INSTITUTIONAL BARRIERS TO WOMEN EMPOWERMENT IN THE MUSLIM WORLD: WHERE SHOULD POLICYMAKERS FOCUS THEIR EFFORTS?

by

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AUTHORSHIP DECLARATION

I declare that I have authored this thesis independently, that I have not used other than the declared sources / resources, and that I have explicitly marked all material which has been quoted either literally or by content from the used sources. I acknowledge the supervision and guidance I have received from Prof Sarah Mansour and Prof Stefan Voigt. This thesis is not used as part of any other examination and has not yet been published. The submitted written version corresponds to the version submitted via email and on an electronic storage medium.

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ABSTRACT

Legal gender discrimination may very well have lasting effects on women's educational opportunities, labor force participation, as well as their economic and political inclusion. This study seeks to examine the connection between institutions and the empowerment of Muslim women. More precisely, the study attempts to analyze and distinguish between the different types of institutional barriers that impede Muslim women's right to legal and socioeconomic equality. Previous studies largely attribute the problem to Islamic constitutions, or the entrenchment of Islam in the constitutions of Muslim countries. This paper emphasizes the role of informal institutions as another primary culprit for the prominent gender inequality gap witnessed in the Muslim world today. Discrimination finds its roots in the culture of firmly-held patriarchal values and narrowly-defined traditional gender roles which dominate Muslim countries. To this end, different institutional proxies are operationalized to test the individual effects of formal and informal institutions, as well as the interplay between them. The study estimates a set of simple cross-sectional models using ordinary least squares (OLS). The results show that women's legal and economic rights are more systematically constrained in countries adopting Islamic constitutions. Additionally, greater societal endorsement for patriarchal values and an affinity for traditional gender roles show a statistically significant effect on the levels of legal gender equality. A jointly significant relationship between the formal and informal institutional proxies is also confirmed by the data.

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1. Introduction

The discourse on Islam and gender has been a controversial topic for Islamic scholars and economists alike. On the one hand, Islam gets praised for its role in liberating women at the time of its emergence. And on the other hand, it gets criticized for its rigidity, and failure to reform itself by embracing more egalitarian reformulations of the role of women in the society. In search of reasons for the prevalence of various gender-based socioeconomic, political, and legal inequalities in Muslim-majority countries, multiple hypotheses have been tested.

This paper divides the related literature into two broad categories: structural explanations of gender-based inequality (ones that focus on structural factors), and institutional explanations of gender-based inequality (ones that focus on institutional factors).

Proponents of the structural approach attribute the problem to different factors which dominate in Muslim societies for reasons other than Islam itself. Those reasons are structural in nature as they stem from economic and political power relations. For example, oil wealth has been a principal explanation for women's poor socioeconomic status in many Muslim countries.

The proponents of the institutional approach attribute the problem to the prevailing institutional environment. Institutions can generally be classified based on their subject category, degree of formality and degree of embeddedness. In the degree of formality classification, we can classify institutions as being formal or informal (North, 1993).[1] Formal institutions (statute law, common law, regulations) play an important role in shaping the economy and include anything from property rights, labor laws, consumer protection laws, etc. The performance of formal institutions is often dependent on the informal institutional set-up (customs, traditions, norms, values, and self-imposed codes of conduct) which creates the incentives to comply with formal constraints. This

[1] North, D.C., 1993. The New Institutional Economics and Development, Economic History 9309002, University Library of Munich, Germany.

paper seeks to delineate and compare different types of institutional barriers that stand in the way of the empowerment of women in Muslim-majority countries specifically by exacerbating legal gender discrimination and widening the gender gap. Legal gender discrimination can have lasting effects on women's educational opportunities as well as their economic and political inclusion, and labor force participation. Suffice it to say, economies suffer when human capital is not optimally utilized and when qualified women are not integrated into the workforce. Put differently, women will be empowered where environments—political, economic and social—support their ability to freely and fully exercise their fundamental human rights, and one way to do that is through economic inclusion.

Thus far, the dominant institutional explanation of the inferior status of women in Muslim-majority countries has been largely focused on the influence of the specific set of formal institutions adopted in those countries - namely constitutional rules – and the extent to which they could be reconciled with Western notions of rule of law. According to Voigt (2009, p. 12), *"[one] way to ascertain the formal endorsement of the rule of law is to analyze a country's constitution."*[2] In another article, Voigt (2013, p. 13) argues that, *"the constraining effect of some formal institution might depend on the presence of (complementary) internal institutions. To understand why a constitutional constraint is factually complied with in some countries but not in others, it is necessary to take informal institutions explicitly into account."*[3]

In the same vein, this study posits the existence two gender-related issues that contribute to the problem at hand: the first pertains to the external formal institutions i.e. codified rules and legal doctrines, or as North puts it, the formal "rules of the game", while the second pertains to the more

[2] Voigt, S., 2009. How to Measure the Rule of Law. MAGKS Papers on Economics, Philipps-Universität Marburg, Faculty of Business Administration and Economics, Department of Economics, 1-25.
[3] Voigt, S., 2013. How (Not) to measure institutions. Journal of Institutional Economics, 9(1), 1-26. doi:10.1017/S1744137412000148

deeply-embedded internal informal institutions i.e. conventions, attitudes, beliefs, traditions, and values embraced by a society. The latter being much more persistent and stable over time than the former.

Scholars have been largely focused on the role of formal institutions and their connection to women empowerment. Some have even quantified discriminatory constitutional clauses, laws and regulations in order to examine the significance and direction of the relationship more robustly. Previous studies offering institutional explanations for the discrimination faced by women and minority groups in Muslim-majority countries tend to attribute the problem to Islamic constitutions, or the entrenchment of Islam in the constitutions of Muslim countries (Gutmann and Voigt, 2015; Gouda and Potrafke, 2016; Gouda and Gutmann, 2019). As regards formal institutions, the problem is said to exist in the explicit discriminatory provisions of Islamic Sharia law that govern over personal status as well as criminal code matters. This is an argument hard to refute. This paper posits the existence of another culprit that is often harder to observe. Insofar as informal institutions are concerned, the inequality problem is rooted in the culture of firmly-held patriarchal values and narrowly-defined traditional gender roles which appears to dominate Muslim countries as the study will later demonstrate.

Thus far, little attention has been given to the role of informal institutions, possibly because of the difficulty of coming up with an empirical proxies that capture all the facets of informal institutions, especially ones that are internationally comparable. In this respect, a proxy variable can provide valuable insights into the nature of this complex relationship. This study aims to fill the existing gap in the literature by analyzing the role of institutions – both formal and informal – that legitimize the social, political and economic male dominance in the society, and the extent to which

such institutions can impact various outcomes of interest as pertaining to the socioeconomic empowerment of women in Muslim-majority countries.

To fill the literature gap, the study takes a more nuanced look at the relationship between the overall institutional set-up of a given country (using proxies for formal and informal institutions) and legal gender equality, across a cross-sectional sample of 58 countries. In other words, the aim is to examine the effect of formal Islamic institutions or "Constitutional Islamization" on legal gender equality after accounting for informal institutional factors. The degree of legal gender discrimination is likely to vary from one society to another due to a myriad of reasons. Nevertheless, it remains unclear whether it is the formal institutional set-up that reinforces the highly patriarchal value-system to place women in a disadvantageous position in the social order, or if causality runs in the opposite direction. That is the central question that this thesis attempts to answer.

To proxy for formal institutions, the paper employs the "Islamic Constitution Index" (ICI) by Ahmed and Gouda (2015) as its first independent variable to capture the effect of constitutional Islamization. A dichotomized version of the ICI called "Islamic Constitutions Dummy" (ICD) is also operationalized as a second independent variable to capture the mean difference between Islamic and non-Islamic constitutions, irrespective of the degree of entrenchment of Islam or adherence to Islamic Sharia law. The ICD takes the value of 1 if the constitution of the country in question underwent any degree of Islamization i.e. received a positive score on the ICI, and 0 otherwise. To proxy for informal institutions, the study introduces a new index "Support for Patriarchal Values" (SPV), as a third independent variable, to measure the degree of societal endorsement of patriarchal values and traditional gender roles in the 58 chosen countries, using survey data/items from World Values Survey Wave 6 (2010-2014). The dependent variable is the

World Bank's "Women, Business and the Law" index (WBL) which measures the level of equality in the number of de jure legal rights granted to women, compared to those granted to men in 8 measurement areas. To be clear, the term "legal gender equality" refers to the de jure rights which are guaranteed by codified laws; customary law is not taken into account unless it has been codified. The term "legal gender equality" and the acronym "WBL" are used interchangeably throughout the remainder of the paper.

