**Implementation of Gender Policies by the Private Sector in the UAE:**

**Challenges and Opportunities**

Mashael Al Fardan and Belisa Marochi

# Abstract

The United Arab Emirates (UAE)’s “Vision 2021” set a deadline for the country to become one of the top 25 countries in the area of gender equality by the end of that year, with the government launching a gender balance program to achieve this goal. However, the private sector faces challenges in the implementation of these national gender policies. Even with country’s multinational entities leading the way for gender equality in the private sector, implementing the new gender policy is challenging. This study demonstrates the ways in which cooperation between private sector entities and the government is often dysfunctional. Testimony from 10 interviews with professionals in UAE-based companies suggests that businesses face problems implementing gender-balancing policies due to a lack of transparency, reporting, and accurate data on gender issues within both the private and the public sectors. The study concludes that businesses require greater guidance and more transparent measures to be able to advance gender equality issues in the UAE.

**Keywords:** gender policy, policy implementation, UAE, private sector, women, UN Sustainable Development Goals

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# Introduction

The United Arab Emirates (UAE)’s “Vision 2021,” a long-term plan to make the country one of the best in the world, encompasses a set of national policy priorities that includes the country becoming one of the world’s top 25 countries in the area of gender equality by the end of that year.[[1]](#footnote-1) Achieving this goal of gender equality was celebrated in 2020 when the UAE was ranked 18th globally in the Gender Inequality Index of the United Nations Development Programme (UNDP)’s Human Development Report for 2019.[[2]](#footnote-2) Not only does this report show that women occupy 50% of the seats in the UAE Parliament,[[3]](#footnote-3) but it can be inferred from the terms of the UAE’s constitution that men and women are equal in rights and obligations. Indeed, according to the World Economic Forum’s Gender Gap Report, the UAE is ranked second in gender equality in the Middle East.[[4]](#footnote-4) The participation of women in the labor market in the United Arab Emirates (UAE) has been steadily increasing and changing in character over the years. Women have shifted from occupying traditional roles, such as housewives, seamstresses, and craftswomen, to participating in the marketplace and occupying leadership positions in government and businesses alongside men.[[5]](#footnote-5)

To achieve the goal of gender equality, the UAE government has developed a range of policies and initiatives that includes the establishment of a Gender Balance Council in 2015 and the Equal Pay Decree agreed upon by the UAE’s cabinet in 2018 and implemented by presidential decree in 2021. A more recent directive to corporations and government entities to include women on their boards of directors made the UAE only the second country in the world to implement such a measure, after Norway.[[6]](#footnote-6) Becoming the happiest and best governed country in the world by 2071 are also among the UAE’s ambitious goals.

The UAE aims to harness the untapped potential of women in the country through a series of practical measures that include action for enforcing its commitment to and oversight of gender balancing, integrating gender issues into policies and programs, engaging personnel to promote gender balancing, including in leadership positions, and taking actions to implement gender sensitive communication.[[7]](#footnote-7) The 2017 “Gender Balance Guide,” a document produced by the OECD for the UAE’s Gender Balance Council to assist Emirati organizations achieve gender equality, identifies three areas of focus for its Gender Balance Indicators (GBIs):[[8]](#footnote-8) women in senior leadership positions; women in specialized and technical fields; and development of workplaces that support gender balance.[[9]](#footnote-9) The UAE’s more focused and intense approach to gender policy has emerged in a period when global competitiveness and sustainable development are high on government agendas. A recent Emirati government report stated that the annual GDP generated by women is 50 billion Emirati dirhams (approximately 13.6 billion USD).[[10]](#footnote-10) Initiatives promoting gender balance frequently offer a set of rules, guidelines, and recommendations that the private sector can work with to advance the gender equality agenda.

The ambitious goals of the UAE’s government include involving the private sector as a key partner in the advancement of gender equality. Generally, studying such collaboration between governments and the private sector with respect to adapting gender equality measures is important for understanding how businesses actually adopt these policies. Scholarly studies have shown how gender balance policies have affected the private sector in a number of countries, but few have explained the challenges private organizations face when adopting such government policies.

The case of the UAE highlights some of the obstacles that arise when the private sector tries to adopt gender policies. In the UAE, a considerable number of the measures promoted in its initiatives have rarely been enforced, with many remaining at the level of recommendations. Through 10 interviews with professionals working in human resources and governance and sustainability departments in private companies, this study demonstrates the disconnect between the public and private sectors with regard to gender balancing policy implementation. Although many of the multinational entities in the country are leading the way on equality in the private sector, the implementation of national policies on gender equality still presents significant challenges. While the government issues guidance on gender policies, our interviews show that private companies believe there is a lack of firm direction on the matter and that disjointed public and private sector communication and collaboration undermine the ability of corporations to effectively translate national policy into corporate policy.

The findings reveal that companies face challenges adopting gender balancing policies due to the informal nature of certain rules and lack of senior executive engagement with and prioritization of these issues, as well as a lack of accountability and clear reporting requirements. The study’s first section explains the role of businesses in promoting gender equality, arguing that the adaptation and implementation of these policies require coordination between government and the private sector. The second section explains the theoretical framework and methodology adopted in the study. The third section presents the analysis, highlighting the role of formal and informal rules, senior executive engagement and prioritization, as well as emphasizing the significance of accountability, transparency, and reporting. The findings indicate that companies may be willing to collaborate further with the UAE government, but often must navigate through unspoken rules and make assumptions based on vague policy wording. We conclude that more effective senior management backing and communication as well as the introduction of mandatory reporting and benchmarking is the key to more robust gender equality policy implementation.

# Gender Equality and the Role of the Private Sector

The UN and governments world over have been placing increasing emphasis on the issue of gender and the importance of gender equality for attaining sustainable development. For example, according to the World Bank, gender equality has become a sought after attribute valued by both customers and investors when making business decisions.[[11]](#footnote-11) Education has been identified as a key factor in leveling the playing field for women, especially in the developing world.[[12]](#footnote-12)

Current debates center around the argument that collaboration between governments, businesses, and civil society is crucial for reaching the goal of gender equality. The UN’s 17 Sustainable Development Goals (SDGs), adopted in 2015, replaced its Millennium Development Goals (MDGs), with the goal, as it name suggests, of achieving sustainable development. A core difference between the SDGs and previous measures is the involvement of business and civil society encouraged in the latest development initiatives. Governments are no longer seen as the main actors in achieving sustainability goals, and both civil society and the private sector are seen as key partners for development.

