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# Organizational Resilience and Female Entrepreneurship During Crises

Emerging Evidence and Future Agenda



 Springer

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Paola Paoloni • Rosa Lombardi  
Editors


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# Preface

The recent years have been characterised by several events having positive and negative impacts on the environment in which organisations are operating. The most relevant events seem connected to the digital revolution through the adoption of smart technologies, economic crisis, SARS-COV-2 pandemic, turbulence, and complexity. In this scenario, people, organisations, and territories are changing the way to approach the environment in which they survive, introducing innovations and sustainable actions for growth and development.

Particularly, organisations (i.e. private and public entities) are developing more and more resilient behaviours as well as the ability to adopt flexible behaviours especially to face new challenges, innovating business models and creating value. The advent of the digital revolution poses new challenges for organisations, pointing out the role of financial strategies as well as the connection with traditional bank-oriented channels and innovative fundraising. Small and medium-sized enterprises (SMEs) and start-up companies are particularly invested by such events.

Interestingly, they are interested in collecting financial resources for their progress and growth. They are investing time in searching funds also through digital platforms and social media. Thus, digital tools are increasingly reshaping the financial services sector and the entrepreneurial finance ecosystem.

Additionally, the investigation of effects produced by SARS-COV-2 emergency on organisations is widely connected to several issues among which are the following: (1) the investigation of the productive world and the measures adopted by institutions and governments especially at the time of SARS-COV-2; (2) the proposition of solutions helping both businesses to recover more quickly from the crisis and the government to evaluate the effectiveness of measures for the economic recovery (e.g. Next Generation EU Funds; Recovery Plan), (3) the investigation of organisations (e.g. start-up companies) and their lifecycle management; (4) the female businesses focused on making activities and relational capital as a driver of strategic value or on entities that carry out business activities of general interest, non-profit, and for purposes.

This edited book is motivated by the need to share the gender studies (Paoloni & Lombardi, 2018; 2019; 2020) in times of crisis as a renewed path of studies, advancing literature and proposing solutions to academic and practical communities. This edited book aims to collect theoretical and practical contributions as well as qualitative, quantitative, and mixed studies about how female-owned and female-run companies and organisations can take advantage of such events, in terms of challenges, issues, tools, facilitators, and mechanisms supporting new opportunity in the near future. Thus, main investigated topics are listed below:

- The role of female entrepreneurship in the crisis context
- The role of women in the new financial sector
- The differences between man- and female-run organisations in the new financial system
- The role of digital technologies in enhancing the acquisition of funds by female-owned or female-run organisations
- The leadership issues in enhancing the acquisition of funds by female-owned or female-run organisations
- The new business models that can facilitate the acquisition of funds by female-owned or female-run organisations
- Diversity and equality issues in the acquisition of funds by female-owned or female-run organisations
- The role of incubators, accelerators, venture capitalists, and business angels in the acquisition of funds by female-owned or female-run organisations
- The relational capital issues in the acquisition of funds by female-owned or female-run organisations
- The connection between the female start-up business and relational capital to face epidemic disasters
- Gender diversity, pandemic disasters, performance female ventures and corporate social responsibility in the pandemic era

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10 August 2021

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# Five Years of Gender Research in the Public Sector by the IPAZIA Observatory: A Review of the Studies and a Research Agenda



Simona Catuogno, Maria Angela Manzi, and Paola Paoloni

## 1 Introduction

Over the past years, the issue of gender equality in public organizations has been a subject of academic management debate and has drawn the attention of institutions and society more generally (OECD, 2019). Financial programs for gender equality have been one of the main commitments for the Horizon 2020 project, reconfirmed by Horizon Europe 2021–2027. Gender mainstreaming in the content of research and innovation becomes a basic requirement and will gradually become part of the eligibility criteria for public bodies, research organizations, and higher education institutions from EU and associated countries applying to the program. Specific funding will be dedicated to gender and intersectional research, the development of inclusive gender equality policies in support of the new European Research Area, and the empowerment of women innovators. Indeed, public institutions, since representative of the decision-making bodies that create the rules that affect people's rights, behaviors, and life choices, need to reflect the diversity of society (Selden & Selden, 2001). Although empowering women at different levels of public organizations is a symbol of democracy and good governance, leading to a more equitable and sustainable economy and society and improving trust in public institutions (OECD, 2014), a large gender gap still exists. Women remain under-represented in workplaces (Gino et al., 2015), particularly in positions of higher levels of

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leadership, in the economy as a whole and in key parts of the public sector (Ely et al., 2011). Gender stereotyping (Ridgeway & England, 2007), the exclusion from powerful, informal network of communication (Ibarra et al., 2010; McGuire, 2002), the reduced opportunity to access education and continuous training (IPOL, 2021), the disproportion in the compensation system (Blau & Kahn, 2017), and the absence of adequate work-life balance policies (Dragišević & Mihić, 2020) represent key factors which hinder women's entry and advancement in employment, including in the public sector. As a result, substantial amount of evidence regarding the importance of gender in the public realm has been accumulated.

However, despite the effort that has been made to summarize the findings on direct and indirect relationship between gender and performance of public organizations (Park, 2020), scholars still highlight the need to conceptualize further aspects that characterize gender in public workplaces. Besides, as the gender effect is systematically related to the study context, and most of the gender studies in the public sector were carried out in educational and governmental institutions, it would be necessary to explore different stakeholders and organizational settings (Park, 2020). Finally, Park's research (2020) highlights the requirement to enlarge the studies outside the United States context, in order to validate theories on public administrations. Our study aims to address these gaps through a literature review on the existing evidence about the role and effect of gender in the public sphere with a wide perspective in terms of explored sectors and geographical settings.

We consider the entire universe of the 34 studies on gender within public sector published by the IPAZIA Observatory since its inception, both in volumes and in conference proceedings. Our literature review reveals that these papers not only focus on educational and governmental institutions, but also explore the utilities, healthcare, banking, and professional register industries, using both qualitative and quantitative methods. Moreover, they embrace a broader geographical context than the United States, as alongside a few studies in the Americas, Africa, or international settings, they are mainly focused on European samples and reflect the authors' affiliation country. As for the methodology of investigation, we observe a particular preference for qualitative methods. The percentage of female authors is 86.75%, even if there is an increasing number of male authors involved due to the growing relevance of the topic. Moreover, by discussing the main topics over time, we show that public institutions are strongly gendered and do not allow women equal work opportunities compared to men, from the lowest level up to leadership position, especially in technological fields. However, the analysis also reveals that encouraging women's involvement in public organizations may have a positive effect on public administration outcomes. Indeed, female engagement succeeds in creating higher level of cooperation to avoid conflicts, in generating a positive push for innovation, as well as in increasing co-production of the corporate value. Besides, the results show a positive and necessary relationship between both gender and accountability for sustainability and gender and disclosure of diversity information. Thanks to these relations, organizations are able to satisfy positive expectations of quality, credibility, and transparency by reducing information asymmetry and by signaling legitimacy.

In achieving its aim, the research provides theoretical and practical implications. From a theoretical standpoint, the study sheds light on the recent literature on the gender issue in public organizations and provides a research agenda in order to guide future research efforts and suggest additional avenues for the scholars. Indeed, it analyzes the career path of women in organizations and its effects on outputs more broadly understood. On the other hand, it highlights how gender equality policies at all levels of governance and the implementation of work-life balance practices create a system of benefits for public entities. Therefore, the study increases policymakers' awareness of the need to change those social and cultural paradigms that create occupational segregation of women by defining a set of appropriate policies to attract, retain, and promote female talent.

The paper is structured as follows: Sect. 2 provides the theoretical background to the topic; Sect. 3 illustrates the research design and findings; Sect. 4 discusses the findings of our literature review; Sect. 5 concludes offering contributions and avenues for future research.

## 2 Theoretical Background

The role of women in organizational context has been deeply investigated by the scholars and the mainly used approaches are managerial and business on the one hand, and psycho-sociological on the other. Through the first lens, the most widely used theories are Resource Dependency (Pfeffer & Salancik, 1978) and Agency (Jensen & Meckling, 1976), which investigate the role of gender diversity, particularly in boards of directors (Hillman et al., 2002), and its relationship with company performance, finding positive effects (Carter et al., 2003). In the second perspective, the psycho-sociological one, a theoretical framework is the Social Identity theory (Tajfel & Turner, 1986) that has allowed scholars to describe the exclusion of women from social networks; some have talked about tokenism (Kanter, 1977) when women are seen first as female and only later as individuals, reinforcing gender stereotyping. This situation changes, according to Critical Mass theory, when three or more women are involved in the board (Erkut et al., 2008), thus creating a "critical mass," as female employees are generally more able to overcome conflict with men and positively impact on organization outcomes (Torchia et al., 2011). Finally, Human Capital theory (Becker, 1964) believes that women would invest in education and work experience less than men (Tharenou et al., 1994). However, this view has been superseded by Status Characteristic theory (Hillman et al., 2002), applied in board of directors, according to which women directors have more advanced degree and international experiences than men.

Focusing on the role of gender in the public sector, gender equality has become one of the most central public policy principles. Public organizations are a very important, but also a very complex part of society because of their large and direct influence on different aspects of life: social culture, quality of life, success, and sustainability of society (Dragišević & Mihić, 2020). Involving and empowering women in the public

sphere is particularly crucial to build a representative bureaucracy of the general population (Selden & Selden, 2001), evidencing the diversity of society. An inclusive approach allows organizations to assert their democracy and good governance, ensuring equal access to power (Wise & Miller, 1983) and representation of all interest in formulating and implementing policies and programs (Saltzstein, 1979). Besides, a gender balance in the public realm has a strong and positive impact on organizations and community, leading to a more equitable and sustainable economy and society and improving trust in public institutions (OECD, 2014).

Previous literature has embraced Feminist Institutionalism (FI) approach, in order to explore the institutionalization of gender equality and the career progression of women. This perspective exploits the New Institutionalism (NI) (Meyer & Rowan, 1977) one, according to which institutions are forms of social organizations, where the key role in creating the system of formal and informal rules (Lowndes & Roberts, 2013) belongs to actors and their actions that influence individuals' choices and deeds (Battilana et al., 2009). Assuming that institutions are gendered (Acker, 1992), all organizational processes, from recruitment and selection methods to work practices and career advancement, are not gender neutral (Menéndez et al., 2012): therefore, the FI looks at gender as a real feature of institutions and social structures. In this sense, the rules can contribute to the gendered power dynamics and to the increasing of opportunities for change in institutional settings (Krook & Mackay, 2011), forcing or fostering some behaviors (Chappell et al., 2006). Actually, although building diversified organizations leads to an enhancement of skills and competitiveness of employees (Grieco, 2016), improving both the human and social capital (Miller & Triana, 2009), women are blocked from entering good quality occupations because of gender segregation, as the resultant of *horizontal* and *vertical* components (Blackburn & Jarman, 1997). The horizontal (or sectoral) segregation identifies an uneven distribution of women in the various sectors of the civil service, and vertical segregation, known as the "glass ceiling" (Folke & Rickne, 2016) indicates the under-representation of women in top positions. Women remain under-represented in workplaces (Gino et al., 2015), particularly in positions of higher levels of leadership, in the economy as a whole and in key parts of the public sector (Ely et al., 2011). Indeed, literature suggests that there is a strong gender gap in high positions of public scope, for instance in healthcare sector (Desvaux et al., 2010) and in academic and research field (Kouta et al., 2017).

What influences women employment, including in the public sector, are various barriers in accessing organizational positions and the lack of services to support job retention: women's career advancement opportunities still lag considerably compared to men's (O'Connor, 2015). First, among the obstacles are the gender stereotypes (Ridgeway & England, 2007), which link power and masculinity producing discrimination in workplaces, that continue to be an impediment to gender equality (Gorman, 2005). Indeed, the policies and practices of institutional organizations are legitimized by appearing as gender neutral, while formalizing men's privilege in the workplace (Ridgeway & Corell, 2004; Ridgeway & England, 2007). Another element to highlight is the exclusion of women from powerful, informal network of communication (Ibarra et al., 2010; McGuire, 2002): this reduces their careers

benefits compared to men (Forret & Dougherty, 2004), limiting women access to critical organizational knowledge (Ibarra, 1993) and their levels of visibility (Wellington et al., 2003) in developing relationships (Ragins & Cotton, 1991). An additional factor that reduces the possibility of entry and progress in the job force, being an essential precondition for it, is the reduced opportunity to access education and continuous training for female employees (IPOL, 2021). In the absence of learning programs and undervaluing women's leadership as inadequate to the stereotype of masculine governance (Eagly & Karau, 2002), women result unable to achieve upper managerial positions (O'Connor et al., 2015). Furthermore, women's work is not appropriately valued and appreciated due to the disproportion that exists in the compensation system: women's wages are significantly lower than men's (Blau & Kahn, 2017). This economic inequality, that represents a real gender pay gap (Blau & Kahn, 2017; Goldin, 2014), limits women access to better conditions and, also, directly influences expectations about their future wages (Kiessling et al., 2019; Reuben et al., 2017), creating large misperceptions about the salaries (Cullen & Perez-Truglia, 2018). At last, many scholars assert that the responsibility for managing the household, children, and family tends to fall on women (Brieger et al., 2017; Feeney & Stritch, 2019). The inadequate presence of work-life balance policies, that would create healthy work environments and positively affect work outcomes for public employees and organizations (Feeney & Stritch, 2019), leads women to choose low-level and/or underpaid professions, or to give up their careers (Dragišević & Mihić, 2020).

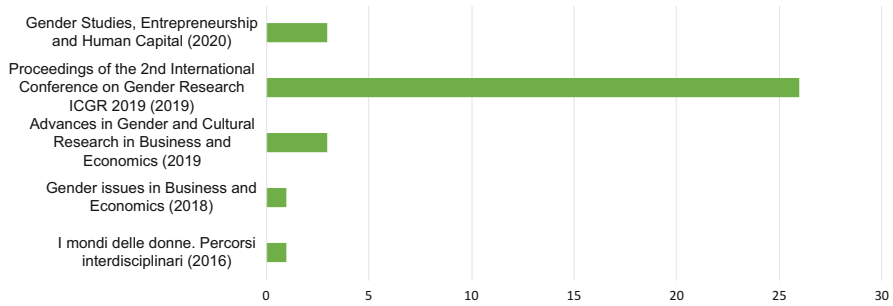
Building on this primary research, our review aims to give evidence of the recent literature on gender and public sector, stressing what characterizes and influences the role and effect of gender in public workplaces. Indeed, despite an effort has been made to summarize the findings on direct relationship between gender and performance of public organizations (Park, 2020), there is the need to conceptualize further aspects, highlighted by scholars, that characterize and influence gender and its impact in the public sphere of employment, by using wide perspectives in terms of explored sectors and settings.

### 3 Research Design and Findings

To explore the content of the literature on gender and the public sector, with the aim to address the gaps detected by Park (2020), this work considers the entire universe of studies on the above topic published by the IPAZIA Observatory<sup>1</sup> since its

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<sup>1</sup>"Ipazia," Scientific Observatory for Gender Studies ([www.questionidigenere.it](http://www.questionidigenere.it)), was created with the aim of outlining a complete and constantly updated picture of research, services, projects and all the initiatives related to women and gender relations at local, national, and international level. In order to achieve this goal, the Observatory aims to implement the literature on gender studies, to organize and promote important scientific initiatives (workshops, seminars, conferences, studies, scientific laboratories) on these issues at an interdisciplinary level.



**Fig. 1** Papers across the volumes

inception, both in volumes and in conference proceedings. Specifically, five publications, from 2016 to 2020, have been considered:

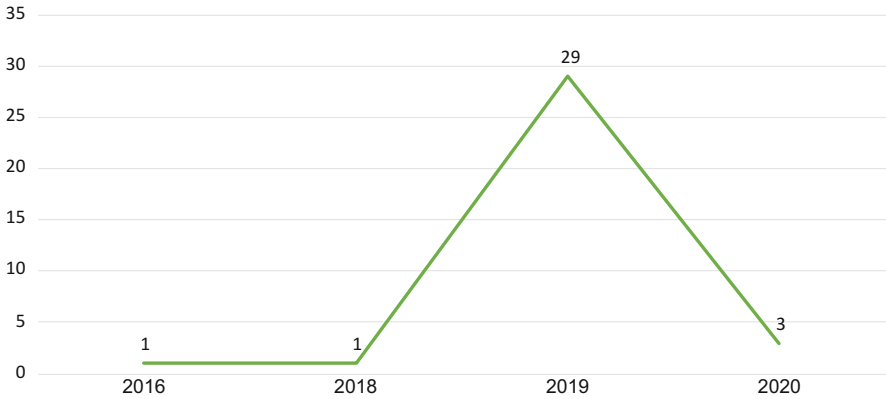
1. Paoloni, 2016—Paoloni Paola, *I mondi delle donne. Percorsi interdisciplinari*. Edicusano, Roma;
2. Paoloni & Lombardi, 2018—Paoloni Paola & Lombardi Rosa, *Gender issues in Business and Economics*. Selection from the 2017 IPAZIA Workshop on Gender, Springer Proceedings in Business and Economics;
3. Paoloni & Lombardi, 2019—Paoloni Paola & Lombardi Rosa, *Advances in Gender and Cultural Research in Business and Economics*. Selection from the 2018 IPAZIA Workshop on Gender, Springer Proceedings in Business and Economics;
4. Paoloni et al., 2019—Paoloni Paola, Paoloni Mauro, Arduini Simona, *Proceedings of the 2nd International Conference on Gender Research ICGR 2019*, Academic Conferences and Publishing International Limited Reading;
5. Paoloni & Lombardi, 2020—Paoloni Paola & Lombardi Rosa, *Gender Studies, Entrepreneurship and Human Capital*. Selection from the 2019 IPAZIA Workshop on Gender, Springer Proceedings in Business and Economics.

The mentioned volumes collect a total of 155 contributions that discuss, with a multidisciplinary approach, the potential role and the career paths of women in business management of different sectors. Following the analysis of keywords, title, abstract and full paper, research works focused on the role of gender in public organizations were selected, in order to provide conceptual advancements in the understanding of this field, resulting in a final sample of 34 articles, which are displayed in the appendix. Figure 1 shows the distribution of the considered papers, across volumes.

It can be seen that (Fig. 1) the 2019 conference, by Paoloni, Paoloni and Arduini, has the highest number of papers on the topic under analysis, as a mini-track<sup>2</sup> on “Gender Diversity in the Public Sector” was planned for the conference: it

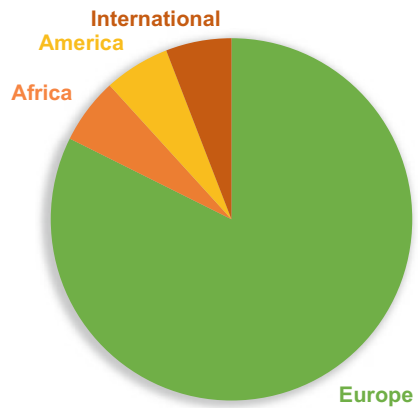
<sup>2</sup>Mini Track Chairs: Prof. Simona Catuogno, Prof. Sara Saggese, Dr. Claudia Arena and Dr. Fabrizia Sarto, University of Naples Federico II, Italy.





**Fig. 2** Papers across the years

**Fig. 3** Geographical context



encourages scholars and public sector workers to discuss managerial, governance, and public interest challenges of appointing women within such organizations, through new perspectives and new methods.

Figure 2 highlights the distribution of papers across the years.

Even in this case (Fig. 2) we notice that the number of papers in 2019 is clearly affected by the mini-track mentioned above.

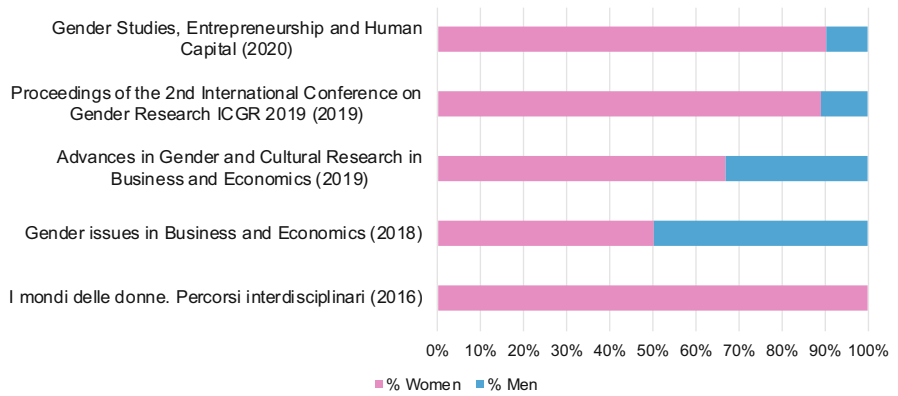
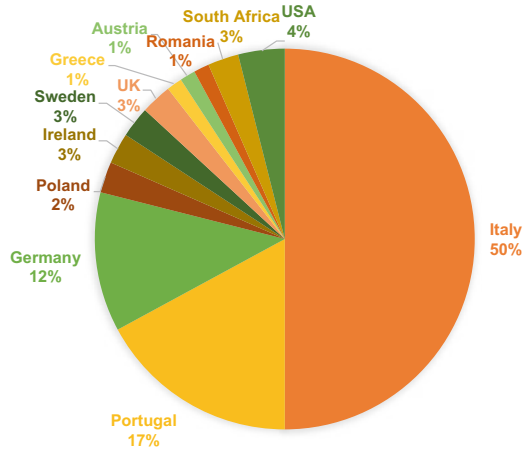
The geographical distribution of included articles is represented in relation to the country of interest in the study that reflects the authors’ affiliation country. The geographical settings are shown in Fig. 3.

Regarding the geographical setting (Fig. 3), the considered studies are mainly focused on Europe (28), along with Africa (2) and Asia (2); two, instead, are international in character (Del Baldo, 2019b; Ruzzeddu, 2019).

Fig. 4 represents author’s country affiliations.

The institutions to which the authors belong (Fig. 4) are located in Italy (38 authors), Poland (13), Germany (9), Poland (2), Ireland (2), Sweden (2), UK

**Fig. 4** Authors' affiliation

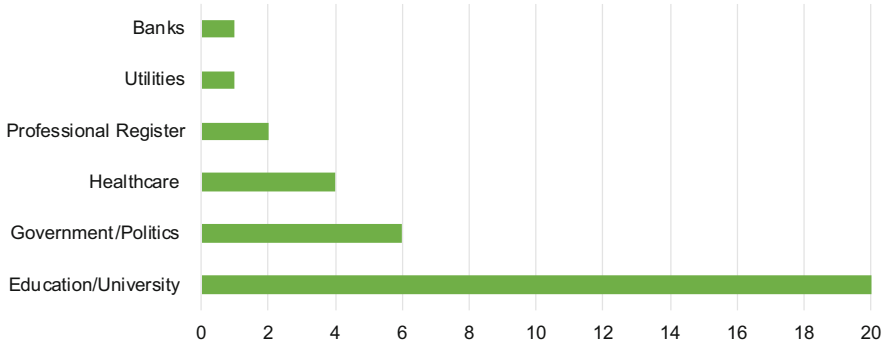


**Fig. 5** Women and men authors involved

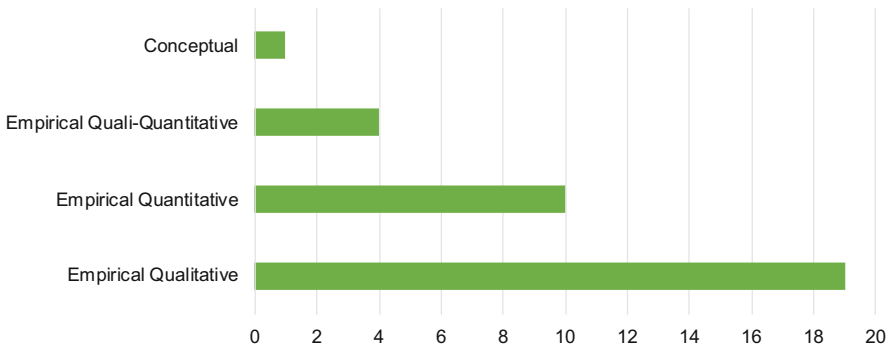
(2), Greece (1), Austria (1), Romania (1), South Africa (2), USA (3); thus, these countries correspond to those investigated in the studies.

Another analysis of the authors was done in relation to gender, as illustrated in Fig. 5.

Figure 5 shows the comparison between the number of female authors and the number of males involved in the studies as a percentage of the total number of authors. Examining the genre of authors devoted to the research on gender in the public sector, which is a topic affected by a particular attention to the role of women in the dynamics of management, it is possible to notice that the overall percentage of women is in the majority and corresponds to 86.75%. Nevertheless, gender studies, becoming more and more a relevant field of research in the international scenario, have increased the interest in gender issues by adopting a multidisciplinary approach of all scholars, including male ones. This is confirmed by the increasing number of



**Fig. 6** Areas of study



**Fig. 7** Methodologies

male authors involved in research papers in the comparison between the first publication analyzed and the following ones.

The analysis of explorative settings investigated by authors is displayed in Fig. 6.

In terms of explorative settings covered, of 34 articles, 20 are focused on universities and school organizations and six on political entities: this is in line with established previous literature, according to which the majority of gender studies in the public sector are carried in educational and governmental institutions (Park, 2020). The areas of study, however, extend to other domains that are utilities, healthcare, banking, and professional register industries (Fig. 6).

The methodologies used by researchers are summarized in Fig. 7.

Except for one work published in 2019 (Thaler, 2019) that is a conceptual paper, the articles are all empirical and based on quantitative, qualitative, or both methodologies (Fig. 7). Mainly are qualitative studies conducted through surveys, case studies, document, and content analysis.

Figure 8 shows the keyword cloud obtained by highlighting the frequency of use of the most important keywords in selected papers.

Fig. 8 Keywords



The search of the main representative keywords (Fig. 8), used by the 83 authors shows the prevalence of words such as “Equality,” “Gender,” “Women,” and “Public,” as in line with the examined central argument.

The analysis of the different aspects of the theme of gender in the public sector, investigated by the papers in the sample, allowed us to distribute the contributions on eight topics, as evidenced by Fig. 9.

As we can see, the eight covered topics found are the following:

- Gender, empowerment, and gender equality
- Gender and performance
- Gender and leadership
- Gender and digitalization
- Gender and technology
- Gender, accountability, and sustainability
- Gender and diversity disclosure
- Gender, co-production, and network

It is important to underline that a clear trend in terms of emerging or declining topics seems to emerge over time, as shown in Table 1.

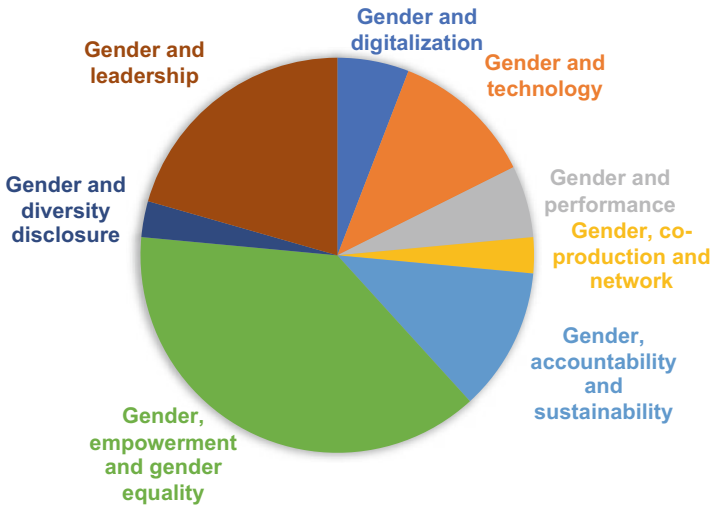


Fig. 9 Main topics

In light of the eight identified topics and their evolution over time, in the next section we are going to discuss the results.

## 4 Discussion of the Findings

Our review of previous literature shows that management research on gender in the public sector has deeply investigated the involvement of women at different levels of organizations and the impact this generates on the outcomes of those organizations. At the same time, it attests that scholars have been also focused on the role and effect of gender in new frontiers and challenges put in place by society. In this section, a discussion of the identified eight themes will be addressed, following a temporal logic according to their evolution in time. Each field will be reviewed in relation to the main arguments provided on each in the existing literature.

### 4.1 Gender, Empowerment, and Gender Equality

Among the investigated aspects of the theme of gender in the public sector, the most dated topic and, at the same time, persistent as the origin of the debate is *Gender, empowerment, and gender equality*.

When talking about gender inequality, reference is made to women disadvantaged relative to similarly situated men. Indeed, the achievement of equality is still a long way off, especially when it comes to woman’s access and participation to the

**Table 1** Evolution of topic over time

	Gender, empowerment and gender equality	Gender and performance	Gender and leadership	Gender and digitalization	Gender and technology	Gender, accountability and sustainability	Gender and diversity disclosure	Gender, co-production and network
Evolution Topic × Volume	✓							
I mondi delle donne. Percorsi interdisciplinari (2016)		✓						
Gender issues in Business and Economics (2018)	✓		✓					
Advances in Gender and Cultural Research in Business and Economics (2019)	✓	✓	✓	✓	✓	✓	✓	
Proceedings of the 2nd International Conference on Gender Research ICGR 2019 (2019)				✓		✓		
Gender Studies, Entrepreneurship and Human Capital (2020)				✓		✓		✓

labor market, with regard to career advancement, assumption of leadership positions, economic independence, wages, and pensions. Many of the analyzed contributions empirically support this contention.

The analysis in the academic sector, by Ruzzeddu (2019), shows that gender inequality also exists in the geopolitical areas that are the most developed in the world, as there is no correlation between gender equality, in terms of women in science, and social progress. Women's work conditions linked to a high level of income and development in environments that are supposed to be privileged doesn't impact on the percentage of women working in the scientific sector (Ruzzeddu, 2019). An example is given by Italy, where, in 2017, the proportion of women academic staff was 40.2% (Roberto et al., 2019): it reveals a significant underrepresentation of women in the higher ranks of academia. The same applies to the accounting profession of Public Chartered Accountants, where, in Italy, the low representativeness degree of women persist, despite the effort of promoting a gender-sensitive culture through the releasing of an ethical code aimed at preventing gender discrimination and spreading the value of diversity (Del Baldo, 2019a). Similarly, the study on women's professional status in a banking institution of a strongly masculine and inherited colonial context in Timorese society, conducted by Fernandes and Leite (2019), demonstrates a growing awareness of the gender inequality and the need for women emancipation both in family and work settings (Fernandes & Leite, 2019). The only exception in this context of studies is the investigation carried out by Focaru (2019) in Romania, where the professional figure of the lawyer, after a long period of male predominance, now presents a large number of women employed thanks not only to the increase in the level of qualification of women, but also to the progressive structural change of the profession itself.

