The Variation in Women's Political Representation in National Parliaments Across the MENA Region from 2000 to 2017

By

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Abstract

This thesis seeks to determine what accounts for the variation in women's representation in national parliaments across the Middle East North African region (MENA region) between 2000 and 2017. The thesis scrutinizes the political, socioeconomic and cultural factors that may have an impact on the proportion of parliamentary seats held by women in the region. This is conducted, first, by (1) examining the literature about women's representation in politics; (2) identifying possible factors that may play a role in the variation in women's representation across the MENA region; and finally (3) assessing the impact of these factors on women's representation through multivariate regression analysis. This is largely because gender inequality in political representation across the MENA region has received very little attention. This study underlines that the ideal conditions for a high women's political representation across the MENA region are a proportional representation (PR) electoral system, higher level of democracy, earlier suffrage, higher level of women's labor force participation and less dependence on religion as a source of laws and attitudes.

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Chapter 1: Introduction

1- General Context

The dramatic self-immolation of a young fruit vendor in December 2010 triggered a series of unexpected demonstrations not only in Tunisia, but throughout many countries in the Middle East and North Africa including Algeria, Jordan, Egypt and Yemen. These demonstrations are often referred to as the Arab Spring uprisings. These uprisings aspired to establish a new political structure, by changing the regime, shifting to democracy and promoting human rights and liberty. Never before in the history of the modern Arab world had popular revolutions overthrown dictators. What was even more interesting was the fact that women contributed to the success of some of these movements (The Guardian, April 2012). These revolutions emerged as a chain of efforts and micro narratives whose chapters have been written in concert between men and women (FIDH, 2012). Since 2010, women have been in the streets calling for more freedom, more dignity and an immediate regime change. The conventional image of Arab women as passive, indifferent and subservient was definitely reevaluated (Awad and Kirner-Ludwig, 2017). Although women, during these movements, experienced all kinds of torture, ranging from physical violence, sexual harassment and even rape, they bravely continued fighting for their rights (The Guardian, April 2012). After the fall of many of the entrenched dictators in the region, there was a legitimate hope that women would restore their natural rights and actively participate in the political transition (Sjoberg and Whooley, 2015)

Since the eruption of the Arab Spring, gender inequality remains one of the most challenging obstacles to democracy in the MENA region' societies. Women's representation in politics is low compared to many parts of the word (Tremblay, 2007) and despite the spread of the spirit of

freedom and liberty, and although the majority of women in the MENA region enjoy the right to vote, the existing data show that women are underrepresented in national parliaments. Gender inequality in legislative representation remarkably varies across the MENA region: with the exception of Tunisia and Algeria which scored more than 30% according to the Inter-Parliamentary Union's data, women in other MENA region countries share few seats in their national legislative bodies (Inter-Parliamentary Union, 2017). Notwithstanding the shared language, history, religion, culture and geography, the variation in women's representation in parliaments is substantial. For instance, Tunisia and Egypt are neighboring countries, with almost the same cultural attitudes and values, language and economic and social context. They even experienced their uprisings in the same period. Yet in Tunisia, women make up 31.3% of the legislature while in Egypt the proportion is only 14.9%. This thesis seeks to understand why these differences in representation exist.

2- Research Question and Objective

This thesis seeks to answer the following question: what accounts for the variation in women's representation in national parliaments across the MENA region? It will delve into the factors that may account for variation by (1) examining the existing academic literature about women's representation in politics around the globe, largely based on trends in western democracies; (2) identifying the way in which these explanations may be relevant to the MENA context; and finally (3) assessing the impact of these factors through a quantitative analysis of the relationship between political, socioeconomic and cultural issues, and women's political representation in the MENA region. To date, gender inequality in political representation has received very little attention by researchers. This may be because all efforts are being made to get a better understanding of the Arab Spring, as it is a quite new phenomenon (Cohen, 2016; Springborg, 2011; Mulderig, 2013). Historically, there has always been a lack of interest in gender related issues especially in the

MENA region. Keddie argues that there is almost no serious scholarly work on the Middle Eastern women (Keddie, 1979), and suggests that this is due to methodological challenges that are common to the Third World studies and the Middle East in particular (Keddie, 1979: p 225). She further argued that the most obvious problem is that no serious historical works has been done on Middle Eastern women (Keddie, 1979: p 225). Accordingly, the proposed research aims to fill the gap in the literature, focusing on the issue of women's representation in the region, by building and extending analyses that have been conducted in other regions of the world, especially in industrial advanced democracies in Europe and North America (Caul, 1997; Guadagnini, 1993; Selle, 1995)

3- Motivation of the Research

Several factors motivated this study. First, while much attention is paid to the political participation of women in the MENA region, the variation in the degree of gender inequality in legislative representation across the Middle East and North Africa has not received much attention. Most scholarship on gender inequality discusses women's participation in the political process in the MENA region and barely tackles the legislative representation of women (Abukalil 1993; Peterson 1989; Ross 2008; Sabbagh 2005). These analyses have tended to discuss women's political participation in terms of voter turnout, engagement in the civil society and involvement in the political participation among women in the MENA region. These factors are often classified into ideological (Al Suhbi and Smith 2017; Moghadam 2003), religious (Joseph and Slymovics 2001), socio-political (Peterson 1989; Sabbagh 2005; Coffe and Dilli 2014) and economic (Moghadam 2003; Ross 2008). Although women in most countries across the MENA region have voting rights, existing data reveals that their share of seats is not only disproportionate compared to their share of the population, but also considerably varies across the nations. With the exception of a few

studies (Abukhalil 1993; Sabbagh 2005), very little work has been done to assess the variation of political representation across the region.

Current research on the Arab Spring largely focuses on political, diplomatic and military consequences of the Arab Spring (Cohen, 2016; Springborg, 2011; Mulderig, 2013), and little attention is paid to women and their political activity. The Arab Spring marked the establishment of a new political environment where there is more space for common people to discuss their future and contribute to the establishment of a democratic system based on freedom and the protection of human rights. Therefore, it is important to examine whether the Arab Spring succeeded at bringing about any positive changes in the situation of women in the Middle and North Africa. Women are already in a very delicate position and examining whether the Arab Spring may carry with it some gains is crucial.

4- Women's political Representation

Most of the studies on women's political representation have revolved around the factors that account for the variation in the legislative representation of women in affluent countries (Lovenduski and Norris 1993; Poggione 2004; Clark 1991; Norris 1985; Matland 1998; Oaks and Elizabeth 1993; Rule 1981). Three major factors have been identified. First, these studies draw attention to the political factors that may play a part in the variation in the legislative representation of women (Lovenduski and Norris, 1993; Poggione, 2004; Matland, 1998), including the political system adopted, the electoral system and the partisan composition of the parliament. Second, socioeconomic factors are also brought into light, such as women's educational level, the level of development and labor force participation (Patterson 1979; Putnam 1976). Finally, scholars have also assessed the impact of the culture (Norris 1987; Paxton, 1997). The basic interpretation of the cultural factor is that a more liberal attitude may foster women representation in the national

parliament. Some of these studies argue that, unlike cultural factors, political and socio-economic factors account for the variation in the legislative representation of women (Paxton 1997). Other studies reveal that cultural factors may have an influential impact (Oaks and Elizabeth 1993; Matland 1998).

5- Structure of the thesis

The remainder of the thesis is structured as follows. Chapter 2, the literature review, situates the issue of women's representation in its intellectual and historical context, in order to highlight the different theories that may explain the variation of the number of parliamentary seats held by women. This chapter begins the discussion with the political factors that may explain such variation. These political factors include the electoral system, the role of political parties and the level of democracy. The literature review also underlines the socio-economic factors. Socio-economic factors address the level of education, the proportion of women in the labor force and the level of development. Finally, it maps the cultural factors, such as the gender-based social roles and the religious impact on the level of women's representation. Chapter 3 provides an overview of the methodology to be used in the research. It explains and justifies the models, underlines the sample of the study, provides the operational definitions of the dependent and the independent variables and illustrates data collection strategies. Chapter 4 presents the empirical part of the thesis that statistically examines the factors that may account for the variation in women's political representation across the MENA region from 2000 to 2017.

Chapter 2: Literature review

1- What we know so far

Most recent scholarship on women and gender studies identifies countries with Muslim-majority populations as places where women are marginalized (Fish, 2002; Cherif, 2010; Zaatari, 2013; Coffé and Dilli, 2015). There are good reasons for this: Muslim countries, particularly the Middle Eastern and North African countries, are often marked by large male-female literacy gaps, high male-female population sex ratios and poor scores on the United Nations Development Program's Gender Empowerment Measure (Fish, 2002). Notwithstanding some efforts that can be duly noted to boost the status of women in the region, it is clear that women's ability to freely participate in the public sphere and contribute to their social, economic and political environment continues to be limited (Zaatari, 2013). The MENA region embodies more famously than any other region a misogynist ideology that includes social exclusion, patriarchy, sexual objectification, and other forms of violence against women such as circumcision, early marriage and honor killing (Clark and Khawaja, 2010). Although physical abuse is prohibited, almost no country in the MENA region propounds precise laws and definite measures against spousal rape (Kelly, 2009). It is true that women in the Arab world have enjoyed neither equal rights nor equal opportunities with men. However, it is important to mention that the situation varies from country to country. While there are some common factors that inhibit equality between men and women, the status of women is not uniform in the MENA region (Abukhalil, 1993).

A review of the literature on women' status in the MENA region reveals that there are three crucial points that hinder any possible progress toward more gender equality. First, the MENA region's

political economy is affected by the economic globalization and structural adjustment policies imposed by international financial institutions (Mervat, 1992; Lizardo, 2006). The early 1980's marked the beginning of many heavily indebted MENA region countries to privatize their economies and introduce new policies that caused significant cut in the social welfare spending and generated new hardships for women with the dismantling of state programs such as subsidized child care and transportation (El-Said and Harrigan, 2006: p 457). Second, the important number of wars and military conflicts in the Middle East contributed to the misogynist and discriminatory attitude against women. Goldstein argues that wars have causal effects on gender, as societies during wars have a propensity to develop a generation of tough and strong individuals capable of controlling their emotions and enduring pain and distress (Goldstein, 2001: p 398). By emphasizing these masculine attributes over femininity, even the home becomes a dangerous place for women, given that domestic violence significantly increases during conflicts " as a direct effect of militaristic cultures, alongside the strains, displacements and traumas of war" (Segal, 2008: p32). Third, the perpetual Western political, economic, commercial and cultural interference in the MENA region has generated an outrage among Muslims and contributed to the development of an identity politics that together triggered the Islamic movements that endorse conservative roles for women (Lizardo, 2006: p155; Keddie, 2007: p 161; Moghadam, 2009: p61)

The social system in the MENA region, where power is held by men, generates a particular social contract that regulates the relationship between men and government rather than citizens and government (Ginwala, 2005: p15). The prevailing misogynist attitude, along with patriarchy and subordination of women, lead to the exclusion of women from the political scene (Ginwala, 2005). Although women's political participation may take several shapes and forms, such as voting, participating with civil society organizations and mobilizing around political issues, these activities

are often trivialized and seen as "the women's arena" (Zaatari, 2013). The literature on women's political participation abounds with evidence illustrating the exclusion of women from any possibility to exercise power in the public sphere in the MENA region. Shvedova develops the claim that "men largely dominate the political arena; largely formulate the rules of the political game; and often define the standards of evaluation "(Shvedova, 2005: p35). Zaatari also argues that governmental institutions continue to impose masculine practices that do not allow enough space for women to effectively contribute to their political environment (Zaatari, 2013). Factors found to be influencing the political participation of women have been explored in several studies. For instance, social scientists have revealed that the dominant masculine model of political life significantly limits women's political roles in the region (Peterson, 1989; Eickelman, 1988; Zaatari, 2013). Women in the MENA region countries, with few exceptions, "are not judges, police officers, army commanders, ministers, tribal leaders or heads of state" (Eickelman, 1988: p199). Other factors also include the lack of efficient cooperation with other public organizations such as women's groups and labor unions, as well as the lack of access to modern training and education systems for women's leadership (Peterson, 1988, Zaatari, 2013).

A large and growing body of literature has also investigated women's share of the labor force in the MENA region and its impact on women's status by and large. The consensus view seems to be that in the Middle East, fewer women have the opportunity to work outside the home, and fewer hold governmental positions than any other region in the world (Ross, 2008). The available evidence also seems to suggest that social and cultural attitudes in the region impedes women's access to the private sector (Peterson, 1988; Ross, 2008). Businesses in the region have a propensity to employ men for skilled positions, while reserving secretarial and clerical jobs for women (Peterson, 1988; Buttorff et.al, 2018). Consequently, the MENA women's labor force participation rates are strikingly low, barely reaching 27% from 1980 to 2010 (Moghadam, 2013). The same problem is also replicated in the public sector, where women generally work in traditionally "feminine fields", such as teaching and nursing (Peterson, 1988). There is also a consensus among social scientists that the failure of women to have easy access to the labor force has serious social outcomes, including higher fertility rates (Brewster and Rindfuss, 2000), less education and health care for women (Michael, 1985) and less space to participate in politics, exchange information and overcome collective problems (Sapiro, 1983; Schlozman et.al, 1999).

There is some evidence that women's limited political participation, poor share of the labor force, and lack of economic, political and social rights are due to the MENA region's Islamic traditions (Ross, 2008). There has been an inconclusive debate about whether Islam hinders any progress toward more protection of women's rights (Abukhalil, 1993). The debate about the relationship between Islam and women's political rights in the region started in the early 1950's, when a group of Egyptian feminists decided to fight for their political rights, generating unprecedented religious and political controversy (Abukhalil, 1993). The relationship between Islam and women's political rights has been widely investigated by two main divergent schools of feminist thought in the Arab World. The first one is referred to as the apologetic Islamic school, which keeps itself away from any kind of interpretation of the Islamic texts and calls for a strict application of Sharia Islamic law (Tal'at Harb, 1901; Ghunaym, 1980; Al-Banna, 1983). This school also champions Islam as a religion that paved the way for Arab women to have more rights than women living in pre-Islamic times (Abukhalil, 1993). The second school is referred to as the theologocentric school, which pays attention to Islam as an explanation of all Muslim behavior and practices (Rodinson, 1980). The theologocentric school pursues an orientalist approach to explain the behavior of Muslims, and calls attention to the passivity of Muslim women being subservient and non-resistant (Ghoussoub, 1987).

What we know about gender in the MENA region is largely based upon studies that investigate the above issues: political participation, the share of the labor force and the relationship between Islam and women. While much attention is paid to the political participation of women in the MENA region, the variation in the degree of gender inequality in legislative representation across the Middle East and North Africa has not received much attention. Most scholarship on gender inequality discusses women's participation in the political life, but barely tackles the legislative representation of women (Abukalil 1993; Peterson 1989; Ross 2008; Sabbagh 2005). While women's political participation refers to the level of political engagement as voters and voter recruiters, political representation refers to women's access to formal decision-making positions. Most studies have tended to discuss women's political participation in terms of voter turnout, engagement in the civil society and involvement in the political parties. Scholars in this field have also examined the factors associated with low political participation among women in the MENA region. These factors are often classified into ideological (Al Suhbi and Smith 2017; Moghadam 2003), religious (Joseph and Slymovics 2001), socio-political (Peterson 1989; Sabbagh 2005; Coffe and Dilli 2014) and economic (Moghadam 2003; Ross 2008). Although women in most countries across the MENA region have voting rights, the available evidence seems to suggest that their share of seats is not only unsatisfactory, but also considerably varies across the nations. The problem with the current literature is that it fails to take seriously the variation in women representation in national legislatures. With the exception of few studies that recognize the variation of political participation across the MENA region (Abukhalil 1993; Sabbagh 2005), there is almost no study on the variation of political representation.

2- Structure of the literature review

I begin this section by situating the issue of women's representation in its intellectual and historical context, in order to highlight the different theories that may explain the variation of the number of parliamentary seats held by women. I begin the discussion with the political factors that may explain such variation. These political factors include the electoral system, the role of political parties and the level of democracy. I then turn to socio-economic factors, including the level of education, the proportion of women in the labor force and the level of development. Finally, I outline research that talks about the cultural factors, such as the gender-based social roles and the religious impact on the level of women's representation. Taken as a whole, these three types of factors have been suggested to influence women's representation in legislatures around the world. This thesis assesses whether they also affect women's representation in the MENA region.

3- Political factors

A number of studies delve into the political factors that may account for the variation in the legislative representation of women. Lovenduski and Norris (1993), Matland (1998) and Norris (1985) intertwine the electoral system and women's representation. They argue that the structure of the electoral system is the most important factor that affects women's representation in national parliaments. The logic of their argument is that greater legislative representation is achieved in countries with party list district systems rather than single-member districts. The partisan composition of the legislature may also influence women' share of legislative seats. Leftist parties, for instance, embody more famously than any other parties the spirit of gender equality, and thus are more likely to nominate women as candidates. Maurice Duverger (1955) brought to light that party identity was the most significant cause of variation in women representation, particularly in Italy, West Germany and Italy. Norris (1987) and Rule (1987) also confirmed the same conclusion.

In contrast, Islamist parties do not favor gender equality. Inglehart and Norris argue that the Islamist parties have never attempted to address the "persistent gap" in gender equality (Inglehart and Norris, 2003: 68). Another political influential factor is women's voting rights. Rule (1981) argued that the year of female suffrage was strongly linked to the number of legislative seats held by women. In other words, the longer women have had the right to vote, the higher the percentage of women in national parliaments. Finally, the extent to which the country is democratized should also be taken into consideration. Paxton (1997) propounds the argument that the level of democracy has a positive impact on women's representation in national politics. In what follows, I will explain these factors in more detail.

3- 1- Electoral System

A large body of literature has investigated the relationship between electoral systems and the number of women in national parliaments. Most commentators argue that the choice of the electoral system is a key institutional decision for any democracy. Norris, for instance, develops the claim that "electoral systems represent, perhaps, the most powerful instrument available for institutional engineering, with far-reaching consequences for party system, the composition of legislatures, and the durability of democratic arrangements (Norris, 2004: p 209). Electoral systems are among the most decisive political institutions that determine the rules of the political game and the standards according to which democracy is practiced. By translating the votes cast into seats won either by political parties or candidates, electoral systems help determine who gains power, the way power is distributed and the system of representation (Myers and Ann, 2017). Over the last decade, most research on electoral systems has emphasized two guiding principles according to which an electoral systems has emphasized two guiding principles according to which an electoral system is effectively designed. The first principle is representation; i.e. the capacity to include all kinds of groups irrespective of geography, race, sex, political orientation or ideology.

