivism. The difference between *Protestant – Muslim* is positive and significant in all regressions, which implies that being Protestant is associated with a higher degree of individualism in the models.

¹⁹ Remember the previous discussion of why social class and education are believed to be endogenous.

Table 1 Result Part I – Religion and Individualism-Collectivism

Dependent variable: Individualism-Collectivism index	(1) State- dummies	(2) Distance	(3) Distance & Soil	(4) State- dummies	(5) Distance	(6) Distance & Soil
<i>Religion</i>						
Protestant	-0.014 (0.020)	-0.007 (0.019)	-0.006 (0.019)	-0.016 (0.020)	-0.009 (0.019)	-0.006 (0.019)
Muslim	-0.093*** (0.022)	-0.071*** (0.019)	-0.103*** (0.020)	-0.089*** (0.022)	-0.065*** (0.019)	-0.093*** (0.020)
Other Religions	-0.035 (0.029)	-0.011 (0.028)	-0.014 (0.028)	-0.039 (0.029)	-0.014 (0.027)	-0.017 (0.027)
<i>Controls from WVS</i>						
Married	-0.006 (0.014)	-0.009 (0.014)	-0.011 (0.014)	-0.001 (0.014)	-0.001 (0.015)	-0.005 (0.015)
Male	0.022** (0.011)	0.023* (0.012)	0.022* (0.012)	0.018 (0.011)	0.016 (0.012)	0.015 (0.012)
Rural	0.014 (0.013)	0.051*** (0.012)	0.039*** (0.012)	0.018 (0.014)	0.050*** (0.012)	0.040*** (0.012)
age	0.003 (0.002)	0.003 (0.002)	0.003 (0.002)	0.003 (0.002)	0.002 (0.002)	0.003 (0.002)
age ²	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000 (0.000)	-0.000 (0.000)
Education controls	No	No	No	Yes	Yes	Yes
Social class controls	No	No	No	Yes	Yes	Yes
<i>Regional controls</i>						
State Fixed Effects	Yes	No	No	Yes	No	No
Distance from Abuja		-0.000 (0.000)	-0.000* (0.000)		-0.000 (0.000)	-0.000 (0.000)
Sudan Savannah			0.042 (0.034)			0.028 (0.034)
Northern Guinea Savannah			-0.029 (0.041)			-0.040 (0.041)
Southern Guinea Savannah			0.009 (0.044)			0.003 (0.044)
Derived Savannah			-0.042 (0.035)			-0.046 (0.037)
Humid Forest			-0.033 (0.033)			-0.043 (0.034)
Constant	0.321*** (0.057)	0.358*** (0.050)	0.402*** (0.067)	0.279*** (0.060)	0.293*** (0.052)	0.345*** (0.068)
Observations	1,237	1,237	1,237	1,237	1,237	1,237
R-squared	0.204	0.056	0.071	0.212	0.073	0.084
F test	9.060	8.470	7.959	7.890	6.056	6.084
Prob >F	0***	0***	0***	0***	0***	0***
t: Protestant = Muslim	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
lincom Protestant – Muslim	0.079***	0.063***	0.097***	0.073***	0.056***	0.087***

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The dependent variable *IndividualismCollectivism* is interpreted as a higher value implies more individualism, and lower value implies more collectivism. The reference group consists of *Catholics*.

Robust standard errors in parenthesis.

The conclusion from Part I is, therefore, that one can answer Research Question I and Hypothesis Ia and Ib. In all six regressions of Part I, there is support that Protestants and Muslims do differ in their degree of individualism-collectivism in Nigeria. There is also support that Muslims are more collectivist than Protestants, or – expressed differently – that Protestants are more individualist than Muslims. This is the main research question of the entire thesis.

5.1.2 The Controls from WVS (2018) & Geography for Part I

Starting with the control variables from World Value Survey (WVS) Nigeria 2018, *Married* was expected to be positive and significant. It is neither, which means that none of the six models gives support for the statement that married individuals should be, on average, more collectivist. In the same manner, the coefficient for whether a person lives in a *Rural* area is positive and significant in all regressions that does not account for regional dummies. This was also unexpected since living rural is supposed to be associated with more collectivist values, such as Korte (1984) found in Turkish villages with strong Islamic and collectivist values. It is also less anonymity in rural areas due to fewer people, and also more dependent on agriculture, which is believed to be associated with more collectivist values (Biello 2014). *Male* is significant, though only when one does not account for the educational dummies and the social class dummies.

Additionally, *age* is not significant, though the squared age (age^2) coefficient is, which is sensible since the associated effect on individualism-collectivism and age is likely not linear. The dummy variables for *Social class* – which are only included in regression (4), (5) and (6) and not reported in the table – are not significant. Though most of the variables for *Education*, which are also not reported in the table, are positive and significant. The education benchmark is no education, where more education is generally believed to be associated with more collectivism according to (Triandis 1995), which the result for regression (4), (5) and (6) confirms.

Continuing with geography, some of the not reported regional dummies – which were only accounted for in regression (1) and (4), are significant. *Distance from Abuja* is as expected negative and significant in regression (3), which implies that being further away from the center of the national government is associated with less individualism (or more collectivism). The distance coefficient is, on the other hand, not significant in model (4) when the model accounts for *Social class* and *Education*. Additionally, none of the *Soil*-coefficients are significant.

5.2 Result Part II – Religious minority & Individualism-Collectivism

Even though the main research question was answered during Part I, there are additional hypothesis that one can test. One of these questions are, as described under the Theory-section, whether being a religious *minority* differs from being a religious *majority*. The previously cited article by Stonawski *et al.* (2016) includes statistics on the population shares of either Christians²⁰ or Islam²¹ for each of the 36 Nigerian states. Since it is possible to find what Nigerian state a person lives in from the micro-level data from World Value Survey Nigeria (2018), one can construct minority interaction-variables, which has been discussed at depth earlier.

The result is found in Table 2 below. There are six (6) regressions where regressions (7), (8) and (9) are modelled without the possibly endogenous variables for social class and education. As in Part I, there are different uses of State Fixed Effects (*RegionalDummy*), *Distance from Abuja* and *Soil*. As earlier, *Catholics* is the reference group. Note that the number of observations is slightly lower than in Part I. This since I have omitted all the minor religions, and the sample does only consist of Catholics, Protestants and Muslims. Also remember that there are three additional interaction-variables for these three religions as well as the use of “*Christian Minority*” rather than “*Catholic Minority*” or “*Protestant Minority*”, which I have given reasons for earlier.

5.2.1 The Result for Religion and Religious Minority in Part II

For the religion dummies, the result is similar to Part I. The *Protestant*-dummy is insignificant for all regressions, though the *Muslim*-dummy is negative and significant in four of the six regressions. It is interesting to note that the *Muslim*-coefficient is *insignificant* when the model controls for State Fixed Effects (*RegionalDummy*) in column (7) and (10). Overall, the result in Part II gives additional support for the main research question of this thesis (Research Question I), i.e., that Protestants and Muslims indeed appear to differ in the value spectrum of individualism-collectivism in Nigeria.