Businesses are identified as key partners in promoting gender equality within the current debates of sustainable development. An emphasis on corporate social responsibility (CSR) has become an avenue for firms to enhance competitiveness while also engaging the community and focusing on social issues, such as women’s empowerment.[[13]](#footnote-13) The role of corporations in giving women equal access to jobs and opportunities through their CSR initiatives is key both for development and the ensuing improvements in health, education, and child nutrition.[[14]](#footnote-14) Proof of the beneficial effects of equality on economic development tends to encourage policy makers to develop more gender equality-based policies with the goal of achieving gender parity.

Policies that focus on gender within businesses have often been placed under the rubric of the fields of CSR, Human Resources, People, Diversity, Equity, and Inclusion. These rapidly-changing spheres relate mainly to policies and initiatives that can affect gender equality in the workplace, marketplace, and wider community.[[15]](#footnote-15) It is important to identify how, and in what context, these changes in legislation and government policy in this regard translate into corporate policy.[[16]](#footnote-16)

Private sector businesses, due to their nature, operate at arm’s length from the public sector. They face difficulties in translating the goals of gender equality into their activities and are often slow to act and lack inherent motivation. Beck and Beck-Gernsheim (2009) argue that demands for social equality and human rights are contextual and not universal;[[17]](#footnote-17) thus, achieving gender equality and development can be achieved through policy and/or “bottom-up” changes.

Despite the important effect of international and national agendas on gender equality policies, scholars argue that changes in perceptions of gender roles in the corporate world change through agency and institutionalization. Agency can allow individuals to question traditional norms and practices and create genuine change for the better.[[18]](#footnote-18) Conversely, discourses on gender asymmetry and prescribed gender roles can have an impact on attitudes and employment aspirations.[[19]](#footnote-19) Traditional notions of gender roles and masculinity versus femininity create biases that are often implicit and hard to identify within business and organizational culture.[[20]](#footnote-20) Women’s access to education and the labor market has been significantly more difficult than for men, only increasing their vulnerabilities.[[21]](#footnote-21) Inhetveen (1999), among others, shows, however, that institutional initiatives can play a very signficant role in changing organizational culture.[[22]](#footnote-22) While many researchers agree that agency and institutions can promote gender equality aims, the process of adapting to new government policies is often problematic, and how to do so is frequently unclear to private companies.

# The Relationship Between Government Policy and the Private Sector

As noted, government gender equality policies make the private sector a key partner in promoting equality, parity, and balance to support the empowerment of women in the workplace and wider society. Some research suggests governments and policy makers should develop policies to ensure that gender equality and economic development go hand in hand.[[23]](#footnote-25)

Much research focuses on the role of public-private partnerships on various societal issues, such as health and the environment, but the research on partnerships for gender policies are scarcer and more recent. Most research on gender equality and the private sector focuses on issues of work-life balance. Arguments have been made that using economic development and feminist goals to drive policy does not address the real needs of women.[[24]](#footnote-26) Research recommendations call for policy makers to consider both employment and childcare, as neoliberal policies can penalize childbearing and promote conservative family ideals that require sacrificing career for family.[[25]](#footnote-27) Studies show that gender policies supporting women’s participation in the workforce often aim to lighten the burden of childcare and housework upon them and reduce gender inequality in healthcare.[[26]](#footnote-28) Research also shows that gender equality policies should be maintained and improved over time while including the voices of women.

Gender equality is one of the UN’s 17 SDGs, and government-private sector partnerships are viewed as contributing to that aim. The United Nations Global Compact (UNGC) recommends a tool to corporations called the “SDG Compass” to help them align their core business with these goals. With the SDG Compass, businesses can measure progress on gender issues and move toward greater gender equality. The UN initiative called “The Women’s Empowerment Principles” (WEPs) that was established in 2010 was the first explicit gender equality perspective of its kind in the UNGC. The principles promote best practices and good corporate citizenship regarding gender equality issues, along with businesses’ participation in advancing sustainable development. Over 4,000 chief executives of companies throughout the world have signed a statement of support for these principles.[[27]](#footnote-29)

These initiatives are often translated into the national agendas according to specific national and local contexts, and local governments have adopted gender policies for businesses in their regions. The Canadian city of Ottawa, for example, has produced an “Equity and Inclusion Lens Handbook” that serves as a guide for the private sector on questions of equity and inclusion. While these initiatives promote attention to all forms of diversity, they can be applied to gender issues specifically, including gender balance in the private sector.[[28]](#footnote-30)

Research has shown that actually implementing agendas, such as the UN’s SDGs, is much more challenging than agreeing on the policies themselves.[[29]](#footnote-31) In addition, initiatives on women’s empowerment tend to focus on what women can do for development rather than the other way around.[[30]](#footnote-32) Translating macro-level policies into more focused, micro-level ones is proving difficult for businesses in terms of reflecting the socio-economic context and generating and adopting concrete initiatives.

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# Private Sector Implementation of Government Gender Equality Policies

The private sector faces many challenges implementing gender policy. Research shows that the most pressing gender-based policy issues faced by the private sector are most often related to equal pay, equal opportunity, maternity, and retirement. Examples include research into the Finnish private sector and how equal pay has been legally enforced there, with pay gaps persisting and varying across sectors and occupational groups.[[31]](#footnote-33) In addition, benchmarking policies with regard both to competitors within industries and with other industries is important and allows for comparisons of different markets. The these benchmarks can be evaluated in the long-term or the short-term, depending on the goals or policies set.[[32]](#footnote-34) Benchmarks also help organizations clearly define and communicate their objectives.