The second principle is transparency. This urges transparent mechanisms that are clearly explained to both voters and candidates (ACE, 2005).

The first investigations into the political representation found that countries adopting a proportional representation (PR) system usually have a higher proportion of women in their national parliaments (Kenworthy and Malami, 2005; Moser, 2001; Matland, 1998; Reynolds, 1999; Siaroff, 2000;). There is a general consensus that list proportional representation systems, including parallel and mixed member proportional (MMP) systems offer more political opportunities for women and other ethnic and religious minorities (Myers and Ann, 2017). In contrast, electoral systems based on majority or plurality systems generally don't guarantee a minimal representation for women (Myers and Ann, 2017). Along similar lines, Liphart argues that more women get elected in national parliaments through proportional representation systems than they do in single-member systems (Lijphart, 1994). In his study, which scrutinized thirteen democracies adopting parliamentary systems, Liphart identified four major quality factors that distinguish the PR systems from other systems: (1) more representation of minority groups; (2) more representation of women in legislatures; (3) higher voter turnout; (4) more income equality (Liphart, 1994). While majoritarian systems tend to reward dominant political parties and punish weak parties by providing the candidate or the political party the possibility to represent a whole constituency, proportional representation systems verify that minority groups are represented according to their electoral support (Farrell, 2001).

A major tenet of the proportional representation system is to "fairly" translate the party's quota of the total votes into an equivalent proportion of seats in the parliament (Reynolds, 2006). The rationale behind PR is to establish a fairer and more inclusive representation by reflecting the interests and views of the electorate. This will upgrade responsiveness, increase legitimacy and ensure order. The importance of the proportional representation system is two-fold: it produces more minority and proportionality representation, and "treats all groups-ethnic, racial, religious, or even non-communal groups- in a completely equal and evenhanded fashion" (Lijphart, 2008: p 79). It is important to point out, however, that not all proportional representation systems equally contribute to more representation for women (Myers and Ann, 2017). Some PR systems have peculiar features that bring about more representation than others do. These features include whether the PR adopts a closed or open list system, the number of candidates both nominated and selected and whether the electoral law provides easy procedures that facilitate the inclusion of more women in the legislative assembly (Myers and Ann, 2017). All these points significantly determine whether the PR system is capable of fairly and effectively translating the votes cast into seats in the national parliaments.

Scholarship on electoral systems draws attention to two main features that characterize PR systems. The first one is whether the selection process is based on a closed or open list. This factor helps determine the degree of representation enjoyed by women in the national parliaments. An open list system provides more freedom for voters to determine which parties win seats and how a party's parliamentary caucus looks (Myers and Ann, 2017). In an open list system, voters enjoy the possibility to vote for individuals as well as the ability to alter the position of candidates on the list. However, in a closed system, voters are not allowed to change the position of candidates on the list. The order according to which candidates are ordered cannot be altered. Although parties in closed systems are impelled to include more women and other underrepresented groups to balance their lists, the process usually ends up with the exclusion of some good candidates as they fail to meet the balancing criteria. The second feature of the PR system is referred to as the macro-contagion effect (Matland and Studlar, 1996). Generally, more women are involved in small

parties, as they are more likely to hold positions in these parties (Matland and Studlar, 1996). When large parties notice that small parties are engaging women, they feel forced to actively engage women as well in order to avoid any potential electoral defeat (Matland and Studlar, 1996; Myers and Ann, 2017). This phenomenon is known as the macro-contagion effect. The rationale behind this is that while small parties strive to differentiate themselves by providing enough space for women to take part in the political affairs, large parties are forced to do the same to evade any surprising electoral loss.

It should also be obvious that parties' nomination in PR systems is quite different from parties' nomination in majoritarian or plurality systems. On the one hand, parties in PR systems have a propensity to balance their nominations by including a large proportion of women and minorities in an attempt to attract a high level of interest from voters (Myers and Ann, 2017). Nominations under the PR system are considered as "positive sum game", in which "one candidate's gain is everyone's gain" (Matland, 1993). Matland also puts forward the view that, under the PR system, the failure of a party to nominate a woman can easily be regarded as discriminatory, and thus drive away voters (Matland, 2005). On the other hand, it is often problematic for parties to include different social groups in single-member electoral districts (Matland and Brown, 1992). In majoritarian or plurality systems, the local constituency party is responsible for the selection process, given that each party is allowed to nominate one person per district. Along similar lines, Bird argues that in majoritarian systems "there is little or no incentive for each constituency to pick candidates that will produce a balanced ticket at national level" (Bird, 2003: p 13). Nominations under single-member districts are considered as "zero- sum game", in which the gain of one candidate is another candidates' loss (Myers and Ann, 2017). Consequently, parties in this system tend to exclude women and nominate men, explaining that their nomination is based on the candidate's qualifications and ability to best represent the party (Myers and Ann, 2017). In addition, incumbency in such systems is also seen as a potential factor that limits women's political representation (Schwindt-Bayer, 2005). When the incumbents succeed in winning office in subsequent terms, this definitely reduces the chances of having new individuals in the political circle. Schwindt-Bayer explains that when incumbents are men, which is the case in most legislative assemblies, it becomes more complicated for women to challenge men to run for office (Schwindt-Bayer, 2005: p 228).

3-2-The role of political parties

Political parties are different in the number of women they appoint, the order according to which they rank women on party lists, and the number of women they send to the legislative assemblies (Caul, 1999). Parties' gatekeepers determine women's political aspiration and fate (Norris and Lovenduski, 1995). Decisions to nominate and send women to the parliament are usually influenced by the internal and external pressures that the parties experience. External pressures translate the party's concerns with how their candidates will be assessed by voters (Matland, 2004). If candidates seem incompetent or unqualified for the elected position, the party's gatekeepers systematically shy away from selecting them. Gallagher and Marsh argue that gatekeepers often look for certain characteristics in candidates to boost the party's likelihood in winning the elections (Gallagher and Marsh, 1988: p 248). Internal pressures refer to the party's organization, ideology and experience (Matland, 2004). Taking into account the importance of parties in the composition of legislative assemblies, understanding the mechanisms according to which parties encourage or discourage women's access to parliament becomes inevitable.

Current research seems to validate the view that women's representation may be influenced by three aspects of party organizational structure: (1) centralization; (2) institutionalization; (3) the

location of candidate nomination (Caul, 1999; Matland and Studlar, 1996; Norris and Lovenduski, 1995; Czudnowski, 1975). Centralization refers to the decision-making mechanism within the party hierarchy (Caul, 1999). The main theoretical premise behind this is that centralized procedures pave the way for greater presentation (Matland and Studlar, 1996). In order to respond to pressures from the electorate as well as from other political parties, parties' leaders adopt a broader and more diverse list of candidates to secure as many votes as possible (Matland and Studlar, 1996). This echoes the claim that a centralized party organization contributes to a more inclusion of female candidates. The existence of a central organization facilitates various groups' demands of increased representation (Matland and Studlar, 1996). When those demands are not met, the failure can be easily attributed to the party's leaders (Matland and Studlar, 1996).

The second aspect of party organizational structure that may influence women's representation is institutionalization. The process of candidates' recruitment is determined by the degree of party's institutionalization (Caul, 1999). A high level of institutionalization translates a more rule-oriented recruitment process (Norris and Lovenduski, 1995). Czudnowski argues that the selection process in highly institutionalized parties provide all potentional candidates, including women, with a set of clear and understandable rules (Czudnowski, 1975). When these rules do not discriminate against outsiders, women enjoy more opportunities to get nominated. Weakly institutionalized parties, however, have a propensity to discriminate against outsiders in favor of those who have extensive political experience (Guadagnini, 1993). Therefore, newcomers to weakly institutionalized parties, including women, may find it challenging to have access to the party's resources and compete with those who already have political capital (Caul, 1999). The third aspect of party organizational structure is the level of nomination for parliamentary candidates. Lovenduski and Norris argue that localized nomination is friendlier to women given that they prefer

working in community politics (Lovenduski and Norris, 1993). A centralized nomination, however, is based on a more structured pattern that endorses an internal career ladder (Caul, 1999). Caul argues that women working in the party bureaucracy may be compensated with a party office (Caul, 1999).

On the basis of the evidence currently available, it seems fair to suggest that party ideology may have an influence on women's representation in national parliaments (Duverger, 1995; Beckwith, 1986). Unlike right parties, left parties tend to support women's candidacies as they endorse egalitarian values (Duverger, 1955). Historically, women's movements have been associated with left parties (Jenson, 1995). Matland Studlar argues that left parties 'feel a need to be sensitive to groups traditionally excluded from the circles of power', including women (Matland and Studlar, 1996: p 27). A closer look at the available data indicates that during the 1980's in Norway, for instance, leftist parties sent a higher number of women to parliament than rightist parties (Matland, 1993). Along similar lines, Caul points out that a high level of women in parliaments is strongly associated with the existence of leftist parties in government (Caul, 1997).

However, the existence of leftist parties in government doesn't systematically imply a significant number of women in parliament. It is true that leftist parties used to have a powerful impact on women's representation in legislative assemblies. This is no longer the case. Lovenduski and Norris argue that leftist parties are no longer the only parties that support women's representation, given that such support "spreads across the ideological spectrum "(Lovenduski and Norris, 1993). They draw attention to the fact that the long-established left-right ideological continuum can no longer report how ideology determines the level of women's representation. This is largely the result of the shift in political conflict patterns, from the "old politics" model to the "new politics "model (Caul, 1999). According to the old politics model, the classical political conflict centers around class struggle: old left parties, including the labor and socialist parties, tend to focus on issues related to the working class, while old right parties prefer business - oriented issues (Caul, 1999, p 82). The new politics model, however, is quite different as it takes in new issues: environment, human rights, social equality and alternative lifestyles (Dalton, 1986: p 153). New left parties are more likely to support higher women's representation in national parliaments than old left parties (Caul, 1999, Jenson, 1995).

On these grounds, many studies outline that Islamic ideology is not hospitable to women's representation (Tajali, 2015; Rizzo et.al, 2007). Islamist parties and movements are generally against women's access to the political leadership position (Tajali, 2015). Instead, they see that women's best social positions are in their domestic domain as mothers and wives, and debunk women's presence in political decision-making positions (Tajali, 2015). Notwithstanding the existence of several studies highlighting women's political participation in Islamist movements and parties (Arat, 2005; Shitrit, 2013; Humeira, 2011), women belonging to these parties have low levels of political representation (Rizzo et. Al, 2007; Tajali, 2015). Ronald Inglehart and Norris Pippa argue that religiously motivated parties, including Islamist parties, are more hostile to women's representation in politics than secular parties (Inglehart and Norris, 2003). Strict laws of Islam along with stringent patriarchal attitudes form religious and cultural barriers that discourage Islamist parties from giving more space to women's representation (Inglehart and Norris, 2003). Islamist parties are often perceived as a threat (Rizzo et. Al, 2007). Religious and social minorities, women's organizations and secular intellectuals fear the rise of Islamist parties to power (Brumberg, 2002). An Islamist party in power implies that women and minorities' rights are at risk with the enforcement of the Sharia laws against any hope for a more democratic and diverse political representation (Brumberg, 2002).

3-3- The level of democracy

There has been an inconclusive debate about what democracy is and whether democracy has any impact on the level of women's representation in national parliaments. However, most scholars in the field seem to agree that democracy consists of three main units: competition, participation and civil liberties (Paxton, 2000). Most definitions of democracy imply universal suffrage that calls for the right of all adults, including women, to participate in the political life and in decision-making without any exclusion based on sex, race or any other factors (Paxton, 2000). For instance, Diamond, Linz and Lipset define democracy as a highly level of political participation in the selection of leaders and policies through regular and fair elections without exclusion of any social group (Diamond et.al, 1990: p 6). This definition clearly demonstrates that democracy is grounded in an egalitarian ideology that supports the participation and representation of all adults in all democratic institutions without any kind of discrimination against any social group. Muller almost embraces the same view, as he defines democracy as a space where all citizens have the opportunity to participate in the governing process, "as manifested by universal adult suffrage and free and fair elections" (Muller, 1988: p 65). These definitions suggest that democracy is an opportunity for decision-makers to be fairly and honestly selected through elections, in which candidates equally compete for votes and all citizens equally have the right to vote.

Most recent scholarship on democracy highlights that there is a clear connection between women's representation in legislative assemblies and the level of democracy (Inglehart and Welzel, 2005; Beer, 2009; Matland, 1998; Viterna et.al, 2008). The liberal western camp perceives democracy as not only a commitment to higher women's representation in parliaments, but a door to gender equality. Inglehart and Welzel argue that achieving higher numbers of women in national parliaments cannot be achieved unless national constitutions are reformed, equitable policies are

implemented and stereotypes against women are challenged (Inglehart and Welzel, 2005). Beer also propounds the argument that democracy and women's representation are strongly connected (Beer, 2009). The process of democratization paves the way for better political balance and more gender equality (Matland, 1998). This is largely because democracy often implies an improvement in educational levels and rising levels of income (Inglehart et. al, 2002). Democracy also brings about significant cultural changes that call for more gender equality and pave the way for an easy access of women to democratic institutions such as parliaments and other leadership positions (Inglehart et.al, 2002).

Democracy embodies more famously than any other political system the spirit of freedom and equality, according to which women have the right to equally participate in elections with men and get access to national parliaments. Democracy has always been presented as an ideal alternative for women. The problem with this interpretation, however, is that democracy doesn't honor this ideal (Tremblay, 2007: p 533). Tremblay argues that the very design of democracy resists women's representation. Ancient Greece, where democracy was born, was hostile to women's representation and exclusively restricted decision-making roles to male citizens. Theorists of social contract, such as Hobbes, Locke and Madison, totally ignored women and limited their roles to the private sphere as mothers and wives (Tremblay, 2007). The great revolutions of the 15th and the 16th centuries, such as the French revolution and the English revolution, denied the access of women to governing positions (Tremblay, 2007). In Moghadam's mind, the relationship between women's representation and the level of democracy is not straightforward (Moghadam, 1993). She conducted a number of investigations and found that long-established democracies, such as Japan, Ireland, France and the United States, have fewer women in parliament than countries like China and Vietnam (Moghadam, 1993). In her cross-national analysis on women in parliaments, Paxton proposes hypothesizes that democracy leads to a higher number of women in the legislature (Paxton, 1997). However, a negative result is found, as authoritarian regimes seem to have more women in national parliaments than democratic regimes (Paxton, 1997). Accordingly, whether democracy has an impact on women's representation in national parliaments is debatable and requires further empirical verification, especially in the MENA region where democracy has been the most contentious and unresolved issue for decades.

4- Socioeconomic factors

While most of the scholarship on political representation focuses on the political factors that may have an impact on women's representation in parliaments, other scholars examine whether socioeconomic factors promote or hinder women's political representation in national legislatures (Norris, 1987; Matland, 1994; Matland, 1998; Kenworthy and Malami, 1999; Welzel and Inglehart, 2005). Socio-economic factors address the level of education (Patterson and Loewenberg, 1979), the proportion of women in the labor force (Matland, 1998; Moore and Shackman, 1996), and the level of development (Matland, 1998; Kenworthy and Malami, 1999). The available evidence seems to suggest that the level of education along with the labor force participation have two major effects: first they influence the eligibility of women for parliamentary recruitment, and second, they have a positive impact on women's political mobilization (Patterson and Loewenberg, 1979; Matland, 1998). The existing literature also points out that there is a positive correlation between female political representation and the number of women working outside the home, given that paid employment helps bring women closer to their social environment (Norris, 1987: p 122). Numerous studies have found that the increase in the level of education, labor force participation and income involves an increase in the political resources acquired by women. These political resources force political parties to work on women's representation and initiate new policies seeking a less hostile society against women (Matland, 1994).

Kenworthy and Malami draw attention to the fact that women's representation in national legislatures may be influenced by the country's level of economic development (Kenworthy and Malami, 1999). When the country experiences economic development, politics generally become less dominated by issues related to development and prosperity. Instead, political parties and voters become more interested in other issues such gender equality and women's representation (Kenworthy and Malami, 1999). Shvedova also argues that there is a strong relationship between women's representation and the country's economic development (Shvedova, 2005). As the country becomes more economically developed, traditional values abate, fertility rates decrease, education and labor force participation increase, and views regarding the role of women change (Matland 1998: p114). The importance of these elements is two-fold: they contribute to the increase in women's political resources and they limit obstacles to a more dynamic political activity. Along similar lines, Matland propounds the argument that "as countries become more developed, women will be increasingly integrated into all spheres of public life including representation in the national legislature "(Matland, 1994: p 9). In short, increased development leads to increased female representation.

The question of whether there is a causal relationship between women's representation and economic development has caused much debate over the years. On the one hand, one school believes in the modernization theory (Inglehart, 1990; Inglehart and Welzel, 2005; Inglehart and Norris, 2003). This school underlines that modernization contributes to the decline of traditional values and the emergence of modern values that support a friendly environment for women (Inglehart and Baker, 2000). This argument is particularly grounded in the third wave of

modernization theory (Inglehart 1990, 1997; Welzel and Inglehart 2005), which puts forward the view that economic development changes women's roles in society in two steps. First, the gradual shift from agrarian to postindustrial environment provokes a "gradual erosion of traditional gender roles that formerly inhibited political action by women "(Inglehart, 1990: p 337). Second, a continuous postindustrial stage significantly increases gender equality as women's access to economic roles and civic life positions becomes easier (Inglehart and Norris, 2000). In the same context, a number of researchers have reported that underdevelopment has negative consequences on the country internal features: traditional institutions, traditional economic model and traditional cultural attitude (Lerner, 1958; Weiner, 1966). Such orthodoxy has a powerful impact on the extent to which women have access to the legislative bodies. On the other hand, another school repudiates the above argument, and claims that traditional values persist despite the existence of economic development (DiMaggio, 1994). It propounds the argument that values are relatively independent of economic development (Inglehart and Baker, 2000). Accordingly, positive cultural changes provoked by economic development are unlikely to take place (Inglehart and Baker, 2000). Following this logic, increased level of women's representation cannot be expected.