However, the main question for Part II is to investigate whether being a religious minority in a Nigerian state differs from being in majority. Overall, the interaction terms for *Protestant * Christian Minority* and *Muslim * Muslim Minority* show a low level of significance throughout the models in Part II, and the *Catholic * Christian Minority* is never significant. For Protestants, the interaction-term is only significant in regression (11), where the

²⁰ Protestantism, Roman Catholicism and Orthodox. The number of Orthodox Christians is very low in Nigeria.

²¹ Primarily Sunni.

model controls for *Distance from Abuja*, though not controlling State Fixed Effects of *Soil*. The interactions term *Protestant * Christian Minority* is furthermore positive through all regressions, which implies that being a Protestant minority would (if significant) actually be associated with an *increase* in the degree of individualism. This was unexpected since the hypothesis for this part of the thesis is that being a minority implies that one must rely closer on his or her group, and thus *more* collectivist values (Coon & Kemmelmeier 2001: page 359). The *Muslim * Muslim Minority* is, on the other hand, *negative* and significant in regression (8) and (11), which is where the models account for *Distance from Abuja* and *Soil*. The mostly negative sign of the interaction term, even in model (7) and (10) where it is insignificant, for Muslims in minority was expected.

This begs the question: how come that the minority interactions for Protestants and Muslims appear to go in two different directions? Even though there were few significant results, it is still interesting to analyze the direction. One possible mechanism, that I believe is at least *plausible*, is that perhaps being a religious minority does not strengthen collectivist values, though it strengthens the religious values in *both of the religions*. If that is the case, then it is sensible that the more individualistic religion Protestantism (Traindis 1995) is associated with *more* individualism when such a person is a religious minority. Likewise, when Muslims are in a minority, given that Islam is a more collectivistic religion (Bradley 2107, Korte 1984), the collectivist elements of the religion strengthen. This analysis will be extended later in the thesis.

The t-test for *Protestant = Muslim* is significant in all regressions that does not account for State Fixed Effects, which gives some support for the main hypothesis of this theses stating that Protestants and Muslims do differ in their degree of individualism-collectivism in Nigeria, even after accounting for additional variables than under Part I.

Table 2 Result Part II – Religious Minority & Individualism-Collectivism

Dependent variable: Individualism-Collectivism index	(7) State- dummies	(8) Distance	(9) Distance & Soil	(10) State-dummies	(11) Distance	(12) Distance & Soil
<i>Religion</i>						
Protestant	-0.027 (0.022)	-0.014 (0.021)	-0.015 (0.021)	-0.029 (0.022)	-0.015 (0.021)	-0.016 (0.021)
Muslim	-0.007 (0.139)	-0.057*** (0.021)	-0.112*** (0.030)	-0.018 (0.135)	-0.053** (0.021)	-0.104*** (0.030)
Protestant*Christian Minority	0.154 (0.140)	0.036 (0.022)	0.030 (0.026)	0.137 (0.136)	0.039* (0.023)	0.033 (0.027)
Muslim*Muslim Minority	-0.072 (0.139)	-0.044** (0.019)	0.015 (0.027)	-0.059 (0.135)	-0.036* (0.019)	0.017 (0.027)
Catholic*Christian Minority	0.101 (0.146)	0.011 (0.040)	-0.016 (0.044)	0.088 (0.142)	0.015 (0.041)	-0.010 (0.044)
<i>Controls from WWS</i>						
Married	-0.005 (0.014)	-0.013 (0.015)	-0.011 (0.015)	-0.001 (0.014)	-0.007 (0.015)	-0.007 (0.015)
Male	0.021* (0.012)	0.021* (0.012)	0.021* (0.012)	0.016 (0.012)	0.014 (0.012)	0.015 (0.012)
Rural	0.016 (0.014)	0.049*** (0.012)	0.040*** (0.013)	0.019 (0.014)	0.049*** (0.013)	0.040*** (0.013)
age	0.003 (0.002)	0.004 (0.003)	0.004 (0.003)	0.003 (0.002)	0.003 (0.003)	0.003 (0.003)
age2	-0.000** (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000 (0.000)
Education controls	No	No	No	Yes	Yes	Yes
Social class controls	No	No	No	Yes	Yes	Yes
<i>Regional controls</i>						
State Fixed Effects	Yes	No	No	Yes	No	No
Distance from Abuja		-0.000 (0.000)	-0.000** (0.000)		-0.000 (0.000)	-0.000 (0.000)
Sudan Savannah			0.032 (0.035)			0.019 (0.036)
Northern Guinea Savannah			-0.046 (0.043)			-0.058 (0.044)
Southern Guinea Savannah			0.000 (0.046)			-0.007 (0.046)
Derived Savannah			-0.068* (0.040)			-0.073* (0.042)
Humid Forest			-0.046 (0.041)			-0.056 (0.042)
Constant	0.311*** (0.062)	0.346*** (0.053)	0.426*** (0.074)	0.269*** (0.065)	0.281*** (0.055)	0.372*** (0.075)
Observations	1,160	1,160	1,160	1,160	1,160	1,160
R-squared	0.216	0.065	0.079	0.223	0.077	0.088
F test	8.803	8.317	7.130	7.581	5.863	5.423
Prob >F	0***	0***	0***	0***	0***	0***
t: Protestant = Muslim	0.886	0***	0***	0.936	0.029**	0.***

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The dependent variable *IndividualismCollectivism* is interpreted as a higher value implies more individualism, and lower value implies more collectivism. The reference group consists of *Catholics*.

Robust standard errors in parenthesis.

5.2.2 The Controls from WVS (2018) & Geography for Part II

Starting with the control variables from WVS (2018), the result is overall the same as in the Result for Part I earlier. *Rural* is mostly positive and significant, where *age*² is mostly negative and significant. When the regressions control for *Social class*, it is insignificant, though as under Part I, *Education* dummies are, as expected, mostly significant and positive.²²

In regression (7) and (10), some of the regional dummies are significant. *Distance from Abuja* is only significant in regression (9), though in the expected direction for all regressions when it is modelled. I.e., that living further away from the national central government in Abuja is associated with lower individualism. One of the *Soil*-variables have some degree of significance in regression (9) and (12).

5.3 Result Part III – Living under Sharia & Individualism-Collectivism

The last part of the Result section is considering the potential effect on individualism-collectivism and living under Sharia law for Protestants and Muslims, where all other minor religions in WVS Nigeria 2018 have been omitted as in Part II. More specifically – the task is to investigate whether Protestants and Muslims living in a Nigerian state that implements Sharia law differ from Protestants and Muslim who does *not* live under Sharia. As in Part II, the article by Stonawski *et al.* (2016) have mapped what Nigerian states that implement Sharia. These are typically those states with the largest Muslim population, though the WVS Nigeria (2018) still include responses from Christians that live under Sharia as well.