Lack of communication of government policy and guidelines regarding implementation and enforcement is also common, and research shows that there is a need to better manage interactions between the public and private sectors.[[33]](#footnote-35) Cooperation between the two is often fragmentary and the question of how collaboration can be made more efficient is an important one. Moreover, policies are often insufficiently monitored. Germany’s equality policy for employment, for example, has been shown to have shortcomings because assessment and regulation of private entities on behalf of the government is often conducted by social partners voluntarily, rather than being managed through a more strategic method of reporting, implementation, and enforcement.[[34]](#footnote-36) Another way to foster collaboration between the public and private sectors is through partnerships that can benefit both parties with effective incentives and can generate new ideas for programs, projects, and even policies.[[35]](#footnote-37)

Various civil society and government organizations exert additional pressure on businesses to implement gender equality policies and tend to be key driving forces for the development of policies, CSR strategies, and voluntary regulation schemes.[[36]](#footnote-38) Such pressure also affects how vigorously companies implement these policies. New Zealand provides a salient example of a soft approach to the implementation of government policy, involving predominantly advocacy and encouragement of equal employment opportunity policies, awareness raising, and benchmarking. Norway, by contrast, takes a more forceful approach, using legislation in the form of quotas and affirmative action programs within corporate governance rules.[[37]](#footnote-39)

Accountability, reporting, and disclosure of performance and targets for gender equality policies also present challenges for the private sector, with businesses requiring government guidance.[[38]](#footnote-40) Reporting on gender is often reactive to changing circumstances and governed by changing expectations of company behavior by various stakeholders and actors, such as potential employees, benchmarking agencies, and investors. Research shows that implementation of gender policy in the private sector tends to remain in the realm of impressive statements in favor of change but is often not backed up with any practical commitment or resources. Viewing gender equality as a “box-ticking” exercise to satisfy external demands may give stakeholders the false impression that corporations have a genuine commitment to change when, in fact, they often simply create policies that are not fully implemented and enforced. and are, instead, created solely for the sole purpose of maintaining appearances and securing stakeholder funding.[[39]](#footnote-41)

Enforcing transparency and benchmarking in the public-private partnerships can make companies more accountable. An example of this can be seen in the implementation of the World Bank’s “Gender Mainstreaming Strategy,” an initiative that partnered the organization with 21 private entities internationally to focus on six commitments to gender equality.[[40]](#footnote-42) The strategy aimed to strengthen connections between the World Bank and the private sector by highlighting best practices, benchmarking gender equality policies, and making various large-scale commitments to promote women’s economic empowerment and gender equality in pursuit of a wider gender action plan.[[41]](#footnote-43)

Institutionalist perspectives show how companies operate within a set of both formal and informal rules.[[42]](#footnote-44) While formal rules are enforced through official channels like policy documents, informal norms are often enforced through corporate culture and power structures. While both types of rules have their place in any organization, informal ones can reinforce biases and be used to undermine the formal rules. Informal rules play an important role, especially with respect to the role of certain narratives in enforcing change.[[43]](#footnote-45) Problems arise when there is a disparity between the informally expressed core values of a company and the formal policies it is actively trying to enforce.

Gender equality policies are also often easily neglected if they are not corporate priorities.[[44]](#footnote-46) Research from Australia, for example, shows that certain norms, like long working hours, clash with support for flexible working hours for employees. Meyer & Rowan (1991) have shown how gender equality policies can have a greater impact if companies are offered rewards or are subject to sanctions for succeeding or failing on such policy objectives.[[45]](#footnote-48)

The engagement of senior management is critical for addressing any resistance to such policies, but not all such policies are deemed of high enough priority to be included in the Key Performance Indicators (KPIs) for senior executives. Some policies greatly rely on individual line-manager discretion for their implementation. Policies that are consistent with a corporation’s values and are enforced successfully are robust. Policies, including those relating to gender equality, that are flexibly applied and adapted from lessons learned tend to be subject to revision.[[46]](#footnote-49) The case of gender policies in corporations can fall into the same difficult situation of implementation and adaptation. Research shows policies should be formulated as formal rules, with senior executive support, to ensure enforcement and to ensure that informal rules that are gender biased do not prevail.[[47]](#footnote-50) As scholars suggest, achieving policy objectives on gender policies might require sanctions or rewards.[[48]](#footnote-51) Scholars show that a combination of revisability and robustness is key for implementing new policies and driving change regarding gender equality.[[49]](#footnote-52)

# Gender Equality and Balance in the UAE Workforce

The UAE has acted as a pioneer for gender equality policies for the private sector in the Middle East, yet little research has addressed the challenges faced by the private sector in adopting government policies. Most university graduates in the UAE are women and the UAE recognizes that women represent an important part of the future of the country’s workforce and economic development.[[50]](#footnote-53) The vision of the UAE government for gender equality is framed as “gender balance” and aims to make the UAE a global role model by achieving the following objectives:

* Reducing the gender gap across all government sectors.
* Increasing the country’s ranking on the gender gap within global competitiveness reports.
* Achieving gender balance in decision-making positions.
* Promoting the UAE’s status as a benchmark for legislation on gender balance.[[51]](#footnote-54)

The Gender Balance Council was launched in 2015 to oversee the achievement of these goals, and the government has also established various awards and other forms of recognition for companies supporting gender balance in the country in order to encourage and foster this change. However, achieving these goals also requires introducing initiatives and legislation that will help generate fundamental change. Some initiatives have been already been taken with the introduction of the “Gender Balance Guide,” the “Political Empowerment Program,” the Equal Pay Decree, increased maternity leave entitlement (up to three months), and a mandatory female presence in boardrooms.[[52]](#footnote-55)

The UAE ranks first in its literacy rate as well as enrollment of females in secondary and tertiary education in the region. The UAE also has a number one ranking in the Social Progress Index Report under the category of “women treated with respect.” In Science, Technology, Engineering, and Mathematics (STEM) fields, 56% of the UAE’s graduates are women and they also make up 50% of its parliamentary representatives and occupy 29% of its ministerial roles.[[53]](#footnote-56) The UAE government is also collaborating with the World Economic Forum, the UNDP, and the OECD on a gender equality index, related research, and a global gender gap report.[[54]](#footnote-57)

The UAE is a particularly important case to study because the government is a leading regional force on gender balance issues. With women in roles of power, such as judges and ministers, the UAE has arguably become a role model for both the private sector and governments in the Middle East.[[55]](#footnote-58) Traditionally, the UAE has a decentralized federal political system and all seven emirates must agree on new laws.[[56]](#footnote-59) Despite a still underdeveloped, albeit evolving, civil society, the UAE government has taken several steps to advance the issue of women’s representation, education, and participation in the labor market under the umbrella of “gender balance.”

In addition to the Gender Balance Council, women’s organizations in various emirates are involved in formulating gender-equality-based policies. These include General Women’s Union in Abu Dhabi, the Dubai Women’s Association, the Umm al-Mu’minin Association of Ajman, the Association of Women’s Renaissance of Ras Al Khaymah, the Umm Al Quwayn Women’s Association, and the Women Union Association of Sharjah.[[57]](#footnote-60) This collaborative environment supports the achievement of the nation’s gender balance targets.