A large body of literature has investigated the relationship between the level of education and women's representation in national parliaments (Moore and Shackman, 1996; Matland, 1998; Oakes and Almquist, 1993). The data gathered in these studies suggest that there is a strong correlation between the level of education and the number of women in politics. In fact, Matland argues that education is the door to an active professional life that prepares women to engage in the political life at all levels including the access to leadership positions (Matland, 1998). Low levels of education generally lead to low skilled jobs, which do not support women's active participation in politics. A higher representation of women in national legislatures requires a higher

educational level that paves the way for more economic opportunities in the labor market and gradually gets women ready to run for offices and take leadership positions. Yet, a high educational level doesn't systematically imply an easy access to parliaments or leadership positions. Blumberg and Chafetz argue that women with highly valued degrees, such as law, education and business, are more likely to succeed politically than those with other degrees (Blumberg, 1984; Chafetz, 1983). Women's political success and ability to have access to national parliaments depend on the degree they receive and the profession they take up.

Several studies have been carried out on the relationship between female political representation and women's participation in the labor force. There is a general support for the claim that working outside the home helps women develop new interests that are quite different from their husbands' while they are trying to balance family and career (Iversen and Rosenbluth, 2006). Once political parties recognize that working women constitute an important electoral platform, they become more impelled to increase the number of female candidates on their lists (Iversen and Rosenbluth, 2006). In their comparative analysis, Iversen and Rosenbluth found that female labor force participation and women's political representation are powerfully correlated, especially in Scandinavian countries (Iversen and Rosenbluth, 2008). Although Kenworthy and Malami agree that female labor force participation may have an impact on female representation in legislative assemblies, they argue that a political career requires a managerial or professional work experience rather than a mere labor market participation (Kenworthy and Malami, 1999). According to their statistical analysis, there is a strong correlation between women' share of professional occupations and the number of women in national parliaments (Kenworthy and Malami, 1999). Along similar lines, Matland claims that the participation in the labor market in the developing countries may not have any "empowering and consciousness rising effect" that would motivate women to run for offices and seek parliamentary seats (Matland, 1998: p 118).

5- Cultural factors

The variance in the degree of gender inequality in legislative representation would make little sense if presented separately from the cultural factors. Culture refers to the society's beliefs, standards, attitudes and values which shape people's lifestyles, customs and habits. Most commentators point out that religion and views of gender-based social roles are among the most prominent cultural factors that may have a powerful impact on the proportion of women in parliaments (Tremblay, 2007; Norris, 1987; Paxton, 1997; Rule, 1987). Norris (1987), for instance, realizes that an egalitarian culture provides a favorable environment for women's political representation. The nations with high egalitarian scores on the "political egalitarianism index" generally have high rates of women representation in national parliaments (Norris, 1987). Inglehart and Norris (2003: p 140), Diaz (2005: p 64), Kunovich and Paxton (2003) agree that culture, particularly the idea of equality between men and women, has a greater impact on women's representation in national parliaments than voting systems. Other scholars focus on the religious impact on women's representation. The religious impact refers to the extent to which society, institutions and political parties consider religion as a source of inspiration and action. Tremblay (2007), Rule (1987), Norris (1997) and Paxton (1997) argue that religion shapes attitudes and behavior toward women's role in politics.

Despite the absence of definite empirical evidence, most scholarship on women's representation considers traditional cultural attitudes as major barriers to women's access to legislative assemblies (Inglehart et.al, 2002). In traditional societies, women are often reluctant to run for offices given that the failure to receive sufficient support is almost inevitable (Inglehart et.al, 2002). In fact,

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cultural attitudes may have a significant impact on the extent to which women are ready to present themselves as potential candidates, and whether they meet the criteria set by political parties' gate-keepers when evaluating candidates' profiles (Lovenduski and Norris, 1993). Cultural attitudes may also have an influence on the institutional setting, including the use of gender quotas in party recruitment processes which determine the number of seats to be allocated to women in national parliaments (Lovenduski and Norris, 1993; Norris, 1997). Cultural factors also provide sound explanations of why the number of women in national parliaments is much higher in some democracies than other (Inglehrat et.al, 2002). For instance, Karvonen and Selle argue that women in the Nordic region are more politically empowered than other women in European post-industrial states such as France and Italy (Karvonen and Selle, 1995). Although all these countries are long-established democracies, their different political cultures have an influence on the likelihood that women will succeed in having access to the legislative assemblies (Diamond, 1977).

Political culture refers to the "historical source of such differences in habits, concerns, and attitudes that exist to influence political life in the various states" (Elazar, 1972: p85). Political culture determines the task that an individual can carry out in the overall political process. In traditionalistic political cultures, women's representation or participation in either the national or local political affairs is often discouraged by male leaders who usually support a "male-oriented status-quo" rather than a friendly political environment for women (Hill, 1981). In contrast, a moralistic political culture is "receptive to the values and style that have been associated with women "(Diamond, 1977: p22). A moralistic political culture is concerned with the social prosperity and wellbeing, such as gender equality, rather than issues related to male dominance and power distribution (Diamond, 1977). Diamond also propounds the argument that the moralistic political culture is a requirement for the recruitment and election of women in legislative politics (Diamond,

1997: p 23). The first investigations into the relationship between the political culture and women's representation in legislative assemblies have shown that Americans, for instance, tend to believe that politics is not appropriate for women as it is a men's work (Kirkpatrick, 1974). Such bias in the American political culture may easily "limit women's personal development, social choices, and opportunity to share fully in the dominant values of the society" (Kirkpatrick, 1974: p 14).

Religiosity also lies at the heart of the discussion on the relationship between culture and women's representation in national parliaments. Religiosity refers to the extent to which people have a strong belief in a given religion. A growing body of literature has examined such relationship, and found that the number of women in legislative assemblies has a negative correlation with the historical prevalence of Catholicism (Inglehart et.al, 2002; Rule, 1987; Kenworthy and Malami, 1999). What we know about such a negative relationship is largely based on the fact that Catholics, unlike Protestants, endorse traditional attitudes towards women and the family (Kenworthy and Malami, 1999). On his seminal article on the relationship between women's representation and religion, Reynolds highlights that the major contrast is not between Catholics and Protestants (Reynolds, 1999). In contrast, a comparison of 180 nations brings into light the striking differences between Christians and those who adopt other religious beliefs such as the Buddhist, Hindu, Confucian and Islamic faiths (Reynolds, 1999; Inglehart et.al, 2002). These religions, unlike Christianity, are associated with low proportions of women in national parliaments.

Several studies have been carried out on the relationship between Islam and female parliamentary representation (Deniz and Graham, 1991; Mayer, 2007). What we know about Islam is that it promotes a negative image of women and encourages inequality between men and women (Mayer, 2007). According to Islamic norms, women and men are not allowed to share the same domain: while women are limited to the private domain, men take charge of the public sphere.

Notwithstanding the existence of several interpretations of Sharia (Islamic laws), Mayer argues that "there is an absence of any willingness to recognize women as fully equal human beings who deserve the same rights and freedoms as men" (Mayer, 2007: p 123). Along similar lines, Deniz and Graham argue that, although women may be granted equal constitutional rights, these rights are often undermined by Islamic laws which don't recognize women as fully equal human beings (Deniz and Graham, 1991). Many countries across the Middle East continuously impose sex segregation in public facilities such as schools and official governmental offices. Such practice gradually causes clear inequalities in the educational levels, economic opportunities and political rights including the right to run for offices and get elected (Doumato and Posusney, 2003). This provides a plausible explanation of why countries with a strict Islamic background often have the lowest proportions of women in national parliaments (Abu-Zayd, 1998).

Chapter 3: Methodology

1- Introdcution

Most of the research that exists to date focuses on the political, economic, and security issues in the MENA region, while gender inequality in political representation has received very little attention. Two reasons may explain this lack of interest. First, most efforts are being made to get a better understanding of the Arab Spring, as it is a quite new phenomenon (Cohen, 2016; Springborg, 2011; Mulderig, 2013). Second, historically, public discussions on gender-related issues have always been difficult to tackle. In the MENA region, discussions on gender issues are not easily accepted given the conservative cultural and religious nature of the region (Joseph and Slymovics 2001). Accordingly, the research aims at discussing the issues of women's representation in the region, and attempts to explain the wide variation in the proportion of seats held by women.

The research examines the factors that may account for the variation in women's representation in national parliaments across the MENA region between 2000 and 2017. This time period involves two key events in the history of the region. The first is the 9/11 attacks which had a drastic political, social and economic impact on the region and the second is the Arab Spring, a series of violent demonstrations across many countries in the MENA region that led to either the emergence of nascent democracies as the case of Tunisia or long civil wars as the case of Syria and Libya. The year 2000 also marked the establishment of the Millennium Development Goals (MDG's), a set of targets formed by all the world's countries and development institutions. In fact, Goal 3 explicitly voices the importance of gender equality and women's empowerment. It promotes equal

participation of both men and women in efforts to reduce poverty, improve food security and sustain rural development (United Nations, 2015). By focusing on women's representation, this thesis indirectly assesses whether there is any progress in terms of MDG's in the MENA region.

2- Overview

This research scrutinizes the political, socio-economic and cultural factors that may have an impact on the proportion of parliamentary seats held by women. To measure these factors, I use operational definitions developed in the literature. These definitions have been widely used in empirical studies, including Matland (1998), Paxton (1997), Oaks and Almquist (1993), Siaroff (2000), Ruedin (2012), Ballington and Karam (2005), Sawer and Tremblay (2006). The dependent variable is women's political representation in national parliaments across the MENA region, as measured by seat share. For the political factors, I assess four variables: electoral system, the partisan composition of the legislature, the timing of women's suffrage and the level of democracy. For socio-economic factors, I assess four variables: the educational level, women's labor force activity, economic development, and the Gender Development Index. For Cultural factors, I also assess four variables: religiosity, ratification of the United Nations Convention on the Elimination of all Forms of Discrimination against Women, political culture, and attitudes towards women in family and society. More details are provided in the following section, where the operational definitions for each of the dependent and independent variables are outlined. The data related to each of these variables are collected from diverse sources such as The Inter-Parliamentary Union (IPU) database, Freedom House, the Arab Barometer and the World Bank database.

In order to examine the factors that may account for the variation in women's representation in national parliaments across the MENA region between 2000 and 2017, I use ordinary least squares (OLS) regression. First, regression analysis identifies the independent variables that have actual

influence on the dependent variable (Jeon, 2015). Second, regression analysis helps describe the nature of the relationship between the independent variable and the dependent variable (Jeon, 2015). Finally, the regression analysis is a powerful tool for estimation and prediction (Jeon, 2015).

3- Case Selection

This research examines the factors that may have an impact on women's representation in national parliaments across the MENA region (The Middle East and North Africa). Therefore, the analysis includes all the MENA region countries that directly elect national legislatures. According to this criteria, four countries are excluded: Qatar, Saudi Arabia, Oman and the United Arab Emirates. Rather than elected parliaments, these countries have appointed consultative assemblies that exercise limited legislative powers. The selection of the countries to be studied also depend on the availability of the data. The most extreme cases of missing data occur with Djibouti and Mauritania, where I was not able to find any data on the educational level and the variables related to the cultural factors. Libya is also excluded from the analysis. In 2012, Libyans voted in the first parliamentary elections after 5 decades of authoritarianism, however, due to the eruption of the civil war, the Libyan parliament was dissolved in 2013. With the exception of these countries we are left with eleven countries across the region, including the Middle East (N=8 of 14) and North Africa (N=3 of 5). Table 1 summarizes the list of the countries to be included in the analysis

North Africa	Algeria – Morocco- Tunisia-Libya- Mauritania
Middle East	Bahrain – Egypt – Iraq- Iran – Jordan – Kuwait – Lebanon – Syria- Qatar- Saudi Arabia, Oman- United Arab Emirates- Djibouti

Table 1: List of the countries

4- Operationalization of Variables

4-1 - Dependent Variable

The dependent variable used in this research is women's representation in national parliaments across the MENA region from 2000 to 2017. In this research, women's political representation is measured as the share of seats held by women in the national legislative assemblies across the MENA region from 2000 to 2017. Instead of measuring the number of women elected in each election, I use the number of women sitting in national parliaments each year. This measurement is widely accepted, and has been used in a large number of studies (Paxton, 1997; Kenworthy and Malami, 1999; Reynolds, 1999). For countries with bicameral legislatures, I use the proportion of seats held by women in the lower house. The data for this dependent variable is collected from the Inter-Parliamentary Union's "Women in National Parliaments" database. The Inter-Parliamentary Union (IPU) database provides updated statistics on the share of seats held by women in each country' legislative body. This particular source has been widely used by a number of studies (Paxton and Kunovich, 2003; Paxton, 1997; Kenworthy and Malami, 1997; Reynolds, 1999).

Table 2: Variable Description and data sources for women's political representation

Variable	Description	Sources
Women's	The share of seats held by	The Inter-Parliamentary
representation	women in the national	Union (IPU) database
in national	legislative assemblies	
parliaments	across the MENA region	
	in each year from 2000 to	
	2017.	

4-2- Independent Variables

4-2-a- The electoral system

The electoral system is a mechanism that refers to the rules and procedures of counting votes which determine the results of elections. Most of the existing scholarship on electoral systems highlights that more women get elected in national parliaments through the proportional representation systems than they do in single-member systems (Liphart, 1994; Myers and Ann, 2017; Matland and Studlar, 1996). Accordingly, I operationalize the electoral system using a binary variable. Countries are coded 1 if the electoral structure is based on the list proportional representation system, if parallel or mixed member proportional systems are used; and 0 if the electoral structure is based on plurality or majority systems, i.e. voters choose among a number of candidates in singlemember districts. The variable is expected to have a positive correlation with the share of parliamentary seats held by women, as shown in the literature. Kenworthy and Malami used this measurement and explained that results do not generally differ if this variable is treated a nominal (Kenworthy and Malami, 1999: p 245). This measurement will allow to see the differences between the PR electoral system and other systems. My primary source for this independent variable is the Inter-Parliamentary Union's database. This source has been largely used by many similar studies that investigate the relationship between electoral systems and women's representation in national parliaments (Kenworthy and Malami, 1999; Reynolds, 1999).

Variables	Descriptions	Sources
Electoral System	A binary ordinal variable: 1 if the electoral structure is based on the list proportional representation system, if parallel or mixed member proportional systems are used; and 0 if the electoral structure is based on plurality or majority systems	The Inter-Parliamentary Union (IPU) database

Table 3: Variable description and data sources for the electoral system

4-2-b- The partisan composition of the legislature

Most of the previous studies measure the partisan composition of the legislature by determining the share of the leftist parties in parliament (Kenworthy and Malami, 1999; Paxton, 1997; Paxton and Kunovich, 2003). This is largely based on Duverger's review of the literature, that left parties tend to support women's candidacies as they endorse egalitarian values (Duverger, 1955). However, given that this research focuses on the Middle East and North Africa where Islam is the predominant religion, I operationalize the partisan composition of the legislature by focusing on the number of elected Islamist parties in national parliaments.

Many studies outline that Islamic ideology is not hospitable to women' representation (Tajali, 2015; Rizzo et.al, 2007). Islamist parties and movements are generally against women's access to the political leadership position (Tajali, 2015). Instead, they see that women's best social positions are in their domestic domain as mothers and wives, and debunk women's presence in political decision-making positions (Tajali, 2015). I adopt Islamist parties rather than leftist parties simply because of the nature of party politics in this region. In the Middle East, Islamist parties have held

66% of the total parliamentary seats since 2000. In North Africa, Islamist Parties have become quite the dominant especially after the eruption of the Arab Spring. For instance, the Ennahda party in Tunisia secured more than 41% seats in the 2014 elections. Leftist parties in the region are opposition parties with a limited number of parliamentary seats, and their influence in the legislature and in policy making is much less prominent than in the west. The variable is expected to have a negative association with the proportion of seats held by women. The data for this independent variable is collected from the Inter-Parliamentary Union database, which provides information on parties' orientations and the ideological composition of the parliament.

Table 4: variable description and data sources for the partisan composition of the legislature

Variable	Description	Sources
Partisan	the percentage of seats	The Inter-Parliamentary
composition	held by Islamist parties in	Union (IPU) database
of the	the national parliaments	
legislature		

4-2-c- The timing of women's Suffrage

Women's suffrage refers to the legal right of women to vote. Therefore, I operationalize the timing of women's suffrage as the number of years since women gained legal rights to vote in national elections. This measure is widely used in several studies that investigate the relationship between women's suffrage and women's political representation (Kenworthy and Malami, 1999; Paxton, 1997; Inter-Parliamentary Union's database). Rule (1981) argued that the year of female suffrage was strongly linked to the number of legislative seats held by women. In other words, the longer women have had the right to vote, the higher the percentage of women in national parliaments. Following this logic, earlier suffrage is expected to have a relationship with women's representation, and the coefficient for this particular variable in the regressions is expected to be

negative. The data for this independent variable is collected from the Inter-Parliamentary Union database, which provides the dates when women were fully granted the legal right to vote in elections.

Variable	Description	Sources
Timing of	The number of years since	The Inter-Parliamentary
women's	women gained	Union (IPU) database
suffrage	legal rights to vote in	
	national elections	

Table 5: Variable description and data sources for the timing of women' suffrage

4-2-d- The level of democracy

Most recent scholarship on democracy highlights that there is a clear connection between women's representation in legislative assemblies and the level of democracy (Inglehart and Welzel, 2005; Beer, 2009; Matland, 1998; Viterna et.al, 2008). I operationalize the level of democracy using an ordinal scale designed by Freedom House. This scale goes from 1 to 7, with 1 indicating the highest level of democracy and 7 the lowest level. Democracy brings about significant cultural changes that call for more gender equality and pave the way for an easy access of women to democratic institutions such as parliaments and other leadership positions (Inglehart et.al, 2002). Accordingly, the coefficient for this particular variable in the regressions is expected to be negative. The Freedom House index has been widely used by a number of studies (Kenworthy and Malami, 1999; Paxton, 1997). This index takes into consideration several factors that may have an impact on democracy, including political opportunities for minorities, the existence of fair electoral laws, the extent to which the elections are fairly competitive, political rights and civil liberties (Freedom House, 2018).