As mentioned previously, the main Research Question for this Thesis is answered in Part I. Though living under Sharia is highly interesting and a previous study in the subject has, at least to my best knowledge, not been produced. Though one must take great caution. It is very possible that those who already are quite collectivist tend to either move to states that implement Sharia or are less keen to move from such a state. Such an issue was mentioned during the Methodology section through citing the so-called migration hypothesis from Ho *et al.* (2021). This is probably true for both Muslims and Christians and can disturb the reliability of the result, despite the several control variables. That being said, as the aphorism attributed to the statistician George Box states: “*All models are wrong, but some are useful.*” (Box 1976). This implies that perhaps one can still learn something from testing the associated effect from living under Sharia, despite the limitations.

There are four regressions in Table 3 below. The reason that there are not six, as for Part I and Part II, is that it is not possible to include State Fixed Effects due to reasons mentioned in

²² Education and social class are not reported due to the length of the table.

the methodology-section. Catholic is, as earlier, the reference group for the regressions. The four regressions for Part III are Column (13), which is not using most of the *Controls* (the variables that measure *Education* and *Social class*) and includes *Distance from Abuja*. Column (14) is also not using most of the *Controls*, though it includes both *Distance from Abuja* and the *Soil*-variables. Column (15) includes all the *Controls* and *Distance from Abuja* and column (16) includes the *Controls* together with *Distance from Abuja* and *Soil*.

5.3.1 The Result for Religion and Living under Sharia in Part III

For the religion-dummies, as earlier, the *Protestant* coefficient is negative and *not* significant in all four regressions and the *Muslim* dummy is negative and significant for all regressions in Table 3. The post-estimation t-test for *Protestant = Muslim* is also significant in all four regressions. This gives additional support for the main Research Question in this thesis, namely that Protestants and Muslims do differ in their degree of individualism-collectivism in Nigeria.

Continuing with the interactions for living in a Nigerian state that implements Sharia, the *Protestant * Sharia* is positive and significant in three of the four regressions. The interaction *Muslim * Sharia* is positive and significant in three out of four regressions. It is unexpected that the interaction terms for both Protestants and Muslims is positive since, as mentioned above in the Theory-section, that living in a Nigerian state that implements the collectivist Islamic Sharia law should at least have a spillover effect in that the population also becomes more collectivist. The possible mechanism on why these coefficients is in an unexpected direction will take place in the Analysis. In the Analysis-section, I will present a personally formed *polarization-hypothesis* that I believe can help understand the result, if one assumes that the econometric model is relatively robust. Additionally, the *Catholic * Sharia* is insignificant for all four regressions.

Table 3 Result Part III – Sharia & Individualism-Collectivism

	(13)	(14)	(15)	(16)
Dependent variable:	Distance	Distance & Soil	Distance	Distance & Soil
Individualism-Collectivism index				
<i>Religion</i>				
Protestant	-0.015 (0.020)	-0.014 (0.020)	-0.016 (0.020)	-0.014 (0.020)
Muslim	-0.097*** (0.022)	-0.091*** (0.022)	-0.088*** (0.022)	-0.082*** (0.023)
Protestant*Sharia	0.118*** (0.033)	0.112 (0.072)	0.119*** (0.034)	0.140** (0.071)
Muslim*Sharia	0.046** (0.018)	-0.014 (0.070)	0.040** (0.019)	0.013 (0.069)
Catholic*Sharia	0.034 (0.045)	0.019 (0.080)	0.037 (0.046)	0.050 (0.081)
<i>Controls from WVS</i>				
Married	-0.011 (0.015)	-0.008 (0.015)	-0.005 (0.015)	-0.004 (0.015)
Male	0.020* (0.012)	0.021* (0.012)	0.014 (0.012)	0.015 (0.012)
Rural	0.043*** (0.013)	0.041*** (0.013)	0.043*** (0.013)	0.040*** (0.013)
age	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)
age ²	-0.000* (0.000)	-0.000* (0.000)	-0.000 (0.000)	-0.000 (0.000)
Education controls	No	No	Yes	Yes
Social class controls	No	No	Yes	Yes
<i>Regional controls</i>				
State Fixed Effects	No	No	No	No
Distance from Abuja	-0.000 (0.000)	-0.000** (0.000)	-0.000 (0.000)	-0.000 (0.000)
Sudan Savannah		0.033 (0.035)		0.020 (0.036)
Northern Guinea Savannah		-0.068 (0.044)		-0.077* (0.045)
Southern Guinea Savannah		-0.013 (0.053)		-0.013 (0.053)
Derived Savannah		-0.059 (0.081)		-0.035 (0.082)
Humid Forest		-0.038 (0.078)		-0.020 (0.079)
Catholic (Constant)	0.348*** (0.052)	0.417*** (0.104)	0.282*** (0.054)	0.331*** (0.107)
Observations	1,160	1,160	1,160	1,160
R-squared	0.073	0.083	0.085	0.093
F test	9.744	7.647	6.544	5.744
Prob >F	0***	0***	0***	0***
t: Protestant = Muslim	0.000***	0.000***	0.000***	0.0001***

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The dependent variable *IndividualismCollectivism* is interpreted as a higher value implies more individualism, and lower value implies more collectivism. The reference group consists of *Catholics*.

Robust standard errors in parenthesis.

It is important to point out that the result for Part III is not necessarily inconsistent with Part II. Remember, the *Protestant * Christian Minority* was in the unexpected positive direction, and here the *Protestant * Sharia* is also positive and significant. This is consistent due to the clear overlap for Protestants living in a state where Christians are in minority and Protestants living in states that implements Sharia. Likewise, the *Muslim * Muslim Minority* was – as expected – negative and significant in some of the regressions in Part II. Muslims in minority does *not* live in a Nigerian state that implements Sharia – since all of the 12 Sharia states have a clear Muslim majority population. Therefore, it is consistent that *Muslim * Muslim Minority* and *Muslim * Sharia* have, in general, different direction.

5.3.2 The Controls from WVS (2018) & Geography for Part III

The result for control variables from WVS (2018) is similar to both Part I and Part II earlier. *Married* is in the expected direction, though not significant. *Rural* is positive and significant. *Male* is positive and significant for two regressions, and *age*² is negative and significant for the regressions that does not include *Social class* and *Education*. Most of the education variables, who are not reported in the table, are positive and significant, as expected. *Distance from Abuja* is only significant in regression (14), though in expected directions for all the regressions. Only one of the *Soil*-controls is significant for all the regressions in Table 3.

6. Analysis

For this section, the result will be summarized and analyzed. I will also include critique for the thesis and suggestions for future research.

6.1 Analysis for Religion & Individualism-Collectivism

The main research question for this thesis was concerning whether the difference that one observes between nations considering individualism-collectivism, where Protestant countries (in the West) are more individualistic and Muslim countries (mostly in Africa and the Middle east) are more collectivistic, is true *within* a country as well. Studies on individualism-collectivism has been performed in developing countries earlier (Ho *et al.* 2021, Triandis 1995). Though, as mentioned several times throughout this thesis, I have yet to find an article that investigates the dimension of individualism-collectivism based on the religion of Islam and Protestantism in a development nation. There are, on the other hand, several studies that claim that Protestants are highly individualistic (Triandis 1995), and studies that claim that Muslims are collectivistic (Korte 1984, Bradley 2017, Triandis 1995). Therefore, it was interesting to compare these two religions within the same country, in this case Nigeria.