The rest of the paper is structured as follows. In Section **2**, we review the relevant literature and related theories. Section **3** describes the data and our primary variables of interest, followed by an introduction of descriptive statistics and results for the bivariate associations between our institutional proxies and legal gender equality in an attempt to demonstrate their relevance for this inquiry. Since bivariate relationships do not paint a complete picture, we move on to multivariate regression analysis in Section **4**. Section **5** concludes.

2. Literature Review

2.1. Women & Islam

Proponents have long hailed Islam for its historical role in liberating women and improving their position within the society. At the time of the Prophet, the Quran's stipulations most likely implied a strengthening of women's rights by identifying their share of inheritance in clear terms. As such, Islamic scholars argue that there is no discrimination against women in Islam (Sheriff, 1989; Al-Shiha, 2013; Badawi, 1995). Khan (2008, p. i) asserts that *"Islam was the first religion formally to grant the women a status never known before. The Holy Quran, the sacred scripture of Islam, contains hundreds of teachings, which apply both to men and women alike. The moral, spiritual and economic equality of men and women as propagated by Islam is unquestionable."*[4] An

[4] Khan, M.Z., 2008. Women's Rights in Islam. Islam International Publications Limited, Islamabad, Sheephatch Lane, Tilford, Surrey, U.K.

opposing position is adopted by economists and a subset of scholars specializing in Islamic studies who argue that, by today's standards, a strict application of the same codes would be regarded as a clear violation of basic human rights. The Universal Declaration of Human Rights (1948) states that the best way to protect human rights is through the rule of law, and that the law should not make distinctions between men and women in their enjoyment of human rights. Critics argue that Islamic religious texts, or the interpretation thereof are incompatible with the concept of rule of law, and further maintain that Sharia is incompatible with human rights as pertaining specifically to gender equality (An-Na'im, 1990, 2008; Baderin, 2003; Kuran, 2010; Gouda, 2013). According to the Quran, testimony in court should generally only come from men. In cases where this is impossible, testimony by one man and two women is acceptable (Sura 2:282). The justification behind this is that the testimony of a woman carries half the weight of a man's, "because of the deficiency of [the woman's] intelligence"[5] (Bukhari, 1997, p. 210). Provisions on inheritance proscribe that a woman receives less than the share of a man when both stand in equal degree of kinship to the deceased family member (An-Na'im, 1990, p. 176). For example, the Quran states that sons should inherit twice as much as daughters (Sura 4:12, 176). Those claims have been backed by empirical evidence from countries with different religious majorities. A number of studies find that girls and women are, on average, more likely to face discrimination in countries with Muslim majorities. They are discriminated against in the domains of education, labor as well as in political participation (Donno and Russett, 2004; Norton and Tomal, 2009; Cooray and Potrafke, 2011; Cooray, 2012; Kilby and Scholz, 2011; Potrafke and Ursprung, 2012; Cho, 2013; Del PradoLu, 2013; Cooray and Klasen, 2014; Salahodjaev and Azam, 2015). These findings are also consistent with that of Fish (2011, p. 201), who finds Islam to be clearly associated with

[5] Bukhari, M.I.,1997. The Translation of the Meanings of Sahih Al-Bukhari, 8 Vols, vol. 7. Darussalam Publishers & Distributors, Riyadh (Trans. M. M. Khan, Book 6, Number 304).

inferior conditions for females, relative to males. Such works add to the empirical evidence identifying Islam as an obstacle to women empowerment. For those critics, it follows that Islam, and the institutions stemming from it, are to be held responsible for the inferior legal, economic, social, and political status of women in Muslim countries.

2.2. Explaining Gender Inequality in the Muslim World

In search of reasons for the association between Muslim-majority countries and gender-based inequality, multiple hypotheses have been tested. The related literature can be divided into two broad categories: a) Structural interpretations of gender-based inequality, and b) institutional interpretations of gender-based inequality.

A. The Structural Approach: Proponents of the structural approach attribute the problem to different factors not inherent to the religion itself, but which dominate in Muslim societies for reasons other than Islam. These reasons are of a structural nature and emerge from asymmetrical economic and political power dynamics. For example, oil wealth has been a principal explanation for women's poor socioeconomic status in many Muslim countries. Ross (2008) argues that discrimination against women in the Middle East is the consequence of oil wealth, not of Islam. In his published article “Oil, Islam, and Women”, the author explains that an increase in oil production reduces the percentage of females in the labor force through three channels:

- **(i)** a drop in traded goods (higher influx of foreign currency means cheaper imports)
- **(ii)** higher male wages (caused by the expansion of the non-traded sector, which employs only men), and
- **(iii)** more government transfers to households (caused by the effect of booming oil exports on government revenues).

Those factors lead to lower female wages and a higher female unearned income (income that accrues to a woman's household, but that she does not earn directly: as her family's income rises, she becomes less inclined to join the labor market and provide a second income)[6]. Ross then explains that female political influence is a function of female labor force participation, "*when the fraction of female citizens in the work force rises, it should enhance women's political influence through dynamics at an individual level (as their exposure to the work place affects their identities and perceptions), a social level (as their density in the labor force rises, so does the number of formal and informal female networks), and an economic level (as their growing role in the economy forces the government to take their interests into account).* He also tests his hypothesis empirically by examining the relationship between oil rents per capita and different measures of female status in the Middle East and finds that the countries that are richest in oil (Saudi Arabia, Qatar, United Arab Emirates, and Oman) have the fewest women in their nonagricultural workforce, have been the most reluctant to grant female suffrage, have the fewest women in their parliaments, and have the lowest scores on the gender rights index. While states with little or no oil (Morocco, Tunisia, Lebanon, Syria, and Djibouti) were the first to grant female suffrage and tend to have more women in the workplace and parliament and higher gender rights scores. In sum, his explanation of Muslim patriarchy emphasizes noncultural factors, especially oil and gas rents, *"Women have made less progress in gender equality in the Middle East than in any other region. Many observers claim this is due to the region's Islamic traditions. I suggest that oil, not Islam is at fault […] Oil production reduces the number of women in the labor force, which in turn reduces their political*

[6] Ross, M. 2008. "Oil, Islam and Women." American Political Science Review Vol. 102: 107-123

influence. As a result, oil-producing states are left with atypically strong patriarchal norms, laws, and political institutions."[7]

In addition to Ross's position, Inglehart puts forward a "modernization theory," arguing that economic development generally influences the value systems of people in the direction of democracy and gender equality, but that countries with a substantial oil-production capability are an exception to this rule (Inglehart 1997; Inglehart and Baker 2000; Inglehart and Norris 2003b). Put differently, economic development based on oil export is not conductive to gender equality (1997, p. 161).[8] Finally, in her book about culture and women throughout the Middle East and the influence of Islam, Moghadam (2003:5-8) asserts that: *"The position of women in the Middle East cannot be attributed to the presumed intrinsic properties of Islam. It is also my contention that Islam is neither more nor less patriarchal than other religions."*

Those views reject the cultural interpretation; they endorse a structural interpretation. In their view, patriarchal values are not necessarily common among Muslims because of Islam's inherent affinity to patriarchy. Instead, Muslims are socialized under patriarchal structures that characterize Muslim societies for reasons that are cannot be traced back to Islam.

B. The Institutional approach: The institutional approach can be further divided into two subcategories: (1) one that focuses on the relationship of *formal* institutions to gender-based inequality i.e. a legal interpretation, and (2) one that focuses on the relationship of *informal* institutions to gender-based inequality i.e. a cultural interpretation.

[7] Ross, M. 2008. "Oil, Islam and Women." American Political Science Review Vol. 102, p. 107
[8] Inglehart, R., 1997. Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies. Princeton, NJ: Princeton University Press.