Many authors have found the need to identify "*the 'traps' by which women get lost along the career pathway*" (Baldarelli et al., 2016, p. 15), also seeking to investigate the equalities and differences in the career progression experiences of men and women (Berkery, 2019). The studies demonstrate that there are numerous internal and external barriers that reduce the incentive for female labor market participation, and that these are significantly correlated with the perceptions of how they affect the pursuit of career goals (Campbell & Campbell-Whatley, 2019). Therefore, the problem is not related to the permanence in the profession, rather, it is *ex ante*, in the women access to work and, only then, in the accompaniment to the path through an appropriate network of services, since motherhood and work are often presented as mutually exclusive choices due to the inadequacy of care services (Bartholini, 2019).

Other authors, instead, have analyzed the problem of career progression of women with a Feminist Institutionalism (FI) approach that, applying the New Institutionalism (NI) and assuming that institutions are highly gendered, considers how they constrain and/or enable gender change (Bencivenga, 2019). The issue of gender equality institutionalization is embodied in research related to the implementation of gender equality plans, especially in academic institutions. Indeed, Gender Equality Plans (GEPs) are "*the actions targeted organizational and managerial*

*processes and procedures and aimed at creating gender-sensitive recruitment, retention and promotion policies; supporting and improving work-life balance; establishing a more inclusive work culture and increasing gender awareness throughout the organizations*” (Dahmen-Adkins & Peterson, 2019, p. 151), but their main aim is to close the gender gap in academia: therefore, according to the authors, it is necessary to analyze the changes that contributed to this purpose (Dahmen-Adkins & Peterson, 2019). Sangiuliano et al. (2019) analyze the disciplines of Information Sciences and Technology (IST) and Information and Communications Technology (ICT), since low female recruitment depends on an extremely low numbers of female students enrolled at their respective universities’ curricula. The authors affirm that, even if these disciplines have the lowest proportions of women as full professors and leaders, no action to address this challenge has been included in GEPs. Along these lines, the study of Bencivenga (2019) explores similarities and differences between academic and non-academic organizations in their initiatives to promote gender equality, pointing out that, for both types of institutions, the prevailing view on gender equality issue is that it concerns only women, so the practical workload in implementing balance actions seems to fall primarily on them. This shows how, despite initiatives to promote gender equality and women’s empowerment, there is still great difficulty in their concrete implementation. This is confirmed by Glenn’s (2019) study of African-American women at Historically Black Colleges and Universities (HBCUs) in which tensions emerge between gender empowerment and marginalization and between racialized social scripts and identity development. The result is marginalization and silence of women in these organizations rather than interaction, and gaps in identity when questioning conceptions of race/ethnicity.

Through the articles reviewed, several elements that characterize and negatively influence the role of gender, in terms of empowerment and equality in public organizations, can be identified. In particular, there are many barriers to entry and little attention to policies that support women’s retention in public workplaces and, thus, organizations can be defined as gendered.

## ***4.2 Gender and Performance***

The present topic, *Gender and performance*, is closely related to the authors’ intention to understand whether public organizations oriented toward valuing diversity and, therefore, promoters of women inclusion have positive returns in terms of output.

The first study, by Trequattrini et al. (2018), focused on gender capital, considered as gender diversity within a business reality, and assesses its impact on intellectual capital (human, relational, and structural), as driver of competitive advantage for value creation. The findings, derived from an exploration in the university field, explain that the distinction between men and women is not



significant: “*in these institutions, the relevant factors are the competencies of the workers [...] and not their gender*” (Trequattrini et al., 2018, p. 169).

The second study, instead, by Arena et al. (2019), is concentrated on the healthcare sector, where performance even though female under-representation exists, the effects of including women in the top management team on hospital performance are assessed. The latter is computed through a multiple perspective, considering both financial and non-financial performance: the work demonstrates that there is no relation between women involvement and financial outcomes, while there is a negative relation when considering non-financial performance.

Given the results, it can be said that the relationship between gender and performance is negative, although mainly due to its close link with the reference sector. In the case of universities, in fact, the gender difference is not relevant since it is a field considered as highly knowledge-intensive, whereas, in the case of the hospital sector, it depends on the performance regarded, because the participation of women in the hospital decision team may influence the process by which patient care is provided, but not the volume and the effectiveness of cares.

### 4.3 *Gender and Leadership*

Closely related to the first, the third identified topic is *Gender and leadership*, since the under-representation of women is much more evident in governance positions of organizations.

The study of the gender balance/imbalance in the governance of academic journals by Del Baldo (2019b) spotted women are in a minority position in all editorial teams of the journals under analysis, highlighting their reduced visibility in this field. This often depends on the male leader stereotype embedded in general society opinion that, consequently, affects women’s career expectations. Sá et al. (2019), indeed, suggest that male students aspire to become future professionals and work toward that goal, while female students perceive general preparation for life as a whole, without overly high ambitions.

The majority of authors belonging to this current have investigated the factors that influence or may influence women’s access to decision-making positions and, consequently, the gender balance in the governance models of public organizations. First, the extrinsic causes that facilitate female leadership are analyzed. According to Carvalho (2019), women social and cultural capital is “*a relevant dimension in their inclusion in specific networks and in their visibility to be considered as eligible for top positions*” (Carvalho, 2019, p. 130). Besides, as Antonowicz and Pokorska (2019) demonstrate, women’s ability to achieve top positions is also affected by the ability to transform their resources, derived from the educational background, first into trust in well-established peers and then into true organizational visibility. In contrast, how actors are chosen in the recruitment process does not affect the gender constitution of decision-making bodies as a relevant mechanism for improving gender equality (Diogo et al., 2019). While, instead, board gender composition is

positive related to gender sensitivity in governance strategic planning: the lack of heterogeneity in the board of directors reduces the attention to gender issues in governance policies (Nardo et al., 2019). Second, a more significative component showed in women attaining leadership is the intrinsic motivation (Moodly & Toni, 2019): the aspiration to achieve a higher level of qualifications and the vision of leadership as research motivation have a strong impact on the likelihood of accessing higher positions, despite the presence of barriers and challenges to overcome.

As in the case of the first topic, the relationship between gender and leadership leads to an understanding of public organizations genderizing, because of their inability to allow an easy entry of women in top positions, reducing their ambitions and possibilities of career improvement.

#### ***4.4 Gender and Digitalization***

The topic of *Gender and digitalization* is very timely: digital transformation is rapidly changing the working conditions of organizations, both private and public. Among these effects, digitalization could affect the mechanisms for equality in the workplace. However, the perspective could be also inverse: the women employment could have some influence on the degree of digitalization and innovation.

Therefore, the theme of digitalization is approached by gender scholars from a double perspective: on the one hand, authors investigate what happens to gender inequalities at work when the involvement of women increases in IT-based implementation projects (Myreteg, 2019); on the other hand, they analyze the impact of female involvement in senior positions on the adoption of innovation (Arena et al., 2020).

The first work (Myreteg, 2019) shows a strong gender inequality in hospital hierarchy, where, even though women may be involved in development projects, in reality, managerial positions are more open to men. In addition, the study emphasizes the lens of management controls (direct, indirect, and internalized), through which few formalized projects management control is attested but with a cooperative implementation of strategies to avoid conflicts. The second perspective is, in turn, analyzed in depth, first by looking at women's simple involvement and its effect on the adoption of innovation in the healthcare sector, and then, by exploring the same relationship considering foreign educational and work experience of women (Arena et al., 2020). In both cases, a positive relation is identified: if in general female directors positively influence the hospital innovation by enhancing the knowledge base of the board, even more female directors with a work-abroad experience promote the implementation of the innovation through a wide global view and open-mindedness.

It is possible to affirm that the involvement of women in digital project, although it does not reduce gender inequalities in practice, succeeds both in creating cooperation in order to avoid conflicts and in generating a positive push for innovation. Thus, the effect of gender on digitalization is shown to be positive. However, the

present literature is still highly sectorized: the studies in sample, in fact, are set in health sector and, in particular, they explore the effect of information and telecommunication technologies (ICT) of e-Health as benefit of human health.

#### **4.5 Gender and Technology**

A broad topic addressed by research on gender in the public sector concerns the relationship between *Gender and technology*. The interest regards the fact that in the technological fields of workforce there is a male predominance.

The under-representation of women in science, technology, engineering, and mathematic (STEM) disciplines is high and persistent, and the gender gap is certainly more pronounced and established in technology fields: society is permeated by gender biases that link ICTs with masculinity (Canali et al., 2019). This phenomenon is attributed, by the majority of the studies, to a deficit practice of women, that “*must be ‘coached’ in order to learn the promising ways of acting or networking in the field in order to fit into the male-dominated system*” (Schulz et al., 2019, p. 564). For this purpose, universities and research organizations have introduced initiatives and projects in order to change structurally the gender approach in research and science (Thaler, 2019) by increasing women’s knowledge about computer science, technological and coding skills (Canali et al., 2019). The study of Treanor (2019) starts with the evidence that women in STEMM are less likely to engage in commercialization or spin-out activities than men. It shows the positive implications of entrepreneurship education (EE) interventions to be provided to female science, technology, engineering, mathematics, and medicine (STEMM) students and early career researchers (ECRs), in order to ensure women’s propensity for commercialization. However, these approaches, that promote “fixing the women” strategies, are being challenged by scholars. Indeed, the extremely low rates of females compared to men enrolled in areas of technology, according to Schulz et al. (2019), do not only depend on women behaviors that could be adapted and retrained. Rather, authors demonstrate that there is a positive influence of informal relationship networks, which are embedded in the structural and cultural context of the scientific field (Schulz et al., 2019).

Even in the field of technology, public organizations appear gendered: female employment is severely limited by gender stereotyping. According to the authors, women should be supported from a training and informal relations in order to qualify in technology and overcome the masculinity bias.

#### **4.6 Gender, Accountability, and Sustainability**

Accountability in the public sector is a complex concept including different dimensions that go beyond the financial ones, to engage the sustainability dimension and

ensure society and community well-being. In the gender debate of the public context, the topic of *Gender, accountability and sustainability* points out that the lack of accountability to women may explain the failure in meeting gender equality commitments.

The literature has mainly analyzed the role of Gender Budgeting: a tool whose implementation allows incorporating a gender perspective at all levels of the budget process and promoting gender equality. In this perspective, the ordinary process of budget preparation, integrated by a gender-based methodology, makes the government effectively understand consequences that policies and actions, revenues and expenses, can have on women and men (Tommaso et al., 2019). Moreover, in Italy, the gender budget report promotes accountability and transparency of local governments and improves the governance of public administrations, because it enables self-evaluation and therefore defines increasingly effective and fair administration methods (Pastore and Tommaso, 2020). However, Addabbo et al. (2019), analyzing whether gender budgeting policies are effective in improving well-being and gender equity using education and health as proxies, show a high degree of deprivation for women in Senegal, where the lack of adequate investments in these areas has a negative impact on the wealth of women and girls.

Another part of literature, since social responsibility has become an increasingly important concept in the gender debate, has investigated differences in men and women's perceptions of public accountability for sustainability. For instance, Santos et al. (2019) examined students' impressions and expectations of university social responsibility, either as a whole or linked to the quality of service, attesting that gender has a direct impact on them.

As a result, there is a strong and necessary relationship between accountability for sustainability and gender. In fact, it represents the willingness of public administrations to pursue gender equality. Therefore, the gender, also through gender reporting policies, positively influences public organizations in terms of expectations of quality, credibility, and transparency.

#### **4.7 Gender and Diversity Disclosure**

Diversity disclosure, which became mandatory for leading companies in 2017, according to Directive 2014/95/EU, has given rise to a new stream of research related to the topic of *Gender and diversity disclosure*.

Fortuna et al. (2019), whose study can be defined as preliminary, use a comparative cross-country analysis to evaluate the quality of Diversity Policy Disclosure (DPD) of the leading public utilities operating in the energy sector in the European Union. The choice of the industry is accurate: it is "*one of the most active in the disclosure of non-financial information because of the significant impacts of this industry on the environment and social communities*" (Fortuna et al., 2019, p. 244). The results show that a greater commitment to be more compliant with the requirements of the Directive 2014/95/EU on DPD should be made by companies in the

future, as while there has been an increase in the disclosure of gender and age diversity, the disclosure of ethnic and professional background diversity has not yet improved.

The positive relationship of diversity and creation of gender equality in the workplace has, therefore, received acclaim on its ability to improve corporate performance, which can be safeguarded by reducing information asymmetry, discharging accountability, signaling legitimacy, thanks to a specific and appropriate disclosure of diversity information.

#### **4.8 Gender, Co-Production, and Network**

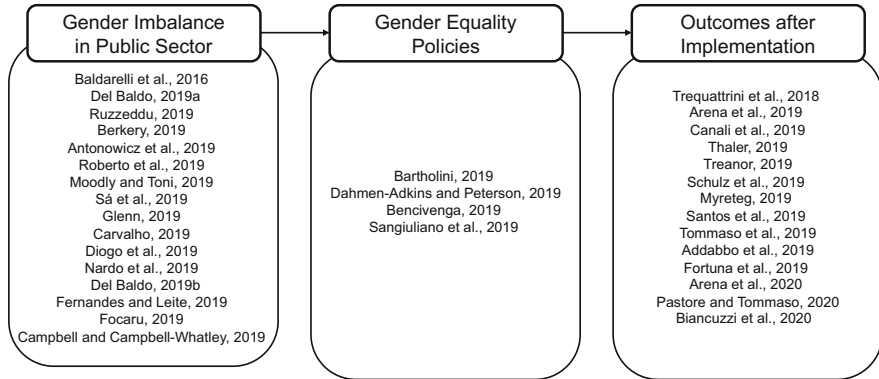
Another very innovative theme, and one of the most recent to appear, is *Gender, co-production, and network*. In the service economy, the client contributes to create value together with the producer, sharing in the realization of the service and establishing the phenomenon known as “co-production.” Given its aptitude for services production, the public sector is one of the first fields of study about co-production, particularly in the health sector where the active and effective participation of patients supports their health care. In this context, the gender perspective in co-production is gaining ground.

The study of Biancuzzi et al. (2020) can be seen as a case of co-production in the healthcare industry, in which a gender lens is used: the case is devoted to a common female disease, the breast cancer, and analyzes the direct involving of female patients in the planning and provision of value creating services. Findings display faster recovery from the disease thanks to the co-production processes generated with women, attesting that the co-production strategy with the new gender perspective increases much more the value of the services because actors not only cooperate, but also share knowledge and problems, from the same point of view (Biancuzzi et al., 2020).

Thanks to these initial findings, it is already possible to understand how the effects of gender in the co-production of corporate value are determinant and, therefore, related to network ability to generate positive consequences for the actors and organizations that are part of it.

### **5 Conclusions: A Research Agenda**

The issue of gender in public sector has been largely debated in the academic and professional fields of management, showing the relevance of the theme and the need to conceptualize the results so far achieved by scholars. Our review allowed for a systematization of the recent literature on the role and effect of gender in the public employment, by analyzing 34 studies deriving from volumes and conference proceedings of the IPAZIA Observatory and by considering a wide spectrum of



**Fig. 10** Macro-areas of investigation

industries and settings. The involvement of women at different levels of organizations and the impact it generates on their outputs, along with the relationship between gender equality and the new frontiers and challenges posed by society, related to technology, digitalization, sustainability and co-production, are the mainly found topics. In this analysis, the literature was divided into eight strands, each related to a specific topic, and their discussion allowed us to explore their evolution over time. What results is a gendered view of institutions, in which women don't have equal opportunities in career path compared to men, especially in technology fields. However, encouraging women's involvement in public organizations has positive effects for public administrations both in terms of outputs, such as conflict reduction, innovation, co-production of corporate value, and in terms of accountability for sustainability and diversity disclosure, whereby organizations can overcome information asymmetry and signal their legitimacy.

At this stage, in order to understand the contributions of the present research, a further effort of synthesis is necessary. From a broader view, the considered studies can be divided into three macro-areas of investigation, as illustrated in Fig. 10.

It is possible to note that the gender effect is examined from scholars along a continuum that starts from the role of women in public institutions and arrives at an understanding of the impact it has on the performance, widely intended, of these organizations, passing through a series of case studies which are able to show the implementation of gender balance policies.

The first area of analysis is related to the issue of gender imbalance in public sector. Specifically, the authors believe that there is limited potential for women to hold government roles and gain global visibility (Del Baldo, 2019b) compared to men (Berkery, 2019). This phenomenon of under-representation of women has long been investigated along with the underlying causes of discrimination highlighting the structural, social, and cultural elements that undermine empowerment (Baldarelli et al., 2016), the barriers to career access and advancement (Antonowicz & Pokorska, 2019), the gendered nature of institutions (Roberto et al., 2019), and the consequent reasons and perceptions that drive women to have lower aspirations in

the workplace (Moody & Toni, 2019) than men (Sá et al., 2019). This creates the need for greater gender awareness and, thus, greater contributions by women with developed curricula (Glenn, 2019) in public realm with particular reference to academia/science (Baldarelli et al., 2016; Del Baldo, 2019b; Ruzzeddu, 2019; Carvalho, 2019; Diogo et al., 2019; Nardo et al., 2019) as well as in the accounting profession (Del Baldo, 2019a), banking (Fernandes & Leite, 2019), and law institutions (Focarú, 2019), in order to create benefit for society (Ruzzeddu, 2019) and to stimulate strategies for women who aspire to career advancement (Campbell & Campbell-Whatley, 2019).

The second area is related to studies that have investigated the implementation of policies aimed at creating gender equality in organizations. These actions are aimed at creating gender-sensitive recruitment, retention and promotion policies by supporting a culture of inclusivity and improving work-life balance. Indeed, if governments provide services that are otherwise confined to the family, they can promote greater participation of women in work (Bartholini, 2019) by allowing them to redesign their life plans and improve their work environment (Bencivenga, 2019; Dahmen-Adkins & Peterson, 2019). It clearly emerges, however, that it would be necessary for gender equality implementation partners to work on creating dedicated sustainability plans to ensure that all structural change actions are supported (Sangiuliano et al., 2019).

Finally, the last area concerns the impact of such gender balance policies on organizational performance. First, the impact of women's involvement on performance in the narrow sense is explored, specifically how gender impacts intellectual capital in academia (Trequattrini et al., 2018), or how financial and non-financial performance (Arena et al., 2019) and innovation (Arena et al., 2020) in the healthcare sector are affected by the presence of women in senior management positions. Next, performance takes on a new form, evolving due to additional challenges of society. The effect of gender on technology (Canali et al., 2019; Schulz et al., 2019; Thaler, 2019; Treanor, 2019) and digitalization (Myreteg, 2019) is therefore investigated, along with the relationship between gender and social responsibility (Santos et al., 2019), with particular reference to the possibility of reporting the different effects that policies and actions, income and expenditure, can have on women and men, through the use of gender budgeting (Addabbo et al., 2019; Pastore & Tommaso, 2020; Tommaso et al., 2019). In addition, scholars have used two other interesting perspectives: the first, related to the ability of improving corporate performance, reducing information asymmetry thanks to disclosure of diversity information (Fortuna et al., 2019); the second explores the impact of gender on performance seen from a highly innovative perspective related to value co-production and networking (Biancuzzi et al., 2020).

In conclusion, in order to arrange a research agenda useful to give a contribution not only to IPAZIA Observatory, but in general to guide future studies, we acknowledge that little has been said about gender balance policies and their impact in public organizations. Therefore, according to us, further research effort is needed to analyze:

- The incentives and motivations to use gender equality policies, not only starting with legislation, but also with concrete and useful support of these tools.
- The effect of gender on performance and digitalization more broadly, given the still highly sectorized results.
- How the performance of organizations, the expectations of women's career advancement, the degree of women's involvement change/has changed thanks to balance policies.
- Whether it is possible to create empirical indicators capable of measuring the effect of gender on organizational policies and procedures.
- In more depth the new perspectives of social, technological, co-productive performance.

As a result, the research provides theoretical and practical implications. From a theoretical standpoint, the study contributes to the extant literature of gender and public sector shedding light on the role and the effect of gender in public organizations and providing a research agenda to guide future research efforts and suggest additional avenues for the scholars. In particular, it gives a comprehensive overview of gender in public workplaces trends, in terms of investigated topics, explored settings and industries, used methodologies, gender and affiliation of authors, to validate theories on public administration. In this sense, it ensures the creation of a broad knowledge on the topic, not only related to the relationship between gender and performance, as addressed by previous research (Park, 2020), but also analyzing the career path of women in organizations and its effects on outputs more broadly understood: digitalization, social responsibility, and co-production of value represent relevant objectives for organizations and innovative issues with reference to gender. Going deeper, the review further synthesizes scholars' contributions about gender and public sector in three macro-areas highlighting research gaps and, thus, providing objectives as research agenda for future studies.

On the other hand, the present study gives practical implication for policy makers and decision makers in public organizations. The study allows them to increase their awareness on the need to change those social and cultural paradigms that create occupational segregation of women. Indeed, the conducted analysis concretely clarifies the urgency of defining a set of appropriate policies to attract, retain, and promote female talent. Projects should be aimed at providing lifelong learning, capable of qualitatively growing the level of women's skills, especially in the areas of technology and digitalization, thus promoting greater inclusion. Besides they have to inspire more women to aim for the footsteps of leadership, breaking down social and cultural barriers and negative perceptions on women's work. Finally, government should ensure work-life balance to assure that women have more opportunities for career progression. Thanks to these gender equality policies at all levels of governance a system of benefits for public entities can be created: the female engagement succeeds in establishing cooperation to avoid conflicts, in generating a positive push for innovation, as well as to co-product value.



## Appendix: The 34 investigated papers

<b>Paoloni, P. (2016). I mondi delle donne. Percorsi interdisciplinari. Edicusano, Roma.</b>		
1	<i>Disuguaglianza di genere nel contesto accademico e universitario in Italia: il contributo delle studiose di Economia Aziendale</i>	M.G. Baldarelli, M. Del Baldo, S. Vignini
<b>Paoloni, P., Lombardi, R. (2018). Gender issues in Business and Economics. Selection from the 2017 IPAZIA Workshop on Gender, Springer Proceedings in Business and Economics.</b>		
2	<i>Intellectual Capital and Gender Capital: The Case of Italian Universities</i>	R. Trequattrini, F. Nappo, A. Lardo, B. Cuzzo
<b>Paoloni, P., Lombardi, R. (2019). Advances in Gender and Cultural Research in Business and Economics. Selection from the 2018 IPAZIA Workshop on Gender, Springer Proceedings in Business and Economics.</b>		
3	<i>Women and Editorial Leadership of Scientific and Academic Journals: An Explorative Study</i>	M. Del Baldo
4	<i>Women and Science: Models of Participation</i>	M. Ruzzeddu
5	<i>Gender and Work-Life Balance: A Contest Analysis on Nurse Schools in Palermo</i>	I. Bartholini
<b>Paoloni, P., Paoloni, M., &amp; Arduini, S. (2019). Proceedings of the 2nd International Conference on Gender Research ICGR 2019, Academic Conferences and Publishing International Limited Reading.</b>		
6	<i>Mission (Almost) Impossible: Becoming a Female University Rector in Poland</i>	D. Antonowicz, A. Pokorska
7	<i>Gender Diversity in Public Hospitals' TMT: The Impact on Financial and Non-Financial Performance</i>	C. Arena, S. Catuogno, S. Saggese, F. Sarto
8	<i>Gender Equality in Academia: Comparative Perspectives From Feminist Institutionalism</i>	R. Bencivenga
9	<i>An Organisational Structure Approach to Gender Differences in Career Progression Experiences in an Academic Setting</i>	E. Berkery
10	<i>Working From Barriers to Strategies: Career Advancement for Women Administrators</i>	M. Campbell, G. Campbell-Whately
11	<i>A Best Practice for Attracting Female Students to Enrol in ICT Studies</i>	C. Canali, T. Addabbo, V. Moutzi
12	<i>Women in Higher Education top Positions: The Relevance of Field Dynamics</i>	T. Carvalho
13	<i>Most Significant Change: Closing the Gender Gap in Research</i>	J. Dahmen-Adkins, H. Peterson
14	<i>The Governance of Chartered Accounting Associations: Does Gender Matter? The Case of Italy</i>	M. Del Baldo
15	<i>Does Nomination Influence Women's Access to Institutional Decision-Making Bodies?</i>	S. Diogo, T. Carvalho, Z. Breda
16	<i>The Gender Work Identities of Timorese Professional Women in a Public Portuguese Bank Institution</i>	E. Fernandes, R. Leite

(continued)

17	<i>The Quality of Diversity Policy Disclosure in the European Public Utility Sector: A Comparative Cross-Country Analysis</i>	F. Fortuna, S. Testarmata, S. Sergiacomi
18	<i>An Intersectional Analysis of African-American Females at Historically Black Colleges and Universities</i>	C. Glenn
19	<i>Intrinsic and Extrinsic Factors in Empowerment of Women Towards Leadership: A Study in Higher Education (South Africa)</i>	A. Moodly, N. Toni
20	<i>Management Controls and Gendering: The Case of eHealth Projects in Sweden</i>	G. Myreteg
21	<i>Gender Composition of Boards of Directors and Sensitivity to Gender Issue in Italian University Strategic Plans</i>	M.T. Nardo, R. Mazzotta, P. Pastore, G. Vingelli
22	<i>The Gendered Nature of Academic Institutions: Gender-Analysis of Italian Universities</i>	F. Roberto, A. Rey, R. Maglio
23	<i>Does Gender Matter When Defining Higher Education Student Success? Evidence From Portugal</i>	M.J. Sá, M.d.L. Machado-Taylor, E. Sá
24	<i>Lessons Learned From Tailored Gender Equality Plans: Classification and Analysis of Actions Implemented Within the EQUAL-IST Project</i>	M. Sangiuliano, C. Canali, E. Gorbacheva
25	<i>Students' Perceptions and Expectations of University Social Responsibility and Service Quality: A Gender Perspective</i>	G. Santos, E. Justino, C. S. Marques, M.d.L. Machado-Taylor
26	<i>The Academic Feminist Fight Club</i>	A. Thaler
27	<i>Strategic Governance and Gender Budgeting of Local Governments: Paths and Experiences in Italy</i>	S. Tommaso, P. Pastore, M. Andriolo
28	<i>The History of a Profession: Practicing the law in Romania</i>	D. Focaru
29	<i>Gender Budgeting From a Capability Approach Perspective: Evidences From Senegal</i>	T. Addabbo, C. Arciprete, M. Biggeri, A. Picchio
30	<i>Can Entrepreneurship Education Bridge the gap? STEMM Women's</i>	L. Treanor
31	<i>How Informal Processes and Relationships Shape Gendered Careers in STEM</i>	A. Schulz, M. Dorgeist, C. Heckwolf, A. Wolfram, J. Dahmen-Adkins, A. Göttgens

**Paoloni, P., Lombardi, R. (2020). Gender Studies, Entrepreneurship and Human Capital. Selection from the 2019 IPAZIA Workshop on Gender, Springer Proceedings in Business and Economics.**

32	<i>Female Directors and Innovation in Public Hospitals</i>	C. Arena, S. Catuogno, S. Saggese, F. Sarto
33	<i>Gender-Responsive Budgeting Processes in the Italian Regional and Local Governments</i>	P. Pastore, S. Tommaso
34	<i>Post Breast Cancer Coaching Path: A Co-production Experience for Women</i>	H. Biancuzzi, F. Dal Mas, L. Miceli, R. Bednarova

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# Gender Differences in the Personal Values of For-Benefit Entrepreneurs. An Investigation of Italian Benefit Corporations



Federica Palazzi, Annalisa Sentuti, and Francesca Sgrò

## 1 Introduction

The current economic, social and political system is facing numerous challenges due to the advent of the COVID-19 outbreak. Society is experiencing social distancing and isolation, public health systems are unveiling their strengths and weaknesses, governments are providing recovery programmes and small and medium-sized enterprise (SMEs) has been extremely affected in terms of supply, demand shock and liquidity shortages (OECD, 2020).

However, despite these numerous issues, Muhammad Yunus, economist and Nobel prize winner for peace in 2006, in the New Recovery Programme (NRP), stated that this crisis offers the worldwide economy a “fresh start” driven by social, economic and environmental consciousness.

To accomplish this change, new forms of organisations and governance are required, identifiable as hybrid organisations (Roth & Winkler, 2018). These enterprises span the boundaries among for-profit and non-profit organisations since they adopt a balanced combination of social and environmental missions while being financially sustainable, through entrepreneurial activities, to accomplish those missions (Bianchini & Sertoli, 2018; Haigh & Hoffman, 2012).

Among several types of hybrid organisations, a great interest has developed across the United States (US) and Europe, for Benefit Corporations and B-Corps, thanks to the growing recognition of their role in tackling societal and environmental issues, ensuring and fostering inclusive growth (André, 2012; Czinkota et al., 2018; Gazzola et al., 2019). The birth of these social-oriented enterprises was driven by the

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US' willingness to design a new legal form able to enhance corporate social responsibility (CSR) while furthering the maximisation of shareholder income as well as the implementation of social or environmental strategic paths (André, 2012). In Italy, to promote the integration of social, environmental and economic aims in the organisational business model, a legal category of Benefit Corporations, named *Società Benefit*, was introduced in 2015 in accordance with Law no. 208/2015.

Notwithstanding the growing interest in enhancing theoretical and empirical foundations on hybrid organizations, academic studies investigating entrepreneurs' personal values behind motivations that drive for-profit companies to undertake activities usually carried out by the state or non-profit companies are still lacking. Moreover, differences in the personal values between men and women have been observed in previous studies (Beutel & Marini, 1995; Francescato et al., 2017; Schwartz, 1992), especially with regard to the Italian context (Schwartz et al., 2012). However, there are no specific studies on Benefit Corporations aimed at investigating gender differences in the personal values of for-benefit entrepreneurs.