The three result sections included 16 different models. For all of these models, Roman Catholics were the reference groups. In the majority of the regressions, more specifically 14 out of 16, the dummy-coefficient for *Muslim* was negative and significant, while the *Protestant* coefficient was negative and insignificant. In the t-tests for *Protestant* = *Muslim* – which in Part I compared all Protestants between all Muslims, Part II compared Protestants and Muslims in *majority*, and Part III Protestants and Muslims who do *not* live in a Nigerian state that implements Sharia – 14 out of 16 models indicated that there indeed is an associated difference between Muslims and Protestants in individualism-collectivism. Part I, which is the main result for this thesis, also included linear combinations at the end which indeed also confirmed that being Protestants is associated with more individualistic values than being Muslim in Nigeria. This implies that this thesis finds some support to believe that Protestants and Muslims differ in values on the spectrum of individualism-collectivism in Nigeria, which has been pointed out as one of the most collectivist countries in the world (Gorodnichenko & Roland 2017, Clearly Cultural 2009). It is additionally possible that there is a religious mechanism, as described under the theological background earlier, that the emphasis in the Protestant religion that every individual should read and interpret the Bible as its single authority, rather than trusting the authorities in the Church (Agrell *et al.* 2017: 80-81), has been associated with individualism even outside a Western nation such as Nigeria.

This result is furthermore interesting considering what economic outcomes that one may observe in Nigeria while the nation is developing. Remember that Weber (1905/2001) believed that capitalist economy was a consequence of the Protestant Reformation, where Weber claimed that the center of Europe's economic development moved from Roman Catholic countries such as Italy, France and Spain into Protestant countries such as the Netherlands, England and Germany. It is, given the result in this thesis, at least plausible to imagine a similar development for Nigeria. In other words, since Protestants are more individualist than Muslims, and most of the Protestants live in the South of Nigeria while Muslims live in the North (Stonawski *et al.* 2016), it is possible that the economic development and structure may differ. For example, individualist nations tend to promote innovation and thus growth (Gorodnichenko & Roland 2017, Muralidharan & Pathak 2017), while more collectivist economies have, on the other hand, better cultural conditions to provide and contribute to public goods (Ho *et al.* 2021). Therefore, one can imagine that there will be a clearer economic difference, both in growth and structure, between the South (Christian) Nigeria and the North (Muslim) Nigeria, where difference in individualism-collectivism may account for at least some of the variation. In fact, it is already observable that – for example – the annual average income is, in general, larger in the southern part of the country, where most Christians live. The divide is also observable in education, where there is a much larger percentage of primary and secondary school attendance in the south (Giles 2019). This is relevant for the previous discussion on both the Protestant doctrine of *Sola Scriptura*, where every (Protestant) Christian were supposed to be literate in order to read the Bible – and how Becker & Woessmann (2009) claimed that it was the shift in literacy that explained the wealth of Protestant economies, rather than Protestantism in itself.

However, even though the Result found a difference between Muslims and Protestants, which was the main purpose of the thesis, there is still one elephant in the room that needs to be addressed. The elephant is the fact that the *Protestant* coefficient was not significant, though it was still *negative* compared to the reference group consisting of *Catholics*. Remember that the case for Protestants being more individualist comes from its comparison with Catholics in Europe (Weber 1905/2001, Triandis 1995). Though in Nigeria, there is absolutely no support for such a claim in the models presented in this thesis. My guess is that Protestantism is a broad religion which, unlike Catholicism, includes much more different branches and denominations. This could give us a clue for why being Protestant was not associated with more individualist values than being Catholic in Nigeria. For example, the

Protestantism that Weber (1905/2001) observed was mainly Lutheranism, Anglicanism²³ and Presbyterianism. The Protestantism that is found in Nigeria is much more diverse and include other denominations – such as Pentecostals – than what Weber primarily observed in Europe. All of these denominations are part of the Protestant religion, though the fact that they are different may explain why the model does not find a positive and significant Protestant coefficient compared to the Catholic reference group. It could also be that Protestantism has incorporated elements from earlier Nigerian religions, which did not exist in Europe.²⁴ Since the purpose of this thesis is the comparison of Protestantism and Islam, I will not extend this discussion further, though it is perhaps an object for future research.

The two models that did not show any difference between Protestants and Muslims had two things in common; firstly, it compared Protestants and Muslims in states where they were in the *majority*, and secondly, the models accounted for State Fixed Effects. It is worth to mention that these were the only two models where the *Muslim* coefficient was insignificant as well. The role of the State Fixed Effects will be discussed later in this chapter.

6.2 Analysis Religious Minority & Individualism-Collectivism

The second section of the Result was considering living as a religious minority and if that might be associated with any difference in individualism-collectivism. As stated under the Theory section, there are studies of ethnic minorities that have focused on individualism-collectivism. The most interesting study for this thesis is Coon & Kemmelmeier (2001: page 359) where the authors claim that is possible that the exclusion from the majority – through being a *minority* – may give rise to a sense of connection between other members in the same group. Therefore, the focus in Part II was to compare if Protestants living in a Nigerian state where Christians are in the *minority*, differs from Protestants who live in a Nigerian state where they are in the *majority*. The same question was asked considering Muslims.

The Result for Part II gave no significant support at all that being a Protestants living in majority would be associated with a difference between Protestants living in a Nigerian state where they are in the minority. For Muslims, there was limited support for such a difference in two out of the six regressions in Part II where the interaction-term *Muslim * Muslim Minority* was significant. However, the Protestant interaction term was *positive*, while the Muslim interaction term was *negative* (at least in those two models where it was

²³ Anglicans does often not refer to themselves as Protestants though (MacCulloch 2003).

²⁴ In a similar manner, there could have been cultural elements between the Protestant and Catholic countries in Europe that explained some of the variation in economic development and individualism-collectivism not explained by religion (Weber 1905/2001) or literacy (Becker & Woessmann 2009) as well.

significant). In other words, being a Protestant minority was associated with (though not significant) *more individualism*, which was not expected, while being a Muslim minority was associated with *less individualism*. The hypothesis was that being a minority would induce less individualism for both religions. This begged the earlier question asked under the Result in Part II; why did the two coefficients go in difference directions? It is possible to use one of the cited articles in Theory section in order to come up with a possible mechanism for this. Some studies have claimed that minority groups – such as African American and Asian American – keep cultural traits from their more collectivist country of origin before moving to the United States (Coon & Kemmelmeier 2001, Triandis 1995). These studies were however, as mentioned earlier, focusing on *ethnic* minorities who had migrated to another country. That being said: could it not be at least plausible that religious minorities also keep some of their religious traits – or perhaps even strengthens them – as a consequence of being a religious minority? If that mechanism is true, which I personally believe is possible, then it is not strange that being a religious minority *strengthens the religion in itself*. Therefore, the more individualistic religion Protestantism (Triandis 1995) becomes more individualistic when Protestants are in the minority, and the more collectivistic religion Islam (Bradley 2017, Korte 1984, Triandis 1995), becomes more collectivistic when its followers are in the minority.