(1) The Role of Formal institutions

Gutmann and Voigt (2015) examine the constitutions of Muslim country and how they impact on post-constitutional outcomes, namely institutions securing the rule of law. The authors argue that, *"The constitution can be revealing of a country's nature […] it can declare Islam to be the state religion; it can declare Sharia to be the national law or a major source of law; it can demand that the head of state be a Muslim, and so on. It may seem tautological to classify countries as Islamic according to characteristics of their constitution and then determine if their legal systems differ from those of other countries […] we are asking whether different degrees of affiliation to Islam—including constitutional and international commitments to it—are correlated with institutional consequences."*[9]

The authors also describe constitutions as *"parchment barriers"*, and maintain that, *"it is highly uncertain whether their formal content will be implemented in practice." A quick look at constitutional promises could lead to the naive conclusion that the rule of law is thriving in Muslim-majority countries: 97 % of their contemporary constitutions promise equality before the law, which is true only for 90 % of all other countries (World Bank 2013). Also, the share of constitutions that prohibit discrimination is slightly higher in Muslim countries. However, neither difference is statistically significant."*[10] Needless to say, for parchment barriers to effective, they need to be respected and reinforced by both the state and ordinary citizens, both in law and in custom. To test their hypothesis, they construct an "Islamic State Index" to measure the influence that Islam has on a society and its political and legal system, the

[9] Gutmann, J. & Voigt, S., 2015. The rule of law and constitutionalism in Muslim countries. Public Choice 162 (3–4), p. 359.
[10] Gutmann, J. & Voigt, S., 2015. The rule of law and constitutionalism in Muslim countries. Public Choice 162 (3–4), p. 361.

index serves to proxy for the degree of a state's "Islamicity". They posit that Muslim legal order will contain multiple explicit inequalities, particularly between women and men, and find that women's de jure and de facto (economic, social and political) rights are significantly more constrained in Muslim countries. While most of the literature on Islam and gender discrimination is focused on labor force participation and political representation, their results suggest that legal institutions in Muslim countries are clearly designed to disadvantage women. In terms of economic rights, the rights of women to take up a job and to inherit are systematically constrained in Muslim countries. In terms of noneconomic rights, 40 % of all Muslim-majority countries do not treat female testimony the same as that of men, which is not the case in non-Muslim countries They also find an indicator of de jure social rights of women is strongly negatively correlated with a country being Muslim. Gouda and Potrafke (2016) also examine the connection between Islam as source of legislation and gender equality in Muslim majority countries. To determine if Islam is a source of legislation, they investigate data on Islamic clauses in the constitutions of OIC members using a dataset developed by the Comparative Constitutions Project and find that discrimination against women is more pronounced in countries where Islam is the source of legislation.

(2) **The Role of Informal institutions**

Early accounts emphasized economic growth and legal-institutional reforms as an important long-term strategy to promote gender equality, and subsequent decades of advocacy and reform saw a strong focus on establishing effective legal, social, and political rights for women. Cultural accounts, on the other hand, maintained that

values deserved equal attention. Alas, examining that proposition is no easy feat, in part because without comparable cross-national surveys, the predominant approach has been to compare social norms and behavior through qualitative methods, usually covering one or a few societies. In their book, "Rising Tide: Gender Equality and Cultural Change around the World", Inglehart and Norris (2003b) demonstrate that culture matters.[11] The authors argue that in order to account for cross-national variations in levels of gender equality (equal educational and employment opportunities, equal pay, reproductive rights, and political representation), it is not enough to focus on statutory reform or formal recognition of women's rights. Instead, it is imperative to include cultural factors in any comprehensive explanation that aims to introduce practical and long-lasting solutions to the inequality problem.

Feminist movements have long emphasized cultural differences in family and gender roles, and the critical importance of changing traditional patriarchal norms for transforming relationships between the genders. In a patriarchal society, men hold primary power and predominate in roles of political leadership, moral authority, social privilege and control of assets. As mentioned earlier, scholars continue to disagree on whether Muslim support for patriarchal values is in fact an inherent quality of Muslim identity and, thus, a defining property of Muslim culture. Studies that support the "cultural interpretation" suggest that patriarchal values are in fact an inherent element of Muslim identity. In two different studies, Inglehart and Norris (2003a, b) examine the relationship between Islam and patriarchal values and provide strong empirical evidence for Muslim support of patriarchal values. Their findings suggest that the core

[11] Inglehart, R. & Norris, P. 2003b. Rising Tide: Gender Equality and Cultural Change Around the World. New York: Cambridge University Press.

> clash between the West and Islam concerns gender equality. Their views are mirrored in studies of Muslim women's educational and status attainment. Secular feminists identify adherence to Islamic norms as a barrier to women's advancement (Ghoussoub 1987; Fish 2002; Karam 1998; Moghissi 1999). Those views suggest that socialization under Islamic norms ingrains patriarchal values as an inherent attribute of Muslim identity. Alexander and Welzel (2011) test whether Muslim support for patriarchal values persists under control of patriarchy's structural underpinnings and find that Muslim support for patriarchal values remains to be robust against various controls. Interestingly, their findings endorse the view that education and employment erode patriarchal values more rapidly among Muslim women than Muslim men. This is an important insight, as it suggests that one way to counter internalized sexism (sexist behaviors and attitudes enacted by women toward themselves or other women) is by educating Muslim girls and fostering employment opportunities for Muslim women . In the long run, strategies that create these opportunities for Muslim women could be viewed as key "treatments" for curbing Muslim support for patriarchal values.[12]

In summary, the evidence is inconclusive. Ross presents wide evidence for a structural interpretation but does not analyze the role of patriarchal values. His claim that oil-producing countries are left with atypically strong patriarchal norms because they reduce female labor force participation thereby reducing their political influence (which leaves governments with little incentive to act on their behalf) remains undemonstrated. While studies that take a legal-institutional approach by investigating the formal institutional set-up and the extent to which it impacts upon post-constitutional outcomes have, for the most part, overlooked the

[12] Alexander, A. & Welzel, C., 2011. Islam and Patriarchy: How Robust is Muslim Support for Patriarchal Values?. World Values Research, WVR Volume 4, Number 2,. Available at SSRN: https://ssrn.com/abstract=2390634

importance of culture. Put differently, they neglect a key driver that may hold significant explanatory power. As Inglehart and Norris (2003) put it, "*Where a culture of gender equality predominates, it provides a climate where de jure legal rights are more likely to be translated into de facto rights in practice; where institutional reforms are implemented in the workplace and public sphere; where women embrace expanded opportunities to attain literacy, education, and employment; and where the traditional roles of women and men are transformed within the house-hold and family.[…] The critical importance of culture is that women as well as men adopt the predominant attitudes, values, and beliefs about the appropriate division of sex roles within any society."*[13] While the authors provide extensive evidence for the cultural position, they fall prey to omitted variable bias by not considering both legal-institutional and structural factors. The next section introduces the theoretical framework that will later serve as the basis for the empirical research.

3. Theoretical Framework & Derivation of Hypotheses

The central premise of this thesis is that when it comes to the empowerment of women, culture matters. More attention ought to be given to the type of institutions, namely with respect to the formality classification, that structure recurring economic, social, and political interactions among different actors in any given society. This paper theorizes that, together with the formal institutional set-up, informal institutions will also play an important role in empowering women and closing the gender inequality gap witnessed in Muslim-majority countries. According to Voigt (2013), it is the informal institutional environment that determines whether de jure institutions will be factually implemented. The author mentions that, "*If one is interested in understanding why constitutional constraints [are binding] in some cases but not*

[13] Inglehart, R. & Norris, P. 2003b. Rising Tide: Gender Equality and Cultural Change Around the World. New York: Cambridge University Press, p. 8.

in others, it is not sufficient to look at a particular rule in isolation—the institutional environment needs to be taken into account explicitly."

Among the few broadly comparative studies reviewed in Section 2 which demonstrate the relevance of culture, none have tested *how much* culture matters, relative to other structural and formal-institutional factors associated with gender equality. As regards to institutional explanations of gender inequality, formal institutions have received the most empirical attention. Little attention has been given to the role of informal institutions, possibly because of the difficulty of coming up with an empirical proxies that capture all the facets of informal institutions, especially ones that are internationally comparable. After all, culture is a wide concept. In this respect, a proxy variable can provide valuable insights into the nature of this complex relationship. This study seeks to fill the existing gap in the literature by analyzing the role of different types of institutions – both formal and informal – that legitimize the social, political and economic male dominance in the society, and the extent to which such institutions can impact various outcomes of interest as pertaining to the socioeconomic empowerment of women in Muslim-majority countries. To fill the literature gap, the study takes a more nuanced look at the relationship between the overall institutional set-up of a given country (using proxies for formal as well as informal institutions) and legal gender equality. Put differently, the aim is to examine the effect of formal Islamic institutions or "Constitutional Islamization" on legal gender equality after accounting for informal institutional factors. The degree of legal gender discrimination is likely to vary from one society to another due to a myriad of reasons. Nevertheless, it remains unclear whether it is the formal institutional set-up that reinforces the highly patriarchal value-system to place women in a disadvantageous position in the social order, or if causality runs in the opposite direction. That is the main question that this thesis

attempts to answer. The aim is to place this debate in the proper cultural and societal context. What role, if any, do deeply embedded informal institutions play in dictating the socioeconomic and political outcomes of women in Muslim-majority countries? And more importantly, how important is culture, relative to de jure rights, formal conventions, and legal treaties? Is the emphasis on statutory reform and formal recognition of women's rights in international bodies sufficient to effect substantial and long-lasting social change if the capacity or the political will to implement these reforms remains weak?

The conjecture being presented in this paper is that the disproportionate legal gender inequality problem witnessed in the Muslim world is largely attributable to the informal institutional set-up and the prevailing cultural attitudes toward women, more so than the formal institutional set-up. It is the underlying culture of firmly held patriarchal values and narrowly-defined traditional gender roles that is keeping the gender inequality gap from closing.