This study responds to the void in the extant literature by focusing on the values that drive entrepreneurs to run Benefit Corporations and B-Corps in Italy and exploring possible gender differences.

Accordingly, in the attempt to contribute to filling the aforementioned gaps, this study aims to investigate the main personal values behind motivations that have driven for-profit private enterprises to become Benefit Corporations or B-Corps. The knowledge of the values underpinning this choice is essential to understand these companies better, including their way of operating and their capacity to satisfy stakeholders' interests, thus spreading a new way of doing business. For-benefit entrepreneurs should give priority to stakeholder value, inclusive ownership, fair compensation, reasonable returns, social and environmental responsibility, transparency and protection assets (Sabeti, 2011).

To accomplish the research's purpose, a survey was administered to the total population of 185 Benefit Corporations and B-Corps located in Italy. It was designed to gather background information about the firms as well as data pertaining to the values-driven establishment of these enterprises. Then, a descriptive statistical analysis and Student's t-test have been run to test whether there were differences between benefit entrepreneurs' personal values depending on gender. To the best of our knowledge, this is the first study focusing on this topic.

## 2 Literature Background

Benefit Corporations and B-Corps represent two different concepts (Hiller, 2013). A Benefit Corporation is "legally a for-profit, socially obligated business, with all of the traditional corporate characteristics but with explicitly stated societal responsibilities" (Hiller, 2013, p. 287). This means that these enterprises have to face the challenge to create social and environmental value and that the realisation of this public benefit is strictly linked to the economic and financial aspects. In addition,

BCs are obligated to draw up an annual report to provide information on its financial, social and environmental performance and must voluntarily choose to write down that it is a BC in its statement (Del Baldo, 2019). According to Hiller (2013), the main attributes of a BC are the following. First, these enterprises set up and achieve goals able to positively affect society or the reference environment. It means that a BC must deliver a “general public benefit”, as evaluated against the B Lab standard. Moreover, they operate in large segments of services such as the provision of products, services or other economic opportunities to low-income or underserved groups of people or communities, the creation of job opportunities, the protection of the environment, the improvement of human health, arts, sciences or advancement of knowledge, the increase of financial resources for entities with the purpose to benefit society or the environment and others (White III, 2015). However, the identification of public benefit in the statute is mainly generic, unspecific and probably not entirely possible. It increases the discretionary power of directors. The more public benefit is identified and defined in detail, the more directors are obliged to follow the indications; conversely, the more public benefit is generic, the more directors may choose how to pursue it. Second, BCs should provide a comprehensive, credible, independent and transparent third-party standard to make an annual report on their social and environmental performance. Each organisation can choose any third-party standard, such as the Global Reporting Initiative, Green-Seal, Underwriters Laboratories, ISO2600 and Green-America. Finally, the duty of directors is to consider a broader spectrum of interests emerging from shareholder profit as well as non-financial stakeholders (Hiller, 2013).

Instead, a B-Corp refers to any organisation that meets specific socially responsible standards assessed by a certification entity named B Lab (Hiller, 2013). The B Lab was founded in 2007, and it evaluates companies through the “B Impact Assessment” (BIA). The BIA is a score that ranges from 80 to 200 points and is attributed to companies’ performance across five broad categories such as environment, employees, customers, community and governance (Hiller, 2013; Nigri & Del Baldo, 2018). Finally, each organisation can obtain the B Lab’s certification even without becoming a BC. In the same way, Benefit Corporations do not have to be certified by the B Lab. Therefore, the main difference is that Benefit Corporations do not have to be involved in the assessment process, carried out by the B Lab every two years, of the firm’s CSR performance (Del Baldo, 2019). In fact, Benefit Corporations, over time, have to face only a verification related to the transparency requirements (Gazzola et al., 2019).

Few studies have investigated the motivations that drive for-profit companies to become Benefit Corporations (Gehman & Grimes, 2017; Roth & Winkler, 2018). They have found that these motivations could be personal, spiritual or corporate; their relevance depends on the firm size, the industry, the typology of the company, the personality and the entrepreneurs’ characteristics (Gehman & Grimes, 2017; Roth & Winkler, 2018). With regard to the latter, entrepreneurs’ values behind these motivations remain largely unexplored.

Personal values are defined as “trans-situational goals, varying in importance, that serve as guiding principles in the life of a person or group” (Schwartz, 1992). They

**Table 1** The 19 values in the refined theory, each defined in terms of its motivational goal

Value	Conceptual definitions in terms of motivational goals
Self-direction–thought	Freedom to cultivate one’s own ideas and abilities
Self-direction–action	Freedom to determine one’s own actions
Stimulation	Excitement, novelty, and change
Hedonism	Pleasure and sensuous gratification
Achievement	Success according to social standards
Power–dominance	Power through exercising control over people
Power–resources	Power through control of material and social resources
Face	Security and power through maintaining one’s public image and avoiding humiliation
Security–personal	Safety in one’s immediate environment
Security–societal	Safety and stability in the wider society
Tradition	Maintaining and preserving cultural, family, or religious traditions
Conformity–rules	Compliance with rules, laws, and formal obligations
Conformity–interpersonal	Avoidance of upsetting or harming other people
Humility	Recognizing one’s insignificance in the larger scheme of things
Benevolence–dependability	Being a reliable and trustworthy member of the ingroup
Benevolence–caring	Devotion to the welfare of ingroup members
Universalism–concern	Commitment to equality, justice, and protection for all people
Universalism–nature	Preservation of the natural environment
Universalism–tolerance	Acceptance and understanding of those who are different from oneself

Source: Schwartz et al. (2012)

shape motivations and “can help to explain individual decision making, attitudes, and behavior” (Schwartz et al., 2012, p. 664).

Schwartz (1992) discovered a comprehensive set of basic values driving people and groups’ lives in terms of decision making, attitudes and behaviour. It is widely known as the Basic Personal Values Theory (Schwartz, 1992; Schwartz et al., 2012). Within this theory, values, which can be recognised in any culture, are organised into a coherent system and are based on three universal requirements of human existence: “needs of individuals as biological organisms, requisites of coordinated social interaction, and survival and welfare needs of groups” (Schwartz et al., 2012). In the original version of Schwartz’s theory, the model distinguishes ten personal basic values: self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence and universalism. Subsequently, the model was further developed and a set of 19 motivationally distinct, broad and basic values were identified (Table 1) (Schwartz et al., 2012).

In this study, we refer to the refined theory to investigate for-benefit entrepreneurs’ values. According to Schwartz et al. (2012), self-direction comprises two subtypes: the autonomy of thought and action. Specifically, self-direction thought refers to the human autonomy of thought in terms of creativity/imagination and

curiosity/interest. The autonomy of thought is driven by biological needs for control and developing and using one's understanding and intellectual competence (Schwartz, 1992; Schwartz et al., 2012). While self-direction action refers to the human autonomy of action in terms of exploiting one's capacity to attain self-chosen goals. This means that independence and reliance on oneself are key components to exercising this action (Schwartz, 1992; Schwartz et al., 2012).

Stimulation is guided by the willingness to exploit social experience to achieve an optimal level of excitement. It derives from people's motivations to seek excitement (stimulating experiences), novelty (variety in life/change) and a challenge (daring/seeking adventure) (Schwartz, 1992; Schwartz et al., 2012).

The motivational goal of hedonism is getting pleasure for oneself in terms of having a good time, enjoying life's pleasures and taking advantage of every opportunity to have fun (Schwartz, 1992; Schwartz et al., 2012).

Value achievement refers to personal success recognised by social standards and positive judgments provided by others.

Power involves three potential subcomponents: power-resources, power-dominance and power-face. Power-resources refer to the power to control events through social and material assets. Power-dominance involves exercising control over people by constraining their choices. Finally, power-face refers to attaining security and power by exploiting public image/social status, prestige and by avoiding humiliation. These values aim to promote one's own interests and the control of what happens to avoid or minimise anxiety-provoking threats (Schwartz, 1992; Schwartz et al., 2012).

The need for safety is divided into security-personal and security-society. Specifically, security-personals refers to a sense of belonging, the feeling that others care about you, health, cleanliness, reciprocating favours and wanting to keep your family and loved ones safe. While, societal security refers to national security, social order and stability (Schwartz, 1992; Schwartz et al., 2012).

The value of conformity includes conformity-rules and conformity-interpersonal. Conformity-rules are based on the motivational goal to exercise self-discipline and obedience in everyday interactions through compliance with rules, laws and formal obligations. Conformity-interpersonal aims to avoid upsetting or harming other people and promoting politeness, honour and respect (Schwartz, 1992; Schwartz et al., 2012).

The conceptual definitions of tradition and humility are related. Tradition is based on maintaining and preserving cultural, family and religious traditions. Humility entails feelings of humility, modesty, self-effacement, accepting one's life circumstances and not drawing any attention to the self. It is based on the consciousness of being a small part of the larger scheme of life (Schwartz, 1992; Schwartz et al., 2012).

Benevolence is divided into two concepts: benevolence-dependability and benevolence-caring. Benevolence-dependability refers to being a reliable and trustworthy member of the in-group by acting as a responsible person and loyal friend. While, benevolence-caring is devoted to preserving and enhancing the welfare of people one is in frequent contact with (Schwartz, 1992; Schwartz et al., 2012).

The definition of universalism suggests three sub-dimensions: universalism-societal concern, universalism-protecting nature and universalism-tolerance. Universalism-societal concern regards feelings of caring for people and nature (outside of own sphere life). This value is based on feelings of commitment to equality, justice and the protection of all people, and it appears when people become aware of global resource constraints. Universalism-protecting nature concerns the protection of the natural environment and the striving to fit into nature with respect. Finally, the acceptance and understanding of those who are different from oneself express universalism-tolerance.

The Basic Personal Values Theory proposed by Schwartz (1992, 2012) has been widely used in prior studies with regard to several fields of research, entrepreneurship and business perspective (Lechner et al., 2018; Sánchez-Báez et al., 2018; Hueso et al., 2020; Ruf et al. 2021). Some authors have pointed out that gender differences may emerge regarding some values (Lechner et al., 2018; Schwartz et al., 2012), e.g., Universalism and Benevolence (Francescato et al., 2017; Schwartz et al., 2012), especially with regard to the Italian context (Schwartz, 2006). However, there are no specific studies on Benefit Corporations on this subject.

### 3 Methodology

This research represents the first step of an explorative study aiming to examine for-benefit entrepreneurs' personal values and gender differences in the Italian context. A sample of 185 Italian Benefit Corporation was selected by consulting the Benefit Corporations list on the websites [www.societabenefit.net](http://www.societabenefit.net) and [www.nativallab.com](http://www.nativallab.com) and choosing only those with an email address. Then, a questionnaire was administrated by email explaining that the entrepreneur should fill it out. The questionnaire was composed of three sections. The first section focused on the characteristics of the respondents (age and gender) and the firms (industry, number of employees and location). The second section concentrated on the entrepreneur's personal values measured by adopting the Portrait Values Questionnaire developed by Schwartz et al. (2012). It includes a set of 19 values, and each one is measured with the help of three items. For each item, respondents are asked: "How much do you agree with the following statement?" The responses were applied to a seven-point Likert scale from "do not agree at all" (coded as 0) to "strongly agree" (coded as 7). Finally, the third section had five open-ended questions concerning the respondent and the business. This chapter shows results concerning the first and second sections.

A final dataset of 65 questionnaires was collected, yielding a response rate of 35%.

After the data collection, a descriptive statistics analysis was performed and a Student's t-test was run to test whether there were differences between benefit entrepreneurs' personal values depending on gender.

## 4 Findings

The sample consists of 20 companies run by women and 45 companies managed by men. Tables 2 and 3 show, respectively, the geographical distribution and the sector of activities based on the entrepreneurs' gender.

With regard to women-owned firms, data shows that most of the companies are located in the north of Italy (75%), followed by firms located in the centre of Italy (20%). Finally, only 5% of the enterprises are located in the south of the country. Men-owned firms are mainly located in the centre of Italy (60%), while only 28% and 11% of the companies are, respectively, located in northern and southern Italy.

Both the women- and men-owned firms primarily operate in the service sector, followed by the manufacturing and commercial sectors. However, only men-owned firms operate in the agricultural sector.

Moreover, Table 4 shows the age of respondents and the number of employees by entrepreneurs' gender. Male entrepreneurs, on average, are older than the female ones. On average, the female respondents' age is equal to 43; while the male respondents' age is equal to 49. More specifically, the female age shows a standard deviation of 7.49 and a minimum value of 30 and a maximum of 55. Conversely, the male age has a standard deviation of 10.82 and a minimum value of 24, and a maximum of 72. This means that men, on average, start or are engaged in business

**Table 2** Geographic localisation by entrepreneurs' gender

Geographic localisation	Female	Male
North	15	13
Centre	4	27
South	1	5
Total	20	45

**Table 3** Sector of activities by entrepreneurs' gender

Sector of activities	Female	Male
Services	14	28
Manufacturing	3	8
Commercial	3	6
Agricultural	0	3
Total	20	45

**Table 4** Age of respondents and number of employees by entrepreneurs' gender

	Age respondents		Number of employees	
	Female	Male	Female	Male
Mean	43.35	49.26	13	15.13
Std. Dev	7.49	10.82	17.48	25.67
Median	43.5	51	6.5	4
Min	30	24	0	132
Max	55	72	65	0

activities earlier than women and that, on average, they leave business management at an older age than women.

In addition, companies running by men are characterised, on average, by a higher level of employment rate (15.13 employees) than those managed by women (13 employees). Therefore, regardless of the entrepreneurs' gender, the entrepreneurs' ability to create job opportunities is similar.

Table 5 shows the descriptive statistics for entrepreneurs' values and motivations that drive for-profit companies to become Benefit Corporations or obtain a B-Corp certification.

Specifically, with regard to self-direction thought, on average, being creative, be able to form one's own opinions and have original ideas, being focused on learning things for their personal aims and improving their ability seem to be more important for women than for men. While, the distinct traits of self-direction action (in terms of being able to make decisions about one's own life, running activities independently and being able to freely choose what to do in life) is equally relevant for both genders.

What emerges is that social entrepreneurs are driven by the desire to challenge themselves and find creative solutions to social issues by exercising their autonomy (McCabe, 2012; Ruskin et al., 2016) and that these features push human beings to become entrepreneurs and create their own business rather than join a company as an employee. This choice is guided by the entrepreneurs' willingness to turn their lifestyle into the managerial processes (Boluk & Mottiar, 2014).

Focusing on stimulation, both men and women, on average, equally look for stimulating experiences. Instead, for women, on average, the feeling of life's excitement is more important than for men. Conversely, for men, on average, having all sorts of new experiences is more important than for women.

Moreover, men, on average, are more hedonistic than women. In fact, men seem to be more interested in having fun as well as enjoying life's pleasures than women.

In terms of achievement, women, on average, seem to care more about being successful than men. However, men, on average, are more ambitious as well as more interested in being admired by other people than women. As suggested by Yitshaki and Kropp (2018), the feeling of achievement is related to long-term outcomes rather than profit maximisation.

Regarding power-resources, both men and women, on average, seem to look for high status and power. However, women, on average, seem to care more about being wealthy and think that money is important to have power and control. In addition, concerning power-dominance, both men and women, on average, want people to do what they say. However, for women, it is less important to be the most influential person in any group than men. Conversely, for men, on average, it is more relevant to be the one who tells others what to do. With regard to power-face, for women, it is more important that people treat them with respect and dignity. Instead, for men, it is more important that no one makes fun of them and protect their public image. What emerges is that entrepreneurs need to be able to shape the reference environment by exercising their influence or power (Ruskin et al., 2016) and the need to increase



**Table 5** Entrepreneurs' value and motivations by gender (Schwartz et al., 2012)

	Female		Male		Female		Male		Female		Male	
	Mean	Male	Female	Median	Male	Std. Dev	Female	Min	Male	Female	Max	Male
Self-direction–thought	6.35	6.18	6	6	0.83	0.59	5	4	7	7	7	7
	6.3	6.27	6.5	6	0.81	0.80	5	4	7	7	7	7
	6.65	6.33	7	7	0.88	0.75	4	4	7	7	7	7
Self-direction–action	6.55	6.56	7	7	0.78	0.69	5	4	7	7	7	7
	5.95	5.84	6	6	1.45	1.10	4	2	7	7	7	7
	6.3	6.33	7	7	0.83	0.92	4	4	7	7	7	7
Stimulation	5.65	5.60	6	6	1.05	1.14	3	3	7	7	7	7
	6.6	6.33	7	7	0.80	0.75	5	4	7	7	7	7
	5.45	5.62	6	6	1.09	1.32	3	3	7	7	7	7
Hedonism	5.25	5.47	5	6	1.24	1.52	2	2	7	7	7	7
	5.4	5.53	5	6	1.18	1.27	3	3	7	7	7	7
	4.05	4.13	4	4	1.65	1.67	2	1	7	7	7	7
Achievement	5.4	5.47	6	6	1.18	1.47	2	3	7	7	7	7
	4.55	4.18	5	4	1.43	1.50	2	1	7	7	7	7
	3.6	3.98	3	4	1.32	1.73	1	1	7	7	6	6
Power-resources	2.75	3.11	2	3	1.57	1.71	1	1	7	7	6	6
	3.9	3.62	3.5	4	1.32	1.74	2	1	7	7	7	7
	3.2	3.20	3	3	1.53	1.67	1	1	7	7	7	7
Power-dominance	4.15	4.00	4	4	1.41	1.66	2	1	7	7	7	7
	3.65	4.09	3	4	1.58	1.69	1	1	7	7	7	7
	3.5	3.78	3	4	1.54	1.32	2	1	7	7	7	7
Power-face	5.3	5.49	6	6	1.22	1.22	3	1	7	7	7	7
	4.55	4.98	4.5	5	1.56	1.82	1	1	7	7	7	7
	6.7	6.31	7	7	1.02	0.57	5	3	7	7	7	7

(continued)

Table 5 (continued)

	Female		Male		Female		Male		Female		Male	
	Mean	Male	Female	Median	Male	Std. Dev	Female	Min	Male	Female	Max	Male
Security-personal	4.65	4.49	4	5	1.35	1.49	2	1	7	7	7	7
	6	5.51	6.5	6	1.38	1.29	2	3	7	7	7	7
	6.15	5.73	6.5	6	1.09	1.18	4	2	7	7	7	7
Security-societal	5	5.33	5	6	1.59	1.43	2	2	7	7	7	7
	5	5.11	5	5	1.45	1.42	1	2	7	7	7	7
	5.15	5.44	5	6	1.42	1.27	2	2	7	7	7	7
Tradition	4.05	4.93	4	5	1.32	1.64	2	1	7	7	7	7
	3.6	3.91	3.5	4	1.70	1.66	1	1	7	7	7	7
	4.75	4.78	5	5	1.37	1.36	2	2	7	7	7	7
Conformity-rules	4.65	4.18	5	5	1.31	1.64	2	1	7	7	7	7
	6.3	5.93	7	6	0.92	0.96	4	4	7	7	7	7
	5.45	5.13	6	5	1.50	1.38	2	2	7	7	7	7
Conformity-interpersonal	6.25	6.18	7	7	0.97	1.23	4	2	7	7	7	7
	4.8	5.00	5	5	1.44	1.43	2	1	7	7	7	7
	5.5	5.40	5.5	6	1.32	1.29	3	2	7	7	7	7
Humility	4.2	4.44	4	5	1.47	1.37	2	1	7	7	7	7
	6.2	5.80	6	6	0.95	1.10	4	2	7	7	7	7
	4.75	4.82	5	5	1.77	1.42	1	1	7	7	7	7
Benevolence-dependability	6.1	6.20	6	6	0.91	0.94	4	4	7	7	7	7
	6.3	6.00	7	6	1.22	1.00	2	4	7	7	7	7
	6	5.91	6	6	1.12	1.10	4	2	7	7	7	7
Benevolence-caring	6.65	6.40	7	6	0.59	0.58	5	5	7	7	7	7
	6.55	6.36	7	7	0.51	0.80	6	4	7	7	7	7
	5.9	6.13	6	6	1.12	0.92	4	4	7	7	7	7

Universalism-concern	6.3	6.38	6.5	7	0.86	0.78	4	4	7	7
	6.75	6.33	7	7	0.72	1.04	4	2	7	7
	6.45	6.60	7	7	1.05	0.54	3	5	7	7
Universalism-nature	6.45	6.67	7	7	0.76	0.71	5	3	7	7
	6.35	6.67	7	7	0.81	0.74	5	3	7	7
	6.55	6.78	7	7	0.69	0.56	5	4	7	7
Universalism-tolerance	5.85	5.84	6	6	1.31	1.38	2	2	7	7
	6.35	6.29	7	6	0.88	0.69	4	4	7	7
	6.2	5.91	7	6	1.28	1.04	2	3	7	7

their public acknowledgement based on their social and environmental reputation and society legitimisation (Boluk & Mottiar, 2014).

Security-personal, on average, is more important for women than for men. Conversely, security-societal, on average, be more important for men than for women.

For men, tradition (in terms of the importance of maintaining and practicing traditional values or beliefs, and following the family's customs and religion) is more important than for women.

On average, for women, conforming to the rules is more relevant than for men. With regard to conformity-interpersonal, on average, men think that it is important to never be annoying to anyone. Instead, on average, for women, it is more important to avoid upsetting and irritating other people and to be tactful.

Focusing on humility, on average, for women, it is more important to be humble. However, men care more about not drawing attention to themselves, and for them it is more important to be satisfied with what they have and not ask for more. However, the respondents did not give a high score to this factor. The reason can be related to the fact that entrepreneurs feel like they are involved in a process of "career calling" promoted by mystical forces and God's will (Yitshaki & Kropp, 2016).

In terms of benevolence-dependability, for men, it is more important to be loyal to those who are close to them. However, women go out of their way to be a dependable and trustworthy friend, and they want the people they spend time with to be able to rely on them completely. In addition, regarding the benevolence-caring, for women it is more important to help the people dear and the well-being of those close to them. However, for men, it is more important to try to always be responsive to their family and friends' needs.

Focusing on the universalism-concern, for both men and women, protecting society's weak and vulnerable members is equally important. However, women think that it is very important that every person in the world have equal opportunities in life; while, men want everyone to be treated justly, even people they do not know. Moreover, for men, the feeling of universalism-nature is more predominant than for women. Finally, regarding universalism-tolerance, for both men and women, promoting harmony and peace among diverse groups is equally necessary. However, for men, it is less important to listen and understand people who are different from them.

Therefore, from the benevolence-dependability and caring, we have seen that some have decided to start a social business to be there for others (i.e. family members, friends and others). This behaviour underlines a strong sense of altruism, which has been recognised as one of the main factors that guide entrepreneurs in helping individuals with their personal issues (Roth & Winkler, 2018). The desire to care for and alleviate people's pains and suffering can shift from a personal level (devoted to all the people that are close to the entrepreneur) to a community level in terms of universalism-concern, tolerance and nature. In fact, social entrepreneurs have a strong feeling of social justice that is expressed by the will to provide equal access to opportunities and resources to all members of society (Ruskin et al., 2016). Therefore, entrepreneurs are naturally driven to pro-social activities (Yitshaki &

Kropp, 2018), and this attitude of caring is devoted to the reference environment and the community members.

## 5 Discussion and Conclusions

This study aims to investigate gender differences in Italian for-benefit entrepreneurs' personal values to analyse if and how male and female for-benefit entrepreneurs differ from each other.

Through the descriptive statistical analysis and the Student's t-test we discovered that, when it comes to running a social business with the legal form of Benefit Corporations or a B-Corp certification, gender does not matter. In fact, findings do not reveal differences in the set of values and motivations behind a hybrid organisation, depending on the male or female business owner. These results extend several strains of research (Gehman & Grimes, 2017; Roth & Winkler, 2018). In fact, while most of the literature mainly focuses on investigating the most common reason for pursuing and touting for B-Corp certification (Gehman & Grimes, 2017) as well as the importance of personal values and motivations of B-Corp entrepreneurs (Roth & Winkler, 2018), none have provided evidence on what motivates male and female social entrepreneurs to develop hybrid organisations by combining social and personal ideals with commercial goals. This study addresses this gap, extending the current research stream on Benefit Corporations and B-Corp certification, and it shows, based on the highest scores given by the respondents, that both male and female social entrepreneurs are predominantly and commonly guided by the will to promote social justice and safeguard the environment for future generations (universalism-concern, nature and tolerance), and a high sense of autonomy expressed by the freedom to put into practice their creativity and skills (self-direction-thought and action), mainly through the management of a social business to completely show caring attitudes towards people and their community (benevolence-caring and dependability).

This study presents some limitations. First, the generalisability of results is limited to the Italian context in which the data were collected. Therefore, the results could potentially be influenced by the geographical context. Second, we have received only 35% of the questionnaires; therefore, the low respondent rate could affect the reliability of the findings. Third, this study is based on a quantitative approach, and to understand the entrepreneurs' value and motivations behind running a social business, it could be useful to integrate the research method with a qualitative one.

Therefore, due to the explorative nature of this research, a qualitative approach could be adopted, for example, semi-structured interviews. Moreover, it could also be interesting to extend the survey to other European countries to investigate if there are differences or equalities in the set of values and motivations that drive social entrepreneurship. Other avenues of research may identify entrepreneurs' profiles depending on their predominant values and motivations.

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# Women on Board and Disclosure Quality: An Empirical Research



Sara Saggese and Fabrizia Sarto

## 1 Introduction

Over the past year, the rapid outbreak of COVID-19 has caused a global health disaster and a massive economic and social crisis that have endangered the overall survival of firms. To struggle and react to these issues, companies have needed to change their way to pursue economic, social and environmental objectives, balancing the equilibrium between profit and common good (Rivo-López et al., 2021). Indeed, in this new scenario, firms have globally improved the attention towards their roles played within the society so as to reply to the increasing request of action as socially responsible organizations by strengthening their Corporate Social Responsibility (CSR) strategies (García-Sánchez and García-Sánchez 2020; Mahmud et al., 2021).

In this regard, the widespread commitment towards CSR objectives not only has led to the development of new firms' activities involving an influence on society, environment and use of natural resources, but it has also enlightened the importance to improve the disclosure and reporting of such practices (Garcia-Sanchez et al., 2014). Indeed, aside the company effort to integrate CSR procedures into their core practices, companies have developed a stronger commitment to social activities' disclosure (Akisik & Gal, 2011; Klettner et al., 2014) in order to strengthen their relationships with stakeholders (Gul & Leung, 2004). As far as the legitimating role of CSR reporting is concerned, recent research has highlighted the importance of CSR disclosure quality in order to avoid the risk that CSR information could be not reliable and credible (Michelon et al., 2015).

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Despite literature suggests that a number of factors can influence the quality of CSR disclosure, most studies have enlightened the crucial role played by the board of directors. Indeed, the board is the responsible body for the development of CSR strategies as well as for the definition of corporate disclosure (Adel et al., 2019; Akisik & Gal, 2011; Michelon & Parbonetti, 2012). Moreover, its structure and composition is able to influence the way in which such activities are addressed (Amran et al., 2014; Luque-Vílchez et al., 2019). In this regard, a recent research stream has enlightened that the board gender diversity could influence the CSR reporting and the related level of quality (Cabeza-García et al., 2018; Al-Shaer et al., 2016). Indeed, literature posits that women directors are less keen to accept unethical behaviours (Loukil & Yousfi, 2016) and more confident in the application of higher ethical standards in board decisions (Ho et al., 2015). At the same time, women are more prompted to achieve a better compliance with disclosure standards and less likely to manipulate corporate information with positive implications for the related disclosure quality (Huang et al., 2014; Vermeir & Van Kenhove, 2008). From a different standpoint, as female directors are more risk-adverse and more sensitive to the fear of being fired, they are more likely to adopt high-quality standards in company disclosure (Harjoto et al., 2015).

With this in mind, our paper aims to explore the effect of the presence of women on board on the quality of CSR disclosure. Despite a number of articles have tested the influence of board gender diversity on the quality of CSR disclosure, literature is still lacking of studies on a particular type of CSR reporting quality specification that is the assurance of social report by external auditors. Indeed, literature suggests that the external assurance is a way to improve the quality of disclosed information as it guarantees the credibility of sustainability reports (Michelon et al., 2015).

To achieve the above-mentioned aim, the article relies on a sample of 315 Italian publicly listed non-financial firms observed in 2019. Data is collected from multiple sources, such as company reports and websites. In order to assess the influence of female directors on CSR disclosure quality, we run logistic regression analyses by using the assurance of CSR social reporting by external auditors as dependent variable. With regard to the independent variables, aside the presence of women directors on the board, we also test the effect of the critical mass and the involvement of women on the board of statutory auditors. Findings show that the presence of women directors positively influences the CSR disclosure quality, supporting the notion that female directors not only are more sensitive to CSR issues, but they also prompt the supervision of company reporting with positive implications for the disclosure quality.

Building on this, the study provides contribution to both academics and practitioners. Indeed, it advances prior literature on gender diversity and disclosure quality by exploring not only the effects of the presence and the critical mass of female directors on the CSR disclosure quality, but also the implications of their appointment to the board of statutory auditors. Finally, it calls the attention of the board nomination committees on the conditions under which women on board positively affect the firms' disclosure quality, also taking into consideration the recent national

and European post COVID-19 policy interventions aiming to strengthen the women's inclusion within companies.

The rest of the article is structured as follows. Section 2 reviews the literature on the topic and formulates the predictions. Section 3 illustrates the research method and the reported findings. Lastly, Sect. 4 discusses the findings by providing concluding remarks.

## 2 Review of the Literature

Stemming from the debate on the relationship between corporate governance and disclosure quality (Garcia-Sanchez et al., 2017; Ianniello, 2015; Peni & Vähämaa, 2010), the academic interest has recently focused the attention on the implications of board gender diversity for the quality of company reporting, also in connection with the CSR reporting.