Even though the above mechanism is likely plausible, one also has to address the potential issues of the econometric model and the chosen variables. Firstly, it is possible that migration has played a role, where those Protestants who do not wish to live in a Muslim majority state moved to the more southern states of Nigeria. It could also be so that the more individualist individuals, as presented in an article by Ho *et al.* (2021) considering the Southern and Northern Vietnam, were more inclined to leave the more collectivist Muslim Northern Nigeria. The same argument could be made for Muslims who migrated. If that is the case, then it could bias the results in Part II.

Additionally, the use of state-level statistics from (Stonawski *et al.* 2016) is perhaps not the optimal statistic for deciding if a person actually is a minority or not. The WVS Nigeria (2018) only contains statistics on what state the respondent is from. Therefore, state level data on minority was the only optional choice to use. However, it is possible that the segregation of the religions, through for example Christian versus Muslim villages, is also strong *within a Nigerian state*. In other words, perhaps the subjective experience of being a minority in Nigeria is not depending as much on how large the share of a particular religion is in which of the 36 Nigerian states that person lives in, though perhaps on a lower level, such as how large share of the population that an individual's particular religion has in the city or village he or she lives

in? Therefore, having statistics on a lower level would likely be more suitable than state level statistics on the share of religions. Though, as mentioned above, such a statistic was not available.

In sum, the analysis of the result in Part II gives no support for that Protestants in majority differs from Protestants in Minority, and only provides limited support for that there would be a difference between Muslims in majority and Muslims in Minority. Also, Part II was the only section that included two models where the *Muslim* coefficient was insignificant. This was when the model accounted for State Fixed Effects. One possibility is that there is some sort of variation between the states that is not sufficiently captured in the models. Nigeria is a diverse country with many languages and ethnicities not equally distributed between the states. Further research could investigate in this further. It is still worth to mention that on both occasions when the state fixed effects are used earlier in Part I, the *Muslim* coefficient is negative and significant.

6.3 Analysis Living under Sharia & Individualism-Collectivism

The purpose of Part III was to test if Protestants and Muslims living in a Nigerian state that implements Sharia is different from those living in a state that does not. The hypothesis was that, given that Sharia is an Islamic law of a collectivist religion (Korte 1984, Bradley 2017, Triandis 1995), there could perhaps be a mechanism from living under Sharia that gives rise to more collectivism. This was not the case in the results.

Firstly, the Result in Part III gave support in all four models that being a Protestant living under Sharia is associated with a significance difference in individualism-collectivism compared to Protestants that does not. This was illustrated with a significant interaction term for *Protestant * Sharia* in three out of four models. The interaction for *Muslim * Sharia* was significant in two out of four models, which were those models that did not account for *Soil*. The *Muslim*-coefficient was negative and significant in all regressions.

In all, one could at first glance conclude that there is some support from Part III that being Protestants or Muslims in a Nigerian state that implement Sharia is associated with a difference in a person's degree of individualism-collectivism compared to not living in a Sharia-state. However, the significant interaction terms were *positive*, which implies that the models found an association of *more* individualism from living under Sharia. This was highly unexpected since it is the exact opposite of an institutional spill-over consisting of *more* collectivism from living in a state that implements collectivist Sharia law. Now, there are only two possible explanations for this result. Firstly, the model is flawed – such as omitted variable

bias. Secondly, that there is a potential mechanism from living under Sharia that deserves some space in the analysis.

Starting with what potential mechanism that might explain the result, which means that one has to assume for a moment that the model is robust, could be difficult. This since one has to ask what possible mechanism might make people more individualistic from living under collectivist Sharia? My personal theory – from studying Sharia in the literature, Institutional Economics and Quality of Government – is that the concept of *polarization* can be useful in finding a mechanism. In a book by Carothers & O'Donohue (2019) called *Democracies Dived: The Global Challenge of Political Polarization*, they have a chapter written by Senem Aydin-Duzgit considering Islamist-Secularist divide in Turkey. After the foundation of the Turkish Republic in 1923, the secular government was rather aggressive towards Muslim groups within the country. This influenced a political polarization within Turkey, which is believed to have affected the win of a more Islamic leaning party AKP in year 2002. In other words, the secular state was aggressive against Islam and Turkey, and polarization grew. This is of course a highly generalized and simplified description, though the history of Turkey can be used as a background for understanding the result in Part III.

With this historical event in mind, it is at least plausible that a more Islamic collectivist government, such as the Nigerian states that implement Sharia, might polarize the population in the other direction, i.e., and *individualist direction*? In Turkey, the aggressive secular government may have given rise to more Islamic leaning values. In Nigeria, it would be that the collectivist Sharia government would give rise to more individualism. If this *polarization hypothesis* that I am presenting is true in some degree, then it is partly sensible that living under Sharia – which would increase the polarization – is associated with *more individualism* for both Christians and Muslims in Nigeria. This is a theory of a mechanism that, of course, has no support at all in the Result in Part III, though could be a question for future research.

As mentioned above, another reason for the unexpected result could be that the variables in the model does not capture what one wishes to measure. The aspect of *migration*, where the argument was presented in the analysis of Part II through using the study from Ho *et al.* (2021), does not appear to be an issue. If more collectivist individuals are more likely to move to a state that implements Sharia, and that people already living in a state that starts to implement Sharia are less keen to move if that person has collectivist values, then it makes no sense that both the *Protestant * Sharia* and the *Muslim * Sharia* were *positive* in the result – which implies more individualism and not more collectivism. It is also possible that the degree of religiosity differs between those living in a majority, minority or Sharia and can influence the result. Even

though I controlled for the degree of *Religiosity*, which is found in the Appendix, nothing of the result change in such an extent that one has to make another conclusion than above. So, since the degree of religiosity – measured in how often one attends a religious service – does not appear to influence any of the results, there has to be something else not captured in the model, if the *polarization hypothesis* is not true.

Additionally, as mentioned in the Result section for Part III, the fact that being Muslim and living under Sharia – where they are in the majority – was associated with more individualism in Part III is not inconsistent with the result in Part II. The interaction for *Muslim * Muslim Minority*, where these Muslims does *not* live under Sharia per definition, was in the negative direction, which would imply more collectivism. Muslims in majority on the other hand – which is the case in Part III for Muslims living under Sharia – was associated with *more* individualism. Also, the *Protestant * Sharia* interaction was also positive, which consistent with Part II for *Protestant * Christian Minority* due to being Protestant and living in a state that implements Sharia implies that Christianity is not the majority religion in that state. Therefore, the results are not contradicting each other.

Perhaps then, it is also sensible to imagine the religious mechanism mentioned in Part II. The mechanism was that religious attributes – individualism for Protestants and Collectivism for Muslims – are strengthened from living as a minority. I.e, that living in a minority strengthens the *religion in itself*, so that individualistic Protestant values among Protestants become greater and that Muslim collectivist values in turn become greater for Muslims if they are living as a religious minority in a Nigerian state. This is consistent the Muslim-interactions in Part II and Part III where they had the opposite directions and also measured *different things*. It is also a sensible mechanism for Protestantism where the overlapping interactions for Part II and Part III had the same direction and that the variables are in a great extent capturing the same thing, which is Christian minority.