The hypotheses advanced in this paper draw upon the branch of literature that attempts to offer an institutional interpretation for the gender inequality problem i.e. the institutional approach. This approach is based on New Institutional Economics (NIE) theory which seeks to understand of the role of social norms and institutions and extend the scope of analysis, first by delineating different types of institutions, and second, by measuring the economic effects of institutions that underlie economic, social, and political activities.

The first hypothesis concerns the influence of formal institutions, measured through different constitutional proxies, on legal gender equality. It is expected that women's legal and economic rights in general, and inheritance and property rights in particular, will be more systematically constrained in countries adopting Islamic constitutions. It is also expected that higher degrees

of constitutional Islamization (the more a constitution promises with respect to Islam) will be negatively associated with the level of legal gender equality.

The second hypothesis concerns the influence of informal institutions, measured through a cultural attitudes proxy, on legal gender equality. It is expected that women's legal and economic rights will be more constrained in countries where greater support for patriarchal values is observed.

The third hypothesis concerns the interplay between formal and informal institutions in driving legal gender equality. It is expected that the cultural attitudes will be a better predictor of the level of legal gender equality as compared to formal institutional proxies. Should this be confirmed by the data, it may suggest that culture plays a more significant role in driving the outcome variable, as compared to formal-legal institutions.

To test these hypotheses, the paper starts by exploring the bivariate relationships, followed by a multivariate analysis that investigates the direction and strength of relationship between the different types of institutions and gender differences in de jure legal & economic rights, after controlling for potential confounding factors, such as oil rents. This will be presented in the next section.

4. Methodology & Data Analysis

4.1. Data

A. Dependent Variable: How to Measure Legal Gender Equality?

The World Bank collected data on the laws and regulations that restrict women's economic opportunities and developed the Women, Business and the Law index (WBL) which measures legal rights of women in eight measurement areas. The index is composed of 35 questions grouped into eight indicators. Each indicator is structured around women's interactions with the law as they begin, progress through and end their careers as per the following categories: Going Places, Starting a Job, Getting Paid, Getting Married, Having Children, Running a Business, Managing Assets and Getting a Pension. Indicator-level scores are obtained by calculating the unweighted average of the 4 or 5 binary questions within each indicator and scaling the result to 100. Country-level "WBL index" scores are then calculated by taking the average of each indicator, with 100 representing the highest possible score. [14] The index explores how the economic decisions women make are affected by the law. An average global score is 74.71, as of 2018, indicates that a typical economy gives women only three-fourths the legal rights of men in the measured areas. However, the average score in the Middle East and North Africa is 47.37, meaning the typical economy in that region gives women less than half the legal rights of men in the measured areas.[15] To ensure their relevance to women's human and economic rights, each question is supported by the international legal framework set out in the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). Answers to the questions are based on codified law only; how the law is implemented is not considered. Customary law is also not taken into account

[14] More information on the construction of the index, the methodology and the scoring for each question can be found in the Data Notes, available on the Women, Business and the Law website at http://wbl.worldbank.org

[15] World Bank Group, 2019. Women, Business and the Law 2019 : A Decade of Reform. World Bank, Washington, DC. World Bank. https://openknowledge.worldbank.org/handle/10986/31327 License: CC BY 3.0 IGO.

unless it has been codified. All indicators are based on statistically significant associations with outcomes related to women's economic empowerment, in particular with women's labor force participation as well as with other outcomes of interest.

For our empirical analysis, this paper will employ the WBL index as the primary dependent variable. We also employ on of the WBL sub-indicators, the "Managing Assets" indicator (MA) in our bivariate analysis. The MA indicator is composed of 5 binary questions that consider gender differences in inheritance and property rights. Indicator-level scores are obtained by tallying the unweighted scores of the 5 questions, for each country, with 100 representing the highest possible score. Every "yes" amounts to 20 points. For example, in the year 2018, Egypt scored 40 out of 100 as per the Table 1 below. Germany scored 100 out of 100, meaning equal treatment of men and women in this area.

Table 1 Managing Assets Indicator Score for Egypt in 2018

Questions	Answers
1. Do men and married women have equal ownership rights to property?	Yes = 20 points
2. Do sons and daughters have equal rights to inherit assets from their parents?	No = 0 points
3. Do female and male surviving spouses have equal rights to inherit assets?	No = 0 points
4. Does the law grant spouses equal administrative authority over assets during marriage?	Yes = 20 points
5. Does the law provide for valuation of nonmonetary contributions?	No = 0 points

Source: Women, Business and the Law, 2019.

B. Independent Variables

(1) Formal Institutions: How to Measure Constitutional Islamization?

Ahmed and Gouda (2015) introduce an Islamic Constitutions Index (ICI) to measure and rank constitutions according to their "Islamicity", using data from Comparative Constitutions Project of Elkins et al. (2009). The index measures "constitutional Islamization" by

distinguishing between countries who are members of the Organization of Islamic Cooperation (OIC) that have Islamic constitutions and those that do not. The authors use the Al-Azhar constitution – developed by Al-Azhar University as a "model constitution" to be followed by Muslim countries – as a reference point against which the constitutions of OIC members are compared in order to determine their degree of alignment with the "model constitution". [16] Each country's score on the index is simply the total number of Islamic clauses in its constitution. Researchers then rank all countries according to their Islamicity. The more a constitution promises with respect to Islam, the more Islamic it is and the higher its score and thus, its ranking. Accordingly, a score of zero indicates that the country in question has not undergone any degree of Constitutional Islamization while scores above zero illustrate Islamization—the higher the number, the greater the influence of Islamic Sharia on the country's constitution. The authors limit their dataset to the 56 OIC member countries, however, the sample chosen for this study spans 58 countries, of which only 18 are OIC member countries due to the unavailability of data for the primary dependent and independent variables across all measured areas. As regards the ICI score for non-OIC countries, a non-OIC country automatically receives a score of zero. A dichotomized version of the ICI called "Islamic Constitutions Dummy" (ICD) is also operationalized to capture the mean difference between Islamic and non-Islamic constitutions, irrespective of the degree of entrenchment of Islam or adherence to Islamic Sharia law. The ICD takes the value of 1 if the constitution of the country in question underwent any degree of Islamization i.e. received a positive score on the ICI, and 0 otherwise. In the chosen sample, 11 out of 58 countries have undergone some

[16] Ahmed, D., & Gouda, M., 2015. Measuring constitutional Islamization: Insights from the Islamic Constitutions Index. Hastings International and Comparative Law Review,38(1), 1–76.

degree of constitutional Islamization. Table 2 demonstrates the ranking of countries included in the sample based on the degree of constitutional Islamization (ICI scores).

Table 2 Ranking of Countries Based on the Degree of Constitutional Islamization

S.N.	Country	ICI	S.N.	Country	ICI
1	Pakistan	17	30	Thailand	0
2	Iraq	13	31	Korea, Rep.	0
3	Egypt	11	32	Singapore	0
4	Morocco	10	33	China	0
5	Algeria	9	34	Ukraine	0
6	Libya	8	35	Estonia	0
7	Kuwait	8	36	Romania	0
8	Qatar	8	37	Hong Kong	0
9	Tunisia	6	38	Cyprus	0
10	Malaysia	6	39	Ecuador	0
11	Jordan	4	40	Japan	0
12	Uzbekistan	0	41	Chile	0
13	Nigeria	0	42	Taiwan, China	0
14	Azerbaijan	0	43	Mexico	0
15	Ghana	0	44	Colombia	0
16	Turkey	0	45	Trinidad and Tobago	0
17	Kyrgyz Republic	0	46	Brazil	0
18	Haiti	0	47	Poland	0
19	Armenia	0	48	Argentina	0
20	Philippines	0	49	Peru	0
21	India	0	50	Germany	0
22	Kazakhstan	0	51	Slovenia	0
23	Lebanon	0	52	Uruguay	0
24	Rwanda	0	53	United States	0
25	South Africa	0	54	Australia	0
26	Zimbabwe	0	55	Spain	0
27	Belarus	0	56	New Zealand	0
28	Georgia	0	57	Sweden	0
29	Russian Federation	0	58	Netherlands	0

Source: Ahmed and Gouda (2015).

Table 3 depicts countries included in the sample that have Islamic constitutions and those who do not (ICD scores).

Table 3 Countries with Islamic Constitutions and Countries with Non-Islamic Constitutions

Islamic Constitutions	**Non-Islamic Constitutions**		
Algeria	Argentina	Hong Kong	Rwanda
Egypt	Armenia	India	Singapore
Iraq	Australia	Japan	Slovenia
Jordan	Azerbaijan	Kazakhstan	South Africa
Kuwait	Belarus	Korea, Rep.	Spain
Libya	Brazil	Kyrgyz Republic	Sweden
Malaysia	Chile	Lebanon	Taiwan, China
Morocco	China	Mexico	Thailand
Pakistan	Colombia	Netherlands	Trinidad and Tobago
Qatar	Cyprus	New Zealand	Turkey
Tunisia	Ecuador	Nigeria	Ukraine
	Estonia	Peru	United States
	Georgia	Philippines	Uruguay
	Germany	Poland	Uzbekistan
	Ghana	Romania	Zimbabwe
	Haiti	Russian Federation	

(2) Informal Institutions: How to Measure Cultural Attitudes Toward Women Empowerment?