Overall, scholars provide some motivations to explain why women on board may influence company reporting disclosure. A first reason lies on the circumstance that women directors support good governance practices and affect the board monitoring over company reporting (Labelle et al., 2010). In this vein, compared to their male peers, women directors tend to be more risk-averse in decision-making and more sensitive to the fear of being fired, thus prompting the adoption of high-quality standards in company reporting (Harjoto et al., 2015). Additional positive implications of women directors for disclosure quality can be also seen in the accuracy of company reporting as their presence on board limits the information asymmetries and improves the communication among the related members (Gul et al., 2013). At the same time, women directors tend to be more trustworthy than their male counterparts as they are less keen to accept unethical behaviours (Loukil & Yousofi, 2016; Srinidhi et al., 2011) and more confident in the application of higher ethical standards in board decisions (Bear et al., 2010; Ho et al. 2015; Thorne et al., 2003). Indeed, literature suggests that women better internalize ethical and communal values, prompting a more ethical behaviour also in terms of better compliance with disclosure standards (Ho et al. 2015; Nekhili and Gatfaoui 2013; Rodriguez-Dominguez et al., 2009). As a consequence, women directors tend to present a low propensity to fraud and are less likely to manipulate corporate information with positive implications not only for firm reputation (Bear et al., 2010; Cumming et al., 2015; Gul et al., 2011; Srinidhi et al., 2011), but also for the related disclosure quality (Huang et al., 2014; Vermeir & Van Kenhove, 2008).

This is especially true for CSR reporting as it is non-mandatory and can be directly influenced by the ethical values of company managers. Moreover, it is often considered as a mean to fulfill ethical and social duties as well as company accountability obligations (Lewis & Unerman, 1999; Michelon et al., 2015).

In this regard, literature suggests that women directors are more sensitive to CSR issues for many reasons (Bear et al., 2010; Hyun et al., 2016; Williams, 2003). In particular, scholars highlight that they are often characterized by in-depth expertise

in soft-issue areas overlapping with CSR (Zelechowski & Bilimoria, 2003). At the same time, they also present strong career-related and reputational incentives that make them especially vigilant with respect to the compliance with CSR-related disclosure standards (Arayssi et al., 2016; Fahad & Rahman, 2020; Hyun et al., 2016; Lone et al., 2016; Shaukat et al., 2016; Velte, 2016; Waddock & Graves, 1997). Therefore, drawing upon these arguments, we predict that women directors may positively affect the CSR disclosure quality.

Since the above-mentioned arguments help to explain why women on board can positively influence the quality of CSR disclosure, it is important to shed additional light on how female directors can provide such effect. Indeed, literature suggests that women directors are often “out-group” board members (Bunderson & Sutcliffe, 2002; Lückerath-Rovers, 2013) and their minority position can limit their contribution to the board decision-making, also with respect to the disclosure of company information (Brieger et al., 2019; Lu & Herremans, 2019). In this vein, as suggested by the scholarly research, the influence that women on board can have on company decisions and activities is often a matter of proportion of female directors appointed to the board (Torchia et al., 2011). This is because a critical mass of female directors helps them in supporting their own claims, gives voice to their ideas and hampers the skill underestimation that often characterizes women on board (Arena et al., 2015; Eagly & Carli, 2007), making them able to effectively impact on company decision-making and governance (Adams & Kirchaier, 2013; Konrad et al., 2008; Schwartz-Ziv, 2017). Thus, following this reasoning, we predict that the presence of a critical mass of women on board can positively influence the CSR disclosure quality.

As such, it is reasonable to expect that the above-mentioned effect can be even more significant when women are appointed to the board of statutory auditors as it plays a key role in the reliability checking of company information and disclosure (Fahad & Rahman, 2020; Soliman & Ragab, 2014). Indeed, prior studies find that the presence of female directors on audit committees limits the discretionary manipulation of accounting information (Francis et al., 2015). Furthermore, on the one hand, research highlights that female directors improve the overall monitoring over accounting information (Schwartz-Ziv, 2017) and, on the other hand, studies document that the commitment and the strength of auditing efforts by women directors are stronger than their male counterparts (Adams & Ferreira, 2009; Huang et al., 2014). Hence, based on these arguments, it is reasonable to expect that the presence of women directors on the board of statutory auditors may positively affect the CSR disclosure quality.

With this in mind, the following section illustrates the methodology applied to test the predicted relationships.

### 3 Methodology and Findings

We empirically test our predictions on a sample of publicly listed non-financial Italian firms observed in 2019. Italy represents an ideal setting to explore the role of female directors for company activities due to the recent promulgation of the Golfo-Mosca Act 120/2011 that introduced a mandatory gender quota within the boards of all publicly listed companies (Saggese et al., 2021). The sample selection process starts with all publicly listed companies on the Italian Stock Exchange in 2019 (i.e. 375). Then, we retain only non-financial firms, leading to a final sample of 315 companies.

For these firms, we hand-collect data from multiple sources. More specifically, we first collect data on the CSR reporting by companies websites and social reports. With regard to the presence of female directors, we gather information from the AIDA database and integrate it by collecting data from companies' websites, annual reports and corporate governance reports.

In order to assess the influence of female directors on CSR reporting quality, we run the logistic multivariate regression analyses by using the external assurance of the company social report as dependent variable. More specifically, we use a dummy variable (REP) assuming value 1 if the social report contains the external auditing statement (Michelon et al., 2015). With regard to our explanatory variables, we proxy for the appointment of female directors in the company governance through three measures. First of all, we use the number of women directors on the board of directors (WOM\_DIR). Moreover, we capture the presence of a critical mass of female directors by employing a dummy variable equal to 1 if their number is at least equal to 3 (CRIT\_MASS\_DIR) (Torchia et al., 2011). At the same time, we proxy for the involvement of women on the board of statutory auditors through the number of female directors sitting on this corporate body (WOM\_STAT\_AUD). Finally, we control for a number of factors that could affect the relationships under scrutiny. More specifically, we include in the regression model a dummy variable catching whether the auditing firm is one of Big Four auditors (BIG4). In addition, we control for the firms size (SIZE), measured in terms of total asset, and the company performance, proxied by the level of return on investment (ROI).

Turning the attention to the empirical results, the descriptive findings for the above-mentioned variables show that only the 14% of firms in our sample provides assurance over their social reports. In addition, it is worth mentioning that the mean number of women appointed to the board of directors (WOM\_DIR) and the board of statutory auditors (WOM\_STAT\_AUD) is, respectively, 2.4 and 1.7. Moreover, the average value of the dummy variable for the critical mass is equal to 0.45 (CRIT\_MASS\_DIR).

Table 1 shows the findings of the regression analyses testing the expected predictions. All reported models confirm the positive influence of women directors on the quality of CSR reporting.

Specifically, Model 1 highlights that the involvement of women on the board of directors (WOM\_DIR) is positively and significantly related to the assurance of

**Table 1** Regression models

Variable	Model 1	Model 2	Model 3
WOM_DIR	0.151** (0.075)		
CRIT_MASS_DIR		0.963*** (0.336)	
WOM_STAT_AUD			0.304** (0.153)
BIG4	0.491 (1.078)	0.593 (1.090)	0.545 (1.079)
SIZE	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
ROI	-0.015 (0.019)	-0.015 (0.019)	-0.016 (0.019)
CONSTANT	-2.628** (1.080)	-2.847** (1.098)	-2.831** (1.105)
OBSERVATIONS	315	315	315
LR_CHI <sup>2</sup>	7.35	12.01**	7.36
R <sup>2</sup>	0.028	0.045	0.028

Levels of significance: \* < 0.1; \*\* < 0.05; \*\*\* < 0.01

Standard errors in parentheses

social report (Model 1:  $\beta = 0.151$ ,  $p < 0.05$ ). Similar conclusions can be drawn for the critical mass as Model 2 shows that there is a positive and statistically significant relationship between the variable “CRIT\_MASS\_DIR” and our proxy for CSR reporting ( $\beta = 0.963$ ,  $p < 0.01$ ).

Finally, by focusing on the other corporate body taken into considerations, the regression analysis reported in the Model 3 documents that the women’s involvement within the board of statutory auditors (WOM\_STAT\_AUD) is significantly and positively related to the probability that a firm decides to assure its social report from an external auditor ( $\beta = 0.304$ ,  $p < 0.05$ ).

## 4 Discussion and Conclusions

The article investigates whether and how women directors can have positive implications for company disclosure quality. To achieve such research aim, it focuses on the CSR disclosure quality and tests the expected relationships on a sample of 315 publicly listed non-financial Italian firms through logistic regression analyses.

Results show that, in line with our prediction, women on board positively influence the CSR disclosure quality as proxied by the CSR external assurance. Thereby, our analyses confirm that female directors not only are more sensitive to CSR issues (Bear et al., 2010; Hyun et al., 2016; Williams, 2003), but they also

prompt the supervision of company reporting with positive implications for the related quality (Gul et al., 2013; Harjoto et al., 2015; Huang et al., 2014; Vermeir & Van Kenhove, 2008). This finding is in line with prior studies suggesting that women on board do not accept unethical behaviours (Loukil & Yousfi, 2016; Srinidhi et al., 2011) and support the application of higher ethical standards in board decisions (Bear et al., 2010; Ho et al. 2015; Nekhili and Gatfaoui 2013; Rodriguez-Dominguez et al., 2009). This is especially true for CSR disclosure due to the overlapping between their expertise in soft-issue areas and the CSR disclosure domain (Zelechowski & Bilimoria, 2003), as well as to their career-related and reputational incentives (Arayssi et al., 2016; Fahad & Rahman, 2020; Shaukat et al., 2016; Velte, 2016).

Similar conclusions can be drawn with regard to the appointment of a critical mass of female directors on board. Indeed, in line with the critical mass perspective (Kanter, 1977), our analyses show that the critical mass of women directors positively affects the CSR disclosure quality. This finding supports the idea that the presence of a critical mass of women strengthens their power and gives voice to their opinions (Arena et al., 2015; Konrad et al., 2008), thus improving their influence over board decisions (Adams & Kirchaier, 2013; Schwartz-Ziv, 2017).

The positive influence of women is also confirmed for the board of statutory auditors as the results of our analyses show that their appointment to this body improves the disclosure quality. Therefore, the evidence provided confirms that female directors present a strong commitment to auditing initiatives (Adams & Ferreira, 2009; Huang et al., 2014). Indeed, the presence of women on the board with internal auditing responsibilities enhances the overall monitoring over company information (Schwartz-Ziv, 2017) and has positive implications for information transparency (Francis et al., 2015).

As such, our study has scholarly and practical implications. From a theoretical standpoint, it contributes to the literature on board gender diversity as it sheds light on the influence of female directors on CSR and specifically for the quality of the related reporting. Moreover, it fills a gap in the Italian setting that is still lacking in terms of studies on the relationship between board gender diversity and CSR reporting. At the same time, it integrates the research on CSR reporting by measuring its quality in terms of social report assurance by external auditors. From a practical standpoint, by documenting the beneficial effect of board gender quota for CSR practices, the article emphasizes the importance of appointing women directors on boards, also in line with the recent national and European post COVID-19 policy interventions aiming to strengthen the women's inclusion within companies.

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# Gender Diversity and Gender Inequality. Two Different Models



Gabriele Serafini

## 1 Introduction

This is a methodological work which follows some of our preceding articles about the same subject matter (Serafini, 2016a, 2016b; Serafini & Paoloni, 2018, 2019). They dealt with economic terms and variable definitions and critiques, related to gender issues. In this case, we present a critique about the definitions of Gender Diversity and Gender Inequality as research fields. Economic literature refers to these locutions as if they were interchangeable. This maybe because Gender Diversity relates to gender differences in economic contexts—and the same presence is pursued, in terms of number of individuals—where Gender Inequality relates to an analogous object but focusing on diverse opportunities each gender faces in the different economic environment under investigation. The article has three main goals.

The first goal is about the recognition of the different concepts at the base of Gender Diversity and Gender Inequality constructs, in order to highlight the different postulates and methodological consequences deriving from the postulates. Whereas Gender Diversity literature implies, as we will see, an irreducible difference between (at least) two genders, Gender Inequality states that different opportunities and different starting points are unacceptable between genders, implicitly maintaining that individuals are equal.

The second goal consists of the different human behaviours' explanation, connected to these concepts. When you have different concepts about individuals' nature, so that in one case humans belong to different genders, whereas in the other

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case they are mere individuals with possible different opportunities, one economic research task is to identify the related different economic behaviours' features. The methodological point is then the identification of the different behaviours connected with the different concepts of really existing economic subjects.

The third goal is about the explanation of the different economic models of the mind, which are implicit in the two different humans concepts. If economic subjects are individuals, they possibly act being reciprocally independent. If, on the other hand, their behaviour can be classified in relation to their gender belonging, minds cannot be considered as independent but, precisely, dependent on gender. Where, in the first case, economic subjects individually relate and gender differences can be an obstacle for individuality realization, in the second case, economic subjects relate as different gender members, so that gender is a central and unerasable element of the economic behaviours' qualification.

In the case of individual economic subjects, equal opportunities can allow the evolution and development of personal features; in the other case, gender differences have to be investigated in order to clarify which different specifications could be considered as the facilitators of the evolution and development of every gender qualified subject.

In the next two sections, we will analyse, respectively, methodological assumptions of Gender Diversity and Gender Inequality. Subsequently, in Sect. 4, we will explain the different behaviours related to the different gender concepts, and in Sect. 5 the different models of the mind.

## 2 Gender Diversity

According to economic literature (Ciavarella, 2017; Arnaboldi et al., 2020; Wang & Clift, 2009; Gregory-Smith et al., 2014; Charness & Gneezy, 2012; Nielsen, 2013; Gupta et al., 2015; Bruno et al., 2018; Filippin et al., 2017; Fisher et al., 2017), Gender Diversity relates to the presence of diverse genders (in particular, but not solely male and female) in the same (leading) position. International regulatory bodies documents too, analyse the reasons, features and consequences due to quantitative and qualitative presence differences between genders in economic contexts. In particular, the Comitato di Basilea (2015), the EBA (2016) and the Banca d'Italia (2013), for example, study the differences about presence, competences and companies performances related to these aspects. Independently of the results of the studies, sometimes contradictory, what is important is the methodological aspect of the literature: that is, the complex of theoretical foundations over which the method is built, where method is the research orientation. As for Gender Diversity, researches are about the causes of the different quantitative gender presence in the leading positions analysed, and about the consequences this difference may determine. Differences are analysed between countries, economic sectors and different periods of time. Consequences are not unequivocal, because different studies, due to the way they are conducted, or the matter analysed, show different

consequences, in quantitative and qualitative terms. Anyway, the studies focus on gender differences and different gender presences, in a particular economic position, highlighting the different features of the situations and possible consequences that will stem from these differences. What is important, in our methodological point of view, is that this literature qualifies different genders, both recognizing genders by difference, and recognizing different economic consequences due to the first difference. Gender differences are therefore related to non-economic features and to economic performances. It would be then appropriate to classify different research objects in relation to the gender and consequently build scientific researches about the causes and consequences of these quantitative differences in economic areas. This means that, independently from particular causes and consequences, differences would be only related to gender diversities. The result is an essential conceptualization of individuals depending on the gender. Gender differentiation is then the methodological base of the Gender Diversity researches.

### 3 Gender Inequality

Literature about Gender Inequality (Alesina et al., 2013; Branisa et al., 2013; Hiller, 2014; Mulder & Rauch, 2009; Torres et al., 2021) considers its research field as an analogous research field to the Gender Diversity, because it deals with causes and consequences of the different gender qualification. Precisely because researchers, in this field, deal with inequalities, in order to understand their nature and consequences, they concentrate on aspects related to the lack of equalities.<sup>1</sup> Terms concerning equalities and inequalities are expressed in order to evaluate causes to address and consequences to remove, determining that inequality is in this case intended as loss of equality. Limitation, reduction or removal of inequality should be the ultimate goal, because natural constitution of human relations would be made by their essential equality. In this framework, inequality is therefore considered as a separation from equality, the latter intended as the congenial condition between humans. Gender inequalities are then considered in the same way as ethnicity or wealth inequalities. They are elements, whose origin are to be traced, causes are to be found and consequences are to be outlined, ever considering inequality as a juxtaposed condition as compared to natural equality. Gender equality is considered as limited and distorted by different causes having different consequences. Gender inequality is, therefore, the situation in which different genders are not treated as equals as they should be. Considering inequality as not a natural gender condition implies that genders are traced back to their common human nature. In doing so, gender members are considered as part of the same equality matrix and every human is traced back to the parity and equality that should characterize its relation in every

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<sup>1</sup>The United Nation Organization, for example, considers this issue under this perspective: <https://www.un.org/sustainabledevelopment/gender-equality/>. URL displayed 06.21.2021.

social, economic, family and working conditions. In this research field, methodological base concerns equality between humans but it is worth noting that they are at the same time classified by the term gender. This word is then used to state an overlapped condition, compared to the natural condition that would be removed in case of lack of inequalities. Latter are recognized not because they are at the base of a different human condition related to gender but, on the contrary in this case, genders are recognized because over them inequalities are founded, with the same moral vileness than inequalities based on ethnic, religious or census conditions.

This kind of literature also reveals its approach when dealing with equal opportunities.<sup>2</sup> In this case, literature focuses on how the natural and effective equality is opposed by lack of basic opportunities, intended as discriminations. It is worth noting that, in this case, there is the risk of a contradiction if equal opportunities would be intended as to be applied to different genders. Actually differences between genders would be recognized when they evolve over time, and equal opportunities would mean equal starting points for different genders. If starting points have to be equals, because of equal opportunities, but genders are recognized as differently evolving, not every difference between genders could be considered as a discrimination. In order not to be contradictory, equal opportunities have then to be applied to all the differences between humans, whereas “gender” would be an improper way to categorize humans.

We can conclude, by summarizing that Gender Diversity literature essentially postulates gender differences, whereby Gender Inequality literature maintains essential equality between humans, regarding gender differences as a result of a discrimination process.

## 4 Different Behaviours

Notwithstanding Gender Diversity and Gender Inequality recognize gender differences, the first approach considers them as insuperable, while the latter criticizes them and deals with solution in order to overcome their consequences. In both cases differences are detected to deal with, but in the first case they cannot be overcome and researches in this fields are mainly qualitative and comparative, dealing with gender qualities in different territories and social or economic contexts. Differences are analysed and evaluated in order to identify causes and consequences linked to their change in intensity.

Gender Inequality, on the other hand, maintains that gender differences have social, cultural and education origin, learnt and transfused in different behaviours. Essential equality between genders inspires the analysis of the causes of actual differences in different human contexts. Differences are then analysed as discriminations, regarded as a practice that systematically tends to impose a benefit that

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<sup>2</sup>See UNICEF: <https://www.unicef.org/gender-equality>. URL displayed 06.21.2021.

advantages one gender over another, reflecting inequalities on individuals that are unreasonably based on gender inequalities. Gender differences, as ethnic, religious, sexual orientation discriminations, are then referable to individuals who are characterized by their common belonging to human gender. It is useful to make it clear that both the research fields aim at improving human relations, reducing discriminations, increasing economic system's productivity. As a matter of fact, Gender diversity could be the grounds in order to value differences and improve different everyone's life aspects. From a methodological point of view, however, the two research fields postulate different behaviours different subjects can put in place, and determine different possible economic systems structures.

In relation to Gender Inequality, economic systems can be seen as constituted of individuals. This implies that individuals are the relevant economic agents when looking at economic actions and actions are valued to understand firms and economic system features and dynamics. In this context, individuals have to be considered as reciprocally independent, even when inserted in a relational context.

On the contrary, in relation to Gender Diversity, relevant economic subjects are not individuals, since they can be classified on the basis of gender. Each gender owns distinctive features that classify individuals and, in this sense, individuals do not behave as individuals but as members of a specific gender. Gender identity, in this case, permeates personality and forge it, and economic systems are constituted of different genders, each one with its features. Every group can show different particularities, as it happens when distinct individuals are considered the base of an economic system, but, in this case, the determining economic subject remains the gender.

Different perspectives found different theoretical framework at the basis of the different possible behaviours. We refer to different economic models of the mind that have to be intended as laying behind the two perspectives.

## **5 Two Models of the Minds**

As it should be clear from the preceding paragraphs, researches about gender can implicitly refer to different ways economic agent can be intended. An individual economic agent is necessarily different from a group economic agent. It is yet worth underlining that when referring to group economic agents, it cannot be assumed that individuals are non-existing; as when referring to an individual economic agent, it cannot be assumed that there are not social influences on individuals. Rather, the difference between these perspectives lays on the decision-maker nature, as it can be seen by the researcher. Behind every research there is the researcher theoretical approach, whose reference system can differently classify observed behaviours. This means that eyes that observe are different, instead of behaviours, and that different behaviours depend on different models of the mind: one model considers human minds as independent; the other considers human minds as reciprocally connected forming different groups, that is genders.

Economic theory (Serafini & De Felice, 2019) states that individuals are mutually independent. This is because economic agent interaction is only limited to buying and selling and commodities price changing over time, in a way that every single agent cannot determine (Pareto, 2006, p. 141; Schumpeter, 2006, p. 918). It is worth thinking that, in this case, independence could be named psychological distinction, because, according to current economic theory, every economic agent perceives and decides in a separate way from every other economic agent. On the contrary, psychologists (Bion, 1973; Jervis, 2001) consider that human mind comes to life from inborn interactions with other minds (Mitchell, 2014) and mind interconnection is due to the particular way mind takes shape, starts to live and lives. In this way, regarding one-self as mentally independent would be incorrect as everyone is strictly connected with other agents since its own birth and most of human mind faculties are regarded as originating via child-caregiver relations matrix (Auchincloss, 2015). These differences highlight the fact that different models of the mind, to which different theoretical approaches refer, already exist in the literature. We cannot here deepen mind models' concepts and features but we can state that Gender Inequality mind concept is typically individual, whereas Gender Diversity conceives the mind concept as interactive and gender-specific. This methodological work can then be considered as a starting point for future researches since it tried to clear up the importance of preanalytical vision of researchers (Schumpeter, 2006), being convinced that clear assumptions cannot ensure quality researches, even though can contribute to found clearer consequences.

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# A Short Reflection on COVID-19 and Gender Equality in Healthcare



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## 1 Introduction

Up to 42% of the paid working population worldwide is represented by women that also comprise up to 75% of the healthcare workforce (WHO, 2008). Nevertheless, only 25% of physicians are women (Langer et al., 2015), which means that female workers are more engaged as nurses, midwives, and healthcare auxiliaries. Gender differences also emerge in specialities, as some seem to attract less female medical doctors than others, such as in general surgery (Lyons et al., 2019). A real gender issue arises when it comes to leadership roles, particularly as department chiefs

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(Langer et al., 2015; Yedidia & Bickel, 2001). Statistics claim that a gradual inclusion is in progress, as is evident in the membership of scientific societies. Still, gender equality seems far away (Banerjee et al., 2018; Hofstädter-Thalmann et al., 2018).

The COVID-19 pandemic has further highlighted the gender gap. Women, in general terms, have been profoundly affected not only as of the majority of healthcare workers but also as family members, especially those with children (Paoloni et al., 2021). The measures of social lockdown enforced worldwide (Romani et al., 2021), including the closure of schools and day-care centres (Wenham et al., 2020), and the need to employ smart and remote work whenever possible, have been challenging female workers in all fields, including the health sector in the lead for science research (Minello, 2020).

The field of radiation and medical oncology does not seem exempt from gender inequalities, with a low female representation at the upper management levels (Banerjee et al., 2018; Hofstädter-Thalmann et al., 2018). In this field is the National Center for Oncological Hadrontherapy (CNAO Foundation), located in Pavia (Italy), which is a unique healthcare institution treating radioresistant and difficult to cure cancer by heavy particles. The Institute's mission is not only to treat patients but also to produce scientific evidence about the application of heavy-ion treatment in cancer. It is located in Lombardy, one of Italy's most affected areas by COVID-19, and next to one of the major Italian COVID hubs.

## 2 Research Approach

### 2.1 Literature Review

Despite the introduction of gender policies worldwide and the overall level of enrolment in graduate schools (Bismark et al., 2015), female access to clinical leadership remains unfairly limited (Ellwood & Garcia-Lacalle, 2015; Isaac, 2011). An international study (Bismark et al., 2015) found that even as women rise to leadership positions, their active involvement is restricted to administrative rather than clinical roles. According to the same report, only 38% of CEOs in large hospitals and 12.5% in mega hospitals with more than 1000 employees are women. Just 28% of Medical Faculty Deans are female, and only 33% of Department Directors are female in the clinical setting. The literature has identified a variety of impediments to gender equality in female leadership in healthcare (Bismark et al., 2015). According to some studies, a social process contributes to the underestimation of women's capacity to assume positions of responsibility. As a result of this vicious cycle, many health practitioners have developed fear, a lack of self-confidence, and a general underestimation of their capabilities, prompting them to doubt their true ability to be eligible for positions of great responsibility and leadership (Bismark et al., 2015). This has frequently resulted in women's aversion to "self-promotion" and promoting or assisting other women in leadership positions,

even though the circumstances were favourable. Moreover, women consider parenthood to be the most critical barrier to taking on responsibilities (Banerjee et al., 2018; Dal Mas & Paoloni, 2019; Hofstädter-Thalmann et al., 2018; Kalaitzi et al., 2017). The compatibility of a mother's position and that of a well-established professional is called into question. Women frequently doubt their ability to juggle two roles: professional and mother, especially given the impossibility of managing some high-level positions with reduced or flexible working hours (Banerjee et al., 2018; Lantz, 2008; Roth et al., 2016), and the fit between the so-called biological clock and maximum career expectation. To stimulate gender equality, several tools have been identified. Research has shown that support from others, especially colleagues and family members, plays a critical role (Banerjee et al., 2018; Bismark et al., 2015; Dal Mas et al., 2019). Good examples (e.g. female leaders in positions of authority within universities, scientific societies, and organizations) and the presence of female mentors who can inspire and stimulate younger workers continue to be important in the workplace (Kubik-Huch et al., 2020; Lantz, 2008). A support network's value works both psychologically and operationally, from family members and partners up to efficient childcare services for better management of young children and parental leave permits. Equality can be encouraged by the employer's flexibility, which ensures a balance of work and family life for mothers and the opportunity to identify skills beyond gender (Lantz, 2008). Flexible hours, the involvement of support networks, the development of manageable responsibility positions with limited or part-time hours (Bismark et al., 2015), and consistent job programmes and salary levels are among the most widely known strategies (Banerjee et al., 2018). For both full-time and part-time workers, lifelong learning and training appear essential (Bismark et al., 2015).

Policy and institutional factors may also affect women's advancement as health leaders (Gupta et al., 2019). The presence of female leaders in university departments, science, and professional societies will increase awareness of the problem, especially if it is accompanied by adequate measurement and control systems, and recruitment transparency. Women's networking events, facilitated by academic and professional institutions, can enable the exchange of best practices and success stories, which assist women in addressing feelings of inadequacy in particular (Lantz, 2008). Gender equality should then be endorsed in broader social policy discussions (for example, pay equity, educational access, and advocacy for the management and custody of minor children) (Bismark et al., 2015).

As a result, solutions and organizational resources that can effectively promote the participation of leading women in healthcare are urgently needed. The recent COVID-19 pandemic has intensified this situation, particularly in terms of family management and parenting (Minello, 2020; Wenham et al., 2020), in the context of a very high-stress setting (Della Monica et al., 2021), particularly for female emergency responders (Berardi et al., 2021; Mavroudis et al., 2021; Talevi et al., 2020).

## 2.2 Case Study

The methodology used is based on a qualitative research method by analysing a single case study (Yin, 2014). Data collection and analysis were carried out involving various stakeholders of the Institute. CNAO is a relatively young working environment (mean age 39, range: 23–62), and 65 of the total 128 workers are women, of whom 30 are mothers. CNAO is trying to make a difference to minimize the gender gap, with the Centre proudly encouraging women's active role in governance. Women hold most of the leadership roles in the clinical, management, and research areas. Female chiefs are in charge of the scientific, therapist and nurse, and medical direction; human resource management; communication and public relations office; accounting and finance; quality and regulatory affairs; clinical administration; and supply chain. Out of a total of 11 Medical Doctors, ten are women, including the Chief.

During the COVID 19 pandemic, women at CNAO have been fully involved in the rethinking and redesigning of the routine work. The Institute has employed several actions to enhance the safety of its workers, taking into consideration the roles and working outcomes. These actions included, whenever possible, the opportunity for flexible and remote work.

In more detail, whilst the management and administrative employees were allowed to work remotely, different solutions were studied for clinicians, who often need "in-person contact" with patients for visits and treatments. Due to the high number of women in the clinical staff, a flexible choice of routine shifts was allowed, taking personal needs into account. Due to the reorganization of out-patient activities, contingent needs have been placed on clinicians who could not take advantage of smart working due to their necessary presence at CNAO.

Several CNAO employees have spouses or partners who also work in the healthcare sector. Employees decided spontaneously to rearrange their shifts, at the same time taking into account everyone's needs, such as taking care of young children whilst their partner is at work. Whilst the Institute experienced no difficulty in organizing such shifts, a priority was given to mothers with young children and those with partners with heavy workloads (for example, other frontline healthcare professionals or partners working in the field of retail food). At CNAO, 40 out of the 65 female workers (mostly devoted to research and management/administrative roles) decided to work from home, balancing the need to take care of their children and loved ones. However, the experience of CNAO staff highlights how some female workers could benefit from the work flexibility of their male partners, who could be more devoted to looking after the children.

The CNAO Foundation has monitored the performance of remote work and flexible work shifts. Despite the domestic burden, both scientific production and clinical outputs in terms of the number of treated patients and studied cases kept meeting the expectation.

Whilst the number of published works remained satisfactory according to the Institute's standards, the CNAO was able to submit three new clinical trials to the

Ethical Committee as the promoter and the coordinator centre, and to participate as a partner in four new Italian and international Grant applications. Further minimizing the gender gap, most of the Principal Investigators (PI) and co-PIs of such projects are women. Online meetings among internal staff members as well as external collaborative groups proved to work well enough to ensure the expected outcomes, but also to keep the teamwork and motivation high, despite the social isolation.