7. Conclusion, Contribution & Future Research

In sum, this thesis has provided support for that Protestants and Muslims do differ in their degree of individualism-collectivism, where being Protestant is associated with more individualism than being Muslim. This confirms studies that have claimed that Protestants are individualist and Muslims lean collectivist (for example Triandis 1995, Korte 1984). It also gives support that the cross-country scatters of the Inglehart-Weltzer cultural map of the world (2020), where Protestant countries are more individualistic than Muslim countries, appear to be true even within a developing country such as Nigeria. Since a study with a focus such as this has not, to the best of my knowledge, been performed in a developing country it is also a contribution. On the other hand, being Protestant appears to not be associated with more individualistic values than being Catholic (the reference group), which differs from studies in Europe (for example Triandis 1995). Future research could try to investigate if there is a theological difference in Protestantism in Nigeria and, for example, the Protestantism Weber (1905/2001) observed. This since it is possible that the different Protestant denominations in Nigeria have different values in individualism-collectivism than what one might call “early European and Anglo-Saxon Protestantism”.²⁵

Also, the most interesting subject of future research, which was mentioned in the Analysis, would be if there is a difference in economic structure and growth between the Protestant South and the Muslim North of Nigeria, which is of especially high interest since some expect Nigeria to become one of the wealthiest countries in the world in the future (Gupta 2020). In other words, future research should study if one can expect a strengthening of the same divide between Protestant Nigerian states and Muslim Nigerian states, such as what Weber (1905/2001) and Becker & Woessmann (2009) observed when comparing Protestant and Roman Catholic countries in Europe. As cited several times in this thesis, there are some studies that have focused on individualism-collectivism, entrepreneurship and economic growth (See Ho *et al.* 2021; Gorodnichenko & Roland 2017 and Muralidharan & Pathak 2017). One challenge for future research in this is that being an *entrepreneur* – in a Western *innovative* sense – would likely not capture the same thing in Nigeria. Even though a large portion of the Nigerian population are self-employed with their own business, they do not work with what could be referred to as innovative business. Rather, it is often what one might consider to be simple low-skill jobs. Therefore, it will be a challenge to find a suitable outcome variable that measures innovation or entrepreneurship on the individual level, where individualism-

²⁵ Early European Protestant denominations would be such as Lutheranism and Presbyterianism (MacColloch 2003).

collectivism would be an *explanatory* variable rather than – as in this study – an *outcome* variable. In sum; given what we know about what drives individualism-collectivism in Nigeria, the natural following step as economists is to try to study how this variation in individualism-collectivism may be associated with some sort of economic outcomes.

There is no support that Protestants living in a Nigerian state where they are in a religious minority is associated with a difference in individualism-collectivism than Protestants living in a state where they are in a minority. There was only limited support for that Muslims living in a state where they are in the minority differs – through being more collectivistic – from Muslims in majority. This implies that the thesis did not find any support for the hypothesis which took inspiration from Coon & Kemmelmeier (2001: page 359), where the authors claim – though considering *ethnic minorities* – that the exclusion from the majority may give rise to collectivist values. The use of *religious minority* rather than *ethnic minority* in this thesis is also a contribution. The potential mechanism that I presented in the Analysis-section, which also took inspiration from another theory presented by Coon & Kemmelmeier (2001), where living as minority might strengthen not collectivism, though the *religion in itself*, is a subject for future research which would explain the different signs for the interaction terms depending on if it was a Protestant or Muslim.

The Result for living under Sharia, where I land in an own theory on *polarization*, is a subject for future research. This since living under Sharia was actually associated with more individualism in Part III, where one would expect that – given the collectivist traits of Islam (Korte 1985, Bradley 2017) – it would have been the opposite case. The fact that the result in Part III gave opposite direction then expected of the sign of the interaction terms should interest some future studies in either improving the model or give other suggestions for the potential mechanism.

Finally, considering the econometrics, future similar studies should try to find better exogenous variables for controlling for institutions than *Distance from the central government (Abuja)*. Additionally, perhaps also a better variable for measuring *minority*, preferable at a lower level than a Nigerian state, which has a lot of within-variation, such as a city or town.

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²⁶ This is World Value Survey Nigeria (2018) Wave 6. The above is how they prefer to be cited.

²⁷ Citation from Triandis (1995: 125).

²⁸ Citation from Triandis (1995: 94-95).

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Appendix

Figure A1 - Inglehart–Welzel cultural map of the world (2020)

The Inglehart-Welzel World Cultural Map - World Values Survey 7 (2022). Source: <http://www.worldvaluessurvey.org/>