To proxy for informal institutions, the study introduces a new index "Support for Patriarchal Values" (SPV) that measures the degree of societal endorsement of patriarchal values and traditional gender roles, using survey data/items from World Values Survey Wave 6 (2010-2014). Wave 6 of the WVS includes a number of items measuring attitudes toward gender role equality in the home and family, the labor force, as well as the public sphere. Table 4 shows five such items that were found to represent respondents' support for patriarchal values and general attitude toward traditional gender roles and male privilege:

Table 4 WVS Wave 6 Items Representing Support for Patriarchal Values

Ref.	Question	Measure
V45	When jobs are scarce, men should have more right to a job than women	Percentage of respondents who answered with "Agree"
V47	If a woman earns more money than her husband, it's almost certain to cause problems	Percentage of respondents who answered with "Agree"
V51	On the whole, men make better political leaders than women do	Percentage of respondents who answered with "Agree strongly" or "Agree"
V52	A university education is more important for a boy than for a girl	Percentage of respondents who answered with "Agree strongly" or "Agree"
V53	On the whole, men make better business executives than women do	Percentage of respondents who answered with "Agree strongly" or "Agree"

For variables V45 and V47, the question reads: "Do you agree, disagree or neither agree nor disagree with the following statements?" Then the statement in variable V45 reads: "When jobs are scarce, men should have more right to a job than women." For variable 47, the statement reads: "If a woman earns more money than her husband, it's almost certain to cause problems."

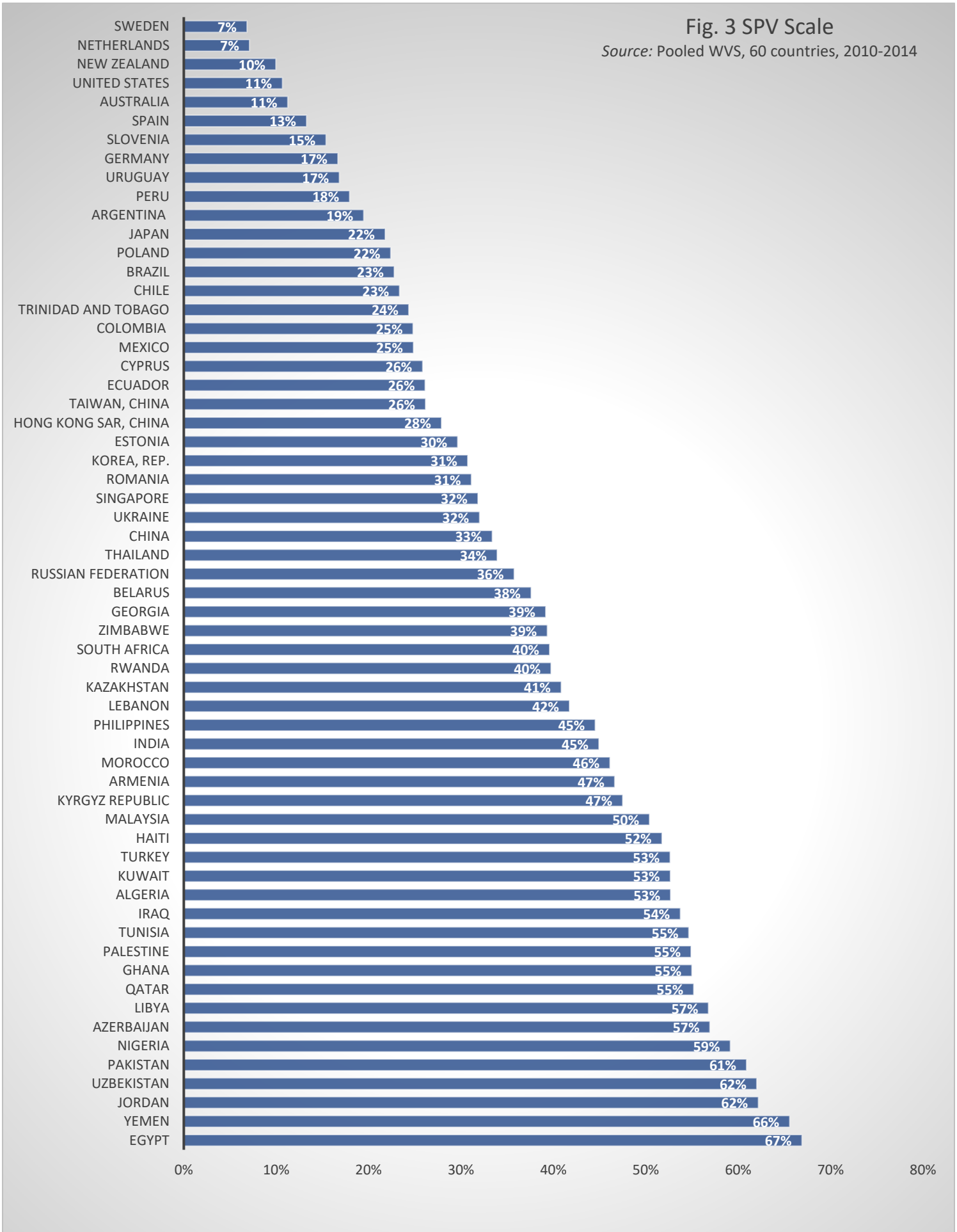
For variables V51, V52, and V53, the questions read as follows: “Do you strongly agree, agree, disagree, or strongly disagree?” Then the statement in variable V51 reads: “On the whole men make better political leaders than women do.” The statement in variable V52 reads: “A university education is more important for a boy than for a girl.” The statement in variable V53 reads; “On the whole, men make better business executives than women do.”

Each of these statements offers a rank-ordered response option. For the first two questions, a rank of 1 represents “Agree” and for the following three questions, a rank of 1 represents “Agree strongly” and a rank of 2 represents “Agree”. For each question, we tally the count of “Agree strongly” and/or “Agree” responses in order to arrive at the percentage of respondents who adopt a patriarchal position with regards to sex roles and gender equality. For simplification purposes, we do not take into account the intensity of a respondent’s support, rather we consider that any level of endorsement for such statements as an indication of support for patriarchal values and traditional gender roles.

The comparison of responses in Figure 3, ranking countries from most egalitarian to most traditional, shows that there are substantial cross-national differences in attitudes toward women’s empowerment. Interestingly, countries that proved most supportive towards the empowerment of women include non-Islamic high-income countries like Sweden, the Netherlands, New Zealand, the United States, and Australia. Countries that proved most traditional include low-income Islamic countries such as Pakistan, Uzbekistan, Jordan, Yemen, and Egypt. This is in line with the first and second hypotheses.

Fig. 3 SPV Scale

Source: Pooled WVS, 60 countries, 2010-2014



4.2. Descriptive Statistics & Bivariate Analysis

Table 5 provides the descriptive statistics for all variables in countries adopting Islamic constitutions (ICD = 1) versus countries adopting non-Islamic constitutions (ICD = 0). The cross-sectional sample is comprised of 58 observations. The number of countries adopting Islamic constitutions is 11. The countries with Islamic constitutions appear to have significantly lower levels of legal gender equality than other countries. The difference is more pronounced for inheritance & property rights (measured by the MA indicator). In addition, countries with Islamic constitutions appear to be less democratic and more dependent on oil rents. Unsurprisingly, the Muslim population share is significantly higher in countries adopting Islamic constitutions.

Table 5 Descriptive Statistics

	ICD = 1					**ICD = 0**				
Variable	*Obs.*	*Mean*	*SD*	*Min.*	*Max.*	*Obs.*	*Mean*	*SD*	*Min.*	*Max.*
Legal Gender Equality (WBL)	11	48.8	3.7	32.5	73.1	47	82.8	1.4	58.1	100
Managing Assets (MA)	11	41.8	1.8	40	60	47	95.7	1.7	40.0	100
Islamic Constitutions Index (ICI)	11	9	1	4	17	47	0	0	0	0
Support for Patriarchal Values (SPV)	11	0.56	0.02	0.46	0.67	47	0.31	0.02	0.07	0.62
Log GDP per capita (GDP)	11	3.8	0.1	3.2	4.8	47	4.0	0.1	2.9	4.8
Democracy Index (DI)	11	4.2	0.4	2.2	6.9	47	6.2	0.3	2.0	9.4
Globalization Index (GI)	11	64.1	3.4	42.7	81.1	47	70.4	1.6	46.7	91.0
Muslim Population Share (MP)	11	0.9	0.0	0.6	1.0	47	0.2	0.1	0.0	2.8
Oil Rents as % of GDP (OR)	11	13.3	4.8	0.0	37.8	47	1.3	0.5	0.0	17.9
Islamic Constitutions Dummy (ICD)	11	1.0	0.0	1.0	1.0	47	0.0	0.0	0.0	0.0

4.2.1. The Relationship between Constitutional Islamization and Legal Gender Equality

To illustrate the relationship between legal gender equality and constitutional Islamization, we first present the descriptive statistics of the WBL index and the MA indicator in countries with Islamic constitutions (ICD = 1) compared to countries with non-Islamic constitutions (ICD = 0).