Variable	Description	Sources
Level of democracy	An ordinal scale designed by Freedom House: it goes from 1 to 7, with 1 indicating the highest level of democracy and 7 the lowest level	Freedom House

Table 6: Variable description and data sources for the level of democracy

4-2-e- Educational level

A large body of the existing literature suggests that there is a strong relationship between educational level and the share of seats held by women in national parliaments (Moore and Shackman, 1996; Matland, 1998; Oakes and Almquist, 1993). A higher proportion of women in national legislatures requires a higher educational level that paves the way for more economic opportunities in the labor market and gradually gets women ready to run for offices and take leadership positions. Accordingly, I measure the educational level of women by determining the proportion of female enrollees in secondary education in each year. The choice of secondary education is not random. It allows enough time for women enrolled in secondary education to receive a degree and have a professional career that may have an influence on their future political activity (Patterson and Loewenberg, 1979). A positive association between the educational level and women's political representation is expected, as a higher number of female enrollees paves the way for an active professional life that prepares women to engage in the political life at all levels including the access to leadership positions (Matland, 1998). The data for this independent variable is collected from the World Bank database, which annually provides data and analysis on a number of related issues, including access to education, educational attainment and learning outcomes (World Bank, 2018).

Variable	Description	Sources
Educational level	The proportion of female enrollees in secondary education	World Bank database

Table 7: Variable description and data sources for the educational level

4-2-f- Women's labor force activity

The labor force participation is defined as "the proportion of a country's working-age population that engages actively in the labor market, either by working or looking for work" (International Labor Organization, 2015). Therefore, I operationalize women's labor force activity as the share of women in the labor force. A positive association between women's labor force activity and women's political representation is expected, as the existing literature shows that female labor force participation and women's political representation are powerfully correlated (Iversen and Rosenbluth, 2008). This variable has been widely used by a large number of investigations examining the relationship between the labor force activity and political representation (Iversen and Rosenbluth, 2008; Kenworthy and Malami, 1999). Although a number of studies clarify that women's share of certain professions, rather than women's work activity in general, may have an impact on women's political representation (Kenworthy and Malami, 1999; Matland, 1998), such operational definition cannot be applied in this research given the lack of data in most of the countries being examined here. The data for women's labor force activity is collected from the World Bank database, which provides statistical information on topics related to employment such as labor productivity and labor force indicators.

Variable	Description	Sources
Women's labor activity	the share of women in the overall labor force	World Bank database
	participation	

Table 8: Variable description and data sources for women's labor activity

4-2-g- Economic development

Economic development refers to the "increase in the absolute size of annual production regardless of the size of the population, or an increase in the country's real income over a long period of time" (Kindleberger and Herrick, 1977). Accordingly, I measure economic development using a measure of GDP per capita. The GDP refers to the Gross Domestic Product, the total value of everything produced by all the individuals and companies in the country. This measure has been included in a large number of analyses (Paxton, 1999; Oakes and Almquist, 1993; Moore and Schackman, 1996; Kenworthy and Malami, 1999). A large body of the scholarship on women's political representation also highlights that there is a strong relationship between women's representation and the country's economic development (Shvedova, 2005; Kenworthy and Malami, 1999). As the country becomes more economically developed, traditional values abate, fertility rates decrease, education and labor force participation increase, and views regarding the role of women change (Matland 1998: p114). Therefore, a positive association between the economic development and women's share of legislative seats is expected. The data for this variable is collected from the World Bank database.

Table 9: variable description and data sources for the economic development

Variable	Description	Sources
Economic	the GDP per capita	World Bank database
development		

4-2-h-Gender Development Index

Economic development may be measured by using the Human Development Index (HDI). However, most of the existing literature criticizes this index for its arbitrary and unequal weighting scheme (Srinivasan, 1994; Hopkins, 1991). For instance, Hopkins argues that the Human Development Index is a process of "adding apples to oranges" (Hopkins, 1991: p 1471). The Gender Development Index (GDI), prompted by the 1955 Human Development Report, was an attempt to fix these methodological problems (Harttgen and Klasen, 2010). The GDI adjusts the HDI by taking into account gender inequalities in life-expectancy, education and incomes (Harttgen and Klasen, 2010). The GDI gives an idea of how much women straggle behind men, and how much women need to make significant progress within each category of human development (health, knowledge and living standards). A high value of the GDI reflects a good socio-economic status of women. Therefore, a positive relationship between the Gender Development Index and women's political representation is expected. The Gender Development Index is collected from the Human Development Database, which provides statistical information on various topics related to human development such as the GDI, Multidimensional Poverty Index and others.

 Table 10: Variable description and data sources for the Gender Development Index

Variable	Description	Sources
Gender Development Index	The GDI takes into account gender inequalities in life expectancy, education and incomes	Human Development Database

4-2-i- Religiosity

I define religiosity as the degree to which religion is important to individuals in a given country. What we know about Islam is that it promotes a negative image of women and encourages inequality between men and women (Mayer, 2007). Deniz and Graham argue that, although women may be granted equal constitutional rights, these rights are often undermined by Islamic laws which don't recognize women as fully equal human beings (Deniz and Graham, 1991). In order to measure religiosity, I use the Arab Barometer's database. The Arab Barometer is the largest resource for quantitative research on the Middle East. Specifically, an index is created based on the respondents' answers to the following questions: whether they believe that the laws of their countries should be based on the Islamic Sharia laws and whether the religious practice is a private matter and should be separated from socio-economic life (See Appendix A). For the first question, I calculate the valid percentage of respondents who report that the laws of the country should be based either "entirely" or "mostly" on the Islamic Sharia Laws. For the second question, I determine the valid percentage of respondents who "disagree" or "strongly disagree" with the idea that religious practice is a private matter. Then, I combine these percentages and divide them by two to achieve a score out of 100 percent. This strategy was designed by Inglehart and Norris (2003: p 32), who developed a religiosity scale, standardized to 100 points, by combining several items from the World Values Surveys and the European Values Surveys. A large number of studies point out that countries with a strict Islamic background often have the lowest proportions of women in national parliaments (Abu-Zayd, 1998). Accordingly, a negative association between religiosity and women's political representation is expected.

Variable	Description	Sources
Religiosity	an index is created (see Appendix A)	Arab Barometer

Table 11: Variable description and data sources for religiosity

4-2-j- Ratification of the United Nations Convention on the Elimination of all Forms of Discrimination against Women

Capturing culture in a quantitative form is often difficult. Therefore, I use a number of variables that best tap the cultural attitudes towards women. Among these variables, whether a country ratified CEDAW or not may be quite useful. The CEDAW was adopted by the United Nations in 1979 in an attempt to eradicate discrimination against women and set up a plan of action to end such discrimination (United Nations Women, 2008). The ratification of this treaty translates the country's commitment to change their national laws so that they match the tenets of the convention. Accordingly, I use a set of dummy variables coded 1 if the country ratified CEDAW, and 0 if the country did not ratify CEDAW. This measurement is used by a number of studies that investigate the relationship between culture and women's political representation. While Kenworthy and Malami (1999) found in their analysis that this variable is quite significant, Paxton (1997) found almost no effect in the European countries. A positive association between the ratification of CEDAW and women's share of legislative seats is expected in the MENA region. The data for this independent variable is collected from the United Nations Women's database, which provides the list of participants that signed and ratified the CEDAW.

Variable	Description	Sources
Ratification of CEDAW	a set of dummy variables coded 1 if the country ratified the CEDAW, and 0 if the country did not ratify the CEDAW	United Nations Women's database

 Table 12: variable description and data sources for the ratification of CEDAW

4-2-k- Political culture

Political culture refers to the "historical source of such differences in habits, concerns, and attitudes that exist to influence political life in the various states" (Elazar, 1972: p85). In traditionalistic political cultures, women's representation or participation in either the national or local political affairs is often discouraged by male leaders who usually support a "male-oriented status-quo" rather than a friendly political environment for women (Hill, 1981). Drawing on the Arab Barometer, I measure the political culture by creating an index based on the respondents' answers to the following questions: whether a woman can become a President or a Prime Minister of a Muslim country, and whether men are better at political leadership than women (See Appendix B). These two questions reflect the extent to which individuals in the MENA region believe that women can run for office and be elected as political leaders.

For the first question, I calculate the valid percentage of respondents who "disagree" or "strongly disagree" with the idea that a woman can become a President or a Prime Minister of a Muslim country. For the second question, I calculate the valid percentage of respondents who "agree" or "strongly agree" with the idea that men are better at political leadership than women. Then, I combine these percentages and divide them by two to achieve a score out of 100 percent. Unfortunately, these are the only two questions included in the survey and which tackle the political

culture. The first investigations into the relationship between the political culture and women's representation in legislative assemblies have shown that Americans, for instance, tend to believe that politics is not appropriate for women as it is a men's work (Kirkpatrick, 1974). Given that the MENA region is a male-dominated society, a negative association is expected between the independent variable, political culture, and women's political representation.

Table 13: Variable description and data sources for political culture

Variable	Description	Sources
Political culture	an index is created (see Appendix B)	Arab Barometer

4-2-l- Attitudes towards women in society and family

The MENA region embodies more famously than any other region a misogynist ideology that includes social exclusion, patriarchy, sexual objectification, and other forms of violence against women (Kelly, 2009). The prevailing misogynist attitude, along with patriarchy and subordination of women, lead to the exclusion of women from the political scene (Ginwala, 2005). Factors found to be influencing the political representation of women have been explored in several studies. For instance, social scientists have revealed that the dominant masculine model of the social life significantly limits women's political roles in the region (Peterson, 1989; Eickelman, 1988; Zaatari, 2013).

Accordingly, I create country-year aggregate level measure of the variable. I operationalize the attitudes towards women in society and family by using the Arab Barometer and creating an index based on the respondents' answers to the following questions: whether a married woman can work outside the home of she wishes, whether university education for males is more important than

university education for females, whether women and men should have equal rights to their inheritance and whether husbands should have final say in all decisions concerning the family (see Appendix C). Although these are the only questions which capture attitudes towards women in society and family, this variable brings to light the extent to which the MENA region' societies are in harmony with gender equality. By seeking answers to questions related to the male attitudes towards women in society as well as in the family, it becomes easier to capture the level of patriarchy and social exclusion of women in a quantitative form. Given that most of the scholarship describes the MENA region as a male-dominated culture, a negative association between the independent variable, attitudes towards women in society and family, and the proportion of women in the national parliaments.

Table 14: Variable description and data sources for attitudes towards women in society and family

Variable	Description	Sources
Attitudes towards women in society and family	an index is created (see Appendix C)	Arab Barometer

Chapter 4: Data and Analysis

1- Introduction

This thesis assesses the political, socio-economic and cultural factors that may increase or decrease the number of women in national parliaments from 2000 to 2017. The research hypothesizes that a combination of political, socio-economic and cultural factors may explain such variability. Given the unstable political situation in the MENA region, along with the ongoing economic hardships especially in North Africa, I predict that political and socio-economic factors may have the most powerful impact on women's political representation across the MENA region. I rely upon data from diverse resources including the Inter-Parliamentary Union (IPU) database, World Bank database and the Arab Barometer. The analysis proceeds in two stages. First, I closely examine the data by focusing on the descriptive statistics for both the dependent and the independent variables. These descriptive statistics help better understand the data and draw a broader picture of the MENA region countries in terms of political, socio-economic and cultural conditions. The second part of this chapter assesses the factors affecting women's political representation across the MENA region from 2000 to 2017, through multivariate analysis.

2- Women's representation in National Legislatures

Since 2000, there has been progress in women's political representation in national parliaments across the MENA region. However, such progress is limited and there are substantial variations among countries in the percentage of women in the national parliaments. For instance, Tunisia had 11.5 % in 2000, 27.6 % in 2010 and 31.3 % in 2017 (Inter-Parliamentary Union, 2017). In sharp contrast, Kuwait had 0 percent in 2000, 7.7 % in 2010 and 3.1 % in 2017. Similar variations exist within almost all other countries. Inspection of the data also shows that the gap between North

African countries and Middle Eastern countries has widened over time. From 2000 to 2017, women made gains averaging % 20.7 across the North African countries (Tunisia, Algeria and Morocco), while the average gain across the Middle Eastern countries has been a much more modest % 7.8. The biggest gain over this period was % 22.4 for Algeria; % 18.1 of that gain occurred in May 2012 as Algeria held a historic legislative election following large-scale protests in Algeria and other neighboring countries calling for reforms of the political systems. Among the Middle Eastern countries, all the gains are almost modest, with Iraq being the stunning exception. Despite a lingering civil war, Iraq succeeded in increasing women's political representation in the national parliament, from 7.6% in 2000 to 25.3% in 2017. Table 15 summarizes the percentage of women by country in the national parliaments in 2000, 2010, 2017, along with the percentage point difference between 2017 and 2000.

		Women MPs by Country (%)				
Country						
	2000	2010	2017	Difference 2000-		
				2017		
Algeria	3.4	7.7	25.8	+22.4		
Bahrain	0	2.5	7.5	+7.5		
Egypt	2	12.7	14.9	+12.9		
Iraq	7.6	25.2	25.3	+17.7		
Iran	3.4	2.8	5.9	+2.5		
Jordan	0	10.8	15.4	+15.4		
Kuwait	0	7.7	3.1	+3.1		
Lebanon	2.3	3.1	3.1	+0.8		
Morocco	0.6	10.5	20.5	+19.9		
Syria	10.4	12.4	13.2	+2.8		
Tunisia	11.5	27.6	31.3	+19.8		

Table 15: women MPs in the MENA Region, 2000-2017, by country (%)

Source: Inter-Parliamentary Union, 2000-2017.

3- Understanding women's representation: measurement and variables

The previous chapter outlined the measurement of all independent variables. Table 16 provides basic summary statistics for each of them.

Variables	Mean	Median	Minimum	Maximum	Std. Deviation	Observations
Electoral System (ES)	0.36	0	0	1	0.48	198
Composition legislature (PCL)	27.20	13.1	0	100	31.61	198
Year of Suffrage (YS)	37.22	44	0	65	19.08	198
Level of Democracy (LD)	5.38	5.5	2	7	0.91	198
Educational Level (EL)	78.83	80.11	28.34	100	18.08	149
Labor Force Activity (LFA)	30.21	28.45	14.3	57.9	12.04	198
Level of Development (LD)	3.6	3.74	-36.5	54.15	6.73	198
Gender Development Index (GDI)	0.88	0.86	0.80	0.97	0.50	198
Religiosity	53.78	57.09	37.92	57.35	7.14	198
CEDAW	0.90	1	0	1	0.28	198
Political Culture (PC)	57.30	55.81	52.39	64.87	4.02	198
Attitudes towards in Society & family (AWSF)	34.28	34.88	23.92	39.89	5.03	198

 Table 16: Descriptive Statistics

Descriptive statistics provide a starting point for understanding the properties of the data. A first interesting observation is that most of the variables follow a symmetric distribution as the value of

the mean is almost equal to the value of the median: Electoral system (\bar{x} =0.36; M=0), level of democracy (\bar{x} =5.38; M=5.5); Level of development (\bar{x} =3.6; M=3.74); Gender Development Index (\bar{x} =0.88; M=0.86); CEDAW (\bar{x} = 0.9; M=1); attitudes (\bar{x} = 34.34; M=34.88). Three variables follow a skewed left distribution, where the value of the median is larger than the value of the mean: Educational level (\bar{x} =78.83; M=80.11); year of suffrage (\bar{x} = 37.22; M=44). Three variables follow a right skewed distribution, where the value of the mean is larger than the value of the median: Partisan Composition of the Legislature (\bar{x} =27.20; M=13.1); Labor Force Activity (\bar{x} =30.21; M=28.45); political culture (\bar{x} = 57.30; M=55.81). Logging the variables is one possible solution to fix the skewness and achieve a normal distribution for all the variables. The main reason for logging the variables is to treat heteroscedasticity, in which the variability of one variable is unequal across the range of values of another variable that predicts it (Pennings et.al, 2006: p 161). However, with reasonably large samples (200 + cases), skewness doesn't make a significant difference in the analysis (Tabachnick and Fidell, 2007: p80). Therefore, logging the variables in this research is unnecessary as each variable has around 200 observations.

4- MENA Region: Political, socioeconomic and cultural playing fields

A- Political environment

Table 16 reveals that the political environment in the MENA region is quite unstable with a clear lack of democracy and domination of the religion in politics. The level of democracy in the MENA region ranges from 2 to 7 out of 7, according to the Freedom House scale (Min=2; Max=7), with a mean equal to 5.38 (\bar{x} = 5.38, M=5.5). This suggests that more than 50% of the countries in the sample have authoritarian regimes. Among all the countries included in the sample, Tunisia is the only exception with a democracy score reaching 2 out of 7. This is achieved thanks to the democratic transition that has started after the fall of Ben Ali's regime. In sharp contrast, Syria has

the worst score among all the countries as it has been experiencing a lingering civil war for almost seven years. The relation between religion and politics is also an important theme. From 2000 to 2017, Islamist parties have secured 27.20% of the total seats in national parliaments across the MENA region, almost more than 1/4th of the available seats.

The percentage of the seats held by Islamist parties ranges from 0 percent to 100 percent (min=0; max=100). Such large spread of distribution may be the outcome of political and cultural factors. In the Middle East, for instance, especially in Kuwait and Bahrain, political parties inherently have Islamist ideologies as countries use Sharia as a source of their laws. In North Africa, however, where Sharia is not the prime source of laws, the political spectrum is marked by a variety of different ideologies that range from the extreme left-wing to the extreme right-wing. Table 2 also shows that women in the countries examined in the sample gained the right to vote 37 years ago (\bar{x} = 37.22; M=44). While Lebanon is the first country in the MENA region that granted women the right to vote, women in Kuwait gained the right to vote 12 years ago.

B- Socioeconomic environment

Table 16 shows that the economic environment in the MENA region is not only unstable, but also unpredictable. The level of development ranges from -36.5 to 54.15 (min=-36.5; max=54.15). More than 50% of the countries in the sample have a GDP equal to 3.74 (\bar{x} =3.6; M=3.74). Such huge variability may be the outcome of continuous civil wars, foreign interventions, coups d'état, revolutions and corruption. Kuwait and Bahrain have higher GDP compared to other MENA region countries. This is achieved thanks to their growing economies and increasing oil exports. The percentage of women participating in the labor force is quite low with a mean equal to 30.21 (\bar{x} =30.21; M=28.45), lower than the world average which is around 39% (World Bank data, 2018). Thanks to their growing economies, Bahrain and Kuwait have the highest rates of women's participation in the labor force. For instance, in 2010, half of the labor force in Bahrain are women. In Kuwait, more than 56% of the labor force are women.