Research on the role of Emirati women focuses on gender roles, but fails to address the impact of public policy agendas on gender issues in the workplace. The literature explores cases of women in specific industries in the private sector, the difficulties of climbing the corporate ladder, problems of gender disparity at senior levels, and issues with job retention and turnover.[[58]](#footnote-61) Al-Marzouqi and Foster (2011), for example, conducted qualitative research on the lack of representation of Emirati women in the IT sector.[[59]](#footnote-62) Other research about the workplace, such as Hutchings et al. (2010), conveys Arab women’s perceptions of the challenges and opportunities for obtaining management positions in multi-national corporations.[[60]](#footnote-63) Al-Waqfi and Al-Faki (2015) focus on the gender-based differences in employment conditions in the GCC, especially in the UAE.[[61]](#footnote-64)

Research on cultural norms focuses on specifics of gender-related culture in the workplace. Kemp and Zhao (2016) focus on the culture and traditions in the UAE that influence Emirati women’s career paths and map how family influence and traditional culture play a role in Emirati women’s education, work, and social lives.[[62]](#footnote-65) Farrell (2008) explores the impact of Emirati culture on women’s participation in the UAE private banking sector.[[63]](#footnote-66) Ibrahim and Al-Marri explore the role of gender and organizational support in work-family conflict for women accountants in the UAE,[[64]](#footnote-67) while Farrell examines the importance of UAE family culture and work-life balance in relation to job satisfaction and retention of Emirati women in companies.[[65]](#footnote-68) Most research focuses on traditional and cultural norms and the impact of these roles on specific professions for women. However, none of this varied research on the UAE has yet to clarify how corporations implement gender initiatives.

Researching how the private sector adopts gender policies in the UAE is important in order to clarify the challenges to the implementation process. To ensure that national policies and a gender balance agenda become part of women’s everyday lives, coordination between government entities, policy makers, and the private sector is essential.[[66]](#footnote-69) International initiatives, such as the UN’s SDGs also promote gender equality in the country. The OECD has also published reports regarding the UAE and gender parity in a global comparative study in a collection entitled the “UAE’s OECD Gender Guide”[[67]](#footnote-70) for employment in the Middle East.[[68]](#footnote-71) This article reveals the challenges and issues of integrating these policies into the private sector. Translating national policy into corporate policy is especially challenging because policies are recommended and not enforced.

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# Theoretical Framework

Understanding how the private sector implements, adopts, and adapts to gender policies from governments is important. Governments throughout the world have been adopting global and national initiatives toward gender equality. However, little research explains the issues the private sector faces when collaborating with governments and supporting these initiatives. Instead, to date, research has focused on working to change preconceptions about gender roles.[[69]](#footnote-72) Understanding attitudes and biases on gender roles is also important if changes are to be addressed and implemented effectively.[[70]](#footnote-73) Despite the support from the private sector on women’s empowerment in terms of decision-making and spending power, research highlights the importance of providing women a fair and just platform.[[71]](#footnote-74) This article explores how national policies on gender are applied to the private sector.

To this end, this article examines how UAE corporate entities play their role in adapting to and implementing the policies within the UAE vision toward gender balance. This study identifies key individuals responsible for gender policy, or gender policy experts within companies to better apprehend their role in contributing to the country’s gender balance agenda. Understanding how corporations implement national policies on gender and how they incorporate these policies into their corporate policies is essential to fill a gap in knowledge about the underlying issues of implementation. Through the lenses of formal and informal rules,[[72]](#footnote-75) senior executive involvement, prioritization, [[73]](#footnote-76) and the role of accountability [[74]](#footnote-77) and reporting, [[75]](#footnote-78) this article shows how companies adapt to gender policies in the UAE.

# Methodology

This article shows how the UAE vision for gender balance is adopted by the private sector using a qualitative study revealing the challenges and opportunities in relation to gender policy adaptation, as a qualitative study allows for an in-depth understanding of the challenges of gender equality policy implementation.[[76]](#footnote-79) Its 10 in-depth, semi-structured interviews were conducted with individuals from a mix of private multinational, semi-private multinational, and government companies and are central to the analysis. Participants in the interviews included individuals from the HR and governance and sustainability departments of various types of private companies in Dubai: two companies with two and 300 employees respectively, one local public company with 2,800 employees, and six large, international companies with employee numbers ranging from in number from 57,000 and 284,000. The companies operate in industries such as finance, telecommunications, logistics, media, and manufacturing.

The interviews were conducted in 2018 with individuals responsible for the integration into corporate policy of gender-focused policies derived from government and agendas, such as the UN’s SDGs, the UN’s WEPs, and OECD frameworks. Individuals were identified via selective sampling and invited to participate on the basis of the nature of their company role and expertise in HR, diversity and inclusion, CSR, and sustainability. The 10 participants, seven women and three men from a total of eight European, South Asian, and Arab countries, were interviewed about the issues faced by companies when adapting to the country’s vision for gender policy.

The questions participants were asked in relation to implementation of the Emirati government gender equality policies incorporated a focus on “Vision 2021,” the gender balance agenda, the UN’s SDGs and WEPs. The interviewees and the names of companies were anonymized in the data to ensure confidentiality and anonymity.

# Analysis

The analysis focused on formal rules and informal norms, senior executive involvement and prioritization, accountability, and reporting. The overall findings demonstrate companies struggle in the adaptation of these policies due to the lack of government guidelines and direction.

# Formal and Informal Rules

Organizational culture has a great influence on the implementation of policies within the workplace, especially when implementing concepts that are difficult to measure, such as formal and informal rules. Indeed, a few of the participants stressed the importance of formal and informal rules in organizational culture to influence corporate policy. Participants referred to unspoken rules or assumptions based on vague policy wording and expressed the opinion that formal rules could ensure enforcement, endorsing the points Helmke and Levitsky (2004) made on this subject.[[77]](#footnote-84)

Participant 7 mentioned how changes are difficult to track: “There is a requirement to change the policy within the private sector…there are some activities or approaches that are carried out on the record and there are some that are carried out off the record. So that takes a lot of time.” Participant 3 stated that implementation of UAE government gender equality policy recommendations does not work if those policies are contrary to the corporate culture and if management does not fully endorse them:

How do we actually influence organizational culture within the private sector to be inclusive for women? It’s not sufficient to have a work-life balance policy in the workplace or a daycare because… your manager will ask you, for example, where are you going, are you leaving early today? Then…that policy basically means nothing. There should be a supporting environment and that will not just be created by policies or by leaders who advocate for women empowerment.