### 3 Conclusions

Adjusting to the work during the COVID-19 outbreak is highlighting new ways of working and new opportunities that could enhance the wellbeing of female workers, especially in promoting an effective work-life balance. Some of the solutions employed during the Emergency Phase (Cobianchi et al., 2020) of the COVID-19 outbreak proved to be excellent practices that the CNAO Foundation may carry on during the Transition Phase and into the “new normal” Recovery Phase (Barcellini et al., 2020). From the “COVID experience”, orientation to flexibility, acknowledging domestic burden, with the growth of flexible working hours proved to be effective for the workers’ wellbeing, whilst also safeguarding the need to reach the clinical and scientific outcomes. Being an organization with several female managers-in-chief, such dynamics were particularly encouraged by all the female leaders of the CNAO, and later shared with all the workers. For CNAO, managerial as well as research implications in the near future will be to develop an organizational model to facilitate the work/life balance of its employees, especially women.

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# A Gender Perspective on Telemedicine. Early Results from the National Cancer Institute of Aviano Experience



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## 1 Introduction and Aim of the Study

The use of electronic information and communication technology to provide and sustain healthcare at a distance has been defined by the literature as telemedicine or e-health (Bashshur et al., 2011; Nikolian et al., 2018). Following the non-pharmaceutical interventions and social distancing criteria and the disruptions in hospitals around the world (Massaro et al., 2021), the recent COVID-19 pandemic (WHO, 2020a, 2020b) has catalyzed an unprecedented need to provide treatment remotely (Dal Mas, Romani, et al., 2021; Grasselli et al., 2020; Grenda et al., 2020; Remuzzi & Remuzzi, 2020; Romani et al., 2021; Sorensen et al., 2020). This compelled factor has aided the rapid growth of telemedicine facilities in many medical specialties, including radiology, psychiatry, dermatology, cardiology, and internal medicine, to meet patients' ambulatory care needs (Sorensen et al., 2020). Many people believe that virtual visits will continue to exist even in a COVID-free "new normal" (Barcellini et al., 2020; Cobianchi et al., 2020), since telemedicine has been shown to increase access to treatment, improve resource quality, and lower costs compared to conventional in-person hospital or ambulatory visits (Nikolian

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et al., 2018). Moreover, statistics claim that many patients fear that they will be harmed or infected while accessing hospital facilities (Acar & Kaya, 2019; Chen et al., 2019; Leape et al., 2009), and these fears have been exacerbated during the COVID-19 pandemic (Miaskowski et al., 2021). Telemedicine tools may allow patients to enjoy remote visits without traveling to the hospital, getting the care they need from home.

Several studies have looked at the public's perceptions, experiences, and satisfaction with telemedicine (Grenda et al., 2020; Reed et al., 2019), with many focusing on the technical solutions used, in response to the need for user-friendly yet safe platforms and tools (Dal Mas, Piccolo, & Ruzza, 2020; Jain & Kaur, 2018; Presch et al., 2020). Still, to our knowledge, little research has been conducted with a gender perspective on telemedicine and the use of e-health tools for women. While some early studies have highlighted that female patients seem to engage more with online and e-health tools than men (Escoffery, 2018; Reed et al., 2020), there is a call for more research on the topic. Employing a case study approach (Yin, 2014), this chapter aims at investigating the new perspectives of telemedicine for women's health, investigating a newborn telemedicine program for chronic pain and oncological follow-up recently launched by the National Cancer Institute of Aviano, Italy.

## **2 Female Patients and Female Workers During the COVID-19 Pandemic**

Chronic pain has a significant effect on patients' everyday lives and healthcare systems all over the world, especially when coping with an aging population (Sousa et al., 2021). This disorder is fairly common, affecting roughly 25% of the population in Italy alone (Breivik et al., 2006), with similar numbers in the other countries. Such a disease affects more people aged 30–60 (Breivik et al., 2006), and two out of three chronic pain patients are women (Miceli, Bednarova, et al., 2021; Miceli et al., 2018). Moreover, data from ten European countries, providing a detailed distribution of COVID-19 cases by gender and age, show that women diagnosed with COVID-19 are substantially more than infected men among people of working age. This pattern reverses around retirement: infection rates among women decline at the age of 60–69, resulting in a cross-over with infection rates among men. The relative disadvantage of women peaks between the ages of 20 and 29, while the male disadvantage in infection rates peaks between 70 and 79 years (WHO, 2019).

Women are often seen as vulnerable patients, who are also often breadwinners in their households and during their careers (Dal Mas & Paoloni, 2019). Many times, a female patient must balance being a mother, a wife, a daughter, and a worker or an entrepreneur when coping with a severe diagnosis and the subsequent care and recovery plan. If not all women can be considered vulnerable, many are, for

example, single mothers or caregivers who need to look after elderly parents or relatives at home.

Moreover, the recent COVID-19 pandemic has emphasized the gender gap even more. The impact on women, especially those with parental duties, has been shown to be significant in a variety of fields (Wenham et al., 2020). The business disruptions, the closure of schools and kindergartens and the need for children to employ online and distance learning proved to have a massive impact on parents in general, but especially on women (Paoloni et al., 2021). Little has been said about the impact on female workers and patients during the COVID pandemic, while more attention has been paid to the gender effect for female healthcare professionals actively involved in the management of the emergency (Mavroudis et al., 2021; Ruta et al., 2021; Wenham et al., 2020), recording higher stress levels for women engaged in the front line (Della Monica et al., 2021) and with the need to employ new organizational models to support female workers in their duties (Paoloni et al., 2021).

Most contributions on female workers and entrepreneurs during the pandemic (Jiménez-Zarco et al., 2021; Martínez-Rodríguez et al., 2021) highlight the highest stress due to the need to balance new working conditions (including smart and remote work for several sectors, or the need to employ longer shifts and to wear personal protection equipment all day long for those engaged in essential services like healthcare or food retail) with family and private life (including supporting young children in distance learning or fragile relatives considered at risk). The same authors suggest the need to provide funds or dedicated support for such women. Similar results are argued by other authors studying female-run startups during the crisis (Kuckertz, 2021; Villaseca et al., 2020).

Regarding telemedicine and women, several contributions emerge in the literature. However, little has been investigated about the gender effect and the need to employ tailored solutions for women. A number of papers report experiences about women's health, including abortion (Vázquez-Quesada et al., 2020; Wenham et al., 2021), diabetes (Amgarth-duff et al., 2019), and oncology (Bednarova et al., 2020; Dal Mas, Biancuzzi, Massaro, & Miceli, 2020; Miceli et al., 2019). Some early studies conducted before the pandemic stressed that women seem to engage more with online and e-health tools than male patients (Escoffery, 2018; Reed et al., 2020). Moreover, women healthcare managers seem keener to the adoption of e-solutions (Arena et al., 2020).

All in all, the situation of women during the pandemic, being them workers or patients, seems more challenging than that of men. The potential impact of telemedicine on women looks, therefore, worth investigating.

### 3 Methodology

To investigate the potential impact of telemedicine on female patients, we decided to apply a qualitative case study approach (Yin, 2014). According to Massaro et al. (2019, p. 275) "qualitative methods allow researchers to discover to reveal and

understand relationships between variables even within complex processes, and to illustrate the influence of the social context.” The case study methodology is considered applicable in the literature when a how or why question is posed about current circumstances over which the researcher has no control (Yin, 2014). Furthermore, case studies allow for a more in-depth understanding of a real-life situation (Ridder et al., 2014).

The case study was employed analyzing a new project by the National Cancer Institute—IRCCS CRO of Aviano (Italy), one of Europe’s most renowned institutes and research centers in the field of oncological surgery and cancer treatments like chemotherapy and radiation therapy, in collaboration with the local government of the Region Friuli Venezia Giulia. The Institute has recently launched the project “Doctor@Home (D@H),” a brand new telemedicine program (Miceli, Dal Mas, et al., 2021). This initiative was originally set up for oncological check-ups related to pain therapy.

Several stakeholders from the Institute, including physicians and oncology experts, participated in data gathering and analysis. In the months of October and November 2020, five semi-structured interviews and two internal meetings about the aforementioned project were conducted. Additional material, including the Institute’s website and social media channels, as well as publications, were gathered and analyzed, along with the National Healthcare System and the Region Friuli Venezia Giulia regulations about telemedicine programs.

## 4 The Case Study

The project D@H, which was initially launched within the pain therapy department, is now available for all the follow-up visits of the Institute (Miceli, Dal Mas, et al., 2021). While the Institute’s ethical committee approved the request for further investigation and satisfaction among the patients during spring 2021, the project has a clear development path.

The clinician and the patient meet for the first time in person at the hospital. The patient has the option of continuing on the telehealth route or scheduling follow-up appointments in person. The online meeting takes place through an online platform, but additional meetings in person are possible whenever necessary or needed. The patient must provide a valid email address for medical staff to respond and send the invitation for the e-visit. The medical staff schedules the appointment on the “LifeSize” approved portal and sends the patient the access code on the scheduled date and time. The patient can use the app on his or her mobile or access the connection sent to him or her via email, and the system recognizes the patient by their unique social security number badge, which is recorded within the Regional Healthcare System. The medical staff produces an encrypted digital report at the appointment’s conclusion, which is sent to the patient via email along with an unlock code. If a medical prescription is required, an identification code is emailed to the

patient, allowing them to pick up the paperwork and the related medication at any pharmacy.

Although the D@H program is not new, meaning that several telemedicine programs are already existing and running globally, the National Cancer Institute of Aviano has chosen to redesign and focus the protocol and ongoing experience on two fundamental and likely understudied aspects of telehealth: service co-production and continuous learning.

Co-production in services occurs when the customer actively participates in adding value to the service they require, thereby collaborating with the provider in its creation (Batalden et al., 2016; Dal Mas, Biancuzzi, Massaro, & Miceli, 2020; Elwyn et al., 2020; Fuchs, 1968). Co-production in healthcare refers to the patient's active participation in achieving the medical result by acting in particular ways or conducting specific activities in collaboration with the clinical staff (Biancuzzi et al., 2020). Since physical contact is not possible in the D@H program, physicians and patients must develop new interacting methods, describing symptoms and concerns. Some post-surgery visits can necessitate the presence of a caregiver who will perform procedures such as palpation. Clinical professionals play an essential role in guiding patients on this journey, helping people become more familiar with technology's potential. To provide such patients with guidance about the prescribed behaviors or necessary acts, such as the presence of another person, specific translation tools and techniques (Dal Mas, Garcia-Perez, Sousa, Lopes da Costa, & Cobianchi, 2020) may be required, including the use of non-technical skills (Dal Mas, Bagarotto, & Cobianchi, 2021; Dal Mas, Biancuzzi, & Miceli, 2021; Schutt et al., 2017; Yule & Smink, 2020). Most of these guidelines still need to be developed and formalized. Therefore, learning appears to be critical in order to raise awareness about best practices, and the best way to approach the patients to ensure the efficacy that they deserve, following a patient-centric philosophy (Cheng et al., 2009).

According to the National Cancer Institute of Aviano, the learning part of the program is the second pillar of the D@H initiatives. The clinical team is using a learning-by-doing technique to figure out how to treat the patient through the e-visit better. Co-learning is used to promote co-production of treatment in this form of "learning-on-the-job," which is done in an interprofessional manner involving medical practitioners and patients. Medical doctors participating in the program can seek assistance from colleagues from various specialties, nurses, and psychologists to better understand how to manage the remote visit and the patient's relationship (Dal Mas, Biancuzzi, Massaro, Barcellini, et al., 2020). The learning model also includes the patients, who must learn how to take advantage of the technology's stable and healthy capabilities without the need to travel back and forth from the hospital, with the encouragement, assistance, and guidance of the clinical staff.

The D@H program uses four separate phases to combine co-production and co-learning (Elwyn et al., 2020; Miceli, Dal Mas, et al., 2021):

1. **Co-assess:** Clinical staff at D@H can assist patients in consistently self-assessing their symptoms and accurately explaining them. Even between follow-ups, self-evaluation should be registered in a sort of “diary,” which will be later shared with the medical doctor. Adequate shared methodologies should be put in place to record the health status and concerns in a standardized way, like, for example, rating their pain in certain circumstances or when performing specific movements.
2. **Collaborate:** D@H clinical personnel should use communication and translation resources to transfer their medical knowledge to the patient and learn about the patient’s wishes, goals, and priorities (Angelos, 2020; Dal Mas, Biancuzzi, Massaro, Barcellini et al., 2020). Understanding the patient’s requirements will help to facilitate shared decision-making (Osei-Frimpong et al., 2018; Woltz et al., 2018) about the next steps and treatment options.
3. **Co-design:** Once D@H clinical staff and the patient have a better understanding of one another, there is space to co-design the care plan. Such phase includes the treatment choices, but it also involves the telehealth aspects and the steps to be taken and best behaviors to improve medical outcomes.
4. **Co-deliver:** Although the patient must observe the three previous steps, telemedicine will assist D@H clinical staff in monitoring the patient’s progress and helping or guiding the patient as appropriate, even at a distance. Clinicians may benefit even from the aggregate data collected through the program to enhance medical research.

The D@H program’s two key theoretical and functional building blocks are represented by co-production of the remote healthcare service and continuous learning, which outcomes and resources can be shared with the medical community and readership through presentations at congresses and publications helping to shape the healthcare environment of the future. Since telehealth visits are on the rise in several medical disciplines besides oncology, the co-production and co-learning aspects of telehealth may have an effect on future postgraduate medical education as well.

## 5 Discussion and Conclusions

In the current healthcare scenario, telemedicine and e-health appear as tools that will become part of the daily routine for clinicians as well as patients.

Telehealth tools have a variety of advantages, including the opportunity of not traveling back and forth to and from the hospitals, especially for specialized hubs like the National Cancer Center of Aviano, which patients come from all over Italy and also from abroad. Moreover, in tough times like the COVID-19 pandemic, social distancing measures are needed, especially for vulnerable patients like the ones undergoing oncological treatments like chemo or radiations. At the same time,

telemedicine can offer a substantial response to patients' ambulatory needs of many specialties (Grenda et al., 2020; Ritchey et al., 2020; Sorensen et al., 2020).

Telemedicine appears particularly interesting when it comes to a gender perspective, as women are more affected by, for instance, chronic pains (Miceli et al., 2017). Moreover, women seem to be keener in the use of e-tools and apps about health (Escoffery, 2018; Reed et al., 2020). Women were also more impacted by the COVID-19 (Jiménez-Zarco et al., 2021; Martínez-Rodríguez et al., 2021; Paoloni et al., 2021), causing more stress and concerns both for workers and for patients, recording also higher infection rates among younger women than man. The pandemic challenged women in managing their careers and jobs with their private life, especially for those with children home from school and with vulnerable relatives considered at risk. The situation is even harder for those who face their sickness (like in the case of cancers) and still need to take care of their family members, especially children and kids while being at the same time patients (Bednarova et al., 2020).

While telemedicine seems to offer unique advantages for all the patients, but especially women, enjoying care directly from home, there is an urgent call for guidelines and understanding about how to make the best possible use of such tools. The D@H initiative by the National Cancer Institute of Aviano stands as a pilot study devoted mainly to women to investigate such dynamics, including the gender perspective and the specific facilitators and actions needed to make the e-tools effective for female patients. Although the D@H program is still in its infancy, it differentiates itself from the many more initiatives already present in the healthcare scenario or introduced during the pandemic because of the co-production and the co-learning approach. The expectation of such pillars is to allow full engagement, communication, and interaction between the clinical professionals and the patients to maximize the benefits of modern technologies in healthcare, allowing better quality of life and work-life balance.

We do expect that the D@H initiative will allow bringing light and best practices that can be enjoyed and replicated by institutions all around the globe.

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# COVID-19 Outbreak and Credit Constraints for Women-Led Firms



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## 1 Introduction

Studying whether gender matters in bank–firm relationships is very relevant if we consider that the availability of external finance, especially debt provided by financial intermediaries, is crucial for the growth and development of firms. A strand of the literature shows the existence of gender-based discrimination in access to finance, thus limiting investment opportunities and initiatives for women-led firms. Although some studies (Fabowale et al., 1995) argue that the lower likelihood of accessing credit is due to structural characteristics of these firms that lower their creditworthiness (age, sector of activity, and so on), there is growing research showing discrimination in access to external financing due to culturally rooted prejudices and values about gender differences (Cavalluzzo et al., 2002). In this context, we intend to investigate whether gender-based discrimination exists and whether the phenomenon has changed since the COVID-19 outbreak.

There is a broad range of literature on the relationship between gender and access to finance, especially debt finance. These studies highlight the discrimination suffered by women-led firms, when accessing finance, from both the demand

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(Moro et al., 2017) and the supply sides of the channel (Bellucci et al., 2010; Mascia & Rossi, 2017; Wu & Chua, 2012). As stated by Moro et al. (2017, p. 119) “firms can be credit constrained either because a loan has been denied by the lender or because they decide not to apply for such a loan due to expected rejection.” Moro et al. (2017) find interesting evidence on this second motivation. These authors, relying on the Survey on the Access to Finance of Enterprises (SAFE) released by the European Central Bank (ECB), find no evidence that financial institutions discriminate against firms based on the gender of their management, but at the same time, they also show that women-led firms are less likely to apply for a loan compared to men-led firms because women managers are reluctant to file a loan application since they expect the outcome to be rejection by the lender. Similarly, Galli et al. (2020), exploiting the same dataset of Moro et al. (2017), find that women-led firms are more likely than male-led to be financially constrained due to their discouragement: these firms not only rely more on internal funding, but also behave as discouraged borrowers. Finally, Aristei and Gallo (2021) also achieve similar results. These authors, using the European Bank for Reconstruction and Development (EBRD)-World Bank’s Business Environment and Enterprise Performance Survey, point out that women-led firms are more likely to face financing constraints and to be discouraged from applying for credit than their male counterparts.

Concerning the supply side, using data on credit lines granted by an Italian bank, Bellucci et al. (2010) show that women entrepreneurs tend to be discriminated against in terms of credit availability and collateral requirements compared to men-led firms. Moreover, they also find that the presence of female loan officers matters. In this case, there are lower collateral requirements when the borrowers are women and lower interest rates when the borrowers are men. Similarly, Alesina et al. (2013), accessing the Italian credit registry, find that women-led firms typically pay higher interest rates than men-led firms—even within the same bank—and after controlling for the competitive structure of the lending market and various borrower risk characteristics. In addition, women-led firms need to post a guarantee more often, even though these firms are not riskier. Similar findings are shown by other studies focused on different geographical areas (Mascia & Rossi, 2017; Muravyev et al., 2009; Wu & Chua, 2012), and in particular, by Muravyev et al. (2009) using data from the 2005 Business Environment and Enterprise Performance Survey (BEEPS), a survey covering 34 countries, including 26 post-socialist economies in Eastern Europe and Central Asia. The authors find evidence of both the lower likelihood of receiving a loan for female-owned/managed enterprises compared to their male counterparts and the higher burden of debt. Wu and Chua (2012) verify the higher cost of debt for female-owned businesses using small business data from the Federal Reserve Board’s 2003 National Survey of Small Business Finances. Finally, Mascia and Rossi (2017) using data from the Survey on the Access to Finance of Enterprises (SAFE), which is run by the European Central Bank and the European Commission involving 11-euro area countries, confirm the results of other studies. They specifically find a higher cost of bank financing for women-led enterprises. Interestingly, if leadership changes from female to male, the likelihood increases of obtaining an improved interest rate.

The existence of gender-based discrimination is also confirmed when the administrative data are replaced by experimental data. Brock and De Haas (2019) conduct an experiment with 334 loan officers of a large Turkish bank. They find that while unconditional approval rates are similar for male and female loan applicants, loan officers indirectly discriminate against women. Officers are 30% more likely to require a guarantor when an application is presented by a female.

Other recent studies on female entrepreneurs focus on the gender gaps in nontraditional funding markets. For example, Zhao et al. (2021), using a data set drawn from 259 projects from three equity crowdfunding platforms in China between 2014 and 2019, empirically examine the relationship between female entrepreneurs and equity crowdfunding. They find that female entrepreneurs are more likely to be funded through equity crowdfunding than their male counterparts. Moreover, both lead investors and venture stage moderate the impact of gender in the equity crowdfunding market. While lead investors increase the financing advantage of female entrepreneurs in the equity crowdfunding market, this advantage is weakened in later-development stage ventures.

In sum, consistent evidence seems to confirm that female entrepreneurs receive less debt funding, pay higher interest rates, obtain less venture capital funding and support from banks and other financial institutions compared to male entrepreneurs (Butticé & Rossi-Lamastra, 2020). However, the effects of the current financial crisis triggered by the COVID-19 outbreak are unexplored. This event has dramatically affected global economic activity by increasing the credit constraints and credit discrimination phenomena, especially for the most vulnerable and already discriminated firms (ECB, 2021). Therefore, it is worth exploring whether and how the COVID-19 outbreak has affected access to the credit market by women-led firms. More in detail, in this chapter we try to answer the following research questions:

- RQ1. Are women-led firms more likely to experience credit constraints compared to men-led firms?
- RQ2. Does gender-based discrimination in access to credit persist during the COVID-19 outbreak?
- RQ3. Are there differences in gender-based discrimination before and since the COVID-19 outbreak?

To answer the research questions above, we use firm-level data on European countries drawn from the Enterprise Survey provided by the World Bank, which allows us to consider the gender both in the *ownership* and in the *management* of the firms. To the best of our knowledge, this is the first study that aims to analyze gender discrimination of women-led firms in accessing debt finance including important factors such as the gender of business ownership and management. Our results provide evidence to financial authorities and governments to better target and implement specific public policies that support female entrepreneurship and reduce gender discrimination.

The rest of the chapter is organized as follows. Section 2 describes the empirical strategy by providing details on the dataset used, methodology, and variable

construction. Section 3 summarizes the results and Sect. 4 ends the chapter with concluding remarks and recommendations.

## 2 Empirical Strategy

This chapter uses firm-level data from two surveys conducted by the World Bank. First, the *Enterprise Survey*, based on face-to-face interviews with managers, provides information on financing and the gender of owners and managers, besides the general information on firms. It has a wide sectorial coverage, including all manufacturing sectors, construction, services, transport, storage, and communications, and IT. We employ the more recent *Enterprise Survey*, administered during 2018–2020, which collects information for the “pre-COVID outbreak” period. Second, we employ the *COVID follow-up Survey*, administered during 2020–2021, which collects specific information for the “COVID outbreak” period.

Both the *Enterprise Survey* and the *COVID follow-up Survey*, ask firms to state whether they applied for any lines of credit or loans. If they applied, firms then specify if the application was accepted or rejected. If they did not apply, firms specify the main reason, selecting from these choices: “No need for a loan,” “Application procedures were complex,” “Interest rates were not favorable,” “Collateral requirements were too high,” “Size of loan and maturity were insufficient,” “Did not think it would be approved,” “Other motivation.” For the *Enterprise Survey*, questions about credit application refer to the last fiscal year, while for the *COVID follow-up Survey* questions about credit application refers to the period since the outbreak of COVID-19. Utilizing information on the credit application and following the literature (see, among others, Moro et al., 2017), we define the dependent variable *Credit constrained* as a binary variable which takes a value of 1 if the firms applied for credit and the application was rejected or the firm did not apply because: “Application procedures were complex,” “Interest rates were not favorable,” “Collateral requirements were too high,” “Size of loan and maturity were insufficient,” “Did not think it would be approved,” and takes a value of 0 if the firms applied for credit and the application was accepted or the firm did not apply because “No need for a loan” and “other motivation.”

Concerning gender variables, we define the variable *Female ownership* as the percentage of firms owned by women, and the binary variable *Female top manager*, equal to 1 if the top manager is female, 0 otherwise. Several control variables are considered. The variable *Credit lines* is the total number of open lines of credit and outstanding loans held by the firm, while *Audited* is a binary variable equal to 1 if the firm has its annual financial statements checked and certified by an external auditor, 0 otherwise. The variable *Young* is equal to 1 if the firm has been in operation for 5 years at the most, 0 otherwise, and the variable *Small* is equal to 1 if the firm is defined as micro or small in size, 0 otherwise. We do also control for the proportion (percentage share) of the firms’ working capital financed from internal funds or retained earnings by the variable *Internal funding*. Finally, country- and

**Table 1** Mean value of female ownership and female top managers by country

	Female ownership	Female top managers
Bulgaria	22.48	0.223
Croatia	16.26	0.212
Cyprus	16.16	0.083
Czech Republic	17.10	0.147
Estonia	23.72	0.272
Greece	20.23	0.160
Hungary	20.87	0.160
Italy	11.52	0.122
Latvia	23.22	0.318
Lithuania	24.31	0.293
Malta	17.02	0.120
Poland	24.78	0.244
Portugal	20.13	0.139
Romania	17.79	0.168
Slovak Republic	19.50	0.237
Slovenia	17.04	0.197
Average	19.77	0.189

industry-group dummies are included to control for the different opportunities available to firms depending on their geographical area or industrial sector.<sup>1</sup>

Given the binary nature of the dependent variable *Credit constrained*, we specify a logistic regression model, and coefficients are obtained through a maximum likelihood estimator. Estimations are performed separately for the two different periods: “pre-COVID-19 outbreak” and “COVID-19 outbreak.”

In Table 1, we report the mean value of *Female ownership* and *Female top manager* by country.

First, it emerges that, on average, the share of firms owned by women is very low, equal to 19.77%. Poland and Lithuania are the countries with the greatest share of female ownership in firms, around 24%, while Italy is the country with the lowest share of female ownership, around 11.5%. A similar picture emerges for the presence of the female top manager, as around 19% of firms have a female top manager. More specifically, Latvia and Lithuania are the countries with the highest presence of female top managers in firms, around 31 and 29%, respectively, while Italy, Malta, and Cyprus are the countries with the lowest presence of the female top managers, around 12% for the first two and around the 8% for the last.

In Table 2, we report the descriptive statistics of the variables included in the analysis.

Among sampled firms, 14.2% are credit constrained in the period “pre-COVID-19 outbreak,” but the percentage increases up to 18.3 in the period “COVID-19

<sup>1</sup>Country-group dummies are: Southern Europe, Central Europe, and Eastern Europe; Industry-group dummies are Manufacturing, Construction, Wholesale and Retail trade and Services.

**Table 2** Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Credit constrained (pre-COVID-19 outbreak)	8565	0.142	0.349	0	1
Credit constrained (COVID-19 outbreak)	5928	0.183	0.387	0	1
Female ownership	8379	19.659	32.119	0	100
Female top manager	8565	0.191	0.393	0	1
Credit lines	8565	0.970	3.767	0	210
Audited	8565	0.380	0.485	0	1
Young	8565	0.055	0.228	0	1
Small	8565	0.475	0.499	0	1
Internal financing	8215	74.042	31.973	0	100

outbreak.” On average, sampled firms have one credit line, 38% have their annual financial statements checked and certified by an external auditor, 5.5% are young, and 47.5% are small. Finally, the share of firms with working capital financed from internal funds or retained earnings is around 74%.

### 3 Results

In Table 3, we provide the results from the logistic regression models. From column (1) to column (4) we show results of the model with *Female ownership* as core regressor, from column (5) to column (8) we show results of the model with *Female top manager* as core regressor. In column (3)–(4) and (7)–(8) we add a control variable, *Internal financing*, to control for a specific feature of firms’ working capital financing. We can observe that regression models exhibit better performance in terms of log-likelihood if *Internal financing* is included among controls; however, the presence of missing values on this particular variable leads to a sample reduction. Therefore, for the sake of completeness, we report the results of both specifications, with and without *Internal financing*.

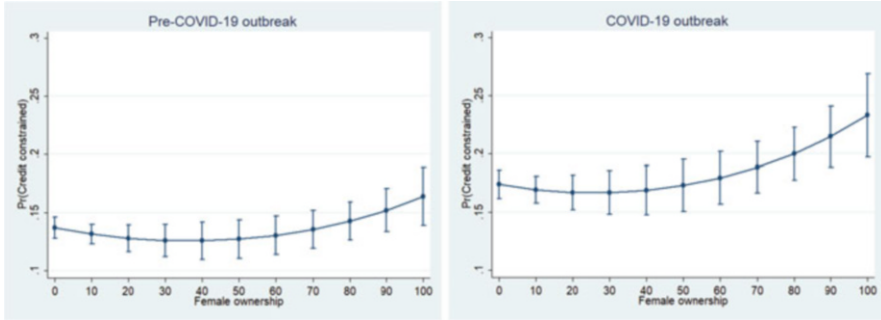
Concerning the variable *Female ownership*, we focus the discussion on the specification with better performance (columns (3) and (4)). The relationship between *Female ownership* and the likelihood that firms are credit constrained is non-linear. The coefficient of *Female ownership* is not statistically different from zero, while the coefficient of *Female ownership squared* is positive and significant in both periods. We estimate that for the period “pre-COVID-19 outbreak” the turning point occurs at 36.2087 [7.6110]\*\*\*, while for the period “COVID-19 outbreak” the turning point occurs at 25.7723 [12.1277]\*\*. We can argue that, for low values of *Female ownership*, if the share of firms owned by females increases there is no impact on the likelihood that firms are constrained in accessing credit. However, once the turning point of 36.2% share is reached for the period “pre-COVID-19 outbreak” then a further increase in the share of female ownership is positively associated with the likelihood of being credit constrained. The estimated turning



**Table 3** Results from logistic regression models

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	pre-COVID-19 outbreak	COVID-19 outbreak	pre-COVID-19 outbreak	COVID-19 outbreak	pre-COVID-19 outbreak	COVID-19 outbreak	pre-COVID-19 outbreak	COVID-19 outbreak
Female ownership	-0.0088** [0.0036]	-0.0040 [0.0036]	-0.0058 [0.0037]	-0.0040 [0.0038]				
Female ownership squared	0.0001***	0.0001**	0.0001**	0.0001*				
Female top manager	[0.0000]	[0.0000]	[0.0000]	[0.0000]				
Credit lines	-0.0773*** [0.0206]	-0.0356* [0.0196]	-0.1244*** [0.0249]	-0.0229 [0.0167]	0.0694 [0.0792]	0.2595*** [0.0837]	0.1378* [0.0825]	0.2261*** [0.0874]
Audited	-0.4526*** [0.0737]	-0.1335* [0.0773]	-0.3601*** [0.0760]	-0.1072 [0.0796]	-0.4845*** [0.0732]	-0.1642** [0.0767]	-0.3889*** [0.0756]	-0.1318* [0.0790]
Young	0.2107 [0.1286]	0.3831** [0.1863]	0.2414* [0.1331]	0.3001 [0.1966]	0.2343* [0.1280]	0.4524** [0.1854]	0.2683** [0.1323]	0.3733* [0.1958]
Small	0.1399** [0.0702]	0.4612*** [0.0760]	0.2894*** [0.0729]	0.4442*** [0.0789]	0.1733** [0.0694]	0.4793*** [0.0750]	0.3209*** [0.0723]	0.4653*** [0.0781]
Internal financing			-0.0104*** [0.0009]	0.0016 [0.0012]			-0.0104*** [0.0009]	0.0015 [0.0011]
Industry-group dummies	YES	YES	YES	YES	YES	YES	YES	YES
Country-group dummies	YES	YES	YES	YES	YES	YES	YES	YES
Log-likelihood	-3326.88	-2721.53	-3040.86	-2573.39	-3375.57	-2768.33	-3076.12	-2610.65
Observations	8379	5799	8042	5577	8565	5928	8215	5698

Robust standard errors in brackets. \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$



**Fig. 1** Predictive margins with 95% confidence intervals of female ownership

point reduces to around 25.8% for the period “COVID-19 outbreak.” To better understand the differences between the two periods, Fig. 1 shows the predictive margins with 95% confidence intervals of *Female ownership* obtained from estimations. For each value of percentage share of female ownership, the corresponding probabilities of being credit constrained is greater in the “COVID-19 outbreak” compared to the “pre-COVID-19 outbreak.” Controlling for firm-specific characteristics, it emerges that, for both periods, the greater the female participation in firm ownership, the greater the probability of being credit constrained. This probability is even greater since the COVID-19 outbreak. Additionally, the turning point occurring at a lower value of female ownership during the “COVID outbreak” period implies that the likelihood of being constrained when accessing credit begins at a lower level of women in firm ownership. Concerning the variable *Female top manager*, we focus the discussion again on the specification with better performance (columns (7) and (8)). The results are clearly consistent with the previous on *Female ownership*. Indeed, the variable *Female top manager* has a positive and significant coefficient in both periods, suggesting that firms with a female top manager are more likely to be credit constrained. Comparing coefficients across the periods, it appears that the size of the coefficient obtained for the “COVID-19 outbreak” period is greater and more significant than the coefficient obtained for the “pre-COVID-19 outbreak” period, thus indicating stronger discrimination against women-led businesses since the COVID-19 outbreak.