The MENA region countries also have a poor human development with low scores in the Gender Development Index (GDI). With a mean equal to 0.88 and a Median equal to 0.86 (\bar{x} = 0.88; M=0.86), the sample' score is much lower than the world average which is around 0.938 (UNDP data, 20118). This highlights the extent to which differences between males and females exist in terms of health, life expectancy and economic opportunities. As far as the educational level is concerned, the situation is quite different. The data show that 78.83% of total females are enrolled in secondary education. More than 50% of the countries examined in the sample have 80.11% enrolled females in secondary education. This reveals that most of the MENA region countries give significant importance to women's education.

C- Cultural environment

Table 16 reveals that religion, particularly Islam, is quite important in the MENA region. Among those who responded to the Arab Barometer surveys, 52% believe that the laws of their countries should be based on the Sharia and that religion cannot be separated from socio-economic life as it is a public affair rather than a private matter. There is also a belief that politics, in general, is not appropriate for women. 60% of the respondents think that women can't be prime ministers or presidents in the MENA region, as men are better at political leadership than women. This clearly demonstrates that women's political representation or participation is discouraged in the MENA region where the political climate is marked by a male-oriented status quo.

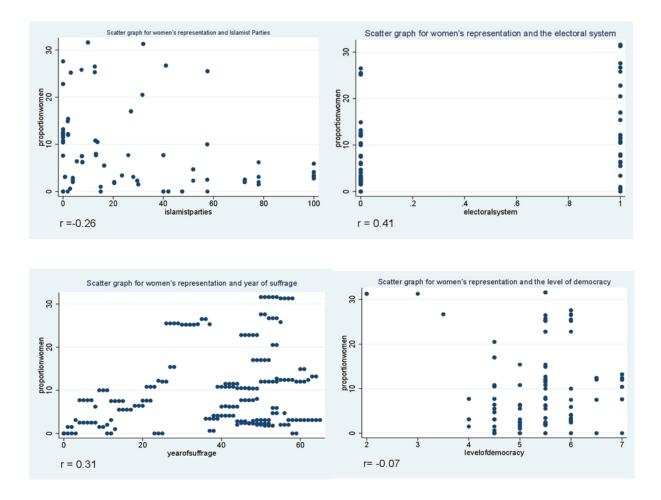
Unlike their unfriendly political environment, women have a less hostile social and family setting. Among those who responded to the Arab Barometer Surveys, only 34% claim, for instance, that women are neither allowed to work outside the home if they wish nor are they allowed to have equal rights with men. 64% of the respondents think that females' education is as important as males' education and that women should share their husbands the right to take decisions concerning the family. These numbers may reflect the MENA region countries' efforts to implement the CEDAW and change their national laws so that they match the tenets of the convention. With the exception of Iran, all MENA region countries signed and ratified the convention.

5- The relationships between political, socioeconomic, cultural indicators and women's representation

This analysis is based on several assumptions. The first assumption is that women's political representation depends on the nature of the electoral system used. Most of the existing scholarship on electoral systems highlights that more women get elected in national parliaments through the proportional representation systems than they do in single-member systems (Lijphart, 1994; Myers and Ann, 2017; Matland and Studlar, 1996). Therefore, the variable is expected to have a positive correlation with the share of parliamentary seats held by women. The second assumption is that Islamist parties and movements are generally against women's access to the political leadership position (Tajali, 2015). Therefore, a negative association is expected between the partisan composition of the legislature and women's political representation. Another important assumption is that the educational level, women's labor force participation and the economic development are expected to have positive relationships with women's political representation. As to the cultural factors, religiosity, political culture and attitudes toward women in family and society are expected to have negative relationships with women's political representation. This is because the cultural environment in the MENA region, largely dominated by Islamic laws, do not favor women's access to political leadership positions.

In order to test these assumptions, I begin with a bivariate analysis for two reasons. First, it helps explore both the strength and the direction of the relationship between each of the independent variables and women's political representation across the MENA region between 2000 and 2017. Second, the bivariate analysis is also used to ensure that non-multicollinearity is met. Multicollinearity occurs when there are high correlations between two or more variables. This leads to redundant information as well as skewing the results in the regression analysis. If the correlation coefficients, r, is either close or equal to 1 or -1, then some variables have to be removed from the models.

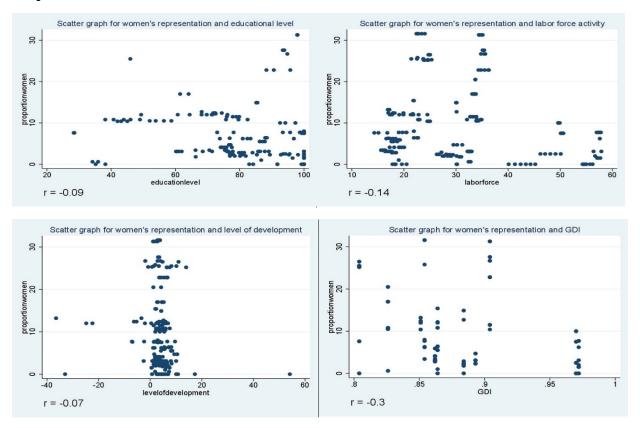
The analysis brings to light four main conclusions. First, non- multicollinearity is met. The analysis shows that there are no high correlations between two or more variables as none of the correlations reached the 0.90 thresholds. Therefore, it is safe to proceed to the regression analysis without refining the data or omitting some of the variables. Second, among the political factors, there is a moderate positive relationship between the electoral system and women's political representation (r=0.41). This suggests that the use of the proportional representation system leads to a higher representation among women in the national parliaments. The bivariate analysis also highlights that there is a moderate negative relationship between women's representation and the partisan composition of the legislature. The direction of the relationship suggests that the higher the number of Islamist parties in parliament, the fewer the proportion of women represented. The analysis highlights a moderate and positive relationship between the timing of women suffrage and the proportion of women in national parliament. This direction of correlation suggests that the earlier the time of women suffrage is, the higher the proportion of women in national parliaments.



In addition, and contrary to the above assumptions, economic development, labor force activity and educational level have negative relationships with women's political representation. The negative direction of these correlations suggests that the higher the economic predictors are, the smaller the proportion of women in national parliaments. This has one possible explanation. The context of the MENA region is quite peculiar. When the economic predictors are positive, along with the inherently cultural and social barriers, largely dominated by the Islamic laws, women are no longer motivated to go out and participate in the political life. Economic comfort, especially in the oil-rich countries like Bahrain and Kuwait, discourages women not only from actively searching for employment, but also from seeking political leadership positions. Economic comfort

Graph 1: Political Factors

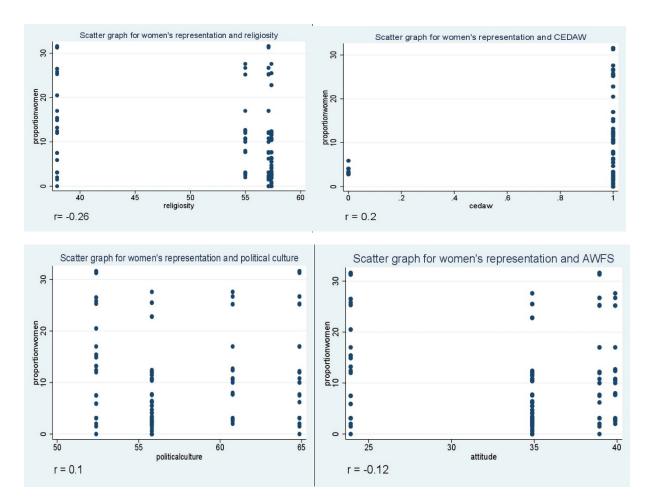
may also raise family constraints. Women seeking employment may be put under scrutiny by their husbands, particularly if the family is financially comfortable. The negative direction of the relationship between the educational level and women's political representation may also be explained by the fact that education itself doesn't support women's access to parliaments. There is a popular view in the MENA region that assumes that men are better at political leadership than women, even if women have secondary or university degrees (International Men and Gender Equality Survey, 2011)



Graph 2: Socio-Economic Variables

The bivariate analysis also highlights a moderate negative correlation between women's political representation and religiosity. This suggests that the higher religiosity is, the fewer the proportion of women represented. Having a strong belief in the Islamic Sharia laws, along with a prevailing presumption that religion is a public matter, limit women's participation in the political life and

discourages them from actively engaging in politics. There is also a negative association between women's political representation and attitudes towards women in family and society. The more women are socially discriminated against, the fewer their representation in national parliaments. Graph 3 also displays a positive relationship between women's political representation and CEDAW. This means that signing and ratifying the CEDAW leads to more elected women in the legislative assemblies across the MENA region.



Graph 3: Cultural Variables

The bivariate analysis brings into light three major observations. First, it seems that the electoral system is one of the most important political factors that may have an influential impact on women's political representation in the MENA region. The moderate positive relationship between

the electoral system and women's political representation suggests that the use of the proportional representation system leads to a higher representation among women in the national parliaments. Although this observation is derived from the bivariate analysis, further inspection through the multivariate analysis is necessary.

The second surprising observation is the negative relationship between socioeconomic factors and women's political representation. The negative direction of these correlations suggests that the higher the economic predictors are, the fewer the proportion of women in national parliaments. This hints at the fact that this thesis is probably dealing with a very peculiar context where further examination through multivariate analysis is required. Finally, the bivariate analysis displays a negative relationship between the cultural factors and women's political representation across the MENA region. A cultural context dominated by Islamic laws and conservative attitudes limits women's participation in the political life and discourages them from actively engaging in politics. However, further inspection, through multivariate analysis, is required to examine how the cultural factors interact with the political and socioeconomic factors and whether such interaction has any impact on women's representation.

6- Results

In order to distinguish between the effects of various groupings of factors, 8 models are analyzed. The political Model examines the relationship between political variables and the proportion of seats held by women in national parliaments. This model helps determine which of the political factors have any impact on the variation of women's representation in national parliaments. The socioeconomic model examines the relationship between socioeconomic variables and the proportion of seats held by women in national parliaments. This model allows seeing which of the socioeconomic factors influence the number of seats held by women in legislative assemblies. The cultural model examines the relationship between cultural variables and the proportion of seats held by women in national parliaments. This model examines which of the cultural factors have any effect on women's political representation across the MENA region.

The North African Model takes into account all the independent variables and examines the relationship between women's political representation in North Africa on the one hand, and political, socio-economic and cultural factors on the other hand. The Middle Eastern Model takes into account all the independent variables and examines the relationship between women's political representation in the Middle East on the one hand, and political, socio-economic and cultural factors on the other hand. The pre-Arab Spring Model takes into account all the independent variables and examines the relationship between women's political representation on the one hand, and political, socio-economic and cultural factors on the other hand, between 2000 and 2010. The post-Arab Spring model takes into account all the independent variables and examines the relationship between women's political representation on the one hand, and political, socioeconomic and cultural factors on the other hand, between 2011 and 2017. The estimated coefficients, standard errors (in parentheses), and significance are shown in table 3. The overall model takes into account all the independent variables and examines the relationship between women's political representation on the one hand, and political, socio-economic and cultural factors on the other hand, across the MENA region from 2000 to 2017.

A- Models

Throughout the analysis, I run 8 different models:

• Overall Model: The model takes into account all the independent variables and examines the relationship between women's political representation on the one hand, and political,

socio-economic and cultural factors on the other hand. The model predicts the variation in women's representation in national parliament to be equal to :

{Women's representation} = $\alpha + \beta_1 *$ (Electoral System) + $\beta_2 *$ (partisan composition of the legislature) + $\beta_3 *$ (women' suffrage) + $\beta_4 *$ (level of democracy) + $\beta_5 *$ (educational level) + β_6 (women's labor force activity) + β_7 (economic development) + β_8 (Gender Development Index) + $\beta_9 *$ (religiosity) + $\beta_{10} *$ (ratification of CEDAW) + $\beta_{11} *$ (political culture) + $\beta_{12} *$ (attitudes towards women in the family and society) + $\beta_{13} *$ (length of legislature) + $\beta_{14} *$ (country)

Where α is the intercept and measures the value where the regression line crosses the yaxis, and $\beta_1, \beta_2..., \beta_{14}$ are the coefficients, respectively associated with each independent variable, and measure the steepness of the regression line.

- Political Model: it examines the relationship between political variables and the proportion of seats held by women in national parliaments. This model helps determine whether the political factors have any impact on the variation of women's representation in national parliaments.
- Socioeconomic Model: it examines the relationship between socioeconomic variables and the proportion of seats held by women in national parliaments. This model allows to see whether socioeconomic factors influence the number of seats held by women in legislative assemblies.

• Cultural Model: it examines the relationship between cultural variables and the proportion of seats held by women in national parliaments. This model examines whether the cultural factors have any effect on women's political representation across the MENA region.

The following two models provide a regional analysis. They allow to examine the factors that may account for the variation in women's political representation in each of the following sub-regions: North Africa and the Middle East

- North African Model: it takes into account all the independent variables and examines the relationship between women's political representation in North Africa on the one hand, and political, socio-economic and cultural factors on the other hand.
- Middle Eastern Model: it takes into account all the independent variables and examines the relationship between women's political representation in the Middle East on the one hand, and political, socio-economic and cultural factors on the other hand.

The following two models provide a temporal statistical analysis. They allow to examine the factors that may account for the variation in women's political representation in two different periods: the first is between 2000 and 2010, and the second is between 2011 and 2017. Each of these spans involves a key historical event: the first is marked by the 9/11 attacks, while the second spotted the Arab Spring. This analysis helps examine the behavior of the dependent variable over two different spans, and understand whether the two historical events in the MENA region had any impact on the number of women in national parliaments.

- Pre-Arab Spring Model: it takes into account all the independent variables and examines the relationship between women's political representation on the one hand, and political, socio-economic and cultural factors on the other hand, between 2000 and 2010.
- Post-Arab Spring Model: it takes into account all the independent variables and examines the relationship between women's political representation on the one hand, and political, socioeconomic and cultural factors on the other hand, between 2010 and 2017.

Political Model

A multiple linear regression is calculated to predict women's representation based on the electoral system, Islamist parties, year of suffrage and the level of democracy. A significant regression equation was found (F (6,191)) =16.98, p<.000), with an R² of .24. This figure suggests that the variation in the independent variables explains 34 % of the variation in the dependent variable. After determining the statistical significance of each variable included in the model, I use the standardized (β) to compare the degree of the effect of each independent variable on the dependent variable. The model predicts the proportion of women in national parliaments equal to:

{Women's representation} = $\alpha + \beta_1 *$ (Electoral System) $+\beta_2 *$ (partian composition of the legislature) $+\beta_3 *$ (women' suffrage) +

{Women's representation} = $2.62 + 0.35^*$ (Electoral System) + (-0.098)* (partial composition of the legislature) + 0.01* (women' suffrage)

The political model demonstrates that among the independent variables used, the electoral system is the strongest predictor of the variation in women's political representation across the MENA region. A highly significant positive effect was found (p=0.000) at .01 level. Model B, as in the previous model, confirms that having a proportional representation (PR) electoral system increases

the proportion of women in parliaments. The model also shows that women's early suffrage increases the proportion of women in national parliaments (p=0.000) at .01 level. There is also a quite important connection between the number of seats held by women and the number of seats held by Islamist parties. A significant negative effect was found (p=0.01) at .05 level, in which 1% increase in the number of seats held by Islamist parties leads to a 0.02% decrease in the number of seats held by women. Both the control variables, length of legislature and whether the country belong to the Middle East or to North Africa, have no statistical significance.

Table 17: Regression Results of political, socioeconomic and cultural models

Variables	Political Model	Socioeconomic Model	Cultural Model
Electoral System	0.35***		
	(1.364)		
Partisan Composition of	-0.09*		
the Legislature	(0.195)		
Year of Suffrage	0.01***		
	(0.301)		
Level of Democracy	0.185 ns		
	(0.680)		
Educational Level		0.425**	
		(0.49)	
Labor Force Activity		0.605***	
		(0.84)	
Level of Development		-0.162**	
		(0.074)	
Gender Development		-137.5ns	
Index		(29.444)	
Religiosity			-0.38*
			(0.258)
CEDAW			0.20**
			(2.021)
Political Culture			0.34**
			(0.520)
Attitudes toward			-0.05ns
women in Family and			(0.520)
society	2.622	400.00	44.055
Cons_	2.620 (4.126)	108.32 (21.11)	-11.055 (14.90)
R_Square	0.24	0.15	0.18
Number of Observations	193	144	193

***= significant at .01 level (2-taled test)

**= significant at .05 level (2-tailed test)
ns= not statistically significant

*= significant at .10 level (2-tailed test)

This is in line with previous research as many studies outline that Islamic ideology is not hospitable to women' representation. Islamist parties and movements are generally against women's access to the political leadership position. The result confirms that Islamist parties discourage women's access to political leadership positions.

Socioeconomic Model

A multiple linear regression is calculated to predict women's representation based on educational level, women's labor force activity, economic development and Gender Development Index. A significant regression equation was found (F (4,144)) =6.78, p<.001), with an R² of .15. This figure suggests that the variation in the independent variables explains 15 % of the variation in the dependent variable. After determining the statistical significance of each variable included in the model, I use the standardized (β) to compare the degree of the effect of each independent variable on the dependent variable. The model predicts the proportion of women in national parliaments equal to:

{Women's representation} = $\alpha + \beta_5^*$ (educational level) + β_6 (women's labor force activity) + β_7 (economic development)

{Women's representation} = $108.32 + 0.42^*$ (educational level) + 0.60 (women's labor force activity) + (-0.16) (economic development)

The socio-economic model demonstrates that among the independent variables used, women's labor force activity is the strongest predictor of the variation in women's political representation across the MENA region. Model C confirms that the more women are engaged in the labor force, the more likely they are to be represented in legislative assemblies. A significant positive effect

was found (p=0.000) at .01 level, in which 1% increase in women's participation in the labor force leads to a 0.30% increase in women's political representation. The second strongest predictor is the educational level. A significant positive effect was found (p=0.000) in which 1% increase in women's educational level leads to a 0.15% increase in the number of seats held by women. However, and contrary to previous findings and research, economic development has a negative effect on women's political representation. A significant and negative effect was found (p=0.03) at .05 level in which a 1% increase in the level of development leads to a 0.16% decrease in the number of women in parliaments. It is in the opposite direction of previous findings as it seems to suggest that when development increases, women's political representation decreases! Further inspection of the data reveals that this result is mainly caused by extreme values (outliers). By removing these outliers, the negative effect disappears and a statistical significance is found (p=0.000) at .01 level.