Figure 1 shows that legal gender equality is more constrained in countries with Islamic constitutions (48.81) compared to countries without Islamic constitutions (82.83).

Figure 2 shows that women's ability to inherit, own and manage property is significantly more constrained in countries with Islamic constitutions (41.82) compared to countries with non-Islamic constitutions (95.74).

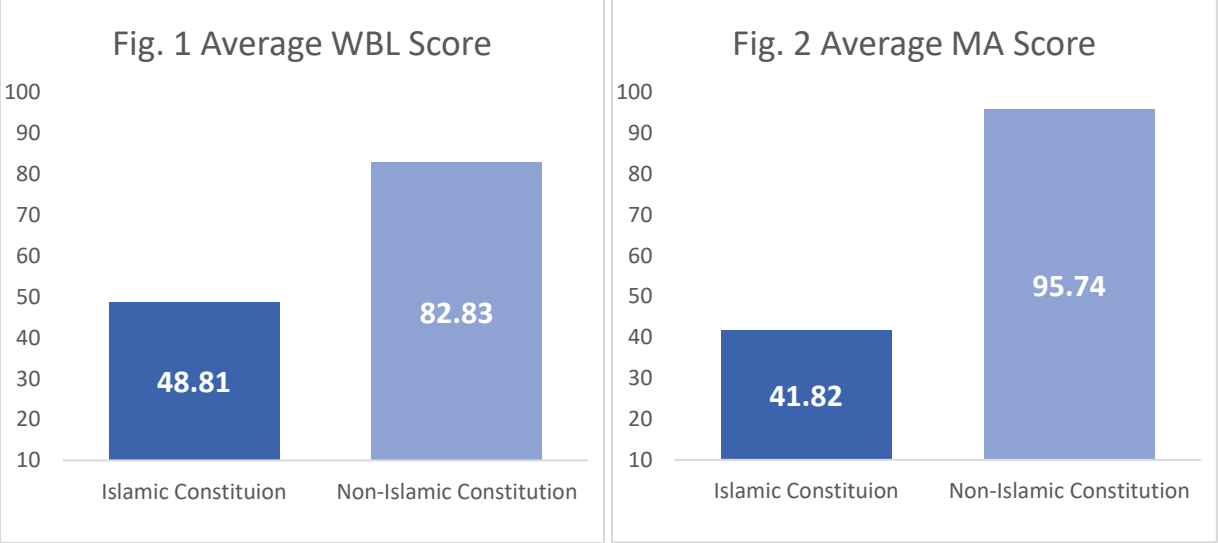


Fig. 1. Legal gender equality in countries with Islamic Constitutions (ICD = 1) and countries with non-Islamic constitutions (ICD = 0). Number of countries with Islamic constitutions: 11, number of other countries: 47.
Fig. 2. Women's inheritance and property rights in countries with Islamic Constitutions (ICD = 1) and countries with non-Islamic Constitutions (ICD = 0). Number of countries with Islamic Constitutions: 11, number of other countries: 47.

The bivariate correlation between constitutional Islamization (measured by ICI) and legal gender equality is strong and statistically significant ($r = -0.73$, $p = 0.00$). The relationship also holds for the dichotomized variable ICD ($r = -0.81$, $p = 0.00$). The correlation between a country having an

Islamic constitution (ICD = 1) and the existence of gender differences in inheritance and property rights is by far the strongest (r = -0.89). These bivariate results are in line with the first hypothesis.

4.2.2. The Relationship between Cultural Attitudes and Legal Gender Equality

We have seen the significant variation in attitudes toward gender equality across countries, but do these cultural patterns matter in reality? More precisely, do more egalitarian attitudes toward women influence the de jure level of legal gender equality afforded to women? Figure 4 shows the relationship between attitudes toward women empowerment and legal gender equality. The bivariate correlation reveals a strong and significant relationship between cultural attitudes (measured by SPV) and legal gender equality (r = -0.77, p = 0.00). This supports the second hypothesis.

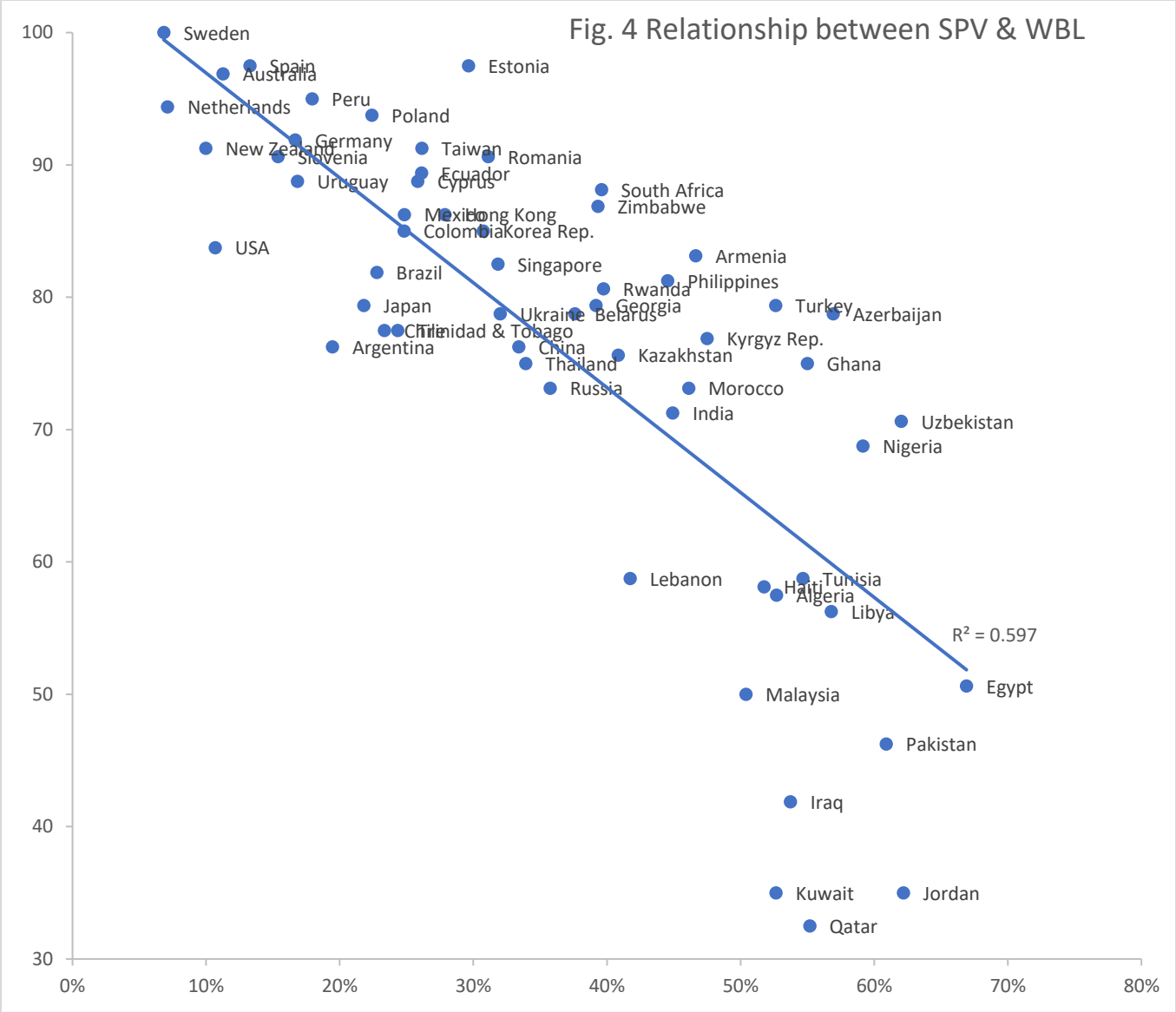


Fig. 4. Relationship between attitudes toward women empowerment and legal gender equality.

So far, a number of pronounced differences have been established between the two groups. However, an empirical analysis can give a more in-depth perspective on the relationship between Islamic constitutions, culture, and legal gender equality. This will be the subject of the next section.