Coming to the control variables, *Credit lines* have negative and highly significant coefficients across regressions on the “pre-COVID-19 outbreak” period. This shows that the greater the number of credit lines held by firms, the lower the probability of being credit constrained. Such a significant relationship does not hold for the period since the “COVID-19 outbreak.” Similarly, *Audited* has negative and highly significant coefficients across regressions on the “pre-COVID-19 outbreak” period, meaning that firms having their annual financial statements checked and certified by an external auditor are less likely to be credit constrained. Such a significant relationship becomes weaker since the “COVID-19 outbreak”. The variable *Young* has positive and significant coefficients, especially in regressions where the gender-related variable is *Female top manager*. This would suggest that young firms,

compared to more mature firms, are more likely to be credit-constrained. However, this result does not always hold when the gender-related variable is *Female ownership*. Additionally, *Small* has positive and highly significant coefficients across regressions, suggesting that small firms, compared to larger ones, are more likely to be credit constrained. Finally, the variable *Internal Financing* has negative and highly significant coefficients across regressions for the “pre-COVID-19 outbreak” period. This reveals that the greater the share of working capital firms financed through internal funds or retained earnings, the lower the probability of being credit constrained. Such a significant relationship is not maintained since the “COVID-19 outbreak.”

## 4 Conclusions and Policy Implications

In this study, we explore whether women-led firms experience gender-based discrimination when accessing the credit market, considering two periods, the pre-COVID-19 outbreak and since the COVID-19 outbreak. Firm-level empirical evidence from European countries reveals the existence of gender-based discrimination against women-led firms when accessing the credit market, which is even stronger after the outbreak of COVID-19.

The implications of the research are relevant, especially for government authorities in their activities to sustain economic development also through actions aimed at supporting the growth initiatives and projects carried out by women-led firms. Government authorities should increasingly set up tools and networks to provide legal and financial support to women-led firms. At the same time, cultural values and beliefs need to change radically, even though the change will inevitably be gradual, so that distortions in access to credit due to gender discrimination are eliminated. This is even more urgent if we think that this discrimination is penalizing women-led firms in a period, such as the present one, where all firms—led or owned by both women and men—are experiencing serious financial difficulties as a result of the restrictive worldwide measures adopted immediately after the outbreak of the COVID-19 pandemic.

The line of research this chapter contributes to, can still be developed in several respects. First, it would be interesting to extend the sample to test whether stock market-based economies, such as the USA, the UK, and Canada (Demirgüç-Kunt & Maksimovic, 2002) show a likelihood of experiencing credit constraints by female enterprises similar to that found for bank-oriented financial systems, such as our sample. However, expanding the sample would most likely suffer from a lack of available data. Second, another line of development might involve using the motivations underlying the credit constraints as dependent variables to test whether and how the gender-related variables impact each of them. It is very possible that the interest variables have a greater impact on the likelihood of experiencing a credit constraint since “Interest rates were not favorable” and/or “Collateral requirements were too high” in the period since the COVID-19 outbreak, compared to the

previous period. It would also be interesting to ascertain whether the likelihood of experiencing the credit constraint changes as the percentage of female ownership changes. Finally, the analysis of how both the female ownership and the female gender of top managers interact simultaneously on the likelihood of a credit constraint would be a useful further insight into the research.

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# Recognizing Progress on SDG 5 of the 2030 Agenda in Europe: Guidelines for Development in Support of Gender Equality



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## 1 Introduction

Gender equality policies are closely linked to the political identity of the EU (Salaris et al., 2020). Also, within the UN, gender equality has been one of the central themes of world conferences since 1975 (UNWomen, 2020), in the wake of which first the MDGs (Sachs & McArthur, 2005) then the 2030 Agenda (United Nations, 2015) were introduced. Among the 17 SDGs, which are the founding elements of the Agenda, SDG5 includes indicators concerning different aspects of gender equality, such as discrimination, violence and women's participation in both the political and economic spheres (Heß, 2020).

Although numerous studies have been published on gender inequalities and the degree of implementation of the SDGs (Dello Strologo et al., 2021; Firoiu et al. 2019; Boto-Álvarez & García-Fernández, 2020), there is no research that proposes, through the use of an integrated approach, the analysis of the policies adopted by the nations to achieve the goals set by SDG5. This study fills this gap as its objective is to determine, utilizing a quantitative analysis, from the data provided by Eurostat, the state of implementation of SDG5 in the eurozone countries to identify the

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best-performing countries by 2030 and by means of qualitative analysis to study the policies they have implemented to outline a way forward for governments.

It is the 2030 Agenda itself that emphasizes the presence of interactions between the SDGs, and, with this in mind, studies on the subject must also be analyzed in an integrated manner (Hegre et al., 2020).

Although the progress made towards eliminating gender inequalities is encouraging, there are still many aspects that need to be implemented (Gennari & Fornasari, 2020).

The factors underlying inequalities are mainly found in the imbalance of power and access to resources. Institutionalized relations in these matters often appear unconscious and difficult to identify.

It is, therefore, appropriate to analyze the obtained and achievable results in the SDGs since, by addressing the issue of gender inequality more broadly than the MDGs, they have introduced new indicators that play a decisive role in the process of monitoring and analyzing the actual situation on the ground.

The study makes numerous contributions to the debate on gender inequalities and the policies adopted to eliminate them: the ten-year period covered by the analysis makes it possible to assess the initiatives put in place and to provide useful arguments for identifying the countries that can be defined as “best in class.” It also considers several systemic indicators aimed at analyzing different aspects of gender inequalities. The results of this study, therefore, will help to assess the effects of the rules and regulations adopted by the different Eurozone countries and are relevant in the context of SDG5 as the elimination of gender inequalities will also allow states to achieve other SDGs as the outcomes of the individual goals are interlinked (Hepp et al., 2019).

Governments and businesses, as the main actors in the challenge to equality, must be enabled to evaluate the effectiveness of the measures taken.

The document is structured as follows. Section 2 presents the literature review. Section 3 presents the research method. Section 4 indicates the results obtained and provides an overview of the policies adopted in Iceland and Portugal. Section 5 critically discusses the results and, finally, Sect. 6 concludes the paper.

## 2 Literature Review

Since their introduction, SDGs have been the subject of numerous studies. Several authors have analyzed the interactions between the SDGs (Pradhan et al., 2017). Hegre et al. (2020) noted that governments, organizations, and scholars need to be able to know, estimate and coordinate such interactions between SDGs.

A growing body of research, on the other hand, has explored the degree to which the SDGs have been implemented in individual countries through time-series-based analyses (Dello Strologo et al., 2021; Firoiu et al. 2019; Boto-Álvarez & García-Fernández, 2020).

Explorations of how policy interacts with the SDGs have also been offered. Kroll and Zipperer (2020) identified that government performance concerning the pursuit of SDG5 correlates with the likelihood of being re-elected.

Several authors have indicated that it is appropriate to provide prioritization of the SDGs as it could help the pursuit of sustainable development. Weitz et al. (2018), found that progress in SDGs 16.60, 12.10 and 08.40 generate, compared to the others, a greater positive influence on the SDGs, confirming the interdependencies between Goals. In a different vein, Hepp et al. (2019), building on the study by Taukobong et al. (2016) that analyzed the interconnections between gender inequality and the other SDGs, argue that eliminating gender inequality would enable improved performance in all other SDGs.

Also, in light of the numerous national and international initiatives aimed at pursuing gender equality, there has been a growing stream of studies on this topic, which, although there is no universally accepted definition of gender equality, for our purposes can be referred to as the commitment of a society to minimize gender differences by promoting equality (House et al., 2004).

With reference to the 2030 Agenda, numerous studies that have addressed the issue of gender equality have focused on the transition from the MDGs to the SDGs, analyzing the efforts made by feminist organizations to increase the international commitment on the issue (Esquivel, 2016; Razavi, 2016) and to understand why the MDGs had failed by analyzing the factors that were and are at the root of gender inequality (Sen, 2019).

Björkdahl and Somun-Krupalija (2020) addressed SDG5 at the local level noting that achieving it requires, along with awareness, support, and political will, adequate funding and sharing of knowledge, and resources, between local governments and different partners.

Indeed, some authors argue that to achieve gender equality, it is not enough to seek economic and social development; Song and Kim (2013) found that the gender gap may not narrow even where economic and social development has been achieved.

Furthermore, Esquivel and Sweetman (2016) indicated that the 2030 Agenda, with particular reference to SDG5 did not provide guidance on the tools and policies needed to achieve the target. Therefore, it seems necessary that further studies are carried out on policies that enable good results concerning the SDGs in general and SDG5 in particular.

### 3 Research Method

A mixed method was used to achieve the research objective. Using quantitative analysis, the best-performing eurozone countries were determined with regard to SDG5. Qualitative analysis, on the other hand, is used to identify and analyze the policies implemented by the best-performing countries. The use of a qualitative methodology in addition to the quantitative one was a logical choice because the aim is to gain an in-depth understanding of the policies that deliver the best results in terms of SDG5.

For the quantitative analysis, we used data provided by Eurostat (2020) for the last decade as official statistical sources constitute a productive empirical basis for very convincing results (Corbetta, 2014).

EU countries were analyzed for their primary role in the abolition of gender inequalities and the implementation of the SDGs (Salaris et al., 2020) and implementation of the SDGs by providing statistics and indicators to assess and forecast the extent to which a country can achieve the goals of the 2030 Agenda. The forecast value of the SDGIs at 2030, consistent with previous literature, was determined through the use of the FORECAST.ETS function of Excel software that allows the identification, based on historical data, of the future value of a variable by automatically choosing the most correct value for a given dataset (Dello Strologo et al., 2021; Held et al., 2018; Hyndman & Athanasopoulos, 2019).

This function makes it possible to overcome the main limitation of trend analysis algorithms, for which future values follow past trends, as it assigns decreasing weights to values observed over time, thus giving more strength to recent data. It is therefore considered that the methodology adopted, in line with the best literature on the degree of implementation of the SDGs, is the most suitable for the pursuit of the objectives of this study, also taking into account the ease of reproduction (Canela et al. 2019).

Furthermore, to measure the value of individual SDGIs between two different periods, and thus the trends of individual countries, a dynamic index (DI) based analysis technique was used. The DIs, for each SDGI, have been calculated using the formula below (Firoiu et al., 2019):

$$I_i = \frac{Y_n}{Y_1} \times 100$$

where  $Y_n$  is the value of the indicator at a specific point in time (2030) and  $Y_1$  is the value of the same indicator in the period used for comparison, 2015, the year in which the Agenda was signed.

For each SDGI, the value at 2030 and the DI value were determined based on historical data and based on the results obtained, and an increasing numbering was applied where the value one was assigned to the country that had the best score for each SDGI.

To carry out the qualitative analysis, according to Eisenhardt and Graebner (2007), the case studies were analyzed to identify those that were most representative of the research objectives.

In order to obtain the most relevant information for literature and practice, the country with the best 2030 results and the country with the best DI results will be the subject of the qualitative analysis; Iceland and Portugal, respectively.

For each country, the data search was carried out through institutional documents searched on the internet.

In fact, according to Corbetta (2014), the field of politics is particularly suitable for this type of research as institutional documents constitute a valid empirical basis.

Furthermore, secondary data from previous studies analyzing individual cases related to gender differences in individual countries were used. For this purpose, we followed the recommendations of Ruggiano and Perry (2019).

To determine the best-performing countries, SDGI 5.1 was excluded as the Eurostat data only showed values as of 2012. Besides, countries for which the



2030 forecast value or the value of the DIs could not be determined were excluded from the analysis. The procedure adopted resulted in a sample of 30 EU countries.

## 4 Result

The results obtained are summarized in Table 1, in which the ranking associated with the 2030 forecast and the DIs is shown for each country.

In view of the fact that the best-performing nations are Iceland and Portugal, respectively, for results to 2030 and for increases in individual indicators (determined through DI), Table 2 shows the milestones on gender equality achieved by the two nations.

Below, we briefly describe the main policies adopted by Iceland and Portugal extrapolated through qualitative analysis.

**Iceland** Iceland has been proclaimed ‘The most feminist place in the world’ (Cochrane, 2011); according to GGG 2020, it closed 87.7% of the total gender gap (WEF, 2020).

To understand how Iceland achieved such recognition, it is worth taking a step back. As early as 1850, women were granted equal inheritance rights, and in 1894 the first women’s rights organization was founded. It was also thanks to the latter that women gained suffrage quite early: in 1920, all women gained national suffrage (Johnson et al., 2013).

Through women’s lists outside the political parties, women began to enter politics early; in 1909, they obtained the right to stand for election in local elections and in 1922, they were elected to the national parliament.

The 1970s, however, are of particular relevance to our study. In 1975, women activists planned the ground-breaking Women’s Day Off in which about 90% of the female population went on strike from work and domestic activities. By bringing Iceland to a standstill, women demonstrated that their work was essential to the functioning of society (Johnson et al., 2013). Within a year of the strike, the first Gender Equality Act was discussed and passed.

In 1981, women activists relaunched the women’s list, which was transformed into the Women’s Alliance, a political party with an agenda to eliminate gender differences (Dominelli & Jonsdóttir, 1988).

In 2009, Icelanders chose a female prime minister, and the number of women in parliament increased to 40%, and a 40% gender quota was imposed on corporate boards (Axelsdóttir & Einarsdóttir, 2017).

The high participation of women in the labor market (confirmed by the results in SDGI 05.40 and 05.60 see Appendix 1) can be partly explained by the numerous initiatives to improve public childcare.

Of particular note is the Parental Leave Act of 2000, which introduced a model of a leave period consisting of three months maternity, three months paternity and three optional months. The non-transferability of leave has promoted gender equality within families (Ellingsæter & Leira, 2006).

**Table 1** Rankings for SDG5

Country	SCORE2030	SCORE DI	RANKING2030	RANKING DI
Portugal	110	108	3	1
Greece	216	135	23	4
Norway	112	212	4	28
Lithuania	150	199	12	21
Spain	141	124	10	2
Belgium	138	177	8	17
France	128	169	6	11
Netherlands	122	146	5	5
Croatia	221	200	26	22
Austria	139	128	9	3
United Kingdom	132	155	7	8
Finland	156	219	13	29
Latvia	170	202	16	24
Slovenia	157	209	14	27
Poland	204	201	20	23
Iceland	89	174	1	15
Serbia	181	170	18	13
Cyprus	216	178	23	18
Luxembourg	149	163	11	10
Estonia	192	169	19	11
Germany	159	152	15	6
Italy	217	174	25	15
Denmark	175	205	17	25
Sweden	106	206	2	26
Ireland	209	190	21	19
Czechia	246	191	30	20
Malta	209	155	21	8
Bulgaria	231	241	28	30
Romania	231	173	28	14
Slovakia	225	154	27	7

Also, places in kindergartens have been increased. Already in 2014, about 96% of children from 2 years old had a place in kindergarten, and 86% of these were there full-time (Statistics Iceland, 2014).

Iceland's self-image has positively influenced the willingness of Icelandic governments to take further measures. An example is the Equal Pay Standard of 2018, in which the employer has to prove that the company wage system is fair (Institute for Social Research, 2018).

Although these achievements are very impressive, several studies (Einarsdóttir, 2020; Júlíusdóttir et al., 2018) have critically analyzed the pursuit of gender equity in Iceland, noting that inequalities stem from factors such as traditional social roles that welfare policies have failed to abolish. Júlíusdóttir et al. (2018), for example, found that networking, especially after working hours, influences career progression in

**Table 2** Main policies adopted by Iceland and Portugal on gender equity

Year	Iceland	Portugal
1850	Equal inheritance rights	
1882	Widows and single women gain local suffrage	
1908	local suffrage and the right to hold local office	
1908	The first women's list participates in local elections	
1910		Introduction of divorce by mutual consent
1911	Equal rights to grants, study, and civil service	
1915	Women over the age of 40 gain national suffrage and the right to hold office	
1920	All women gain national suffrage and the right to hold office	
1922	The first woman elected to the Icelandic Parliament, from a women's list	
1931		Women with at least a high school diploma are eligible to vote
1957	The first female mayor in an Icelandic municipality	
1961	Equal Pay Act approved by parliament	
1970	First female Cabinet Minister	
1974		Universal suffrage of women
1976	The first Gender Equality Act and the Gender Equality Council is founded	90 days of mandatory maternity leave
1977		The CIG is formed
1979		First female First Minister elected
1980	The first nationally elected female president in the world	
1986		The Lei de Bases do Sistema Educativo has stressed the need to guarantee equal educational opportunities for both sexes.
1995	Equal rights of women and men stated in the constitution	
1997	Fathers get an independent right to two weeks paid parental leave	Global Plan for Equal Opportunities
2000		Domestic violence becomes a punishable criminal offense
2003	Fathers get an independent right to three months of paid parental leave	
2004		The constitution provides for the role of the state in promoting the reconciliation of work and family life
2007		Introduction of gender quotas in electoral lists

(continued)

**Table 2** (continued)

Year	Iceland	Portugal
2009	The first female prime minister in Iceland	New reform for parental leave 5 months to be divided between the parents and if they take both you add a month
	The first government with equal number of men and women	
	A law banning the purchase of prostitution	
2010	A full ban on strip clubs is approved	
	Companies are obligated to have minimum 40% women or men in their boards	
2011	The government approves a three-year plan on implementing gender budgeting.	
	A law authorizing the removal of a perpetrator from a home when domestic violence is suspected.	
2017		National Strategy for Equality and Non-Discrimination 2018-2030 Portugal +Equal (ENIND)
2018	Icelandic Equal Pay Certification Act	

organizations but that male executive, unlike their female counterparts, have partners who provide the necessary support for their spouse's career progression.

**Portugal** The 1974 coup d'état put an end to the dictatorship and equality and non-discrimination as the basis of the democratization process. Until the revolution, women were precluded from playing an active role in society (Santos, 1995) except for employment as from 1960, there were labor shortages in the nation resulting from strong male emigration (Tavora & Rubery, 2013).

While in most Eurozone countries, it was the expansion of the service sector and part-time employment opportunities that facilitated women's labor integration, Portuguese women entered full-time work before the growth of the service sector (Charles, 2005). In 1987, the female employment rate was well above the EU average.

Although Portuguese women have had access to employment in the absence of a supportive welfare system, governments have provided significant responses by promoting the dual-income couple model (Aboim & Vasconcelos, 2012).

In the last forty years, Portugal has removed sex discrimination from legislation, made an international commitment to the gender equality agenda and has what is considered a favorable legal framework (Monteiro & Ferreira, 2016).

The fight against gender inequalities in Portugal has followed its path; the impetus for change has not come from feminist movements but rather from the government, which has set up bodies to fight inequalities as opposed to the integrated EU approach, adopted by many states, based on a single body (Squires, 2007).

Between 1997 and 2017, Portugal, pressed by the European commitment to gender equality, adopted five national plans for the promotion of equality, an

instrument that governments use as an expression of their commitments. Its relative importance is extreme as a point of convergence of the dynamics of gender equality public policy construction (Amaral et al., 2018). A quota system for women on electoral lists was introduced (2007), the law on assisted procreation (2006) and cohabiting relationships outside marriage were recognized. Also, domestic violence has become a criminally punishable offense (Torres et al., 2013).

Since 2017, two additional national strategies, aligned with Agenda2030, have been launched to combat discrimination: the National Strategy for Citizenship Education and the National Strategy for Equality and Non-Discrimination 2018–2030 “Portugal + Equal,” which includes three national action plans on gender equality, the one for equality between women and men, the one aimed at combating violence against women and the one aimed at hindering discrimination based on sexual orientation and gender identity.

Portugal has also adopted an efficient childbirth leave system. Parents have 5 months’ leave to share, and if they do, they are granted an extra month. Besides, parents benefit from the most generous leave in Europe for caring for a sick child. These provisions, aimed at supporting mothers’ continued employment, are placed alongside an efficient welfare system. Already in 2010–2011, 87% of 3–6-year-olds attended full-time pre-school (Wall et al., 2013).

The positive results are also reflected in the 35th position in the GGG, which is expected to increase further in the face of the latest regulatory forecasts (WEF, 2020).

## 5 Discussion

Analyses have shown that reducing gender inequality has required long-term governmental commitment mainly in three areas: education, employment, and empowerment. Although these areas are interrelated, it cannot be taken for granted that good education automatically leads to good levels of employment. It is important that guidelines set by central governments are implemented at a local level, and cooperation at all levels of government is crucial (Björkdahl & Somun-Krupalija, 2020).

Portugal and Iceland seem to have followed a similar path: they have moved from a single-income household model to a dual-income one and have similar current levels of SDGI 04.50, 05.20, 05.30 and 05.50, and for both the projections to 2030 indicate that SDGI 05.20 and 05.60 will be completed (see Appendices 1 and 2).

It is important to note that both countries do not just reduce gender inequalities but combat them more broadly.

Iceland and Portugal, following their respective peculiarities, are pursuing gender equality through different instruments but with a common thread. Legislation promotes women’s access and permanence at work and creates a welfare system that does not displace them when children are born, redistributing responsibilities within the family. The plans to divide the period of parental leave and the increase of places in crèches and the extension of their hours have proven very important.

Although the labor market in both countries is favorable for women, gender asymmetries remain and cannot be reduced by equal pay alone, as in Iceland.

Numerous studies have found that gender differences mainly result from social conventions that have not yet been overturned. For example, the traditional division of labor in the home remains (Tavora, 2012), and even workmen continue to occupy the dominant positions (Aboim & Vasconcelos, 2012; Einarsdóttir, 2020).

A further reflection is in order; gender equality is measured based on several indices, including the GGG and SDG5. These indices differ in the way they are calculated, and the choice to consider one index rather than another should be carefully justified to make their use meaningful (Van Staveren, 2013). Of all of them, the most comprehensive appears to be SDG5 as, although it neglects social norms, it considers gender-based violence, which is undoubtedly an issue that needs to be measured, monitored, and countered (Jakobsdóttir, 2018).

## 6 Conclusion

Currently, there are several ways to identify the direction of economic development, but as governments are shifting their focus towards welfare criteria, social justice policies are becoming more prominent.

Although campaigns for women's equality require efforts in economic terms for nations, regulations aimed at reducing the gender gap have the potential to change the composition and rules of the game of both the public and private spheres (Jakobsdóttir, 2019).

Despite numerous publications on gender inequalities and the degree of implementation of the SDGs, there is no research that proposes the analysis of policies adopted by nations to achieve the goals set by SDG5.

The objective of this study was to determine the status of implementation of SDG5 in Eurozone countries to identify the best-performing countries by 2030 and study the policies they have implemented to outline a path for governments to adopt in the future.

The literature on the SDGs, in fact, agrees that to achieve the goals set by the 2030 Agenda, a prioritization must be provided to the individual SDGs and, in this perspective, SDG5 has been indicated as the one that has the greatest number of interrelationships with the other Goals.

Therefore, knowledge of the gender equality implementation processes in countries makes it easier to plan future activities, identify areas that require urgent action and monitor the progress of adopted policies. Using a mixed qualitative and quantitative method, the best-performing states in the Eurozone were identified with regard to SDG5 and the policies that enabled them to achieve these results were examined.

Analyses showed that the interventions that enabled Portugal and Iceland to achieve good gender equity outcomes were those that supported access to the labor market and, most importantly, welfare provisions aimed at encouraging a

reshuffling of childcare commitments between parents. Although these countries may represent models to follow, it should be noted that significant gender differences remain. It is, therefore, useful to review organizational practices and gender power relations in families and organizations as women continue to be underrepresented in positions of power even in those countries such as Iceland and Portugal that have managed to significantly reduce the differences (Minelgaite et al., 2020; Schouten, 2019).

Indeed, addressing gender inequalities requires a proper delineation of their causes to define applicable strategies and, in this perspective, the example of the best-performing nations regarding SDG5 can and should be a model to follow.

The authors believe that the study makes numerous contributions to the debate on gender inequality, the policies adopted to eliminate it and, more generally, the pursuit of the SDGs: the ten-year period covered by the analysis makes it possible to evaluate the initiatives implemented by states and provide useful ideas for identifying countries that can be defined as “best in class.” In addition, a number of systemic indicators were considered in the analysis to analyze various aspects of gender inequality.

The results of this study could provide European governments with a deeper insight into the effectiveness of current policies in pursuing gender equality and are relevant in the context of SDG5 as eliminating gender inequality will also enable states to achieve the other SDGs as the outcomes of the individual goals are interconnected (Hepp et al., 2019). In addition, this study outlines the path that other nations can follow in achieving gender equity by tenting the relative shortcomings identified so as to amplify the positive effects of future strategies from an integrated perspective

Governments and businesses, as key players in the equality challenge, must be enabled to evaluate the effectiveness of the measures they have taken.

Although the study makes many contributions to the existing literature by analyzing for the first-time policies that achieve good results in terms of gender equity determined on the basis of the pursuit of SDG5, it has some limitations that need to be considered.

First of all, the article focuses on the implementation of SDG5 (As it is more comprehensive and an integral part of the 2030 Agenda) but does not consider additional indicators that determine the level of gender equity in nations. In the future, studies could conduct further analysis to consider these indicators to view adopted policies in light of a broader spectrum of indicators.

In addition, in conjunction with the use of public statistics, scholars could conduct their research on the basis of survey questionnaires designed to understand citizens’ perceptions of adopted normative and perceived daily benefits. Through such an analysis, it would be possible to understand which regulations achieve the best concrete and perceptible effects in terms of gender equity.

In conclusion, although the results obtained are considered to be of great value to policymakers and scholars in the field, it is hoped that future studies will continue to analyze in greater depth the underlying elements of gender inequality to discover its causes while monitoring the progress of more recently introduced laws.