Cultural Model

A multiple linear regression is calculated to predict women's representation based on, religiosity, CEDAW, the political culture and attitudes toward women in family and society. A significant regression equation was found (F (4,193)) =11, 23 p<.000), with an R² of .18. This figure suggests that the variation in the independent variables explains 18 % of the variation in the dependent variable. After determining the statistical significance of each variable included in the model, I use the standardized (β) to compare the degree of the effect of each independent variable on the dependent variable. The model predicts the proportion of women in national parliaments equal to: {Women's representation} = $\alpha + \beta_9$ * (religiosity) + β_{10} * (ratification of CEDAW) + β_{11} * (political culture)

{Women's representation} = $(-11.055) + (-0.38)^*$ (religiosity) + $(0.20)^*$ (ratification of CEDAW) + $(0.34)^*$ (political culture)

The cultural model demonstrates that among the independent variables used, religiosity is the strongest predictor of the variation in women's political representation across the MENA region. A significant and negative effect was found (p=0.06) at .10 level in which 1% increase in the level of religiosity leads to a 0.48% decrease in the number of women in national parliaments. This is in line with previous research. Most scholarship on women's political representation argues that Islam encourages inequality between men and women. Although women may be granted equal constitutional rights in the MENA region, these rights are often undermined by Islamic laws which don't recognize women as fully equal human beings. Accordingly, the extent to which people think that the country should be based on the Sharia Islamic laws and that religion is a public issue rather than a private matter, have a significant impact on the number of women in parliaments.

The second strongest predictor is whether the ratification of CEDAW. A positive and significant effect was found (p=0.002) in which a 1% increase in this independent variable leads to a 6.49% increase in the number of parliamentary seats held by women. The result shows that the ratification of the CEDAW has a positive impact on the number of women in the national parliaments. The ratification of this treaty translates the country's commitment to change their national laws so that they match the tenets of the convention which aim at eradicating discrimination against women and setting up a plan of action to end such discrimination. However, contrary to expectation, a positive effect was found for the political culture. It may be that this is a poor proxy of the political culture in the MENA region and that a further refinement of the variable is required.

North African Model

A multiple linear regression is calculated to predict women's representation in North Africa based on electoral system, the partisan composition of the legislature, year of suffrage, level of democracy, educational level, labor force activity, level of development, Gender Development Index, religiosity, CEDAW, the political culture and attitudes toward women in family and society. This model allows to examine the differences between North Africa and the Middle East and closely scrutinize the characteristics of each of these sub-regions. A significant regression equation was found (F (10, 26)) =35.27, p<.000), with an R² of .93. This figure suggests that the variation in the independent variables explains 93 % of the variation in the dependent variable. After determining the statistical significance of each variable included in the model, I use the standardized (β) to compare the degree of the effect of each independent variable on the dependent variable. Both independent variables (Electoral System and CEDAW) are omitted from the model given they have the same value for all the countries. The model predicts the proportion of women in national parliaments equal to:

{Women's representation} = $\alpha + \beta_2$ * (partisan composition of the legislature) + β_3 * (women' suffrage) + β_4 * (level of democracy) + β_6 (women's labor force activity) + β_7 (economic development) + β_9 * (religiosity) + β_{12} * (attitudes towards women in the family and society)

{Women's representation} = $(-75.081) + 0.13^*$ (partisan composition of the legislature) + 0.64* (women' suffrage) +0.88* (level of democracy) + 0.48* (women's labor force activity) + 0.13* (economic development) + (-0.38)* (religiosity) + (-0.64)* (attitudes towards women in the family and society). The North African Model demonstrates that among the independent variables used, the level of democracy is the strongest predictor of the variation in women's political representation across North Africa. A significant and positive effect was found (p=0.002) at .05 level in which 1% increase in the level of democracy leads to 8.24% increase in the number of parliamentary seats held by women. This is in line with previous research. Most recent scholarship on democracy highlights that there is a clear connection between women's representation in legislative assemblies and the level of democracy. The more the country is engaged in democratic reforms, the more likely women are to be represented in legislative assemblies.

Model E also brings to light that the year of women's suffrage is the second strongest predictor of the variation in women's political representation. A significant and positive effect was found (p=0.009) in which 1% increase in the independent variable leads to 1% increase in the number of women elected in national parliaments in North Africa. However, and contrary to previous findings, a significant and positive effect was found for the partisan composition of the legislature (p=0.07). A 1% increase in the number of Islamist parties in the parliaments leads to 0.13% increase in the number of parliamentary seats held by women. This is largely due to the political developments in North Africa, particularly the Arab Spring. Thanks to the ongoing democratic transition in Tunisia, and the efforts of neighboring countries to avoid any possible political and military instability, Islamist parties in North Africa are gradually leaving behind their strict Islamic ideology by adopting new strategies including more openness toward women's political participation and representation.

The North African Model also demonstrates that among the independent variables used, time of women' suffrage is also an important predictor of the variation in women's political representation in North Africa (p=0.009). There is also an important connection between women's participation in the labor force activity and women's political representation in North Africa. A significant and positive effect was found (p=0.01) in which 1% increase in the labor force participation leads to 0.53% increase in the number of women in legislative bodies. The same goes with the level of development. A positive and significant effect was found (p=0.05) in which a 1% increase in the level of development leads to a 0.60% increase in the number of women in parliaments. This suggest that economy has an important impact on women's political representation in North Africa. The more the country is economically developed with higher female participation in the labor force, the more likely women are to be represented in legislative assemblies. Religiosity and attitudes towards women in family and society are the only cultural factors found to have a significant effect on women's political representation. A significant negative effect was found (p=0.1) in which 1% increase in religiosity leads to a 0.71% decrease in the number of parliamentary seats held by women in North Africa.

Variables	North African Model	Middle Eastern Model
Electoral System	(omitted)	0.201**
		(2.465)
Partisan Composition of the legislature	0.136*	0.035 ns
	(0.722)	(0.018)
Year of Suffrage	0.57***	0.43***
	(0.386)	(0.039)
Level of Democracy	0.45***	0.307***
	(2.430)	(0.653)
Educational Level	-0.097 ns	-0.154 ns
	(1.222)	(0.418)

 Table 18: Regression Results for North Africa and Middle Eastern Models

Labor Force Activity	0.38***	0.462***
	(0.196)	(0.124)
Level of Development	0.604**	-0.02 ns (0.464)
	(0.294)	
Gender Development Index	0.22 ns	-1.222ns
	(59.088)	(29.161)
Religiosity	-0.71*	-0.439*
	(0.426)	(0.155)
CEDAW	Omitted	0.07 ns
		(2.11)
Political Culture	0.956 ns (0.581)	-0.004ns
		(0.204)
Attitudes towards women in Family and Society	-1.61***	0.535*
	(0.637)	(0.291)
Cons_	-75.081	54.655
	(62.950)	(23.21)
R_Square	0.93	0.47
Number of Observations	26	99

***= significant at .01 level (2-taled test)
*= significant at .10 level (2-tailed test)

**= significant at .05 level (2-tailed test)
ns= not statistically significant

This result confirms several previous findings that argue that Islam promotes a negative image of women and encourages inequality between men and women. Attitudes towards women in family and society also have an effect on women's political representation (p=0.01). A 1% increase in this independent variables leads to 1.61% decrease in the number of women in national parliaments. This is again in line with previous findings. The MENA region embodies more famously than any other region a misogynist ideology that includes social exclusion, patriarchy, sexual objectification,

and other forms of violence against women. The prevailing misogynist attitude, along with patriarchy and subordination of women, leads to the exclusion of women from the political scene.

While the regression failed to show any statistically significant results for some variables, it still provides important information. The most interesting information is the failure of the electoral system variable to have any effect on women's political representation. This suggests two possible explanations: either demands for representation are not being effectively forwarded by women in the North African countries, or the political parties prefer to rely on male-dominated campaigns to avoid any potential costs of nominating women.

Middle Eastern Model

A multiple linear regression is calculated to predict women's representation in the Middle East based on electoral system, the partisan composition of the legislature, year of suffrage, level of democracy, educational level, labor force activity, level of development, Gender Development Index, religiosity, CEDAW, the political culture and attitudes toward women in family and society. A significant regression equation was found (F (12, 99)) =7.42, p<.000), with an R² of .47. This figure suggests that the variation in the independent variables explains 47 % of the variation in the dependent variable. After determining the statistical significance of each variable included in the model, I use the standardized (β) to compare the degree of the effect of each independent variable on the dependent variable. The model predicts the proportion of women in national parliaments equal to:

{Women's representation} = $\alpha + \beta_1$ * (Electoral System) + β_3 * (women' suffrage) + β_4 * (level of democracy) + β_6 (women's labor force activity) +) β_9 * (religiosity) + β_{12} * (attitudes towards women in the family and society)

{Women's representation} = 54.655 + 0.55* (Electoral System) + 0.44* (women' suffrage) + 0.68* (level of democracy) + 1.4* (women's labor force activity) + (-0.33)* (religiosity) + (0.51)* (attitudes towards women in the family and society)

The Middle Eastern model demonstrates that among the independent variables used, both women's labor force activity and the level of democracy are the strongest predictors of the variation in women's political representation in the Middle East. A positive and significant effect was found (p=0.000) in which 1% increase in women's labor force activity leads to a 0.46% increase in the number of the elected women in national parliaments. A positive and significant effect was also found (p=0.000) in which a 1% increase in the level of democracy leads to 3.62% increase in the number of parliamentary seats held by women. Among the political variables, time of women' suffrage has also a significant positive effect (p=0.01). A 1% increase in this independent variable leads to 0.09% increase in women's political representation.

The partisan composition of the legislature has no statistical significance in this model. This means that the Islamist parties have no effect on women's political representation. One possible explanation of this is that, in the Middle East, especially in the Gulf countries, the majority of political parties inherently have Islamist ideologies as countries use Sharia as a source of their laws. Unlike the Middle East, in North Africa where Sharia is not the prime source of laws, the political spectrum is marked by a variety of different ideologies that range from the extreme left-wing to the extreme right-wing.

As to the cultural variables, both religiosity and attitudes toward women in family and society are the strongest predictors of the variation in women's political representation in the Middle East. A significant and negative effect was found (p=0.09) in which 1% increase in religiosity leads to a 0.25% decrease in women's political representation in the Middle East. However, and contrary to expectations, a positive and significant effect was found for the attitudes towards women in the family and society (p=0.06). A 1% increase in the variable leads to 0.50% increase in women's political representation. It may be that this is a poor proxy of the cultural attitude in the Middle East and that a further refinement of the variable is required.

Pre-Arab Spring Model

A multiple linear regression is calculated to predict women's representation across the MENA region from 2000 to 2010, based on electoral system, partisan composition of the legislature, year of suffrage, level of democracy, educational level, labor force activity, level of development, Gender Development Index, religiosity, CEDAW, the political culture and attitudes toward women in family and society. A significant regression equation was found (F (11, 92)) =11.85, p<.000), with an R² of .58. This figure suggests that the variation in the independent variables explains 58 % of the variation in the dependent variable. After determining the statistical significance of each variable included in the model, I use the standardized (β) to compare the degree of the effect of each independent variable on the dependent variable. The model predicts the proportion of women in national parliaments equal to:

{Women's representation} = $\alpha + \beta_1 *$ (Electoral System) + $\beta_3 *$ (women' suffrage) + $\beta_4 *$ (level of democracy) + $\beta_5 *$ (educational level) + β_6 (women's labor force activity) + β_8 (Gender Development Index)

{Women's representation} = $0.76 + 0.56^*$ (Electoral System) + 0.40^* (women' suffrage) + 0.73^* (level of democracy) + 0.32^* (educational level) + 0.96^* (women's labor force activity) + (-0.67) (Gender Development Index)

The pre-Arab Spring model demonstrates that among the independent variables used in this model, women's labor force activity is the strongest predictor of the variation in women's political representation across the MENA region from 2000 to 2010. A positive significant effect was found (p=0.000) in which 1% increase in the women's participation in the labor force leads to a 0.48% increase in the number of parliamentary seats held by women. The second strongest predictor is the level of democracy. A positive and significant effect was found for the level of democracy (p=0.000). A 1% increase in the level of democracy leads to 5.47% increase in women's political representation. Three other variables were also found significant including time of women' suffrage, educational level and the GDI. However, none of the cultural variables were found significant. This may be the result of the political context across the MENA region from 2000 to 2010. The pre-Arab spring period was marked by a prevailing dictatorship characterized by either the single leader or the single-party system with little mass mobilization and the absence of political pluralism. Consequently, people didn't have enough space to translate their ideological and cultural preferences into political views, which may explain the insignificance of all cultural variables in the model.

Post-Arab Spring Model

A multiple linear regression is calculated to predict women's representation across the MENA region from 2011 to 2017, based on electoral system, partisan composition of the legislature, year of suffrage, level of democracy, educational level, labor force activity, level of development, Gender Development Index, religiosity, CEDAW, the political culture and attitudes toward women in family and society. A significant regression equation was found (F (12, 32)) =5.78, p<.000), with an R² of .68. This figure suggests that the variation in the independent variables explains 68 % of the variation in the dependent variable. After determining the statistical significance of each

variable included in the model, I use the standardized (β) to compare the degree of the effect of each independent variable on the dependent variable. The model predicts the proportion of women in national parliaments equal to:

{Women's representation} = $\alpha + \beta_1 *$ (Electoral System) + $\beta_3 *$ (women' suffrage) + $\beta_7 *$ (economic development)

{Women's representation} = (-67.62) + 0.94* (Electoral System) + 0.58 * (women' suffrage) + (-0.33)* (economic development)

The post-Arab spring model demonstrates that among the independent variables used, the electoral system is the strongest predictor of the variation in women's political representation across the MENA region from 2011 to 2017. A significant and positive effect was found (p=0.000), in which a 1% increase in the electoral system leads to 16.71% increase in the number of parliamentary seats held by women. The second strongest predictor is the time of women' suffrage. A significant and positive effect was found (p=0.03) in which 1% increase in the independent variable leads to a 0.19% increase in the women's political representation.

However, and contrary to previous findings and research, economic development has a negative effect on women's political representation. A significant and negative effect was found (p=0.02) at .05 level in which 1% increase in the level of development leads to a 0.40% decrease in the number of women in parliaments. It is in the opposite direction of previous findings as it seems to suggest that when development increases, women's political representation decreases! Further inspection of the data reveals that this result is mainly caused by extreme values (outliers). By omitting these outliers, the negative effect disappears. However, given that the variable is not statistically

significant, then it is safe to assume that the level of development in this model has no effect on women's political representation.

Variables	Pre-Arab Spring Model	Post-Arab Spring Model
Cons_	0.76 (101.97)	-67.62 (71.54)
Electoral System	0.50***	16.71***
	(1.282)	(3.765)
Partisan Composition of the Legislature	0.287ns	-0.43ns
	(0.031)	(0.035)
Year of Suffrage	0.362***	0.197**
	(0.02)	(0.918)
Level of Democracy	0.771***	0.017ns
	(0.843)	(1.22)
Educational level	0.10**	0.144ns
	(0.49)	(0.104)
Labor Force Activity	0.48***	0.162 ns
	(0.914)	(0.206)
Level of Development	0.000 ns	-0.406**
	(0.062)	(0.174)
Gender Development Index	-0.09***	61.13 ns
	(31.46)	(69.26)
Religiosity	0.53ns	-0.22 ns
	(1.43)	(2.04)
CEDAW	0.25ns	-6.57 ns
	(3.05)	(5.45)
Political Culture	Omitted	0.03 ns
		(1.373)
Attitudes toward women in Family and Society	0.652 ns	0.235 ns
	(0.591)	(1.52)
Cons_	0.76 (101.97)	-67.62 (71.54)

 Table 19: Regression Analysis of the Pre-Arab Spring and the Post-Arab Spring Models

R_Square	0.58	0.68
Number of Observations	92	32

***= significant at .01 level (2-taled test)
*= significant at .10 level (2-tailed test)

**= significant at .05 level (2-tailed test)
ns= not statistically significant

Overall Model

A multiple linear regression is calculated to predict women's representation based on electoral system, partisan composition of the legislature, year of suffrage, level of democracy, educational level, labor force activity, level of development, Gender Development Index, religiosity, CEDAW, the political culture and attitudes toward women in family and society. A significant regression equation was found (F (13,135)) =9.58, p<.000), with an R² of .479. This number suggests that the variation in the independent variables explains 47.9 % of the variation in the dependent variable. After determining the statistical significance of each variable included in the model, I use the standardized (β) to compare the degree of the effect of each independent variable on the dependent variable. The model predicts the proportion of women in national parliaments equal to:

{Women's representation} = $\alpha + \beta_1 *$ (Electoral System) + $\beta_3 *$ (women' suffrage) + $\beta_4 *$ (level of democracy) + β_6 (women's labor force activity) + $\beta_9 *$ (religiosity)

{Women's representation} = 19.07 + 0.55* (Electoral System) + 0.43* (women' suffrage) +0.34* (level of democracy) + 0.58 (women's labor force activity) + (-0.29)* (religiosity)

This model demonstrates that among the independent variables used, both the electoral system and the labor force activity are the strongest predictors of the variation in women's political representation across the MENA region. Model A confirms that having a proportional representation (PR) electoral system increases the proportion of women in parliaments. A highly significant positive effect was found (p=0.000) at .01 level, in which having a PR electoral system leads to a 7.27% jump in the number of women in national parliaments. This is in line with the existing scholarship on women's political representation. A number of previous findings point to the fact that countries adopting a proportional representation (PR) usually have a higher proportion of women in national parliaments.

Labor force activity is the only socio-economic factor found to have a significant effect on women's political representation (p=0.001) at .01 level. This is also consistent with previous findings. In fact, the more women are engaged in the labor force, the more likely they are to be represented in legislative assemblies. The year when women gained the right to vote, along with the level of democracy are also quite important predictors of the variation in women's political representation across the MENA region. Model A shows that the women's early suffrage increases the proportion of women in parliaments, as a highly significant effect was found (p=0.000), in which one unit increase in the independent variable (women' suffrage) leads to a 0.14% increase in the women's political representation.

The model also demonstrates that having a democratic political system increases the proportion of women in national parliaments. A highly significant positive effect was found (p=0.000) in which 1% increase in the level of democracy leads to 2.52% increase in women's political representation. This is also in line with previous research. Most recent scholarship on democracy highlights that there is a clear connection between women's representation in legislative assemblies and the level of democracy. Religiosity is the only cultural factor found to have a significant effect on women's political representation. A significant negative effect was found (p=0.07) in which a 1% increase

in religiosity leads to a 33.93% decrease in the number of parliamentary seats held by women. This result confirms several previous findings that argue that Islam promotes a negative image of women and encourages inequality between men and women.