As already noted, while formal rules are enforced through official channels, informal rules are often enforced through corporate culture and power structures. With family influence and traditional culture still playing a prominent role in UAE societies,[[78]](#footnote-85) policies that support flexible working times for women are important; even more meaningful is having an organizational culture that allows for changes. While both formal and informal rules have their place in an organization, informal rules can be biased and manipulated to undermine formal rules.[[79]](#footnote-86) Other participants describe facing issues with unfair gender discriminatory policies and practices. Participant 4 related:

I was working with a previous company where some of the policies state we do not discriminate based on gender, nationality and religion. Then there were situations within the policies, for instance, some allowances were given to the head of household, by default it is assumed that the head of household is the man. The female head of household was only accepted in the case of a divorcee or widow. No! Why is that fair?

Apparently, informal rules consistently continue to play an important role, especially because certain narratives of traditional gender roles still pervade society and therefore, change is more difficult. Issues are more likely to arise when there is a disparity between the informally expressed core values of a company and the policies they are trying to enforce.[[80]](#footnote-87)

# Senior Executive Involvement and Prioritization

Implementation is still left to the discretion of line managers. Organizational culture is difficult to change and can become a barrier to adopting a gender balance agenda. As discussed above, while companies can support and adopt policies within their organizations, creating the environment where these policies become ingrained into the corporate culture can prove challenging. Participant 5 gave an example illustrating why managers need to “walk the walk,” or genuinely commit to implementing policy.

We have work-from-home and flexible hours policies for whoever wants to use them, but there are still managers who are resistant to these policies and don’t allow them and give their employees a hard time when they ask for these benefits. They are set in the mindset of “if you work from home, you really don’t work, you’re in a more relaxed environment. You’re not under pressure, your kids are around. How can you focus?” So, if you don’t have the management act and drive these initiatives and do it themselves, it’s very difficult to start implementing it across a big organization. So, it always has to come from top down…Otherwise the juniors get eaten up, unfortunately.

Another issue addressed in the interviews is that a number of elements on the gender balance agenda depend on the discretion of individual line managers. Policies that are consistent with a corporation’s values and are enforced successfully are robust. This suggests that if policies appear to be lower on the list of corporate priorities and left to the discretion of line managers, they are easily overlooked.[[81]](#footnote-88)

Advocating for gender policies is vital to ingrain them into the corporate culture and ensure that they are implemented. As Participant 7 described:

There are working groups set in place, there are councils set in place, but if you were to ask an average private sector corporate executive or even someone working within the sustainability department whether that’s their mandate and within their KPIs [Key Performance Indicators], they often will still find, have ambiguity around the policy...there’s a policy, we understand that, and we understand there’s a priority in the UAE, but unless it’s advocated and pressed for by the senior leadership, it won’t work, and that conversation and dialogue doesn’t happen often enough.

As the literature shows, gender policies need to be designed in a robust and revisable manner.[[82]](#footnote-89) The findings show that robustness and revisability of policies still require advocacy and senior leadership involvement. Participant 6 declared: “We need leadership to push for more change because we’re in a society which is hierarchical and if you have the person in the top saying it, others will listen. They may not always follow through. But they will at least listen to what they have to say.”

Participant 10 emphasized the importance of senior executive involvement for success: “Mindsets take forever to change and the leadership team is critical, absolutely critical, and they need to fully understand why we’re doing it and then they need to cascade it down.”

Interviews show that, overall, the involvement of executive leadership is critical when addressing resistance to policies in companies. However, the interviews indicate that not all policies are accorded high enough priority to be included in the KPIs of senior executives.[[83]](#footnote-90)

# The Role of Accountability and Reporting

Many of the participants associated the enforcement of gender policy with the need for more transparency and reporting requirements from the UAE. The research shows that gender policies that are enforceable and require reporting are more likely to succeed, as Koch explains.[[84]](#footnote-91) For example, participant 2 stated: “They [companies] need to report on implementation and stats because the government needs to know who is slacking and who is ahead of the curve and what the person or corporate that’s lacking can learn from the corporate that’s ahead of the curve…The level of reporting that currently happens to the government, I think, is minimalistic.”

 Participants described and supported benchmarking as a slow approach that can be long-or short-term depending on the goals or policies set. However, due to a lack of transparency and data about the gender gap in the region, more recorded information and statistics are still needed.

 I think the problem we have within implementation is that there are no proof points or statistics. So, I don’t know what the gender pay gap is, for example, between men and women here… I think just the general impression I get is that there is still much to be done. Again, it’s good to see women in high positions in the government sector, but I don’t see that being replicated in the private sector.

Participants also valued better communication, accessibility, and transparency between the private and public entities. For example, Participant 7 felt that: “If the public sector wants the private sector to be engaged, they need to be more accessible and they need to be comfortable to talk to the private sector. They need to be open to partnerships.”

This research also supports the observation that cooperation between private and government entities is often fragmented, which can cause legislation to go unchecked.[[85]](#footnote-93) This is often due to a lack of resources and the independent nature of the private sector. Certain policies are more often recommended rather than imposed on the private sector. This connects back to Koch’s analysis of how equal opportunity is a major part of a country’s laws and should include a more strategic method of implementation, reporting, and enforcing. As Participant 2 observed: “Government can ensure that corporations are being transparent about their pay structures for women, men, and various ethnicities. I think that would be a wakeup call for corporations that will make them realize that there’s actually somebody we need to tell about this. We can’t just do whatever we want to do.”

The participants also were asked about the conclusions of Grosser and Moon,[[86]](#footnote-94) that businesses require government guidance, benchmarking, and reporting requirements. In terms of gender information, reporting is often reactive and due to changing expectations of company behavior by various stakeholders and market actors such as potential employees, benchmarking agencies, investors, civil society, and other government organizations. According to Participant 7:

We also need to spend time and be confident and secure in sharing our areas of growth for the weaknesses in an honest and authentic way. If we’re actually going to improve, that’s a little more on the record rather than off the record. So, you’ll get a bunch of sustainability professionals together and they’ll be somewhat honest about it in a safe space but, if we are going to make some systemic changes, you need to be able to share those findings with the government sector and the private sector, the public sector. And we can’t do that unless we’re comfortable in sharing.