4.3. Multivariate Analysis

The bivariate analysis indicates some strong associations between legal gender equality and constitutional Islamization, as well as cultural attitudes measured through the SPV index. But

bivariate correlations do not paint a complete picture. This section investigates the strength and direction of the relationship between Islamic institutions and legal gender equality in a multivariate analysis where cultural factors are taken into account.

The basic econometric model has the following form:

$$\boldsymbol{WBL_i = \alpha + \beta X_i + \gamma SPV_i + \delta M_{ik} + u_i}$$

with i = 1, …,58; k = 1, ... ,5

where WBL is the dependent variable describing the level of legal gender equality and i is a country-specific subscript. X is the constitutional proxy variable (ICI or the dummy ICD); SPV is the Support for Patriarchal Values i.e. the cultural proxy. M is a vector of five control variables: the share of Muslim population, the logarithm of per capita GDP, a democracy variable, a globalization variable, and an oil rents variable (as a percentage of GDP). The share of Muslim population is taken from Gutmann and Voigt (2015).[17] Discrimination against women is likely to be more pronounced when the share of Muslims is large. Conversely, discrimination against women is likely to be less pronounced in high-income countries, and countries that are more democratic. Th democracy variable is the Economist Intelligence Unit's Democracy Index (EIU) from the 2018 EIU Democracy Index report.[18] The globalization variable "KOF Globalization Index" is by Gygli et al. (201); the index captures the economic, social and political dimensions of globalization.[19] Globalization has been shown to promote gender equality.[20] The oil rents variable (% of GDP) is also included as gender equality has been shown to be lower in countries where oil wealth is pronounced. The paper acknowledges that a sample comprised of 58

[17] Share of Muslims in the population: 0–1; Maoz and Henderson 2013; v1.1; mean for 2000, 2005 and 2010. Original source: Maoz, Z., & Henderson, E. A. (2013). The world religion dataset, 1945–2010: Logic, estimates, and trends. International Interactions, 39(3), 265–291.

[18] Democracy index ranges from 0 (least democratic) to 10 (most democratic). The index is based on 5 categories: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture.

[19] Data taken from the year 2016, dataset available at: https://ethz.ch/content/dam/ethz/special-interest/dual/kof-dam/documents/Globalization/2018/Data_2018_2.xlsx

[20] See Potrafke, 2015; for a comprehensive survey on the consequences of globalization.

observations is small and that the properties of the OLS estimator only hold for larger samples. For those reasons, the number of independent variables is kept to a minimum so as not to further reduce the degrees of freedom. Another potential problem with testing all of these variables together is multicollinearity. The bivariate correlations between the independent variables are documented in Table A1 in the Appendix. The Support for Patriarchal Values Index and the Democracy Index exhibit the strongest correlation, followed closely by the GDP variable and the Globalization Index. Countries with Islamic constitutions tend to support patriarchal values more; they are also more dependent on oil rents, and less democratic. The paper also acknowledges that the globalization, democracy, and GDP variables may specifically give rise to a multicollinearity problem and that their inclusion may bias the estimates. Nonetheless, their exclusion is also likely to give rise to omitted variable bias. Accordingly, the control variables are sequentially introduced in the second stage regression. This should have no bearing on the inferences regarding the ICI, ICD, and SPV variables.

The study estimates a set of simple cross-sectional models, since the constitutional proxies (ICI and ICD) are time invariant. All models are estimated using OLS with robust standard errors. Table A2 in the Appendix shows the descriptive statistics of the full sample (58 observations) for the dependent and independent variables.

First, the paper tests the following relationships:

i. The relationship between legal gender equality and constitutional Islamization as a proxy for formal institutions. Columns (1) and (2) in Table 6 show the results using the ICI and ICD respectively.

ii. The relationship between legal gender equality and support for patriarchal values as a proxy for informal institutions. Column (3) in Table 6 shows the results using SPV.

The 3 independent variables ICI, ICD and SPV are regressed on WBL in 3 distinct estimations to capture the effect of formal institutions and the effect of informal institutions, separately. Table 6 shows the regression results for the 3 estimations. In columns (1), (2), and (3), ICI, ICD, and SPV show the expected sign and the three coefficients are individually statistically significant at the 1% level. Those results are in line with the first hypothesis

Table 6 Regression results.

Dependent variable: WBL Index			
Independent variable of interest	ICI	ICD	SPV
OLS with robust standard errors			
	(1)	(2)	(3)
ICI	-2.161***		
	(0.443)		
GDP	0.319	-1.267	-9.814*
	(4.956)	(4.262)	(5.170)
DI	2.593**	2.180**	-0.272
	(0.992)	(0.852)	(1.089)
GI	0.00249	0.212	0.132
	(0.230)	(0.198)	(0.222)
MP	-3.203	-0.948	-1.751
	(3.483)	(3.028)	(3.428)
OR	-0.196	-0.0193	-0.331
	(0.228)	(0.200)	(0.212)
ICD		-27.69***	
		(3.891)	
SPV			-86.72***
			(15.98)
Constant	65.23***	59.61***	140.7***
	(11.75)	(10.04)	(18.65)
Observations	58	58	58
R-squared	0.674	0.760	0.697

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The second stage regressions test the relationship between legal gender equality and constitutional Islamization as a proxy for formal institutions, after accounting for informal institutional factors through the proxy variable SPV. This is done as an attempt to capture the overall institutional set-up (formal and informal) in a specific country. Since ICD is simply a dichotomized version of the ICI index, two forms of the model are estimated: one using the ICI as the variable of interest, and one using the ICD as the variable of interest. Table 7 shows the regression results of regressors ICI and SPV. Table 8 shows the regression results of regressors ICD and SPV. The variables are sequentially introduced as per columns (1) through (7). The 3 main independent variables are individually statistically significant and jointly statistically significant at the 1% level. Once the SPV variable is introduced, the coefficient on constitutional Islamization is reduced by roughly 40%. This is in line with the second hypothesis that informal institutions, namely, cultural attitudes will play a role in determining the level of legal gender equality. The Muslim population share is statistically insignificant which means that the proportion of Muslims in a given society has no bearing on the observed variation in legal gender equality. The logged GDP per capita variable has an unexpected negative sign and is statistically significant at the 5% in estimations (3) through (6) and at the 1% level in estimation (7). At first glance, those results suggest a negative effect of income on legal gender equality, however, a simple linear regression model (where the GDP variable is regressed on WBL) reveals the opposite. The GDP variable shows a positive sign and the coefficient is statistically significant at the 5% level. This suggests that the negative sign in the multiple regression results may be due to a simultaneity problem between the independent variables. The oil rents variable has the expected sign but is statistically insignificant. This might be due to limitations with the data. The chosen sample only includes four OPEC member countries with Islamic constitutions (Algeria, Iraq, Kuwait, and Libya), thus, in order to test the suitability

of the structural approach in explaining the inequality problem, a larger dataset spanning all 56 OIC member countries would have to be used.

Table 7 Regression Results.
Dependent variable: WBL Index. Independent Variable of Interest: ICI Index

OLS with robust standard errors

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ICI	-3.134***	-1.876***	-1.634***	-1.653***	-1.598***	-1.614***	-1.544***
	(0.390)	(0.360)	(0.360)	(0.361)	(0.368)	(0.386)	(0.404)
SPV		-54.40***	-73.07***	-65.60***	-66.86***	-67.56***	-66.75***
		(8.625)	(11.33)	(13.99)	(14.13)	(14.98)	(15.13)
GDP			-7.250**	-7.486**	-9.353**	-9.307**	-7.769*
			(3.006)	(3.022)	(3.816)	(3.864)	(4.626)
DI				0.803	0.531	0.539	0.406
				(0.878)	(0.944)	(0.954)	(0.984)
GI					0.140	0.136	0.0844
					(0.174)	(0.177)	(0.198)
MP						0.466	0.756
						(3.062)	(3.117)
OR							-0.121
							(0.196)
Constant	81.79***	99.17***	134.2***	127.8***	127.5***	127.6***	125.8***
	(1.652)	(3.035)	(14.82)	(16.42)	(16.48)	(16.67)	(17.03)
Observations	58	58	58	58	58	58	58
R-squared	0.535	0.730	0.757	0.760	0.763	0.763	0.765

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 8 Regression results.
Dependent variable: WBL Index. Independent Variable of Interest: ICD dummy

OLS with robust standard errors							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ICD	-34.03***	-22.63***	-20.58***	-21.03***	-20.79***	-21.33***	-21.28***
	(3.350)	(3.280)	(3.572)	(3.567)	(3.525)	(3.694)	(3.956)
SPV		-46.85***	-58.50***	-48.26***	-49.18***	-51.06***	-51.05***
		(7.961)	(11.50)	(13.93)	(13.76)	(14.31)	(14.45)
GDP			-4.084	-4.294	-7.338**	-7.167**	-7.078*
			(2.932)	(2.919)	(3.493)	(3.532)	(4.187)
DI				1.042	0.588	0.611	0.603
				(0.809)	(0.851)	(0.859)	(0.890)
GI					0.239	0.230	0.227
					(0.155)	(0.157)	(0.179)
MP						1.465	1.480
						(2.767)	(2.821)
OR							-0.00739
							(0.181)
Constant	82.83***	97.52***	117.5***	108.7***	107.2***	107.2***	107.2***
	(1.459)	(2.748)	(14.62)	(16.07)	(15.90)	(16.01)	(16.24)
Observations	58	58	58	58	58	58	58
R-squared	0.648	0.784	0.792	0.798	0.807	0.808	0.808