Variables	Overall Model
Electoral System	0.55***
	(1.340)
Partisan Composition of the Legislature	-0.42 ns
	(0.248)
Year of Suffrage	0.43***
	(0.313)
Level of Democracy	0.34***
	(0.631)
Educational Level	0.17ns
	(0.498)
Labor Force Activity	0.58**
	(0.887)
Level of Development	-0.57 ns
	(0.659)
Gender Development Index	-0.29 ns
	(31.58)
Religiosity	-0.29*
	(0.188)
CEDAW	0.008 ns
	(2.676)
Political Culture	-0.70 ns
	(0.257)
Attitudes toward women in Family and society	0.22 ns
	(0.364)
Cons_	19.07
	(25.73)
R_Square	0.44
Number of Observations	199

 Table 20: Regression Results for the Overall Model

***= significant at .01 level (2-taled test)

**= significant at .05 level (2-tailed test)

*= significant at .10 level (2-tailed test)

ns= *not statistically*

7- Robustness Check

In order to check the robustness of the results, the study includes dummy variables for each country/election year. Including these dummy variables helps avoid the problem of multicollinearity and ensures that no country or election year is dominating the models (Appendix D). In order to do this, I use three different methods. First, I create a dummy variable for each country in the study and re-run the models using these dummy variables to see whether there are any significant changes. Second, I create a dummy variable for three time points (2000, 2010 and 2017) and re-run the models using these dummy variables to examine whether there are any important changes. Finally, I combine all these dummy variables (for both country and year) and see whether there are any significant changes. The robustness tests demonstrate that these dummy variables have no statistical effect. The results remain consistent and no significant changes are detected.

8- Conclusion

By closely examining the factors that may account for the variation in women's political representation across the MENA region between 2000 and 2017, we see that political factors play a key role in determining the number of women elected in the legislative assemblies. The first observation is that the electoral system significantly affects women's political representation in the MENA region. The eight models used in this research confirm that having a proportional representation (PR) electoral system increases the proportion of women in parliaments. This is in line with the first investigations which found that countries adopting a proportional representation (PR) system usually have a higher proportion of women in their national parliaments.

The regression models also direct us away from the previous assumptions that Islamist parties do not encourage women's access to political positions. Since the eruption of the Arab Spring in 2011,

it seems that Islamist parties have adjusted their political strategies by encouraging women's representation. The models used in this research bring to light that the increase in the number of Islamist parties is associated with an increase in the number of women in national parliaments. As to the economic factors, it is important to recognize the regional differences in the MENA region. In the Middle East, regression models highlight that economic factors have almost no effect on women's political representation, as most of these countries are oil-rich countries. In North Africa, economic factors, particularly labor force activity and the level of development significantly affect the number of women elected in the national parliaments.

With respect to the cultural factors, the results show that religiosity is the most important factor that may have a negative impact on women's representation. This is in line with previous findings that demonstrate that Islam promotes a negative image of women and encourages inequality between men and women. It is important to mention that whether the variable "political culture" is appropriate to the MENA region context is questionable. The variable failed to have any statistical significance in all the models, except model D where it has a positive effect on the women's political representation. As explained above, it may be that this is a poor proxy of the cultural attitudes in the Middle East and that a further refinement of the variable is required.

Chapter 5: Conclusion

This research examines the factors that may account for the variation in women's representation in national parliaments across the MENA region between 2000 and 2017. It seeks to develop an answer to the following research question: what accounts for the variation in women's representation in national parliaments across the MENA region? This chapter summarizes the research and its major findings. The chapter is divided into three main parts. The first part summarizes the main conclusions deduced from the empirical section of the research. The second part describes the limitations and the challenges faced throughout the research. The last part provides avenues for future research.

1- Summary of findings

The available evidence seems to suggest that the MENA region is marked by a permanent state of political, social and economic instability. There is overwhelming evidence that, through the last two decades, almost all the MENA region countries have failed to establish democratic systems capable of meeting their citizens' economic needs and protect their rights (Mulderig, 2013; Brown, 2013). People in the MENA region have experienced decades of dictatorship and oppression. Political, social, economic and religious institutions have been significantly weakened, and in few cases replaced with new institutions employed by the state to have a full control of the society (Brown, 2013). People in the MENA region, even after the eruption of the Arab Spring, failed to work together to achieve more freedom and more justice. As a result, the social structure has become even weaker, with a clear lack of self-confidence and inability to introduce initiatives (Salah, 2011). The weakness of the social structure along with a struggling economy contributed to the creation of an instable environment marked by civil wars, foreign interventions, military

coups d'état, revolutions and civil disobediences. Even the eruption of the Arab Spring failed to bring about positive changes. In contrast, countries like Syria and Yemen have been experiencing civil wars for more than seven years while other countries such as Egypt endured a military coup d'état.

Such instable political and socioeconomic environments undoubtedly have a negative impact on women's political representation. Since 2000, there has been limited progress in women's representation in national parliaments, with an average gain of only 14 % from 2000 to 2017. A closer look at the data also indicates that the gap in women's political representation has significantly widened between the North African countries and the Middle Eastern countries. From 2000 to 2017, women have made gains averaging 20.7 percent across the North African countries, while the average gain across the Middle Eastern countries has been a much more modest 7.8 percent.

This study underlines that the ideal conditions for a high women's political representation across the MENA region are a proportional representation (PR) electoral system, higher level of democracy, earlier suffrage, higher level of women's labor force participation and less dependence on religion as a source of laws and attitudes. The results of this research provide confirmatory evidence that the electoral system has the most powerful influence on women's political representation across the MENA region. All the models used throughout the research confirm that having a proportional representation (PR) electoral system increases the proportion of women in parliaments. As highlighted by previous studies, adopting a proportional representation (PR) in the MENA region means a higher proportion of women in the national parliaments. This is largely because the proportional representation systems translate a fairer and more inclusive representation by reflecting the interests and views of the electorate. Proportional representation systems produce more minority and treat all groups, including women, in a fair and equal manner. In addition, political parties in the MENA region countries that adopt the PR system, often find themselves compelled to include a large proportion of women for two main reasons: first to attract a high level of interest from voters and second to avoid being seen as discriminatory and thus drive away voters.

On the basis of the evidence currently available, it seems fair to suggest that the level of democracy also has a significant influence on women's political representation across the MENA region from 2000 to 2017. The results of this research confirm previous studies (Diamond, 1999; Inglehart and Welzel, 2005; Matland, 1998) and show that there is a clear connection between the level of democracy and women's representation in legislative assemblies. Democracy embodies more famously than any other political system the spirit of freedom and equality, according to which women have the right to participate in the elections and have equal access to national parliaments. A higher level of democracy translates a higher level of representation, which leads to a more political balance and creates a political view marked by gender equality. Across the MENA region, a higher level of women's representation in national parliaments is often associated with a higher level of democracy. Women in North African countries, where relatively democratic systems exist, succeeded in having access to national parliaments. Whereas in the Middle Eastern countries, women are still lagging behind the other countries in this issue. Middle Eastern countries adopt either absolute monarchies or authoritarian regimes, with the lowest scores in democracy index held by the Gulf countries such as Bahrain and Kuwait. The lack of democratic practice and the tight control of authoritarian regimes for decades explain the limited, and in some cases, the absence of any political representation among women.

The results of the study also suggest a strong link between the level of democracy and women' suffrage with respect to women's political representation in the MENA region. Where there is

democracy, there is the right to freely participate in elections for all adults without any discrimination, including women (Muller, 1988). Democracy implies universal suffrage that calls for the right of all adults, including women, to participate in the political life and in decision-making without any exclusion based on sex, race or any other factors (Paxton, 2000). Results show that the earlier women gained the right to vote, the higher women's shared seats in the national parliaments. Countries with a deep-rooted tradition of female's continuous participation in politics are prone to having a higher number of female legislators than those states where women had been long deprived of political rights such as the right of voting. This may explain why most of the Middle Eastern countries, where women did not secure their right to vote until the late 1990's, have lower proportions of elected women than the North African countries. Most of the North African countries granted women the right to vote since the late 1960's, right after their independence from long decades of western colonization.

The results also provide strong evidence that the level of women's participation in the labor force has a significant impact on women's political representation across the MENA region. As confirmed by previous studies, the more women are engaged in the labor force, the more likely they are to be represented in legislative assemblies (Iversen and Rosenbluth, 2006; Kenworthy and Malami, 1999). Participation in the labor force is an empowerment tool for women. The results highlight that while a professional experience prepares women to engage in the political life at all levels including the access to leadership positions, Low levels of labor force participation, and unemployment in some cases, do not encourage women's active participation in politics. A higher representation of women in national legislatures requires a higher educational level that paves the way for more economic opportunities in the labor market and gradually gets women ready to run for offices and take leadership positions. In most of the MENA region countries, including the richoil countries in the Middle East, there has been a prevalent belief in the natural distribution of gender roles according to which women are seen as being better suited to domestic and child care responsibilities while men are seen as best suited to jobs outside of the home. However, and as result of public policies, international agreements and the economic crises in many of the countries across the region, this attitude is gradually changing. Women, especially in the North African countries such as Tunisia and Algeria, are developing new interests that are quite different from their husbands' while they are trying to balance family and career (Iversen and Rosenbluth, 2006). Such significant shift is leading to a significant change in political parties' attitudes towards women. In fact, once political parties recognize that working women constitute an important electoral platform, they become more impelled to increase the number of female candidates on their lists, and thus the increase in women's political representation.

In addition, the results seem to validate the view that religion has a negative impact on women's political representation across the MENA region. Most of the models analyzed confirm previous studies and demonstrate that the extent to which people think that the country should be based on the Sharia Islamic laws and that religion is a public issue rather than a private matter, have a significant impact on the number of women in legislative assemblies. This research overlaps with previous findings as it is clear that Islam promotes a negative image of women and encourages inequality between men and women (Deniz and Graham, 1991; Mayer, 2017). According to Islamic norms, women and men are not allowed to share the same domain: while women are limited to the private domain, men take charge of the public sphere. Although women may be granted equal constitutional rights, these rights are often undermined by Islamic laws which don't recognize women as fully equal human beings (Mayer, 2017: p 123). Many countries across the Middle East, especially the oil-rich countries, continuously impose sex segregation in public facilities such as

schools and official governmental offices. Such practice gradually causes clear inequalities in the educational levels, economic opportunities and political rights including the right to run for offices and get elected. This provides a plausible explanation of why countries with a strict Islamic background often have the lowest proportions of women in national parliaments.

On the basis of the evidence currently available and contrary to previous works, it seems fair to suggest that the Islamist parties in North Africa contribute to a higher women's representation in the post-Arab spring era. The results highlight that an increase in the number of parliamentary seats held by Islamist parties lead to an increase in the number of parliamentary seats held by women. This is largely due to the political developments in North Africa, particularly the Arab Spring. Thanks to the ongoing democratic transition in Tunisia, and the efforts of neighboring countries to avoid any possible political and military instability, Islamist parties in North Africa are gradually leaving behind their strict Islamic ideology by adopting new strategies including more openness toward women's political participation and representation. This allows these new Islamist parties to adjust themselves to the new context of the Arab Spring and to enlarge their electoral platforms by encouraging women's political participation and representation. However, confirming that Islamist parties are one of the ideal conditions for a better women's political representation is quite early. The strategy adopted by the Islamist parties, largely forced by the ongoing political developments, may be altered when these parties find themselves in a new and different political context.

This research overlaps with many of the previous studies on women's political representation. This research confirms that the political factors, particularly the electoral system and the level of democracy have the most significant impact on the number of seats held by women in legislative assemblies. It also confirms that socioeconomic factors, such as women's participation in the labor

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force, significantly influences women's representation. This research also reaffirms that that the extent to which people think that the country should be based on the Sharia Islamic laws and that religion is a public issue rather than a private matter, have a significant impact on the number of women in legislative assemblies. However, this research brings into light that Islamist parties, especially in the context of the Arab Spring, contribute to a higher women's political representation. Unlike previous studies, the models analyzed throughout the research demonstrate that Islamist parties are gradually leaving behind their strict Islamic ideology by adopting new strategies including more openness toward women's political participation and representation. Accordingly, it is clear that there is a compelling need for further research on the impact of Islamist parties on women's political representation across the MENA region

2- Limitation and challenges

Throughout the course of the research, there have been two major challenges, which have already been mentioned in previous chapters. The first challenge is data collection. It seems that having access to complete and updated data in many countries across the MENA region is quite challenging, and in few cases impossible. Many countries in the MENA region have been experiencing decades of civil wars and foreign interventions. These political instabilities usually render the process of updating data impossible. In this thesis, there has been a number of data gaps in certain countries such as Egypt and Algeria with respect to the number of female enrollees in secondary education and the number of women participating in the labor force. Second, the variables used to measure the political culture and attitudes towards women in family and society are suboptimal. The use of these variables was primarily intended to have a direct measure of attitudes that would have more explanatory power. However, the results demonstrate that attitudes are quite difficult to measure and that designing new variables that may properly capture cultural

attitudes is required. Unfortulnately, there are no such variables available now and current research largely relies on proxy variables that, in most cases, do not represent the cultural values towards women in a given society.

3- Avenues for future research

In the light of what has been done in this thesis so far, it is clear that there is a compelling need for further research on the impact of Islamist parties on women's political representation across the MENA region. The thesis brought to light that the Islamist parties have different attitudes towards women's representation, depending on the regional and temporal contexts. For instance, Islamist parties in the Middle East do not tackle women's political representation the same way as Islamist parties in North Africa do. It is also clear that Islamist parties' attitudes before the eruption of the Arab spring were quite different of their attitudes after 2011. All these observations require further examination to discern the extent to which Islamist parties have any impact on women's political representation.

There is also a compelling need for further research on the development of new variables that properly capture the cultural attitudes towards women. Cultural attitudes are so difficult to capture, and current research is limited to few proxy variables that generally fail to effectively and accurately reflect the real cultural behavior towards women. Accordingly, it is important to focus in the future on improving the quality of cultural variables and designing a mechanism according to which having powerful explanatory cultural variables is possible.

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Appendices

Appendix A: (Retrieved from the Arab Barometer Database)

To measure religiosity, an index is created based on the respondents' answers to the following questions:

Question 605: Which of the following statements is the closet to your point of view?

 \Box Laws of our country should be based entirely on the Sharia.

- \Box Laws of our countries should be based mostly on the Sharia.
- □ Laws of our country should be based equally on Sharia and the will of the people
- \Box Laws of our country should be based mostly on the will of the people
- \Box Laws of our country should be based entirely on the will of the people
- \Box I don't know
- \Box Declined to answer

Question 606: Religious practice is a private matter and should be separated from

Socioeconomic life.

- I strongly agree
- I agree
- I disagree
- I strongly disagree
- I don't know
- Declined to answer

Appendix B (Retrieved from the Arab Barometer Database)

To measure the political culture, an index is created based on the respondents' answers to the following questions

Question 601 (1): A woman can become President or Prime Minister of a Muslim Country

- I strongly agree
- I agree
- I disagree
- I strongly disagree
- I don't know
- Declined to answer

Question 601 (3): In general, men are better at political leadership than women

- I strongly agree
- I agree
- I disagree
- I strongly disagree
- I don't know
- Declined to answer

Appendix C (Retrieved from the Arab Barometer Database)

In order to measure attitudes towards women in the family and the society, an index is created based on the respondents' answers to the following questions

Question 601 (2): A married woman can work outside the home if she wishes

- □ I strongly agree
- □ I agree
- □ I disagree
- □ I strongly disagree
- \Box I don't know
- $\hfill\square$ Declined to answer

Question 601 (4): University education for males is more important than university

education for females

- □ I strongly agree
- □ I agree
- □ I disagree
- □ I strongly disagree
- \Box I don't know
- \Box Declined to answer

Question 601 (8): Women and men should have equal rights to their inheritance (women should not be denied their rights)

- I strongly agree
- I agree
- I disagree
- I strongly disagree
- I don't know
- Declined to answer

Question 601 (18): Husbands should have final say in all decisions concerning the family

- I strongly agree
- I agree
- I disagree
- I strongly disagree
- I don't know
- Declined to answer

<u>Method 1: creating a dummy variable for each country in the study and re-running the</u> <u>models using these dummy variables to see whether there are any significant changes</u>

Political Model

proportionwomen	Coef.	Std. Err.	t	P> t	Beta
electoralsystem	7.020903	1.522527	4.61	0.000	. 3767299
islamistparties	0268008	.0199032	-1.35	0.180	0931234
yearofsuffrage	.1191608	.0304357	3.92	0.000	.2533547
levelofdemocracy	.2837982	.7011162	0.40	0.686	.0287801
dummycountry	-1.311963	2.21447	-0.59	0.554	0421212
_cons	1.970965	4.268862	0.46	0.645	

Socioeconomic Model

Beta	P> t	t	Std. Err.	Coef.	proportionwomen
.4687528	0.001	3.35	.0506962	.169663	educationlevel
.5744356	0.001	3.42	.0851887	.2912123	laborforce
1672919	0.031	-2.17	.0750048	1630638	levelofdevelopment
-1.087521	0.000	-4.76	29.78431	-141.8845	GDI
109977	0.188	-1.32	1.991776	-2.636571	dummycountry
	0.000	5.22	21.36709	111.6349	cons

Cultural Model

Beta	P> t	t	Std. Err.	Coef.	proportionwomen
3917325	0.057	-1.92	.2566014	4920183	religiosity
.1932344	0.003	2.99	2.065286	6.176007	cedaw
.3486493	0.023	2.29	.3398033	.777152	politicalculture
0547065	0.850	-0.19	.5160111	0975516	attitude
.1519695	0.020	2.35	2.012536	4.73345	dummycountry
	0.451	-0.75	14.77586	-11.15115	_cons

Middle Eastern Model

Beta	P> t	t	Std. Err.	Coef.	proportionwomen
. 4193501	0.003	3.09	2.834481	8.75323	electoralsystem
.0051271	0.958	0.05	.0202227	.001055	Islmaistparties
. 3133944	0.032	2.17	.0503746	.1095047	yearofsuffrage
.2616482	0.004	2.97	.7711194	2.291444	levelofdemocracy
1238425	0.195	-1.30	.0210261	0274033	educationlevel
1.703747	0.000	5.05	.176922	.8930561	laborforce
0149640	0.796	-0.26	.0569497	0147649	development
-1.79548	0.000	-6.79	34.02199	-231.1681	GDI
2838828	0.092	-1.70	.1823431	3097288	religiosity
096573	0.430	-0.79	2.675389	-2.119423	cedaw
0794798	0.546	-0.61	.2352637	1425989	politicalculture
. 322315	0.146	1.46	.3343942	.489036	attitude
.319115	0.001	3.45	1.977609	6.823975	dummycountry
	0.000	6.48	27.56284	178.5011	cons