The study results also support the proposition that public authorities play a large role in ensuring gender equality in their workplaces. Through policy making, regulation and enforcement, procurement, and monitoring and reporting, progress should be carefully implemented.[[87]](#footnote-95) In the opinion of Participant 3: “The only way to enforce gender policy is by having a reporting system for companies to update their efforts and benchmark in terms of gender equality.”

Interviews show the importance of companies benchmarking policies to understand whether the companies are moving in the right direction. Benchmarking and evaluation of benchmarking are measures corporations can implement to help adapt the country’s gender balance vision.[[88]](#footnote-96) Participant 6 emphasized this point:

If companies are forced to report to the government on gender policy and pay imbalances, we will begin to see a difference... I don’t think we’re going to have much movement because it’s nice to make a sweeping statement and it makes for good PR headlines, but reporting and benchmarking will make it more concrete.

The lack of accountability and reporting requirements on gender policy pose challenges for the private sector. Clear and transparent communication can create opportunities for the gender balance. The private sector may resist transparency due its nature, which is distinctive from that of the state. However, to move forward with gender policies, the findings show that companies require data collection, transparency, and reporting on gender issues to enable implementation of policies.

# Conclusion

Although many companies in the UAE are leading the way on gender equality, the implementation of international agendas and national policies for gender equality is challenging. Not only does it require years of awareness raising, education, and the changing of mindsets, but also changes in private sector organizational culture and alignment between the private sector and the government.[[89]](#footnote-97)

The findings from our 10 interviews show that there is willingness in the private sector to collaborate further with government in the implementation of gender policies. The interviewees understood the importance of UN agendas and government gender policies for development. This shows that there is an opportunity for the UAE government to further collaborate with the private sector in this field.

Results show the most pressing issues faced in the UAE with gender policy implementation are a lack of transparency, reporting, and accurate data on gender parity and pay gaps within the private and public sector. This study suggests that corporations are open to more guidance from the government to measure and manage gender data.

While corporations are willing to publicly announce their support for gender equality policies, shortcomings in senior management involvement, organizational change, and public-private communication remain barriers for change for the better. This research shows that much of the implementation is at the discretion of line managers who may restrict the advancement of gender policies and organizational change. Senior management has an opportunity to create an environment in which these policies are engrained with the organizational culture.

The case of the UAE shows the challenges and opportunities for the private sector in advancing the government’s gender balance agenda. Unspoken rules and vague policy wording in gender policy can impede the advancement of gender policies. This research shows that, regardless of government gender policy recommendations, organizational cultures still triumphs without clear government guidance, transparency, accountability, and reporting mechanisms.