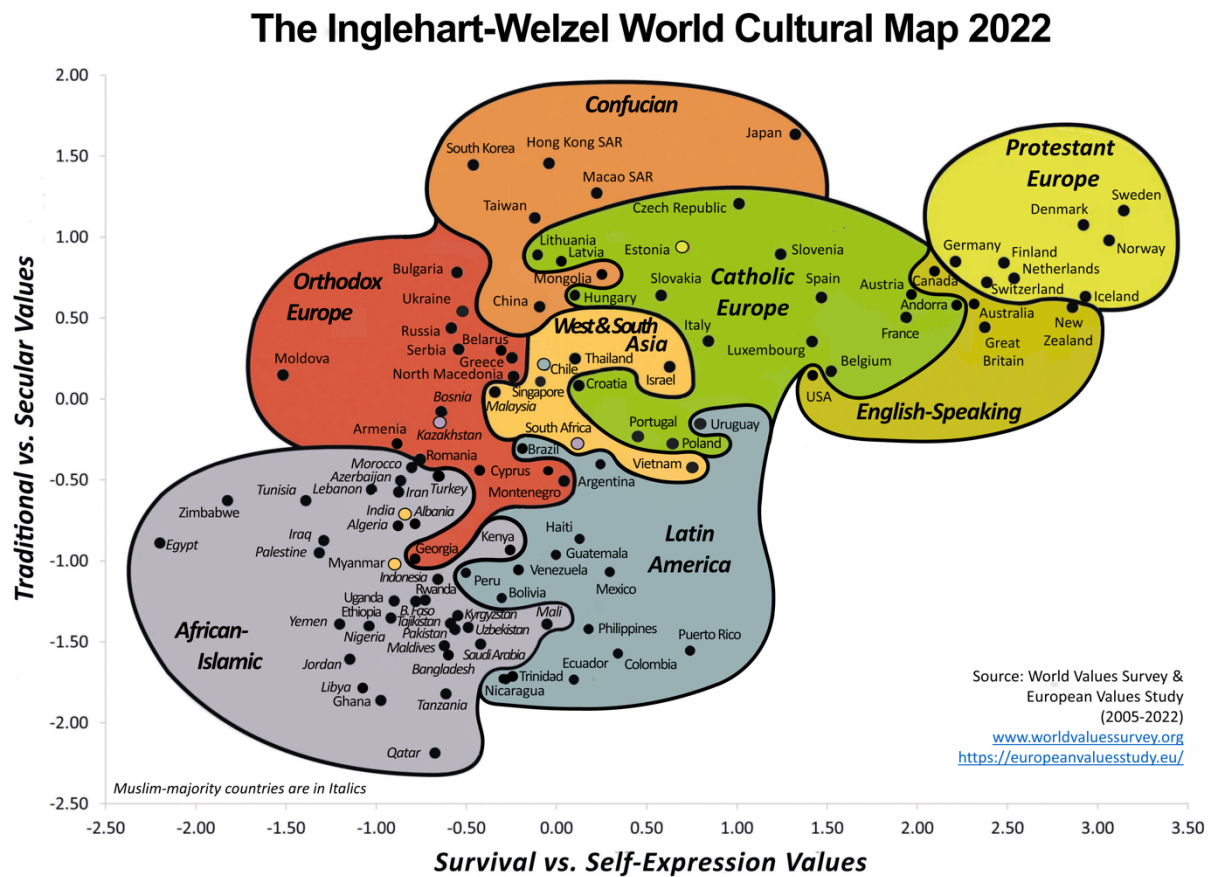


Table A1: Different kinds of individualism-collectivism. Examples from Triandis (1995)

	<i>Individualism</i>	<i>Collectivism</i>
<i>Vertical</i>	Achievement-oriented Independence Accepts unequal status Example: USA & France	Dutiful Interdependence Unequal status Example: China & India
<i>Horizontal</i>	“Do not stick out too much” Independence Values equal status Example: Sweden & Denmark	Cooperative Interdependence Equal status Example: Japan & Kibbutzim in Israel

Table A2 – Distribution of the religions in WVS Nigeria (2018)

Religious denominations - major groups	Frequency	Percent
Muslim	566	46 %
Protestant	408	33 %
Roman Catholic	186	15 %
Minor religions, Atheism, No answer	76	6 %
Total	1237	100 %

Table A3 - Survey Question from WVS Nigeria (2018) in the dependent variable index form Individualism-Collectivism

Question	Comment
<i>I'd like to ask you how much you trust people from various groups. Could you tell me for each whether you trust people from this group [People you met for the first time] completely, somewhat, not very much or not at all? (Q61).</i>	An individualist response would be a more trusting attitude towards strangers, while a collectivist response would be more distrusting to strangers. Created dummy for “ <i>Completely</i> ”. - Weight in index: 1/6
<i>Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people? (Q57).</i>	The possible answers, besides “ <i>don't know</i> ” is “ <i>most people can be trusted</i> ” and “ <i>[You] need to be very careful</i> ”, where collectivist would exhibit less trust towards strangers than individualists. Created a dummy for “ <i>Most people can be trusted</i> ”. - Weight in index: 1/6
<i>Most people consider both freedom and equality to be important, but if you had to choose between them, which one would you consider more important? (Q149).</i> - <i>Freedom</i> - <i>Equality</i>	An individualist response is to value freedom, where a collectivist response is to value equality. Created a dummy for “ <i>Freedom</i> ”. - Weight in index: 1/6
<i>Most people consider both freedom and security to be important, but if you had to choose between them, which one would you consider more important? (Q150).</i> - <i>Freedom</i> - <i>Security</i>	An individualist response is to value freedom, where a collectivist response is to value security. Created a dummy for “ <i>Freedom</i> ”. - Weight in index: 1/6
<i>Even if a girl does not want to be married, she should honour the decisions/wishes of her family (Q313).</i> - <i>Strongly agree</i> - <i>Agree</i> - <i>Disagree</i> - <i>Strongly disagree</i> - <i>Don't know</i>	An individualist response would be more positive to respect the choice of the girl, where the collectivist would lean more to respecting the will of the parents. Created a dummy for “ <i>Strongly agree + agree</i> ”. - Weight in index: 1/6
<i>Even if a boy does not want to be married, he should honour the decisions/ wishes of his family (Q314)</i> - <i>Strongly agree</i> - <i>Agree</i> - <i>Disagree</i> - <i>Strongly disagree</i> - <i>Don't know</i>	An individualist response would be more positive to respect the choice of the boy, where the collectivist would lean more to respecting the will of the parents. Created a dummy for “ <i>Strongly agree + agree</i> ”. - Weight in index: 1/6

Table A4 – The different groups in Part II

Group	Description
α_0	Reference category consisting of Roman Catholics
$\beta_1 Protestant_i$	Value = 1 if person i is Protestant
$\beta_2 Muslim_i$	Value = 1 if person i is Muslims
$\beta_3 ChristianMinority_i * Protestant_i$	Protestant person i living in a Nigerian state s where Christians are in minority.
$\beta_4 MuslimMinority_i * Muslim_i$	Muslim person i living in a Nigerian state s where Muslims are in is in minority.
$\beta_5 ChristianMinority_i * Catholic_i$	Catholic person i living in a Nigerian state s where Christians are in minority.

Table A5 – The different groups in Part III

Group	Description
α_0	Reference category consisting of Roman Catholics
$\beta_1 Muslim_i$	Value = 1 if person i is Protestant
$\beta_2 Protestant_i$	Value = 1 if person i is Muslims
$\beta_3 Sharia_s * Protestant_i$	Protestant person i living in a Nigerian state s that implements Sharia.
$\beta_4 Sharia_s * Muslim_i$	Muslim person i living in a Nigerian state s that implements Sharia.
$\beta_5 Sharia_s * Catholic_i$	Catholic person i living in a Nigerian state s that implements Sharia.

Table A6 Result Part II –Minority & Individualism-Collectivism together with Degree of Religiosity

Dependent variable: Individualism-Collectivism index	(17) State- dummies	(18) Distance	(19) Distance & Soil	(20) State-dummies	(21) Distance	(22) Distance & Soil
<i>Religion</i>						
Protestant	-0.028 (0.022)	-0.013 (0.021)	-0.016 (0.021)	-0.03 (0.022)	-0.015 (0.02)	-0.017 (0.021)
Muslim	-0.009 (0.014)	-0.056*** (0.021)	-0.113*** (0.030)	-0.019 (0.134)	-0.053** (0.021)	-0.105*** (0.030)
Protestant*Christian Minority	0.152 (0.14)	0.035 (0.022)	0.029 (0.026)	0.136 (0.136)	0.039* (0.023)	0.032 (0.027)
Muslim*Muslim Minority	-0.072 (0.14)	-0.043** (0.018)	0.015 (0.027)	-0.059 (0.135)	-0.035* (0.019)	0.016 (0.027)
Catholic*Christian Minority	0.1 (0.146)	0.011 (0.040)	-0.016 (0.044)	0.086 (0.012)	0.015 (0.04)	-0.010 (0.044)
<i>Controls from WWS</i>						
Married	-0.004 (0.014)	-0.013 (0.015)	-0.01 (0.015)	-0.001 (0.014)	-0.007 (0.015)	-0.007 (0.015)
Male	0.021* (0.014)	0.021* (0.012)	0.021* (0.012)	0.016 (0.012)	0.014 (0.012)	0.015 (0.012)
Rural	0.016 (0.014)	0.049*** (0.012)	0.040*** (0.013)	0.019 (0.014)	0.049*** (0.013)	0.040*** (0.013)
age	0.003 (0.002)	0.004 (0.003)	0.004 (0.003)	0.003 (0.002)	0.003 (0.003)	0.003 (0.003)
age2	-0.000** (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000* (0.000)
Religious	0.008 (0.013)	-0.0037 (0.012)		0.008 (0.012)	-0.003 (0.013)	0.007 (0.013)
Education controls	No	No	No	Yes	Yes	Yes
Social class controls	No	No	No	Yes	Yes	Yes
<i>Regional controls</i>						
State Fixed Effects	Yes	No	No	Yes	No	No
Distance from Abuja		-0.000 (0.000)	-0.000** (0.000)		-0.000 (0.000)	-0.000 (0.000)
Sudan Savannah			0.034 (0.035)			0.02 (0.036)
Northern Guinea Savannah			-0.048 (0.043)			-0.059 (0.044)
Southern Guinea Savannah			0.000 (0.046)			-0.007 (0.046)
Derived Savannah			-0.069* (0.040)			-0.073* (0.042)
Humid Forest			-0.046 (0.041)			-0.056 (0.042)
Constant	0.3*** (0.062)	0.348*** (0.053)	0.422*** (0.074)	0.264*** (0.065)	0.282*** (0.054)	0.37*** (0.075)
Observations	1,160	1,160	1,160	1,160	1,160	1,160
R-squared	0.216	0.065	0.078	0.223	0.077	0.088
F test	8.62	7.35	6.75	7.46	5.58	5.29
Prob >F	0***	0***	0***	0***	0***	0***
t: Protestant = Muslim	0.888	0***	0***	0.936	0.027**	0.***