North African Model

Beta	P> t	t	Std. Err.	Coef.	proportionwomen
			(omitted)	0	electoralsystem
.1512002	0.102	1.68	.0666875	.1123138	Islamistparties
.8081421	0.000	5.10	.2735579	1.396473	yearofsuffrage
. 4626693	0.006	2.92	1.404432	4.100684	democracy
1324663	0.066	-1.91	.0205184	0391692	education
4694516	0.300	-1.05	.5652734	595656	laborforce
.0947013	0.110	1.65	.2823803	.4647574	development
.1887308	0.023	2.40	21.57768	51.74348	GDI
. 000061	1.000	0.00	.2380984	.0001142	religiosity
			(omitted)	0	cedaw
.1363904	0.526	0.64	. 61255	.3931812	politicalculture
3553442	0.160	-1.44	. 6228988	8966294	attitude
8191616	0.061	-1.94	8.647841	-16.8176	dummycountry
	0.002	-3.37	24.80147	-83.54744	_cons

Pre-Arab Spring Model

proportionwomen	Coef.	Std. Err.	t	P> t	Beta
electoralsystem	8.529081	1.555755	5.48	0.000	. 6677949
Islmaistparties	.0807113	.0321036	2.51	0.014	.4070802
yearofsuffrage	.1280572	.0275342	4.65	0.000	.3821461
evelofdemocracy	6.248335	.9068966	6.89	0.000	.8177851
educationlevel	.1656558	.0500718	3.31	0.001	.5186639
laborforce	.5073653	.0964984	5.26	0.000	.9846133
development	.0084092	.0563818	0.15	0.882	.0094815
GDI	-109.2461	31.45914	-3.47	0.001	86953
religiosity	9.673052	5.819933	1.66	0.100	. 3973238
cedaw	7.658574	3.004668	2.55	0.013	. 3773839
oliticalculture	0	(omitted)			0
attitude	6.090474	2.852337	2.14	0.036	.5000101
dummycountry	-4.843274	1.594737	-3.04	0.003	2386572
_cons	-741.9372	422.9526	-1.75	0.083	

Post-Arabic Spring Model

Beta	P> t	t	Std. Err.	Coef.	proportionwomen
. 6441364	0.001	3.58	3.823258	13.69754	electoralsystem
.013372	0.937	0.08	.0427171	.0034118	islamistparties
.0907635	0.639	0.47	.0850985	.0401049	yearofsuffrage
.0833190	0.537	0.62	1.267249	.788356	levelofdemocracy
9713794	0.005	-2.93	.0953576	2797038	educationlevel
.0841703	0.808	0.24	.2310098	.056568	laborforce
0345735	0.765	-0.30	.1790427	0538858	development
. 3759324	0.449	0.76	78.36686	59.8555	GDI
3328878	0.819	-0.23	1.573627	3625455	religiosity
0268307	0.894	-0.13	6.047667	8080646	cedaw
0815429	0.889	-0.14	1.034806	1445725	politicalculture
. 2557773	0.793	0.26	1.245542	.3286379	attitude
	0.814	-0.24	68.7234	-16.2668	_cons

Overall Model

proportionwomen	Coef.	Std. Err.	t	P> t	Beta
electoralsystem	9.59663	1.331798	7.21	0.000	. 693616
islamistparties	.0088508	.0237081	0.37	0.709	.0445011
yearofsuffrage	.1536758	.0296048	5.19	0.000	.4673058
levelofdemocracy	2.812774	.5978869	4.70	0.000	.3820277
educationlevel	.0829634	.0471848	1.76	0.081	.2292151
laborforce	.2126673	.0858488	2.48	0.014	.4195004
levelofdevelopment	0525412	.0621421	-0.85	0.399	0539036
GDI	-28.93683	29.84112	-0.97	0.334	2217961
religiosity	346802	.1776291	-1.95	0.053	2977571
cedaw	2.941269	2.606846	1.13	0.261	.1356465
politicalculture	2011868	.2434246	-0.83	0.410	1125993
attitude	.4038326	.3436641	1.18	0.242	.254793
dummycountry	-7.631413	1.742543	-4.38	0.000	3183225
_cons	10.18116	24.31237	0.42	0.676	

Method 2: create a dummy variable for three time points (2000, 2010 and 2017) and re-run

the models using these dummy variables to examine whether there are any important changes

Political Model

Beta	P> t	t	Std. Err.	Coef.	proportionwomen
.3617217	0.000	4.95	1.363897	6.748453	electoralsystem
0922574	0.180	-1.34	.0197784	0265914	islamistparties
.2329724	0.000	3.62	.030427	.1100442	yearofsuffrage
.0266049	0.700	0.39	. 6845342	.2643746	levelofdemocracy
.1221649	0.053	1.94	2.45483	4.773876	dummyyear
	0.612	0.51	4.150937	2.110786	cons

Socioeconomic Model

proportionwomen	Coef.	Std. Err.	t	P> t	Beta
educationlevel	.1497457	.0489161	3.06	0.003	. 4137245
laborforce	. 291712	.084467	3.45	0.001	.5754212
levelofdevelopment	1530483	.0747312	-2.05	0.042	1570167
GDI	-135.9817	29.34693	-4.63	0.000	-1.042277
dummyyear	5.237305	2.79085	1.88	0.063	.1445983
_cons	107.5096	21.03595	5.11	0.000	

Cultural Model

Beta	P> t	t	Std. Err.	Coef.	proportionwomen
3809676	0.068	-1.83	.2640749	4844259	religiosity
.2084244	0.002	3.19	2.09049	6.660462	cedaw
. 3474925	0.026	2.25	.3457101	.7772313	oliticalculture
0536946	0.854	-0.18	.5255328	0967616	attitude
.0160571	0.838	0.20	3.064712	.6274678	dummyyear
	0.447	-0.76	15.26565	-11.6267	_cons

Middle Eastern Model

proportionwomen	Coef.	Std. Err.	t	P> t	Beta
electoralsystem	4.179343	2.632158	1.59	0.115	.2002241
Islmaistparties	.0075098	.0211189	0.36	0.723	.0364954
yearofsuffrage	.0144842	.0444062	0.33	0.745	.0414528
levelofdemocracy	2.696829	.7991277	3.37	0.001	. 307937
educationlevel	0341532	.0219505	-1.56	0.122	1543468
laborforce	.5566481	.1553282	3.58	0.000	1.061957
development	.0302108	.0583228	0.52	0.605	.0306194
GDI	-157.7236	27.90632	-5.65	0.000	-1.225016
religiosity	4668792	.1858366	-2.51	0.013	4279194
cedaw	1.554935	2.573908	0.60	0.547	.0708523
politicalculture	.0061239	.2424065	0.03	0.980	.0034132
attitude	.5579002	.3508381	1.59	0.114	. 3677022
dummyyear	1.15723	2.283668	0.51	0.613	.0336654
_cons	120.3349	23.25122	5.18	0.000	

North African Model

proportionwomen	Coef.	Std. Err.	t	P> t	Beta
electoralsystem	0	(omitted)			
Islamistparties	.1428501	.0689347	2.07	0.047	.192309
yearofsuffrage	.9862556	.1843629	5.35	0.000	. 5707483
democracy	4.032145	1.497474	2.69	0.011	. 4549362
education	0300486	.0222856	-1.35	0.187	1016211
laborforce	. 4938717	.0810085	6.10	0.000	. 3892328
development	. 485763	.3023998	1.61	0.118	.0989815
GDI	61.81569	22.23413	2.78	0.009	. 2254685
religiosity	0944434	.247093	-0.38	0.705	0504558
cedaw	0	(omitted)			
politicalculture	.762459	.6167862	1.24	0.226	.264489
attitude	-1.182918	.6419929	-1.84	0.075	4688036
dummyyear	2684702	3.598642	-0.07	0.941	0043939
_cons	-117.1829	18.81265	-6.23	0.000	

Pre-Arab Spring Model

proportionwomen	Coef.	Std. Err.	t	₽> t	Beta
electoralsystem	6.506213	1.484144	4.38	0.000	.509412
Islmaistparties	.0566064	.0333733	1.70	0.094	.2855031
yearofsuffrage	.121073	.029075	4.16	0.000	.361304
levelofdemocracy	5.876152	.9575167	6.14	0.000	. 7690737
educationlevel	.1699589	.0571419	2.97	0.004	.5321369
laborforce	.5930181	.1039561	5.70	0.000	1.150834
development	.0069221	.0596524	0.12	0.908	.0078048
GDI	-123.5822	35.35758	-3.50	0.001	9836367
religiosity	12.89888	6.15434	2.10	0.039	. 5298255
cedaw	5.093066	3.08403	1.65	0.102	. 2509659
politicalculture	0	(omitted)			0
attitude	7.877453	2.992443	2.63	0.010	. 6467158
dummyyear	1890861	1.410361	-0.13	0.894	0097145
_cons	-973.8412	446.0903	-2.18	0.032	

Post-Arab Spring Model

Beta	P> t	t	Std. Err.	Coef.	proportionwomen
. 592110	0.000	4.16	3.026585	12.59133	electoralsystem
.001626	0.992	0.01	.0419457	.000415	islamistparties
.0503938	0.640	0.47	1.012276	.4768179	levelofdemocracy
887553	0.002	-3.21	.07959	2555666	educationlevel
.0367412	0.912	0.11	.2223495	.0246925	laborforce
037371	0.742	-0.33	.1763009	058246	development
.286071	0.527	0.64	71.44972	45.54795	GDI
327229	0.821	-0.23	1.569295	3563833	religiosity
0111353	0.955	-0.06	5.95897	3353639	cedaw
0767702	0.896	-0.13	1.032977	1361107	politicalculture
.271988	0.780	0.28	1.243914	.349467	attitude
.069503	0.528	0.64	3.293778	2.093232	dummyyear
	0.961	-0.05	58.83659	-2.885181	_cons

Overall Model

Beta	P> t	t	Std. Err.	Coef.	proportionwomen
.559211	0.000	5.76	1.34306	7.737058	electoralsystem
041045	0.743	-0.33	.0248872	0081635	islamistparties
. 436940	0.000	4.57	.0314558	.14369	yearofsuffrage
.349884	0.000	4.06	.6339214	2.576114	levelofdemocracy
.172486	0.214	1.25	.0499925	.0624307	educationlevel
.589305	0.001	3.36	.0890378	.2987508	laborforce
055170	0.418	-0.81	.066169	0537758	levelofdevelopment
297426	0.223	-1.22	31.68243	-38.80399	GDI
259204	0.119	-1.57	.1924356	3018994	religiosity
.012643	0.919	0.10	2.701988	.2741513	cedaw
074633	0.607	-0.52	.2586514	1333514	politicalculture
.244021	0.294	1.05	.3668743	.3867608	attitude
.084795	0.283	1.08	2.848222	3.071259	dummyyear
	0.525	0.64	25.90267	16.5196	cons

Method 3: combining all these dummy variables (for both country and year)

Political Model

proportionwomen	Coef.	Std. Err.	t	P> t	Beta
electoralsystem	7.13638	1.516766	4.70	0.000	.3825148
islamistparties	0260362	.0198349	-1.31	0.191	0903312
yearofsuffrage	.1116739	.0306048	3.65	0.000	.2364226
levelofdemocracy	.3533313	.7021556	0.50	0.615	.0355569
dummyyear	4.774617	2.459061	1.94	0.054	.1221839
dummycountry	-1.298546	2.205089	-0.59	0.557	0416962
_cons	1.533692	4.272011	0.36	0.720	

Socioeconomic Model

Beta	P> t	t	Std. Err.	Coef.	proportionwomen
. 4572355	0.001	3.29	.0503233	.1654944	educationlevel
.5557343	0.001	3.33	.0846329	.2817316	laborforce
1573883	0.041	-2.06	.0745618	1534105	evelofdevelopment
-1.080689	0.000	-4.77	29.53934	-140.9931	GDI
.1418841	0.067	1.84	2.785559	5.138998	dummyyear
.141884 105796	0.201	-1.28	1.975877	-2.536352	dummycountry
	0.000	5.25	21.18954	111.251	cons

Cultural Model

Beta	₽> t	t	Std. Err.	Coef.	proportionwomen
3817902	0.064	-1.86	.2610342	485472	religiosity
.1935513	0.003	2.98	2.076416	6.185175	cedaw
.3465985	0.024	2.27	.3417301	.7752317	politicalculture
0514439	0.859	-0.18	.5194837	0927057	attitude
.0165478	0.831	0.21	3.02943	.646643	dummyyear
.1517128	0.021	2.34	2.023358	4.724792	dummycountry
	0.443	-0.77	15.08986	-11.59592	_cons

Middle Eastern Model

proportionwomen	Coef.	Std. Err.	t	P> t	Beta
electoralsystem	8.710663	2.847154	3.06	0.003	. 4173108
Islmaistparties	.0011921	.0203005	0.06	0.953	.0057933
yearofsuffrage	.1084944	.0506308	2.14	0.034	.3105031
levelofdemocracy	2.29409	.7739918	2.96	0.004	.2619503
educationlevel	0274424	.0211038	-1.30	0.196	1240189
laborforce	.8897747	.1777861	5.00	0.000	1.697487
development	0134185	.0572705	-0.23	0.815	0136
GDI	-230.603	34.18008	-6.75	0.000	-1.79106
religiosity	3012937	.1843721	-1.63	0.105	2761516
cedaw	-2.098805	2.685799	-0.78	0.436	0956343
politicalculture	1436636	.2361472	-0.61	0.544	0800732
attitude	.4971458	.336312	1.48	0.142	. 32766
dummycountry	6.790795	1.986837	3.42	0.001	.3175634
dummyyear	.8265808	2.188194	0.38	0.706	.0240463
_cons	177.3869	27.82119	6.38	0.000	

North African Model

Bet	P> t	t	Std. Err.	Coef.	proportionwomen
			(omitted)	0	electoralsystem
.152421	0.106	1.67	.0678835	.1132211	Islamistparties
.810199	0.000	5.03	.2784131	1.400028	yearofsuffrage
. 458786	0.008	2.83	1.436303	4.066269	democracy
128099	0.092	-1.74	.0217576	0378781	education
475035	0.303	-1.05	.5752293	602741	laborforce
.096525	0.113	1.63	.2900926	.4737113	development
.189379	0.025	2.37	21.9356	51.92129	GDI
000495	0.997	-0.00	.2419144	0009281	religiosity
			(omitted)	0	cedaw
.13522	0.536	0.63	. 6224427	.3898331	politicalculture
356809	0.165	-1.42	. 6329969	9003262	attitude
825117	0.064	-1.92	8.804403	-16.93987	dummycountry
011708	0.838	-0.21	3.459186	7153948	dummyyear
	0.003	-3.29	25.25559	-83.18137	_cons

Pre-Arab Spring Model

Bet	P> t	t	Std. Err.	Coef.	proportionwomen
. 671739	0.000	5.46	1.57095	8.579456	electoralsystem
. 398406	0.018	2.42	.0326585	.0789916	Islmaistparties
.379615	0.000	4.58	.0277917	.1272092	yearofsuffrage
.812471	0.000	6.75	.9193393	6.207735	levelofdemocracy
. 495762	0.005	2.90	.0546095	.1583413	educationlevel
. 958901	0.000	4.74	.1043178	.4941162	laborforce
.007711	0.905	0.12	.0568687	.006839	development
833184	0.003	-3.05	34.27736	-104.6797	GDI
. 379122	0.127	1.54	5.990218	9.22993	religiosity
. 370624	0.016	2.47	3.046889	7.521394	cedaw
			(omitted)	0	politicalculture
. 483379	0.048	2.01	2.927043	5.887904	attitude
240507	0.003	-3.04	1.607047	-4.880832	dummycountry
023932	0.730	-0.35	1.34763	4658205	dummyyear
	0.105	-1.64	433.9178	-712.0942	cons

Post-Arab Spring Model

Beta	P> t	t	Std. Err.	Coef.	proportionwomen
. 6423731	0.001	3.55	3.847426	13.66005	electoralsystem
.0155189	0.927	0.09	.0429909	.0039596	islamistparties
.0883655	0.650	0.46	.0856429	.0390453	yearofsuffrage
.0873566	0.520	0.65	1.276584	.8265533	levelofdemocracy
9708795	0.005	-2.91	.0959489	2795599	educationlevel
.0787162	0.821	0.23	.2325164	.0529025	laborforce
0271614	0.816	-0.23	.1811095	0423329	development
. 3780026	0.449	0.76	78.85433	60.18512	GDI
3640829	0.803	-0.25	1.584323	3965197	religiosity
025891	0.899	-0.13	6.085318	7797638	cedaw
0644247	0.913	-0.11	1.042365	1142226	politicalculture
. 3063043	0.756	0.31	1.25761	.393558	attitude
.0685019	0.537	0.62	3.320842	2.063082	dummyyear
	0.782	-0.28	69.31488	-19.24132	cons

Overall Model

Beta	₽> t	t	Std. Err.	Coef.	proportionwomen
.7401216	0.000	7.69	1.331099	10.24006	electoralsystem
. 1124184	0.344	0.95	.0235331	.0223587	islamistparties
. 4364879	0.000	4.79	.0299419	.1435412	yearofsuffrage
. 3248869	0.000	4.12	.5809871	2.392062	levelofdemocracy
.0648139	0.573	0.56	.0415682	.0234591	educationlevel
0448658	0.491	-0.69	.0632518	0437318	levelofdevelopment
.1990118	0.205	1.27	20.402	25.96426	GDI
3430866	0.029	-2.21	.1805263	3995979	religiosity
. 2219932	0.060	1.90	2.536016	4.813555	cedaw
1380358	0.321	-1.00	.2477845	2466355	politicalculture
.3475638	0.116	1.58	.3479715	.5508692	attitude
.0768469	0.309	1.02	2.72548	2.783369	dummyyear
358056	0.000	-4.96	1.729389	-8.583977	dummycountry
	0.197	-1.30	20.51857	-26.62507	cons