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1. Alexandria Gouveia, “Who Runs the UAE? Women...Soon,” *Emirates Woman*, May 2, 2016, https://emirateswoman.com/uae-aims-to-achieve-gender-equality-by-2021/ (Accessed on July 20, 2021). [↑](#footnote-ref-1)
2. United Arab Emirates Ministry of Foreign Affairs & International Cooperation website, “UAE Ranks 18th Globally in UNDP Human Development Report 2020 Gender Inequality Index,” December 16, 2020, https://www.mofaic.gov.ae/en/mediahub/news/2020/12/16/16-12-2020-uae-rank (Accessed on July 20, 2021). [↑](#footnote-ref-2)
3. United Nations Development Programme, “Gender Inequality Index (GII),” http://hdr.undp.org/en/content/gender-inequality-index-gii (Accessed on July 20, 2021). [↑](#footnote-ref-3)
4. World Economic Forum, “Global Gender Gap Report 2021,” http://www3.weforum.org/docs/WEF\_GGGR\_2021.pdf (Accessed on July 23, 2021). [↑](#footnote-ref-4)
5. Thamer Al-Subaihi, “The Role of Emirati Women in the UAE,” *The National News*, March 14, 2012, https://www.thenationalnews.com/arts/the-role-of-emirati-women-in-the-uae-1.376945 (Accessed on July 20, 2021). [↑](#footnote-ref-5)
6. Reuters Staff, “UAE Listed Companies Must Have at Least One Female Board Member: Regulator,” March 15, 2021, https://www.reuters.com/article/us-emirates-companies-women-idUSKBN2B71NI (Accessed on July 23, 2021). [↑](#footnote-ref-6)
7. Organization for Economic Cooperation and Development (OECD), “Gender Balance Guide: Actions for UAE Organisations,” https://www.oecd.org/gov/gender-balance-guide-uae-2017.pdf (Accessed on July 23, 2021). [↑](#footnote-ref-7)
8. [↑](#footnote-ref-8)
9. UAE Gender Balance Council. OECD (2017), “Gender Balance Guide: Actions for UAE Organisations,” https://www.oecd.org/gov/gender-balance-guide-uae-2017.pdf (Accessed July 23, 2021). [↑](#footnote-ref-9)
10. United Arab Emirates Ministry of Finance, “Gender Balance,” https://www.mof.gov.ae/en/About/GovernmentInitiatives/Pages/uae-gender-equality.aspx#:~:text=In%20the%202018%20report%2C%20the,top%20position%20for%20gender%20balance (Accessed on July 23, 2021). [↑](#footnote-ref-10)
11. The World Bank, *World Development Report 2012: Gender Equality and Development* (Washington: The World Bank, 2011). [↑](#footnote-ref-11)
12. Henrik Kleven and Camille Landais, “Gender Inequality and Economic Development: Fertility, Education and Norms,” *Economica*, 84, no. 334 (2017), 180–209. [↑](#footnote-ref-12)
13. UN Global Compact, “Women’s Empowerment Principles: Equality Means Business,” http://www.unglobalcompact.org/docs/issues\_doc/human\_rights/Resources/WEP\_EMB\_Booklet.pdf (Accessed on July 23, 2021). [↑](#footnote-ref-13)
14. Kathryn Merckel, “Women and Hunger Facts,” *World Hunger News*, February 22, 2016, https://www.worldhunger.org/women-and-hunger-facts/ (Accessed on July 20, 2021). [↑](#footnote-ref-14)
15. Women’s Empowerment Principles*,* “WEPs: A Framework to Empower Women in the Workplace, Marketplace and Community,” https://www.weps.org/resource/weps-framework-empower-women-workplace-marketplace-and-community (Accessed on July 20, 2021). [↑](#footnote-ref-15)
16. M. Patricia Connelly et al., “Feminism and Development: Theoretical Perspectives,” in Jane L. Parpart, M. Patricia Connelly, and V. Eudine Barriteau (eds.), *Theoretical Perspectives on Gender and Development*. (Ottawa: International Development Research Centre, 2000). [↑](#footnote-ref-16)
17. Ulrich Beck and Elisabeth Beck-Gernsheim, “Global Generations and the Trap of Methodological Nationalism for a Cosmopolitan Turn in the Sociology of Youth and Generation,” *European Sociological Review* 25, no. 1 (2009), 25–36. [↑](#footnote-ref-17)
18. E.g., Fenella Porter, “Negotiating Gender Equality in Development Organizations: The Role of Agency in the Institutionalization of New Norms and Practices,” *Progress in Development Studies* 12, no. 4 (2012), 301–314. [↑](#footnote-ref-18)
19. A. Ndobo, “Discourse and Attitudes on Occupational Aspirations and the Issue of Gender Equality: What are the Effects of Perceived Gender Asymmetry and Prescribed Gender Role?” *European Review of Applied Psychology* 63, no. 4 (2013), 231–241. [↑](#footnote-ref-19)
20. Ratele, K. 2015. “Working through resistance in engaging boys and men towards gender equality and progressive masculinities,” [↑](#footnote-ref-20)
21. E. Fodor, D. Horn, “Economic Development and Gender Equality: Explaining Variations in the Gender Poverty Gap after Socialism,” *Social Problems* 62, no. 2 (2015), 286–308. [↑](#footnote-ref-21)
22. Katharina Inhetveen, “Can Gender Equality Be Institutionalized,” *International Sociology* 14, no. 4 (1999), 403–422. [↑](#footnote-ref-22)
23. E.g., Joshua Eastin, Aseem Prakash, “Economic Development and Gender Equality: Is There a Gender Kuznets Curve?” *World Politics* 65, no. 1 (2013), 156–186. [↑](#footnote-ref-25)
24. E.g., Jean H. Quataert, “A Knowledge Revolution: Transnational Feminist Contributions to International Development Agendas and Policies, 1965–1995,” *Global Social Policy* 14, no. 2 (2014), 209–227. [↑](#footnote-ref-26)
25. E.g., Ivana Dobrotić, “Jane Lewis: Work-Family Balance, Gender and Policy,” R*evija za Socijalnu Politiku* 17, no. 1 (2010), 147–150. [↑](#footnote-ref-27)
26. Laia Palència et al., “Gender Policies and Gender Inequalities in Health in Europe: Results of the SOPHIE Project,” *International Journal of Health Services* 47, no. 1 (2017), 61–82. [↑](#footnote-ref-28)
27. E.g., Magdalena Bexell, “Global Governance, Gains and Gender,” *International Feminist Journal of Politics* 14, no. 3, (2012), 389–407. [↑](#footnote-ref-29)
28. UAE Gender Balance Council. [↑](#footnote-ref-30)
29. Lan Xue, Lingfei Weng, and Hanzhi Yu, “Addressing policy challenges in implementing Sustainable Development Goals through an adaptive governance approach: A view from transitional China,” *Sustainable Development* 26, no. 2 (2018), 150–158. [↑](#footnote-ref-31)
30. Andrea Cornwall, “Women’s Empowerment: What Works?” *Journal of International Development* 28, no. 3 (2016), 342–359. [↑](#footnote-ref-32)
31. Rita Asplund and Sami Napari, “Intangibles and the Gender Wage Gap: An Analysis of Gender Wage Gaps Across Occupations in the Finnish Private Sector,” The Research Institute of the Finnish Economy, Discussion Papers No. 1243 (2011), 305–325. [↑](#footnote-ref-33)
32. Andre Abrantes, “Policy Benchmarking: A Guide to Best Practices,” https://www.cambridgeassociates.com/insight/policy-benchmarking-guide-best-practices/ (July 21, 2021). [↑](#footnote-ref-34)
33. Arthur R. Price, “Government-Private Sector Interaction: Ways to Manage it,” *Utilities Policy* 1, no. 5 (1991), 395–398. [↑](#footnote-ref-35)
34. Angelika Koch, “Equal Employment Policy in Germany: Limited Results and Prospects for Reform,” *Review of Policy Research* 20, no. 3 (2003), 443–457. [↑](#footnote-ref-36)