## Appendices

### Appendix 1: Iceland

SDGI	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2030	i2030	Ranking 2030	Ranking DI
Early leavers from education and training by sex [SDG_04_10] (% of population aged 18 to 24)	19.00	17.10	16.50	16.40	13.60	12.40	15.60	12.70	14.50	10.80	4.29	0.35	18	13
Tertiary educational attainment by sex [SDG_04_20] (% of population aged 30 to 34)	47.50	53.10	51.20	52.20	52.60	55.00	55.80	65.70	63.60	65.70	86.64	1.58	3	10
Employment rates of recent graduates by sex [SDG_04_50] (% of population aged 20 to 34 with at least upper-secondary education)	82.00	87.80	83.80	86.80	89.10	91.30	95.40	93.80	92.70	90.20	105.09	1.15	2	23
Gender pay gap in unadjusted form [SDG_05_20] (% of average gross hourly earnings of men)	17.70	17.80	17.70	19.00	16.70	17.50	15.80	15.30	13.70	8.62	0.52	-	11	11
Gender employment gap [SDG_05_30] (percentage points)	5.50	5.40	5.30	6.50	6.30	6.30	6.70	6.00	6.30	5.60	7.00	1.11	16	24
Inactive population due to caring responsibilities by sex [SDG_05_40] (% of inactive population aged 20 to 64)	12.20	9.90	10.60	7.70	11.40	9.90	8.40	6.20	8.30	9.80	4.50	0.45	3	3
Seats held by women in national parliaments (source: EIGE) [SDG_05_50] (% of seats)	41.30	38.70	39.70	41.00	41.30	46.00	47.60	38.10	38.10	38.10	39.33	0.85	16	32
Seats held by women in national governments (source: EIGE) [SDG_05_50] (% of seats)	40.00	40.00	50.00	33.30	33.30	40.00	50.00	36.40	45.50	45.50	49.19	1.23	12	21
Positions held by women in senior management positions: Executives (source: EIGE) [SDG_05_60] (% of positions)	:	:	7.90	15.20	15.30	17.00	16.30	21.40	23.70	20.40	41.90	2.46	6	17
Positions held by women in senior management positions: Board member (source: EIGE) [SDG_05_60] (% of positions)	15.80	20.50	36.20	48.10	44.80	44.20	44.60	43.00	45.70	45.90	74.77	1.69	2	20



## Appendix 2: Portugal

SDGI	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2030	i2030	Ranking 2030	Ranking DI
Early leavers from education and training by sex [SDG_04_10] (% of population aged 18 to 24)	24.00	17.70	14.00	14.30	14.10	11.00	10.50	9.70	8.70	7.40	-9.22	-0.84	1	2
Tertiary educational attainment by sex [SDG_04_20] (% of population aged 30 to 34)	29.90	31.30	31.00	35.70	38.90	40.10	41.60	40.40	42.50	42.50	59.82	1.49	21	12
Employment rates of recent graduates by sex [SDG_04_50] (% of population aged 20 to 34 with at least upper-secondary education)	79.10	73.60	64.60	66.60	69.70	70.90	71.40	79.50	80.60	79.20	88.66	1.25	21	11
Gender pay gap in unadjusted form [SDG_05_20] (% of average gross hourly earnings of men)	12.80	12.90	15.00	13.30	14.90	16.00	13.90	10.80	8.90	4.79	0.32	0.02	8	8
Gender employment gap [SDG_05_30] (percentage points))	9.80	8.60	6.80	6.40	7.10	6.70	6.80	7.50	6.80	7.20	5.02	0.75	10	13
Inactive population due to caring responsibilities by sex [SDG_05_40] (% of inactive population aged 20 to 64)	32.80	24.40	22.10	20.90	20.70	21.30	22.00	22.00	22.50	23.70	18.08	0.85	10	11
Seats held by women in national parliaments (source: EIGE) [SDG_05_50] (% of seats)	30.40	29.10	29.10	31.30	31.30	34.30	34.30	35.20	36.40	40.40	51.91	1.51	5	15
Seats held by women in national governments (source: EIGE) [SDG_05_50] (% of seats)	18.20	16.70	14.30	14.30	14.30	33.90	32.20	32.80	36.10	35.70	67.75	2.00	3	9
Positions held by women in senior management positions: Executives (source: EIGE) [SDG_05_60] (% of positions)	:	:	9.60	8.00	8.50	12.20	10.60	9.00	10.00	14.60	18.39	1.51	27	26
Positions held by women in senior management positions: Board member (source: EIGE) [SDG_05_60] (% of positions)	5.40	5.90	7.40	8.80	9.50	13.50	14.30	16.20	21.60	24.60	69.02	5.11	4	1

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# Covid-19 Pandemic and Women-Led Companies: An Exploratory Study of the Italian Context



Cristina Di Stefano and Luciano Fratocchi

## 1 Introduction

The spread of Covid-19 pandemic in the last year strongly affected people's daily life and health determining severe social and economic consequences in countries all over the world.

From the beginning of 2020, several governments have imposed differentiated measures to increase "social distancing" including partial and total lock-down of regions or even countries with the aim of limit the uncontrolled spread of the virus. Therefore, non-essential businesses in many countries have been forced to interrupt production processes for long periods and faced strong negative economic consequences. The first impact of those restrictions was a severe economic crisis due to a simultaneous reduction in aggregate demand and supply and international trade (del Rio-Chanona et al., 2020). There is still much uncertainty about the end of this crisis, even if vaccines increase hope for an incoming recovery. Moreover, policymakers in many countries are introducing several financial instruments to repair the economic and social damages caused by the Covid-19, and Member states of the European Union are also implementing massive and coordinated interventions.

All the efforts governments are making to give first financial aids to firms and people and stimulate the economy are crucial for the recovery but may not be sufficient in particular for self-employed and small and medium enterprises (SMEs). It is certain that flu pandemic and other extreme events such as severe natural events, global credit crunch, or terrorism expose companies to the high level of uncertainty (Sullivan-Taylor & Wilson, 2009) and might even impact

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organizations' survival. Businesses need to increase their adaptability and resilience to changing contexts (Veil, 2011) since the frequency of those events is increasing (Ingirige et al., 2008) and managing a crisis is a complex process that needs to be prepared in a sound economic period. The literature focused on businesses reactions to uncertain events is vast (Wenzel et al., 2021) and recognizes that companies' ability to overcome periods of crises strongly depends on circumstances (Buchanan & Denyer, 2013), firm size and internal financial and material resources (Adian et al., 2020); however, most of the studies are focused on large companies while limited authors have analyzed other types of organizations (Sullivan-Taylor & Branicki, 2011).

Currently, there is not a clear understanding on how companies and entrepreneurs are responding to the Covid-19 crisis, but it is certain that SMEs are the ones who are suffering the most due to their lack of planning for crises (Paton et al., 2010), limited internal resources and narrow customer base (Smallbone et al., 2012) that reduce their resilience (Battisti & Deakins, 2012; Ingirige et al., 2008).

Also the analysis of differences in terms of managers/owners' gender deserves attention since this characteristic has a significant impact on managerial/entrepreneurial behavior, for instance, in terms of risk-taking and propensity to innovation and investments (Mukhtar, 1998). However, to the best of our knowledge, the ability of women-owned/led businesses to cope with periods of the economic crisis has been scarcely analyzed by authors (Cesaroni et al., 2015). As far as the Covid-19 pandemic concerns, the Mastercard Index of Women Entrepreneurs (Mastercard, 2020) clearly showed that women-owned businesses are generally more concentrated in sectors that are highly impacted by the Covid-19 crisis than men-owned businesses. More specifically, authors found that "SMEs with under 20 employees have been hardest hit, with women-led businesses particularly harder hit as they are more likely to own newer and smaller businesses" (Mastercard, 2020, 69). At the same time, Martinez Dy and Jayawarna (2020) and US Chamber of Commerce (2020) refer to similar effects respectively in the UK and the USA. Moreover, Badel and Robison (2020) focusing on the US context indicate that small female-led businesses present greater financial concerns connected with the Covid-19 than male-led ones due to their lower capitalization and funding. Finally, in terms of sectors of activity, companies managed by women mostly operate in health services, personal care and education that have been mainly impacted by the closures during the first wave of the pandemic and consequently suffered a harder economic downturn (Bartik et al., 2020).

The present study addresses the underexplored topic of women-led companies' reaction to an economic crisis; in particular, we adopted an exploratory approach and focused on companies that implemented a proactive strategy to cope with threats and opportunities linked to the pandemic. The attention was focused on companies that decided to (at least partially) convert their production processes to realize Personal Protective Equipment (PPE) and hand sanitizers and disinfectants that were particularly scarce during the first wave of the pandemic because of a huge increase in demand from healthcare institutions and the general public that was aggravated by

the interruption of supply from China. We analyzed 378 Italian companies, of which 72 are women-led ones.

Our preliminary findings clearly show that female-led businesses present some differences from men-owned ones in terms of geographical distribution, firm's size and sector of activity.

The rest of the paper is organized as follows: the next section introduces the methodology adopted, Sect. 3 presents and discusses findings, the last section identifies practical implications of the analysis and recognizes limitations and directions for future research.

## 2 Research Methodology

In this paper, we focused on Italian companies that in the first three months after the outbreak of the pandemic in Italy (i.e., from March to May 2020), adopted a proactive strategic response to the severe reduction of their revenues caused by the interruption of every non-essential productions activity following the outbreak of the Covid-19 pandemic. More specifically, we searched for articles published in newspapers and magazines (also on-line ones) through selected keywords (*riconversione/aziende riconvertite/riconversione delle attività produttive AND covid-19/coronavirus/pandemia*), and we built a database of companies that partially or totally converted their production lines to realize PPE (masks, shoe covers, head covers, lab coats and face visors) or hard-surface disinfectants and hand sanitizers. We relied on secondary data extracted from newspapers and magazines since they have been considered particularly useful by academic literature when, as in our case, no other sources of data are available (Cowton, 1998; Franzosi, 1987; Mazzola & Perrone, 2013). Then, we followed a standard content-analysis procedure (Krippendorff, 2004): each observation was reviewed by two independent researchers to avoid misinterpretation of the text and, in case of different positions, to validate the observation, a third researcher was involved (Jacobson et al., 2012).

We identified 378 companies, and we assessed their ownership and management structure basing on two different sources: for corporation, we relied on the information contained in the dataset AIDA, provided by Bureau van Dijk that deliver balance sheets and detailed legal and account information of Italian corporations, and for sole proprietorship and partnership we counted on data of the Commercial Register (i.e., Registro delle Imprese). We defined women-owned/led businesses as the companies in which female participation is greater than 50%, considering both shares owned and positions assumed. More specifically, following the “Report on female entrepreneurship” published by Unioncamere (2020), we identified female-led companies as:

- Sole proprietorships owned by women or managed by women.
- Partnerships in which the majority of members are female.

**Table 1** Converted companies by gender

	Female-led firms	Male-led firms	Total
Converted firms	72	306	378

- Corporations in which the majority of the shares are owned by women, or in which the majority of offices are attributed to women or companies in which the average between the shares of the ownership and the offices attributed to women is greater than 50%.
- Cooperatives in which the majority of the members are female.

The resulting dataset is the following (Table 1):

Out of 378 total companies, there are 306 are male-led ones, of which 239 do not have any female presence on the board or among the shareholders, while in 67 of them, there is a limited female presence in the management or in the ownership structure. We have found a strong female presence in 72 companies, and in 30 of these firms, a woman is the sole administrator.

Then, we conducted an explorative analysis through a two-level comparison:

- (a) Between male and female companies included in our dataset.
- (b) Between female companies in our dataset and national data on female-led companies presented by Unioncamere (2020) and updated to 2019.

Within our dataset, we analyzed:

- (a) Type of products realized after the production conversion.
- (b) Any type of partnership with other companies and/or private or public institutions declared by the company that was implemented to convert the production.
- (c) Activities of Corporate Social Responsibility (CSR) declared by companies that followed the conversion of the production.

Moreover, both comparisons focused on:

- (a) Company size dividing between micro and small companies (companies with less than 50 employees), and medium and large ones (companies with at least 50 employees).
- (b) Industry, focusing on manufacturing and grouping sectors on the basis of their NACE code.
- (c) Geographical distribution, dividing Italy into two macro areas: North and Center, and South and Islands.
- (d) Legal form of the company, distinguishing between sole proprietorships and partnership, corporations and other forms.





**Table 4** Female and male-led companies by sector

Manufacturing industry	Converted firms—Female-led	Converted firms—Male-led	Total converted firms	Female-led firms in Italy	Male-led firms in Italy	Total Italian firms
Food products, beverages, and tobacco	–	3%	2%	16.4%	53.2%	49.6%
Textiles, wearing apparel and leather	78.3%	58.8%	62.5%	36.2%	7.0%	9.9%
Wood and furniture	–	5.1%	4.1%	5.7%	6.3%	6.3%
Paper and Printing	5.0%	9.0%	8.3%	4.7%	2.4%	2.6%
Chemicals and pharmaceutical products and oil	5.0%	3.9%	4.1%	3.6%	2.2%	2.4%
Non-metal products	5.0%	5.5%	5.4%	4.2%	2.7%	2.9%
Metal products, motor vehicles and other transport equipment	3.3%	6.7%	6.0%	15.5%	16.0%	15.9%
Electrical, electronic, and optical products	–	2.0%	1.6%	3.4%	2.5%	2.6%
Other manufacturing	3.3%	6.3%	5.7%	10.3%	7.5%	7.8%
Total Manufacturing industry	100%	100%	100%	100%	100%	100%

while female-led ones are more concentrated in the “Textiles, wearing apparel and leather” sector (in this sector are present 78% of female companies versus less than 60% of male ones). This concentration is coherent with the type of production realized after the conversion (i.e., mostly PPE) and with the distribution among different industries by gender at a national level; the apparel industry is one of the manufacturing industries in which female presence is stronger at the entrepreneurial and workforce level, and this applies for Italy as for the rest of the world (OECD, 2020). However, this may be not the only explanation: this result may indicate a reduced propensity of the female entrepreneurs/managers in taking the risk of starting a new activity in which they feel not sufficiently prepared and confirms the literature that identifies a reduced inclination to take risks among women (Carranza et al., 2018) that is also present, even if mitigated, among female entrepreneurs (Lago et al., 2018).

With respect to the geographical distribution of the companies, female-led converted firms (Table 5) are strongly concentrated in the Center and North of the country; only 22% of them are based in the South or in the Islands. Female converted companies located in the North of Italy are also bigger than those operating in the other area of the country and operate in a widespread number of industrial sectors. They are more geographically concentrated than both male-led converted companies and female-led companies in Italy. In general, our data suggest that companies located in the Center-North of the country have adopted a proactive approach to

**Table 5** Geographic distribution

	Converted firms— Female-led	Converted firms—Male- led	Total converted firms	Female-led firms in Italy	Male-led firms in Italy	Total Italian firms
Center and North	77.8%	72.2%	76.7%	63.7%	67.1%	66.4%
South and Islands	22.2%	27.8%	23.3%	36.3%	32.9%	33.6%
Total	100.0%	100.0%	100.0%	100%	100%	100%

**Table 6** Legal form

	Converted firms— Female-led	Converted firms— Male-led	Total converted firms	Female-led firms in Italy	Male-led firms in Italy	Total Italian firms
Sole proprietorship and Partnership	16.7%	8.2%	9.8%	74.0%	65.8%	67.6%
Corporation	79.2%	90.8%	88.6%	23.2%	30.6%	28.9%
Other forms	4.2%	1.0%	1.6%	2.9%	3.6%	3.5%
Total	100%	100%	100%	100%	100%	100%

the crisis more than that located in the South; this finding is consistent with results obtained by Lagravinese (2015) and Odoardi and Muratore (2019) who analyzed the recessive period after 2009 in Italy and identified the greater difficulty of the southern regions of the country in reacting to the crisis.

Regarding the legal form of the converted companies (Table 6), almost all the male-led ones are corporations, while there are more than 15% of sole proprietorships or partnerships among the female-led firms. The comparison with female companies in Italy indicates a greater presence of corporations among the converted ones; this is not surprising and is consistent with the literature that identifies a higher reactivity to economic shock in more structured companies and a reduced resilience of smaller firms (Sheehan, 2013).

Almost the same proportion of male and female companies declared to have established a partnership with other firms, research institutes and universities to realize their conversion project (Table 7). Female companies that established a partnership are small and medium ones and operate in the Textile, wearing apparel and leather industry. Thus, female companies seem to have the same networking capacities of male ones. Moreover, if we focus the attention on SMEs, the proportion of partnerships among female companies is greater than that among male ones. This finding is particularly relevant since, in the uncertain context we face, networking is crucial for SMEs to identify new businesses solutions and new markets and, in general, to exploit new opportunities and grow (Elfring & Hulsink, 2003; Schoonjans et al., 2013).

**Table 7** Partnerships implemented

	Converted firms—Female-led	Converted firms—Male-led	Total converted firms
Partnerships with other companies, research institutes and universities	12.5%	14.1%	13.8%

**Table 8** CSR activities

	Converted firms—Female-led	Converted firms—Male-led	Total converted firms
CSR activities	67.3%	77.8%	69.3%

Lastly, we analyzed the CRS activities declared by the converted companies included in our dataset (Table 8). These activities mainly consist in the donation of part of the production of PPE or sanitizers to hospitals, nursing homes, Red Cross, Civil Protection, police, firefighters or to the municipalities and the entire population. Almost 78% of female-led companies have declared CRS activities, and this percentage is ten points higher than that of male-led ones. It is a long-standing idea that women have a higher propensity to care about moral and social issues, but also the literature suggests that having more women in the boardroom leads to better corporate social responsibility (CSR) performance (Eunjung et al., 2016; Hyun et al., 2016).

## 4 Conclusion

It seems confirmed that women-led converted businesses have some specific characteristics: they are smaller than male ones, are concentrated in the Center and North of the country, and mostly produce Textiles and wearing apparel products. It emerges as particularly interesting the finding on collaboration and CSR: female converted firms have established a partnership with other companies almost in the same proportion of male ones proving to be well integrated into the production system of the country; moreover, they are more engaged in CSR activities connected with the civil society in general. Comparisons with data referred to female companies in Italy indicate that converted companies are bigger than the average and mostly adopt the legal form of the corporation even if in Italy is stronger the presence of sole proprietorship and partnership among women-led companies.

This article investigated an unexplored issue, which is the reaction of female-led companies to a crisis. In fact, it is recognized that woman participation in economic activities is essential for their personal empowerment and the reduction of gender inequality, and at a country level, it is necessary to increase economic growth and long-term competitiveness. In any case, the attention to women in businesses is still

limited and also, public policies tend to be “men oriented” and usually do not take into account the specific needs of women entrepreneurs. In this respect, this paper sheds light on the peculiarities of female companies and increases the understanding of the role of women entrepreneurs in the economy. This, in turn, provides information for policy makers to identify policies and programs to support women’s participation in economic activities and to encourage women’s entrepreneurship.

Of course, this study presents some limitations. It is an exploratory study, and it investigates a short period of time (three months) after the outbreak of the pandemic. Data have been collected in only one country (Italy), and the number of evidence is not sufficient to generalize results. Future research should further examine this issue. In this respect, it would be useful to extend the time period of the analysis, investigate the topic in more than one country and take into count the other proactive strategic decisions that women-owned businesses have adopted to react to Covid-19, i.e., product/process innovation or product line extension.

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# Corporate Governance and Gender Issues: The Case of Professional Football Companies in Italy



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## 1 Introduction

The Knowledge Economy (Zanda, 2012) has determined the emergence of some specific sectors among which the cultural industry is recognized (Trequattrini & Lardo, 2019). In particular, the cultural industry has emphasized cognitive resources, such as talent and creativity (Trequattrini et al., 2018).

Within the cultural industries, in recent years, because of the rapidity of diffusion and catalyzation of media attention, as well as the attitude to attract investments, there has been a progressive imposition of professional sport on a world level, in particular professional football (Lombardi et al., 2020; Trequattrini et al., 2018). However, as with other team sports, there is also a gender gap problem in professional football. Although there is no reason to believe that football talent is unequal between males and females, the men's professional football sector appears to be widely developed, while the women's one is, in many cases, still at an amateur level (Trequattrini et al., 2016).

Even at the managerial and executive level, Italian football seems to be an almost exclusive context for men; although the professional sector has now become one of the main industries in the country, female representation is low.

This paper, therefore, aims to analyze the gender gap in the professional football sector both in the sporting and managerial fields. First, it aims to analyze women's

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positioning regarding men. The research applies a quantitative method with empirical analysis. The aim is to verify the impact of the women's presence in the governance of professional football clubs on sports, financial, and extra economical-financial performance. The correlation analysis will be carried out on the clubs which played the Serie A in the 2018/2019 season.

The chapter is structured as follows. The first section provides an analysis of the literature aimed at studying research that analyzes the gender gap at the managerial and executive levels. The second section describes the research methodology. The third section presents the main results of the empirical analysis. The fourth section presents the discussion of the results, the implications of the research and the limitations of the study, offering reflections for future research.

## 2 Theoretical Background

### 2.1 *Gender Discrimination in Corporate Governance*

In the literature, a unique theory able to clarify the relationship between women in the board of directors of a company and its financial performance does not exist (Carter et al., 2010). However, several theories try to study this relationship deeply.

The Agency Theory is one of these: it tries to analyze the relationship between ownership and control of the company on one side and the consequent link between principal/owner and manager/agent on the other side (Berle & Means, 1932; Jensen & Meckling, 1976).

The Boards of directors of companies perform crucial and strategic functions and, if composed of both male and female members from different backgrounds, they would be able to increase their productivity, thanks to different ideas, perspectives, experiences, and business knowledge. This type of organization will consequently lead to an increase in company performance (Baranchuk & Dybvig, 2009; Johnston & Malina, 2008; Khosa, 2017; Lincoln & Adedoyin, 2012; Ntim, 2015; Triana et al., 2014). Therefore, all Boards of directors are formed to overcome "agency" problems and improve the governing body's efficiency (Agyemang-Mintah & Schadewitz, 2019).

Mixed composed Boards lead to better performance in their monitoring roles, because women tend to question conventional management practices (Adams & Ferreira, 2009; Burton, 2015; Carter et al., 2003).

The second theory, which studies the link between gender diversity in the corporate Boards and company performance, is called the "Stakeholder Model:" it states that companies should maximize the well-being of some stakeholders, rather than just the shareholders' one. This category includes male and female employees, customers, suppliers, creditors, debtors, local communities and government (Blair, 1995; Finegold et al., 2007).

The following theory studies the inclusive support offered by each stakeholder group, able to provide significant resources to the company, in exchange for the

expectation of the pursuit of their interests (Hill & Jones, 1992; Jensen, 2001, 2002; March & Simon, 1958). To reach the aforementioned expectations, several studies suggest that a Board of directors, composed of a considerable number of women, increases the satisfaction chances for every component actively involved in the life of the company (Blair, 1995; Finegold et al., 2007; Low et al., 2015).

For example, Konrad et al. (2008) identified in at least two units the minimal number of female components to be considered relevant within the Board. Gonçalves et al. (2019) suggest that the presence of women within the Boards contributes positively to the creation of value within the company.

Finally, the third theory, called the “theory of resource dependency,” studies the usage of the resources available for the companies, which aim to maximize their financial performance (Salancik & Pfeffer, 1978).

Available resources include the human capital, experience, and independent knowledge of the men and women who work in the company (Haniffa & Cooke, 2002; Hillman & Dalziel, 2003).

Women, representing more than 50% of the world’s population, are consumers and talented people who can add new resources and improve business efficiency if present within the company Boards (Burke & Mattis, 2000).

Therefore, gender diversity improves the decision-making process and helps to align the organization with the environment outside the company, thus improving financial performance. These advantages are achieved because women can bring to the Board experiences, ideals and working cultures mostly appreciated outside the company; again, they can improve the earning capacity of the company and the quality of governance (Adams & Ferreira, 2009; Baranchuk & Dybvig, 2009; Carter et al., 2003; Carter et al., 2010).

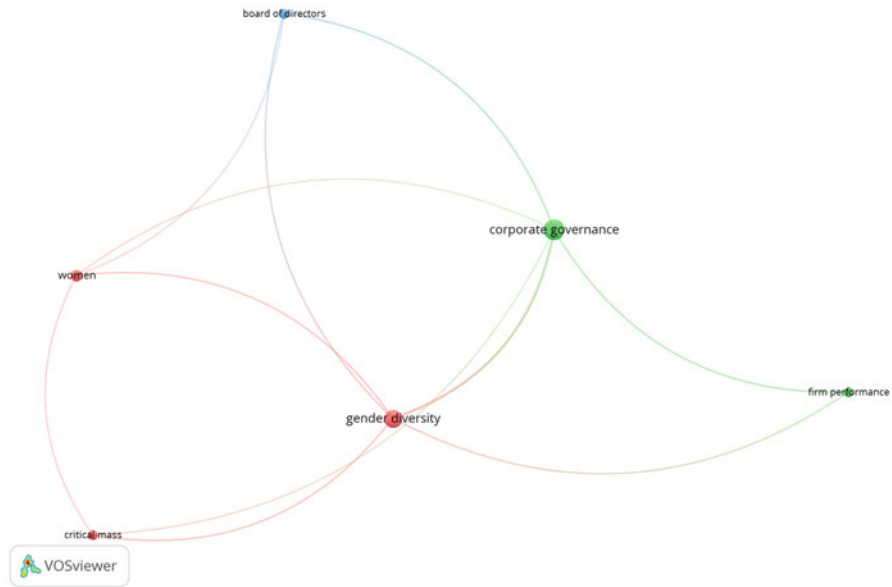
Finally, if women determine the success of the company, then the Board of directors will be encouraged to recruit even more women in control positions inside the companies.

## ***2.2 Gender Discrimination in the Professional Football Sector***

Despite the proliferation of studies concerning international women’s football development, they mainly investigate the difficulties underlying the growth of women in the purely sporting field.

In women’s football, gender discrimination has been investigated by numerous studies.

Cox and Thompson (2000) have highlighted how the gradual increase of the woman’s social and economic power on one side and the greater opportunities deriving from equal rights on the other side have increased the woman’s participation in the world of football globally.



**Fig. 1** Keyword analysis. Source: VOSviewer

Although the degree of penetration is very variable, in one of the most traditionally male sectors, there is great progress in women's football, especially in the USA. Even Kuper (2010) highlights how only in the USA, the women's national football team is better known than the men's. Indeed, the WUSA (Women United Soccer Association) represents a professional league, able to attract the best female players from different countries (Germany, Norway, Brazil, China).

Many studies analyze the experiences of female soccer players (Cox & Thompson, 2001; Davies, 2014; Scraton et al., 1999). Among these, Macbeth (2004) highlights that the growing literature on women's football has mainly focused on the development of the game and the experiences of female players.

From the analysis of existing research regarding women's football, it is clear that there is a lack of attention on gender discrimination at the managerial and executive levels in football clubs.

Through an analysis of the literature by keywords on the "Scopus" database, we highlighted that of about 280 articles in the literature (of which 39 considered useful for research purposes), only a few have decided to address the impact of the woman's presence, inside the Boards of professional football clubs, on their financial performance. Then we performed an analysis on the authors' most used keywords (Fig. 1), and the topic appears to be poorly reported.

The purpose of this research is to analyze within the sports context, where women have a marginal role, compared to the prevalence of the male gender (Birrell & Theberge, 1989; Ross & Shinew, 2008).

Therefore, this work will try to partially fill this gap, studying the impact of the presence and experience of women in governance Boards on the economic and financial performance of professional football clubs. Therefore, the research question is:

(RQ) Does the women's presence, and experience affect the performance of companies?

### 3 Methodology

To answer the research questions, a quantitative method was used, with empirical analysis, aiming to verify the impact of the women's presence in the governance of professional football clubs on the sports results, financial and extra economical-financial performances. The analysis will be carried out on clubs that played in Serie A during 2018/2019 season, and the last season played entirely without interruptions due to the COVID-19 pandemic. The aim is to verify the impact of the women's presence in the governance of professional football clubs on sports, financial, and extra economical-financial performance. Therefore, the dependent variables will be the global index of a sporting nature, the global index of a financial nature, the global index of extra economical-financial nature, while the independent variables will be all the variables characterizing the governance of the club, especially those relating to the presence and experience of women.

In the first step of the research, the variables of governance and the variables expressions of sports performance, financial, and extra economical-financial nature are identified and calculated.

The governance variables chosen are listed below:

1. BUSINESS MODEL or MANAGERIAL MODEL
2. NUMBER OF BOARD DIRECTORS
3. WOMEN'S PERCENTAGE ON THE BOARD OF DIRECTORS
4. WOMEN'S AVERAGE AGE ON THE BOARD OF DIRECTORS
5. SUPERVISORY BODY
6. NUMBER COMPONENTS' OF SUPERVISORY BODY
7. WOMEN'S PERCENTAGE ON THE SUPERVISORY BODY
8. WOMEN'S AVERAGE AGE ON THE SUPERVISORY BODY

The variable expressions of sporting performance chosen are listed below:

1. NUMBERS OF SCUDETTI
2. NATIONAL TITLES
3. UEFA CHAMPIONS LEAGUE/CUP OF CHAMPIONSHIPS (total)
4. UEFA EUROPA LEAGUE/UEFA CUP TITLES (total)
5. INTERCONTINENTAL CUP TITLES (total)
6. UEFA CUP WINNERS' CUP (total)
7. WORLD CLUB TITLES (total)

The selected variables of financial performance are listed below:

1. FINANCIAL DEBT (NFP)
2. GROSS OPERATING MARGIN
3. PERSONNEL COSTS
4. DEPRECIATION OF PLAYERS' PERFORMANCE RIGHTS
5. COSTS BUSINESS OPERATIONS (DEPRECIATION OF PLAYERS 'PERFORMANCE RIGHTS + PERSONNEL COSTS)
6. OPERATIONAL COSTS
7. OPERATING PROFIT (EBIT)
8. NET COMPANY PROFIT
9. TOTAL ASSETS
10. TOTAL LIABILITIES
11. CURRENT LIABILITIES
12. NON-CURRENT LIABILITIES
13. INCOME FROM MATCHDAY
14. TV BROADCASTING INCOME
15. PROFIT ON DISPOSAL OF PLAYERS' REGISTRATIONS
16. COMMERCIAL REVENUES
17. OTHER INCOME
18. OPERATING INCOME (summing revenue function)
19. CAPITAL SOLIDITY INDEX (NFP / net worth)
20. CREDIT RATING INDEX (NFP / EBITDA)
21. OPERATING EFFICIENCY INDEX (cost of registered personnel/ Net revenue of sports management)
22. IMPACT OF PLAYERS 'PERFORMANCE RIGHTS (DEPRECIATION OF PLAYERS 'PERFORMANCE RIGHTS/TOTAL COST)
23. OPERATING INCOME FROM SPORTS MANAGEMENT (Net Revenue of Sports Management—emoluments of registered personnel—DEPRECIATION OF PLAYERS 'PERFORMANCE RIGHTS)
24. OPERATING INCOME FROM BUSINESS OPERATIONS (OPERATING INCOME FROM SPORTS MANAGEMENT—OPERATIONAL COSTS)
25. CASH RATIO (total value of current assets / total value of current liabilities)—numeric variable
26. ROE (return on equity)
27. ROI (return on investments)
28. ROS (return on sales)
29. ROA (return on assets)
30. LEVERAGE (total debt/total liabilities)

The selected variables of extra-economic, financial performance are listed below:

1. CLUB MARKET VALUE (Season 2018/2019)
2. TRANSFER FEE RECORD (last five Seasons)
3. STOCK EXCHANGE LISTING
4. PRESENCE OF INVESTOR RELATOR

**Table 1** Global sports index, global index of a financial nature, global index of an extra-economical-financial nature

Clubs	Global sports index	Global index of a financial nature	Global index of an extra-economic, financial nature
Atalanta	0.10	10.77	1.85
Bologna	0.38	8.25	0.56
Cagliari	0.06	8.86	0.50
Chievo Verona	0.02	7.63	0.40
Empoli	0.03	8.92	0.42
Fiorentina	0.76	10.41	0.94
Frosinone	0.00	9.92	1.79
Genoa	0.53	10.83	0.88
Inter	4.11	15.81	3.11
Juventus	4.85	19.66	7.33
Lazio	1.01	10.64	3.11
Milan	6.05	9.19	2.55
Napoli	0.25	14.72	1.99
Parma	1.44	6.17	1.22
Roma	0.34	12.84	3.75
Sampdoria	0.65	9.04	0.72
Sassuolo	0.02	9.78	1.69
Spal	0.03	7.82	1.18
Torino	0.45	9.36	0.73
Udinese	0.03	10.80	1.62

## 5. OWNED STADIUM

## 6. AVERAGE NUMBER OF SPECTATORS AT THE MATCHDAY (Season 2018/2019)

## 7. SOCIAL MEDIA FOLLOWERS (Season 2018/2019)

## 8. % GROWN UP (Season 2018/2019)

Data collection is carried out from primary sources:

- Variable of governance: Chamber of Commerce registration
- Variables of a financial nature: Clubs' Financial statements
- Variables of a sporting nature: <https://www.transfermarkt.it/>
- Variables of an extra-economic, financial nature: IQUII REPORT

In the second step of the research, the global index, expression of the dependent variables, is calculated.