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The dependent variable *IndividualismCollectivism* is interpreted as a higher value implies more individualism, and lower value implies more collectivism. The reference group consists of *Catholics*.

Robust standard errors in parenthesis.

Table A7 Result Part III – Sharia & Individualism-Collectivism together with Degree of Religiosity

Dependent variable: Individualism-Collectivism index	(23) Distance	(24) Distance & Soil	(25) Distance	(26) Distance & Soil
<i>Religion</i>				
Protestant	-0.014 (0.020)	-0.015 (0.020)	-0.016 (0.02)	-0.015 (0.019)
Muslim	-0.01*** (0.022)	-0.092*** (0.022)	-0.087*** (0.022)	-0.083*** (0.022)
Protestant*Sharia	0.112*** (0.033)	0.11 (0.072)	0.11*** (0.034)	0.13* (0.07)
Muslim*Sharia	0.044** (0.018)	-0.013 (0.07)	0.039** (0.019)	0.012 (0.019)
Catholic*Sharia	0.034 (0.045)	0.018 (0.08)	0.045 (0.081)	0.049 (0.081)
<i>Controls from WVS</i>				
Married	-0.01 (0.014)	-0.01 (0.014)	-0.005 (0.015)	-0.004 (0.015)
Male	0.02* (0.015)	0.02* (0.015)	0.014 (0.012)	0.015 (0.012)
Rural	0.042*** (0.012)	0.042*** (0.012)	0.043*** (0.013)	0.040*** (0.013)
age	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)
age ²	-0.000* (0.000)	-0.000* (0.000)	-0.000 (0.000)	-0.000* (0.000)
Religious	-0.004 (0.013)	0.006 (0.013)	-0.0035 (0.012)	0.006 (0.013)
Education controls	No	No	Yes	Yes
Social class controls	No	No	Yes	Yes
<i>Regional controls</i>				
State Fixed Effects	No	No	No	No
Distance from Abuja		-0.000* (0.000)	-0.000 (0.000)	-0.000 (0.000)
Sudan Savannah		0.034 (0.035)		0.020 (0.036)
Northern Guinea Savannah		-0.069 (0.044)		-0.078* (0.044)
Southern Guinea Savannah		-0.01 (0.053)		-0.013 (0.053)
Derived Savannah		-0.059 (0.081)		-0.035 (0.082)
Humid Forest		-0.038 (0.078)		-0.020 (0.079)
Catholic (Constant)	0.35*** (0.052)	0.41*** (0.1)	0.282*** (0.054)	0.32** (0.107)
Observations	1,160	1,160	1,160	1,160
R-squared	0.073	0.083	0.085	0.093
F test	8.92	7.22	6.23	5.58
Prob >F	0***	0***	0***	0***
t: Protestant = Muslim	0.000****	0.000****	0.000***	0.0001***

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The dependent variable *IndividualismCollectivism* is interpreted as a higher value implies more individualism, and lower value implies more collectivism. The reference group consists of *Catholics*.

Robust standard errors in parenthesis.

Table A8 – Summary of The Result

Research Question	Specific testable hypothesis	Result
Part I: Do Protestants and Muslims differ in their degree of Individualism-Collectivism in Nigeria?	<p>I a). Protestants are more individualistic than Muslims in Nigeria</p> <p>I b). Muslims are more collectivistic than Protestants in Nigeria</p>	<p>Support</p> <p>Support</p>
Part II: Do Protestants and Muslims in Nigerian states, that are dominated by either Christians – Protestants, Roman Catholics and Orthodox – or Muslims, differ in their degree of Individualism-Collectivism?	<p>II a). Protestants living in a Nigerian state inhabited mostly by Muslims are less individualist/more collectivistic than Protestants living in a Nigerian state inhabited by mostly Christians</p> <p>II b). Muslims living in a Nigerian state inhabited mostly by Christians are less individualist/more collectivistic than Muslims living in a Nigerian state inhabited by mostly Muslims</p>	<p>No support since insignificant interaction-variable. Though the sign of the coefficient in the unexpected direction, which would imply more individualism. Own Mechanism suggested in the Analysis section</p> <p>Limited support. Some regressions had a significant, negative interaction-term.</p>
Part III: Do Protestants and Muslims that live in Nigerian states that implement Sharia law differ in their degree of Individualism-Collectivism compared to Protestants and Muslims living in Nigerian states that does not implement Sharia law?	<p>III a). Protestants living in a Nigerian state that implement Sharia law less individualist/more collectivistic than Protestants living in a Nigerian state that does not implement Sharia law</p> <p>III b). Muslims living in a Nigerian state that implement Sharia law less individualist/more collectivistic than Muslims living in a Nigerian state that does not implement Sharia law</p>	<p>No support. The opposite appeared to be the case, i.e, that being a Protestant and living under Sharia was associated with more individualism. Own mechanism suggested in the Analysis.</p> <p>No support. The opposite appeared to be the case, i.e, that being a Muslim and living under Sharia was associated with more individualism. Own mechanism suggested in the Analysis.</p>

Questions from World Value Survey (2018) Nigeria

These are the variables used from WWV (2018) from the codebook.

Q171 How often do you attend religious services these days? (Degree of religiosity)

Q273 Marriage

Q275 Education

Q287 Social class

Q289 Which religious denomination do you belong to?

Q260 Male or Female.

K1. Classification of LGA (Rural)

D2. State (Which Nigerian state)

Q61 Trust people

Q149 Freedom or equality

Q150 Freedom or security

H333 Girls marriage

H334 Boys marriage