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4.4. Robustness Checks

To test the reliability of the empirical results, the paper employs a “Supremacy of Islam” dummy variable, in lieu of the two constitutional Islamization proxies ICI and ICD. To create this variable, the paper draws on the methodology introduced by Ahmed and Gouda (2015) who code the intensity of Islamization by identifying clauses in constitutions that privilege the status of Islamic law with respect to i) Islam and ii) the law. The researchers ask: Is Islam a source of legislation? And if so, how is it referenced? With respect to Islam, one point is given if the clause refers to

"principles" of Islam/Islamic law/Sharia. Two points are given if it refers directly to Islam/Islamic law/Sharia. With respect to the law, one/two/three points are added if the clause states that Islam (or its principles) is a/a primary or foundational/the (only) source of law. This separates Islamized constitutions into two groups: low-supremacy of Islam, and high-supremacy of Islam. For a more rigorous test, the variable is recoded to take the value of 1 if the original score was 4 or 5 (high supremacy), and zero otherwise (low supremacy). The rationale behind this recodification is that any score above 3 means that the constitutions in question provides that Islam/Islamic law/Sharia is either a foundational source, or the only source of legislation. In the chosen sample, only 4 out of 58 countries fall into the "high supremacy of Islam" group. Table 9 shows the regression results when the Supremacy dummy is used as an independent variable. The Supremacy Dummy and the SPV show the expected signs and are jointly statistically significant at the 1% level. This result corroborates the findings of the baseline model. As another robustness check, the paper employs a "High Support for Patriarchal Values" dummy variable (HSPV), in lieu of the continuous cultural attitudes proxy (SPV). This variable is meant to capture countries where the support for patriarchal values exceeds the sample mean by more than one standard deviation. The HSPV dummy takes the value of 1 if the country score is above 0.52 (sample mean + one SD), and 0 otherwise. Table 10 shows the regression results when the HSPV dummy is used together with the Supremacy Dummy. The HSPV dummy and the Supremacy Dummy show the expected signs and are jointly statistically significant at the 1% level. This result also corroborates the findings of the baseline model.

Table 9 Regression results.
OLS with robust standard errors

Dependent variable: WBL Index	(1)
SupremacyDummy	-29.11***
	(10.63)
SPV	-77.60***
	(15.41)
GDP	-5.585
	(5.110)
DI	-0.137
	(1.027)
GI	0.0820
	(0.210)
MP	-2.223
	(3.235)
OR	0.349
	(0.319)
Constant	123.0***
	(18.72)
Observations	58
R-squared	0.736

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 10 Regression results.
OLS with robust standard errors

Dependent variable: WBL Index	(1)
SupremacyDummy	-38.80***
	(11.82)
HSPVDummy	-13.27***
	(4.616)
GDP	5.157
	(5.273)
DI	1.858*
	(1.040)
GI	-0.0632
	(0.238)
MP	-4.686
	(3.651)
OR	0.586
	(0.367)
Constant	54.69***
	(12.92)
Observations	58
R-squared	0.658

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

5. Conclusion

Legal gender discrimination may very well have lasting effects on women's educational opportunities, labor force participation, as well as their economic and political inclusion. In search of reasons for the prevalence of gender-based inequality in Muslim countries, multiple hypotheses have been tested. The related literature can generally be divided into two broad categories: structural explanations of gender-based inequality, and institutional explanations of gender-based inequality. The hypotheses advanced in this paper draw upon the branch of literature that attempts to offer an institutional interpretation for the gender inequality problem i.e. the institutional approach. The objective of this study is to examine the connection between institutions and the empowerment of Muslim women. Thus far, formal institutions have received the most empirical attention. The dominant institutional explanation of the inferior status of women in Muslim countries has been largely focused on the effect of the specific set of formal institutions adopted in those countries - namely constitutional rules – and the extent to which they could be reconciled with Western notions of rule of law. Such studies tend to attribute the problem to Islamic constitutions, or the entrenchment of Islam in the constitutions of Muslim countries. The study, however, points towards cultural factors as a likely determinant of legal gender discrimination. The effect of culture has been largely overlooked by researchers, possibly due to the difficulty of coming up with an empirical proxies that capture the numerous facets of informal institutions, especially ones that are internationally comparable. Among the few broadly comparative studies which demonstrate the relevance of culture, none have tested *how much* culture matters, relative to other structural and formal-institutional factors associated with gender equality. To fill the literature gap, this study takes a more nuanced look at the relationship between the overall institutional set-up in a given country (using proxies for formal and informal institutions) and legal

gender equality, across a cross-sectional sample of 58 countries. To capture the effect of formal Islamic institutions, the paper employs three different measures of constitutional Islamization. As for capturing the effect of informal institutions, the study introduces a cultural proxy to measure the degree of societal endorsement of patriarchal values and traditional gender roles. The main dependent variable is the World Bank's "Women, Business, and the Law" index which measures the legal rights of women as they go through different stages of their working lives. The study estimates a set of simple cross-sectional models using ordinary least squares (OLS). The results show that women's legal and economic rights are more systematically constrained in countries adopting Islamic constitutions. Additionally, greater societal endorsement for patriarchal values and an affinity for traditional gender roles show a statistically significant effect on the levels of legal gender equality. A jointly significant relationship between the formal and informal institutional proxies is also confirmed by the data. These findings emphasize the role of informal institutions as another culprit for the prominent gender inequality gap witnessed in the Muslim world today. Discrimination may very well finds its roots in the culture of firmly-held patriarchal values and narrowly-defined traditional gender roles which dominate Muslim countries. Evidence suggests that two factors can influence patriarchal values, especially among Muslim women: education and employment. As women become more economically and socially independent, they tend to lower their support for patriarchal values (Blaydes & Linzer 2008; Alexander & Welzel, 2011) This is an important insight as it suggests that one way to counter internalized sexism is by educating Muslim girls and fostering employment opportunities for Muslim women. Perhaps, the emphasis on constitutional reform is not enough to effect substantial and long-lasting change. Governments may need to shift their attention to public education and the creation of economically empowering opportunities for women. That said, a more rigorous analysis into the determinants

of patriarchal attitudes across different population subgroups is needed to determine if these cultural patterns hold for different subgroups, be they defined by age, sex, education, religiosity or income. This is an area for future research that may aid policymakers in their efforts to develop more informed and effective strategies that foster emancipative values and egalitarian attitudes in Muslim communities.

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Appendix

See Tables A1 and A2.

Table A1 Correlation Matrix (independent variables)

	ICI	*SPV*	*GDP*	*DI*	*GI*	*MP*	*OR*	*ICD*
ICI	1.00							
SPV	0.55	1.00						
Log GDP per capita (GDP)	-0.20	-0.67	1.00					
Democracy Index (DI)	-0.38	-0.77	0.56	1.00				
Globalization Index (GI)	-0.32	-0.63	0.76	0.65	1.00			
Muslim Pop. Share (MP)	0.52	0.64	-0.38	-0.48	-0.33	1.00		
Oil Rents (OR)	0.53	0.39	0.01	-0.45	-0.35	0.37	1.00	
ICD	-	0.59	-0.14	-0.39	-0.22	0.55	0.54	1.00

Note: We run the regression once using the ICI discrete variable, and once with the ICD dummy variable to capture the mean difference between countries that adopt Islamic constitutions and countries that do not.

Table A2 Descriptive Statistics (Full sample)

Variable	*Obs.*	*Mean*	*SD*	*Min.*	*Max.*
Legal Gender Equality (WBL)	58	76.4	16.7	32.5	100.0
Islamic Constitutions Index (ICI)*	58	2	4	0	17
Support for Patriarchal Values (SPV)	58	0.36	0.16	0.07	0.67
Log GDP per capita (GDP)	58	4.0	0.5	2.9	4.8
Democracy Index (DI)	58	5.8	2.0	2.0	9.4
Globalization Index (GI)	58	69.2	11.2	42.7	91.0
Muslim Population Share (MP)	58	0.3	0.5	0.0	2.8
Oil Rents as % of GDP (OR)	58	3.6	8.7	0.0	37.8
Islamic Constitutions Dummy (ICD)*	58	0.2	0.4	0.0	1.0

Note: The two independent variables ICI and ICD are included in separate models as the latter is simply a dichotomized version of the former.