35. Colin Kirkpatrick, Ron Clarke, and Charles Polidano (eds.), *Handbook on Development Policy and Management* (Cheltenham: Edward Elgar, 2002). [↑](#footnote-ref-37)
36. Jeremy Moon, “The Social Responsibility of Business and New Governance,” *Government and Opposition* 37, no. 3 (2002), 385–408. [↑](#footnote-ref-38)
37. Catherine Casey, Renate Skibnes, Judith K. Pringle, “Gender equality and corporate governance: Policy strategies in Norway and New Zealand,” *Gender, Work & Organization* 18, no. 6 (2011), 613–630. [↑](#footnote-ref-39)
38. Kate Grosser and Jeremy Moon, “Developments in Company Reporting on Workplace Gender Equality,” *Accounting Forum* 32, no. 3 (2008), 179–198. [↑](#footnote-ref-40)
39. Lucy Ferguson, “This Is Our Gender Person,” International Feminist Journal of Politics 17, no. 3 (2015), 380–397. [↑](#footnote-ref-41)
40. Penny Griffin, “Gender, Governance and the Global Political Economy,” *Australian Journal of International Affairs* 64, no. 1 (2010), 86–104. [↑](#footnote-ref-42)
41. Kate Bedford, “Doing Business with the Ladies: Gender, Legal Reform, and Entrepreneurship in the International Finance Corporation,” *Labour, Capital and Society* 42, no. 1/2 (2009), 168–194. [↑](#footnote-ref-43)
42. Vivien Lowndes and David Wilson, “Balancing Revisability and Robustness? A New Institutionalist Perspective on Local Government Modernization,” *Public Administration* 81, no. 2 (2003), 275–298. [↑](#footnote-ref-44)
43. Gretchen Helmke and Steven Levitsky, “Informal Institutions and Comparative Politics: A Research Agenda,” *Perspectives on Politics* 2, no. 4 (2004), 725–740. [↑](#footnote-ref-45)
44. [↑](#footnote-ref-46)
45. Natalie Galea et al., “Designing robust and revisable policies for gender equality: lessons from the Australian construction industry,” *Construction Management and Economics* 33, no. 5–6 (2015), 375–389. John W. Meyer and Brian Rowan, “Institutionalized Organizations: Formal Structure as Myth and Ceremony,” in Paul J. Dimaggio and Walter W. Powell (eds.), *The New Institutionalism in Organizational Analysis* (Chicago: University of Chicago Press, 1991), 63–83. [↑](#footnote-ref-48)
46. Natalie Galea et al., 385. [↑](#footnote-ref-49)
47. Helmke and Levitsky, 734. [↑](#footnote-ref-50)
48. Meyer and Rowan., 83. [↑](#footnote-ref-51)
49. Galea et al., 385. [↑](#footnote-ref-52)
50. Romie Frederick Littrell and Andy Bertsch, “UN Millennium Development Goals and Gender Equality in Employment in the Middle East,” *Foresight* 15, no. 4 (2013), 249–263. [↑](#footnote-ref-53)
51. United Arab Emirates’ Government Portal, “Gender Balance,” https://u.ae/en/information-and-services/social-affairs/gender-equality/gender-balance (Accessed on 20 July 2021). [↑](#footnote-ref-54)
52. The United Arab Emirates’ Government Portal. [↑](#footnote-ref-55)
53. “UAE Women FAQs,” *UAE Gender Balance Council*, http://www.gbc.gov.ae/facts.html (Accessed on July 20, 2021). [↑](#footnote-ref-56)
54. The United Arab Emirates Government Portal. [↑](#footnote-ref-57)
55. Embassy of the United Arab Emirates Washington DC, “Women in the UAE,”, https://www.uae-embassy.org/about-uae/women-uae (Accessed on 20 July 2021). [↑](#footnote-ref-58)
56. “Military: Government,” *Global Security*, https://www.globalsecurity.org/military/world/gulf/uae-leaders.htm (Accessed on July 20, 2021). [↑](#footnote-ref-59)
57. General Women’s Union, https://www.gwu.ae/foundation/?lan=en (Accessed on July 20, 2021). [↑](#footnote-ref-60)
58. Kate Hutchings, Beverly Dawn Metcalfe, and Brian K. Cooper, “Exploring Arab Middle Eastern Women’s Perceptions of Barriers to, and Facilitators of, International Management Opportunities,” *The International Journal of Human Resource Management* 21, no. 1 (2010), 61–83. [↑](#footnote-ref-61)
59. Ahlam Hassan Al-Marzouqi, Nick Forster, “An Exploratory Study of the Under‐Representation of Emirate Women in the United Arab Emirates’ Information Technology Sector,” *Equality, Diversity and Inclusion* 30, no. 7 (2011), 544–562. [↑](#footnote-ref-62)
60. Hutchings, Metcalfe, and Cooper, 62. [↑](#footnote-ref-63)
61. Mohammed al-Waqfi and Ibrahim Abdalla al-Faki, “Gender-Based Differences in Employment Conditions of Local and Expatriate Workers in the GCC Context: Empirical Evidence from the United Arab Emirates,” *International Journal of Manpower* 36, no. 3 (2015), 397–415. [↑](#footnote-ref-64)
62. Linzi Kemp and Fang Zhao, “Influences of Cultural Orientations on Emirati Women’s Careers,” *Personnel Review* 45, no. 5 (2016), 988–1009. [↑](#footnote-ref-65)
63. Fiona Farrell, “Voices on Emiratization: The Impact of Emirati Culture on the Workforce Participation of National Women in the UAE Private Banking Sector,” *Journal of Islamic Law and Culture* 10, no. 2 (2008), 107–168. [↑](#footnote-ref-66)
64. Mohamed E. Ibrahim and Afaf Al Marri, “Role of Gender and Organizational Support in Work-Family Conflict for Accountants in UAE,” *International Journal of Commerce and Management* 25, no. 2 (2015), 157–172. [↑](#footnote-ref-67)
65. Fauzia Jabeen, Heather Lynn Friesen, and Kilani Ghoudi, “Quality of Work Life of Emirati Women and its Influence on Job Satisfaction and Turnover Intention: Evidence from the UAE,” *Journal of Organizational Change Management* 31, no. 2 (2018), 352–370. [↑](#footnote-ref-68)
66. Price, 398. [↑](#footnote-ref-69)
67. UAE Gender Balance Council. [↑](#footnote-ref-70)
68. Littrell and Bertsch, 251. [↑](#footnote-ref-71)
69. Ndobo, 231. [↑](#footnote-ref-72)
70. Ratele, 147. [↑](#footnote-ref-73)
71. Andrea Cornwall, Althea-Maria Rivas, “From ‘Gender Equality and ‘Women’s Empowerment’ to Global Justice: Reclaiming a Transformative Agenda for Gender and Development,” *Third World Quarterly* 36, no. 2 (2015), 396–415. [↑](#footnote-ref-74)
72. Helmke and Levitsky, [↑](#footnote-ref-75)
73. Galea et al., 385. [↑](#footnote-ref-76)
74. Koch, 457. [↑](#footnote-ref-77)
75. Grosser and Moon, 181. [↑](#footnote-ref-78)
76. Claire Anderson, “Presenting and Evaluating Qualitative Research,” *American Journal of Pharmaceutical Education* 74, no. 8 (2010), 141. [↑](#footnote-ref-79)
77. Helmke and Levitsky, 734. [↑](#footnote-ref-84)
78. Kemp and Zhao, 1009. [↑](#footnote-ref-85)
79. Helmke and Levitsky, 734. [↑](#footnote-ref-86)
80. Helmke and Levitsky, 734. [↑](#footnote-ref-87)
81. Natalie Galea et al., 385. [↑](#footnote-ref-88)
82. Natalie Galea et al., 385. [↑](#footnote-ref-89)
83. Natalie Galea et al., 385. [↑](#footnote-ref-90)
84. Koch, 457. [↑](#footnote-ref-91)
85. Price, 398. [↑](#footnote-ref-93)
86. Grosser and Moon, 181. [↑](#footnote-ref-94)
87. Grosser and Moon, 180. [↑](#footnote-ref-95)
88. Abrantes. [↑](#footnote-ref-96)
89. Ferguson. [↑](#footnote-ref-97)