First, the normalization of each variable for each calculated index is performed. In our case, the variable expressions of sporting, financial, and extra-economical-financial performance have been brought back to a scale of a value ranging from 0 to 1.

The process generates the following index (Table 1):

- Global sports index (max value 7)
- Global index of a financial nature (max value 30)
- Global index of an extra-economic, financial nature (max value 8)

In the third step of the research, a correlation analysis between each global indicator considered the dependent variable, and each variable expression of the governance characteristics of the companies, considered as independent variables, is carried out. The empirical research is carried out through the SPSS software. The next section will describe the findings of the analysis.

## 4 Empirical Analysis Results

Correlation analysis led to the following results (Table 2).

As a result of the empirical analysis concerning the Boards of directors, both the presence of women ( $R = 0.514$ ) and the experience ( $R = 0.479$ ), estimated through age, affect the financial performance (Henderson, 1973; Russell-Walling, 2008).

This influence is also present in the control body, where the presence of women affects both financial ( $R = 0.352$ ) and non-financial ( $R = 0.361$ ) performance.

The impact and presence of women in governing bodies have less impact on sports performance.

**Table 2** Correlation analysis result (R)

	Global sports index	Global index of a financial nature	Global index of an extra-economic, financial nature
Business Model or Managerial Model	0.488	0.384	0.507
Number of Board directors	0.521	0.538	0.502
Women's percentage on the Board of directors	0.102	0.514	0.349
Women's average age on the Board of directors	0.063	0.479	0.346
Supervisory body	0.006	-0.005	-0.188
Number components' of supervisory body	0.029	-0.036	-0.178
Women's percentage on the supervisory body	0.05	0.352	0.361
Women's average age on the supervisory body	-0.095	0.155	0.08

## 5 Discussion of the Results and Concluding Remarks

The history of the sport, in general, has long been characterized by the clear predominance of men and the field of sports activities is still marked by deep gender differences: men participate more than women in sports, and this is reflected in the long-standing phenomenon for which male sports have greater specific weight, both economically and culturally (Trequattrini et al., 2016), the only ones to which is recognized the dimension of professionalism. The differences between gender involvement in sport were related to motivations based on original and natural differences between males and females: strong, competitive, active and sporty, the former; weak, submissive, passive, and sedentary, the latter (Lorenzini, 2020).

As shown in a study drawn up by the CONI Center for Studies and Statistical Observatories for Sport in 2018, the federal sports movement reached the largest number of members of the National Sports Federations (FSN) and the Associated Sports Disciplines (DSA) in 2017: equal to 4 million and 703 thousand athletes and, salient point, the participation of female was equal to 28.2% against 71.8% of male. This data highlights that, although in recent years, the incidence of female athletes has been gradually increasing, women in the sports universe continue to be highly underrepresented. This gender imbalance is not found only in the athletes' categories but also among the operators, who support the corporate and federal organizations, in which the four-fifths are men. Again, in the category of technicians, women are 19.8%, and among match officials, they are 18.2%, while the lowest ratio is found among the members of federal bodies, with an incidence of women equal to 12.4%.

One of the points that need to be investigated, at the European level, is the "pay gap," which is the wage difference between men and women. In some countries, such as the USA or Norway, where the arrival of women in football is now a consolidated reality, this is the subject of debate, with important initiatives in favor of the female components, such as the mobilization of many Hollywood stars in favor of the American women's national team (Di Biase, 2019).

In Italy, also thanks to the visibility obtained by the movement in the last year, the topic seems to have become highly popular. The FIGC and the Government itself adapt the legislation to a rapidly evolving context.

On March 26, 2015, the Federal Council of the Italian Football Federation approved the programmatic guidelines for the development of women's football, to bridge the gap that separates Italian women's football from the one in more developed European nations, and to improve the standards in quantitative and qualitative terms, inside the women's football movement in Italy. In September 2017, the aforementioned programmatic lines were subject to review by the Board itself, thanks to the achievement of the objectives and to focus on new areas of intervention. Until 30th June 2018, the data from Report Calcio 2020 show that there are 25,896 female football players registered for the Federcalcio (23,665 in the previous year), including 12,908 in the Under 18 category (54% of the total); 677 are the registered clubs, of which 24 for the Serie A and Serie B championships,



directly managed by the FIGC, which has also been involved in the Italian Cup, Spring Championship and Super Cup since 2018/19.

This gender gap is not found only in sporting practice but is also reflected in the decision-making hierarchies, therefore in the governance, of football clubs: the CONI study highlighted that the managerial positions held by women slightly exceed the 15%.

According to research conducted by Forbes<sup>1</sup> Italia in August 2019, on the issue of gender difference inside the governance of Italian football clubs, the weight of women in the Boards of Directors of the 20 companies, which participated in the Serie A 2018–2019 championship, is equal to only 14% of the total; in the clubs of the Italian Serie A league, out of 120 administrators who sit on the Boards only 17 are women.

As demonstrated by the empirical analysis, the presence and experience of women can affect the financial and extra-economic financial performance; therefore, this data is even more alarming.

Of this number, however, there is another aspect to refer to for observing the data from the most realistic point of view: five of these women are closely related to the ownership of the clubs. An aspect that could lead to the understanding that the designation was unlikely to have taken place due to the professional capability, or at least not exclusively, and that it would still have occurred even if the individual would have been a man.

Looking at the figure excluding the relative relationships, the weight of women on the Boards of professional football clubs would be 11%.

This is a very insignificant figure, which furthermore discounts the obligatory nature of “pink quotas” for listed clubs, which are required to reserve 33% of the seats on the Board for the gender quota.

The central topic to stress is in the fact that the designation of a woman on the Boards should not derive from a tax law, which becomes necessary to fill a gap, which otherwise would not see resolution, but from the awareness that attention to the female gender is a strength on which to invest to achieve better results. The gender gap still finds a way to exist all over the world, but comparing the Italian data with the foreign ones, and we note how the formers are in any case at the bottom: indeed, according to the World Economic Forum’s Global Gender Gap Report 2020,<sup>2</sup> Italy is in 76th place for gender parity out of the 153 surveyed.

In England, the role of women is much more represented even at the managerial level, with a particular focus on top positions. An illustrative example is the Chelsea club, which since 2014 sees a woman holding the role of CEO and right-hand man of the owner of the Club, from which a fundamental voice derives, also regarding many technical aspects, such as players to sell or buy, and coaches to be exempted.

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<sup>1</sup>Forbes Italia, *In campo coi tailleur*, agosto 2019. <https://forbes.it/2019/08/23/calcio-femminile-il-ruolo-delle-donne-nel-mondo-del-pallone/>.

<sup>2</sup><https://www.weforum.org/reports/gender-gap-2020-report-100-years-pay-equality>

Again in Ireland, since 2011, a woman is leading the Leicester team, who was recently named Ireland's Most Influential Businesswoman by the Women's Executive Network.

Also in England, known as "The First Lady of football," there is a female manager who held the role of general manager of Birmingham City and is now executive vice president of West Ham, as well as a member of the House of Lords, after being awarded the title of baroness. But even in the field of finance collateral to the sport of football, she was a woman who witnessed the takeover of the Manchester City football team by Sheikh Mansour.

The role of women in the corporate governance of football clubs is therefore still too limited, even more when compared with the data of the governance of the Italian economy in general, where, according to Union camera's findings,<sup>3</sup> female members of the BoDs represent approximately 25% of the total and, in absolute terms, over 2.5 million offices are held by the female gender. In particular, 32 thousand positions as chairman of the Board of directors are held by women, against a total of over 185 thousand. Women presidents account for 17.36% of the total, increasing by over 7% points in just one year.

The result is that the female gender continues to be the object of great marginalization from the decision-making sphere and the governance of football clubs, although women have undressed the role of a weak individual, exclusively relegated to family practice, little educated and little involved in holding positions of responsibility, aspects that have been characterized them for centuries.

Nowadays, the structural barriers created by discriminatory institutional values, norms, and practices that feed the football universe still limit the options and opportunities for the female gender and they will continue to do so until you would not naturally begin to entrust women with roles of responsibility, not because you have to, but because you believe in them, instead of legal impositions that only risk increasing the gender gap at the mind level.

Future research will be aimed to broaden the analysis, including other countries, and to deepen the analysis regarding the factors that do not allow to bridge this gender gap. Finally, further investigations would require the identification of an analytical method capable of allowing the extension of the results achieved in other work contexts.

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<sup>3</sup>Unioncamere, novembre 2018—[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjPgLOCn7LvAhVJmqQKHS\\_ECKUQFjABegQIBRAD&url=https%3A%2F%2Fwww.unioncamere.gov.it%2Fdownload%2F8546.html&usg=AOvVaw0L4ot2miewVwo9zSPHjH11](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjPgLOCn7LvAhVJmqQKHS_ECKUQFjABegQIBRAD&url=https%3A%2F%2Fwww.unioncamere.gov.it%2Fdownload%2F8546.html&usg=AOvVaw0L4ot2miewVwo9zSPHjH11)

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# Gender Diversity and Resilience in Firms During COVID-19 Pandemic



I. Cavallini, G. Iacoviello, and F. Ricci

## 1 Introduction

Every firm across the globe has faced a crisis at some point in time. While most large companies survive, many struggles for years following a period of severe adversity. Others prevail and become stronger than before. How companies address crises has changed over time, as well as the role of their Board.

The pandemic's impact will be felt differently by every company, and Boards will have to ramp up or dial back their responses depending on their unique circumstances.

Amid COVID-19's rapid spread across the globe, Boards are moving fast to oversee the deployment or refreshment of crisis management protocols. That said, irrespective of company, a crisis of this magnitude acts as a true pressure test for Boards, uncovering new fault lines that directors must navigate. Much has been written about how Boards should generally behave during a crisis, but few, if any, directors have experienced something as dire as a pandemic. The current situation of the COVID-19 pandemic and the business environment crises have increased the interest of researchers and regulatory bodies to improve companies' financial performance and quantify the efficiency of the Board of directors (Kanajriyah, 2021).

The Board of directors' gender composition can affect the quality of its monitoring role and thus the financial performance of the firm. The relationship between

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female representation and firms' performance represents a crucial issue in the debate on the effects of Board gender quotas. The evidence on this relationship is mixed. Many studies analyze whether female top executives and women on Boards of directors have a significant effect on firm performance.

Adopting a system of Diversity Management (DM) in firms and therefore exploiting the diversity of individuals can lead to an improvement, but also a deterioration, in company performance or, finally, not have a significant effect. Certainly, there are numerous exogenous and endogenous variables that impact the ability of a company to achieve its objectives effectively. Business results are linked to characteristics of creativity, innovation, and optimal problem-solving in individuals whose task is to make strategic and operational decisions.

More broadly, diversity among individuals within a group can be traced to their personal or demographic characteristics (Jackson et al., 1993): age, sex, culture, social status, education, life experiences, etc. Some scholars (Konrad & Gutek, 1987) speak of differences with respect to the members of a group, while Wittenbaum and Stasser (1995) speak of them in terms of variations in information and/or expertise. According to the Reception Theory (Hall, 1980), a text—be it information about the impact of COVID-19 pandemic—is not accepted in the same way by the audience—be it different meanings the effect of the crisis on firms (security, smart-working, firm performance, etc.). The viewer interprets the meanings of the text based on their age, sex, individual cultural background, life experience.

Covid-19 shows how subjective or cultural factors such as the sentiment of belonging to a community can face how a disaster unfolds.

Furthermore, a different way of thinking allows the Board of direction to identify the key drivers, interactions, and dynamics of Covid-19 pandemic nexus that the firm seeks to face. The even random nature of environmental threats induces the Board to select points of intervention in a selective, adaptive way.

Critically, this allows the firm to underline the importance of resilience to a variety of shocks and stresses, permitting companies to recover from lost functionality and adapt to new realities regarding the firm and the risks of a more unpredictable and uncertain environment.

In this direction, the aim of this chapter is to understand if and how gender can influence the resilience of firms.

Therefore, the authors intend to answer the following research question:

RQ. How can gender diversity enable resilience in firms?

This chapter is organized as follows. Section 2 presents the background and literature review. Section 3 presents the methodology. Section 4 outlines the discussion, and Sect. 5 provides conclusions and future agenda.

## 2 Background and Literature Review

### 2.1 Gender Diversity

Many scholars and researchers have dealt with gender diversity and tried to measure and interpret the impact of female presence in the work environment. In outline, predictions from empirical evidence are ambiguous. Besides the ambiguous theoretical predictions, the diverse empirical evidence may be due to different estimation methods. In some studies, no controls for other factors are included (Smith et al., 2005). Many aspects have been investigated and they constitute the basis for the positions in favor of the introduction or reinforcement of gender diversity in the top positions of company management. Some, on the other hand, have produced equally interesting results and have refuted studies and research that showed a positive relationship between female presence on Boards and company performance. It is equally true that both sides adduce results using different tools of measurement and, therefore, not single indicators. Ultimately, to date, there are no univocal positions on the effects of female directors on companies performance: sometimes scholars and empirical research have been highlighted as positive (Canyon & He, 2017; Green & Homroy, 2018; Liu et al., 2014; Low et al., 2015; Terjesen et al., 2016); as negative (Abdullah, 2014; Ahern & Dittmar, 2012; Dobbin & Jung, 2011); as not significant (Byron & Post, 2014; Carter et al., 2010; Lückerrath-Rovers, 2013; Marinova et al., 2016; Rose, 2007; Rubino et al., 2017; Shrader et al., 1997).

Rubino et al. (2021) conducted an empirical analysis on a sample of 193 listed companies during 2006–2015; they highlight a positive and significant relationship between both independent and female executive directors and firm performance. However, they suggest that focusing solely on the role of women might obscure the true relationship between female directors and firm performance. Jaggia and Thosar (2021) find that educational background and the age of CEO play an important role in firm performance, while gender has almost no role in affecting management style. In addition, the interpretation of the relationship between the composition of the CEO and performance must be made considering factors such as the size of the company (Shehata et al., 2017), the country (Comi et al., 2020; Jonsen et al., 2011; Nishii & Özbilgin, 2007; Zhang, 2020), the ownership (Amore et al., 2014).

Dezso and Gaddis Ross (2012) find that female representation in top management improves firm performance, but only to the extent that a firm's strategy is focused on innovation, in which context the informational and social benefits of gender diversity and the behaviors associated with women in management are likely to be especially important for managerial task performance.

Scholars found an association between gender diversity and firm innovation since firms with more women on Boards were found to spend more on R&D (Bernile et al., 2018; Kulik, 2011; Saggese et al., 2020).

The origin of this can be found in the concept of informational diversity. When people are brought together to solve problems in groups, they bring different information, opinions, and perspectives, unique experiences to bear on the task at

hand. A male and a female engineer might have perspectives as different from one another as an engineer and a physicist—and that is a good thing (Antonio, 2004).

Yet, there are also arguments that greater gender diversity may serve to reduce firm performance. Scholars suggest that members of homogeneous groups tend to communicate more frequently as they are more likely to share the same opinion and experience. Furthermore, homogeneous Boards in terms of gender are hypothesized to report less conflict as compared to heterogeneous ones. For these reasons, gender diverse teams are likely to experience more interpersonal incompatibilities and disagreements about their tasks and decision-making processes than gender homogeneous ones (Earley & Mosakowski, 2000; Tajfel & Turner, 2004; Williams & O'Reilly III, 1998).

One pioneering study (Shrader et al., 1997), which theorized about and empirically studied the relationship between female representation at various levels of management and firm performance, used accounting measures. The researchers were unable to find any significant positive relation between the percentage of female members of US Boards and several accounting measures of financial performance and found significant negative relations in some cases.

The study by Carter et al. (2003) went a step further in that it correlated the ROA index with a stock measure. They found a positive and significant relationship between Tobin's Q and the proportion of women on the Boards of Fortune 1000 firms after controlling for size, industry, and other corporate governance measures.

In 2009 Adams and Ferreira conducted a research in which the behavior of the men on a Board in the presence of women was observed—studying above all the “Gender effect” and therefore the correlation with company performance. The authors discovered that the impact of gender variety within the Board is positive when the female presence is weak and does not assert itself. Gender diversity has beneficial effects in companies with weak shareholder rights, where additional Board monitoring could enhance firm value, but detrimental effects in companies with strong shareholder rights.

Some studies lead to the conclusion that women are selected for positions of leadership when (and only if) there is a high risk of failure of companies (Ashby et al., 2007; Bruckmuller & Branscombe, 2010; Haslam & Ryan, 2008). More specifically, archival, and experimental work has demonstrated that female leaders are more likely to be appointed in a time of poor performance or when there is an increased risk of failure, and, as such, their leadership positions can be seen as more precarious than those of men (Ryan et al., 2011). According to Haslam et al. (2010) women are selectively recruited for leadership positions in organizations that are failing. It is also possible that the appointment of a woman to a high-level position can be interpreted by investors as a sign of difficulty or decline of the company (Certo, 2003; Higgins & Gulati, 2006). From a study by Byron and Post (2014), it emerged that having more women on a Board of directors does not improve the financial performance of a company but improves how a Board (however it is composed) makes decisions. According to these authors, although the relationship between female Board representation and market performance is near-zero, the relationship is positive in countries with greater gender parity (and negative in



countries with low gender parity), perhaps because societal gender differences in human capital may influence investors' evaluations of the future earning potential of firms that have more female directors.

## 2.2 *Resilience*

The study of resilience has become more important because people are more aware of the consequences of natural and human-made disasters, financial crises, environmental uncertainties, threats, crises, and unexpected events (Ince et al., 2017).

Disruptive events cannot be adequately addressed with traditional risk management systems, so a growing number of scholars have shifted their attention from identifying and mitigating risk to trying to increase resilience (van der Vegt et al., 2015).

Nowadays, a key trait of many crises firms face is that they are triggered by improbable events whose causes are not well understood. Many of them stand out from a pattern of different events coinciding in space and time—such as the Covid-19 Pandemic—and the same occurrence and overlapping consequences of such adverse circumstances barely can be anticipated and predicted.

The identification of risks and alleviating the level of vulnerability to external disturbances are the main objective of the traditional risk management approach; adopting a resilience approach to disturbances implies focusing on capabilities and capacities of firms to continually renew, reconstruct, and sustain after an unusual or destructive event (Hamel & Valikangas, 2003; Holling, 1973; van der Vegt et al., 2015).

Despite no consensus on traits that make a firm resilient due to different conceptualizations of resilience within management literature (Conz & Magnani, 2019; Hillmann, 2020; Linnenluecke, 2017) and many definitions, lot of scholars converge on a concept of resilience that embraces the adaptability, responsiveness, recovery, sustainability, flexibility, and competitiveness of a firm (Bergami et al., 2021; Erol et al., 2010; Giustiniano et al., 2018; Madni & Jackson, 2009; Mafabi et al., 2012; McManus et al., 2007; Pal et al., 2014; Robb, 2000; Seville et al., 2015; Williams 2017).

Ruiz-Martin et al. (2018) carry out an analysis of three main streams in the conceptualization of resilience: resilience as a feature of an organization (ability to deal with internal and external changes, risks or jolts, capacity to deal with them, capability to deal with these issues); resilience as an outcome of the organization's activities (the maintenance of positive adjustment under challenging conditions such that the organization emerges from those conditions strengthened and more resourceful); resilience as a measure of the disturbances that an organization can tolerate and still survive. Evidence across multiple levels suggests that resilience emerges from ordinary factors that manifest in non-traditional ways that promote competence, restore efficacy, and encourage growth (Sutcliffe & Vogus, 2003). Scholars (Eisenhardt & Martin, 2000; Gittell & Cameron, 2002; Worline & Boik,

2006) give focus to the different reactions of resilient firms to adversity compared to their less resilient counterparts. What is unclear, however, is whether resilient firms interpret challenges and threats differently (Sutcliffe & Vogus, 2003), or rather it implies that measuring the different facets of the resilience process is most likely a difficult enterprise.

In firms, resilience is engendered when individuals who are most likely to have the relevant and specific knowledge necessary to decide and resolve a problem are given decision-making authority (Wruck & Jensen, 1994).

Resilience also hinges on individual training, experience, gender, specialized knowledge.

From this perspective, it is worthwhile to investigate how gender diversity can enable resilience traits in perilous moments.

### 3 Methodology

To address this research gap, the present paper focuses on how gender diversity can enable resilience in firms. To bridge the gap between theory and practice and answer the research question, we perform field-based research using the case study method at the first step of the research (Bartunek et al., 2006; Ferlie et al., 2005; George & Bennett, 2004; Gilbert, 2005; Visconti, 2010; Yin, 1994).

Using the pilot, it would be possible to make changes and adjustments to the interview for further questions and improve the quality of data collection inside the next step of our research, or to give advance warning about where the main research project could fail (Chenail, 2011; Kallio et al., 2016).

The case identified was considered useful, functional, and instrumental with respect to the objective that we intended to achieve (Edmondson & McManus, 2007; Eisenhardt, 1989; Siggelkow, 2007; Yin, 1994).

The case study gives its intrinsic potential of deeply understanding the dynamics of single organizational contexts by means of qualitative data collection. Moreover, the case study is suitable for theory building at all possible levels, including theory generation, extension, and contestation (George & Bennett, 2004; Yin, 1994).

We used the semi-structured interview that allowed us both to ask a series of regularly structured questions and to pursue areas spontaneously initiated by the interviewee (Hutchinson & Wilson, 1992). The interview is necessary when the interviewee is likely to have experiences that we could not anticipate. Thus, we needed enough flexibility to discovering, describing, and interpreting the logic of resilience in firms in relation to gender diversity.

The interview questions were based on our prior knowledge, and complementary empirical research used to complement and deepen the theoretical background (Kallio et al., 2016; Kelly, 2010; Wengraf, 2001).

We developed a conceptual framework based on the previous study in the research topic areas (gender diversity and resilience). The role of this framework (Table 1) is to create a conceptual basis for the interview and to make the research

**Table 1** Element of the conceptual framework

Priorities: Should Board members be mobilized by a common view of what they stand for as a socially responsible firms that deliver value to stakeholder.
Process: Can the Board execute its duties effectively with a systemic focus on the effect of environmental change or crisis across the organization?
Guidance: Do all directors contribute fully to discussions or do some directors feel shut out?
Perspective: Is the Board leading the way on the need to transform, driving systemic value on key firm priorities?

Source: Authors' elaboration

findings of our research meaningful and generalizable (Åstedt-Kurki & Heikkinen, 1994; Green, 2014; Parahoo, 2006; Polit & Beck, 2006). Linking together findings into a coherent structure can make them more accessible and so more useful to others.

According to the Authors, priorities, process, guidance, and perspective be used as keywords to understand firms' strategic and managerial modus operandi.

So, we defined a list of questions that allow us to direct the conversation towards the research topic during the interview, changing the order of the questions to improve the interviewing process (Chenail, 2011; Kallio et al., 2016; Whiting, 2008).

The object of the interview included both the main content of the research and spontaneous follow-up questions to allow the interviewee to expand on some points that came up in the interview, by asking for more information (Dearnley, 2005; Whiting, 2008) or an example of the issue (see Fondazione Bellisario). In fact, we found that the interviewee did indeed get off all the topic with certain questions because of misunderstood the question being asked; we reconstructed questions so that we were clearly assembled in a manner to reduce misunderstanding and were able to erect effective follow-up prompts to further understanding (Turner, 2010).

## 4 Discussion

The interviewee is Elena Farinella, a member and activist of the "Marisa Bellisario" Foundation, a network that gathers thousands of managers, businesswomen, and professionals, who dialogs with the political world and public institutions to carry out projects on the job market, entrepreneurship, and welfare policies, with the goal of achieving conditions of real equal opportunities.

Elena Farinella is a successful and appreciated chartered professional accountant, and she is the ACFE (Association of Certified Fraud Examiners) Italian Chapter President. ACFE is the most important professional association in the Fraud Governance sector.

According to Elena, in times of crisis, women are "more involved" they are more sensitive to business problems. Within the Foundation, precisely with reference to the role of women, there is a tendency to give an interpretation of the phenomenon

**Table 2** Female Board during Covid-19 pandemic

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With Covid-19, “Companies had to assess this unusual market situation. They may not have been agile enough.” In December, Roku named two women, Laurie Simon Hodrick and Gina Luna, former financial executives, to its Board. **Netflix** named Strive Masiyiwa, a global tech and telecom investor originally from Zimbabwe to its Board, and **Discovery** named BET co-founder Robert Johnson. In November, AT&T appointed a current director, former FCC chairman William Kennard, to chairman of its Board starting in January. In late summer, **Lionsgate** named former FCC commissioner Mignon Clyburn as its fourth woman and second diverse director. Among the big players, ViacomCBS is near the top of national and international diversity rankings with seven women directors out of 13—a rare majority female Board led by Shari Redstone—and two diverse directors. Advertising goliath Omnicom has six women on its nine-member Board. Small Phoenix-based cable company Cable One has six women out of 11. Walt Disney and Comcast are, respectively, 60% and 50% diverse by gender and race.

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Source: Goldsmith, 2020

by referring to the Attachment Theory of care (Bowlby, 1969/1982): women are more inclined to attachment, so if there is a crisis, they are more than man prone to a problem-solving approach. The attachment theory is a useful theoretical perspective for understanding the role of support in helping individuals explore unknown environments. Proactive behavior, with its focus on bringing about change in uncertain contexts (Griffin et al., 2007), involves exploring new possibilities and managing unfamiliar environments (Frese & Fay, 2001).

This seems to confirm the empirical studies conducted in the last two years according to which decision-making processes are influenced by intangible variables such as women’s sensitivity to gender inequality (pay equity, diversity, and inclusion, characteristics of women’s work and the impact of the pandemic) exacerbated by the pandemic event (Bluedorn et al., 2021; European Commission, 2021; McKinsey & Company, 2021).

It is also true, as Table 2 shows, that in the last period, there have been several assignments entrusted to female figures.

However, Elena is not sure if that could be the only hypothesized reason, that is, linked to gender. With reference to the aspects of the Priorities, the interviewee highlights how, certainly, diversity gives the possibility of pursuing a common goal or whatever.

Furthermore, according to Elena, there is a greater tension in companies with a marked female presence; the desire for improvement and continuous change is stronger, although perhaps they are roles that sometimes have a control function, but in any case, a control is always proactive (Process). Surely, the interviewee reports, the presence of gender in the organizational structure helps to work better as a team (guidance). Finally, the undisputed role of perspective. Diversity does not represent the driving force for sustainability or innovation, rather it is one of which, it is one of the elements that have become fundamental because otherwise, a result is not obtained (Table 3).

So, resilient firms are firms in which knowledge is effectively managed. Definitely, firms have to be competent in many aspects to be resilient.

**Table 3** Implementation of the conceptual framework*Priorities:*

Resilient firms have a strong sense of purpose, basic values, and a unique vision (Lengnick-Hall et al., 2011).

*Process*

Resilient firms create and implement the processes to identify, analyze, assess, and react risks and threats (McAslan, 2010).

*Guidance*

Resilient firms encourage the sharing of internal knowledge between organizational members and units (Demmer et al., 2011).

*Perspective*

Resilient firms refine, combine, and transform existing knowledge into new practices (Akgün & Keskin, 2014).

Resilient firms use the necessary mechanisms to gather knowledge from various sources to identify and cope with challenges (Richtnér & Löfsten, 2014).

Source: Authors' elaboration

## 5 Conclusion

Our research contributes to the literature by providing empirical evidence to support a perspective of analysis of the gender diversity relevance in firms. As Popper and Mayseless (2003, p. 42) suggest, “leaders, like parents, are figures whose role includes guiding, directing, taking charge, and taking care of others less powerful than they and whose fate is highly dependent on them.”

Our finding substantiates the idea that gender diversity can serve as bases to enhance resilience in firms, especially throughout the pandemic period. Attachment theory has been used by the interviewee to understand gender diversity and resilience.

Future research can explore the long-term implications of gender diversity on resilience. Meanwhile, our findings suggest that gender diversity could ultimately let firms to have a strong sense of purpose to refine and transform existing knowledge into new practices (resilient firms).

Bowlby (1969/1982) theorized that individuals could update their existing patterns to accommodate new experiences; resilient firms use the necessary mechanisms to gather knowledge from various sources to identify and cope with challenges. A further avenue for future research is that an individual may often generate creative ideas or seek to improve their working methods, but nevertheless be ineffective in these efforts (Grant et al., 2011).

However, the research paper that we have submitted has few limitations. First, this work presents only a single case study. The material collected through the case study can be used as a basis for future research as long as there will be “significant” revisions from the original. Secondly, it should be said that the concept of resilience shaped on current companies during the Covid 19 pandemic constitutes a first start to analyze resilience and gender diversity through a project of analysis on a sample of companies.

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# New Ways of Working During (and After) the COVID-19 Pandemic: Truly *Smart* for Women?



Mara Del Baldo 

## 1 Introduction

The COVID-19 pandemic has seriously devastated people's lives, global economy, and political and social environments worldwide, manifesting itself as an economic, health, and social crisis. Like many other countries, the Italian government has been forced to adopt/impose drastic measures to stem the pandemic. The lockdown has been enforced regarding activities and public services, and regulations prohibiting people's movement, school closures, and social distancing between individuals had and still have a huge impact on personal, social, and economic life, particularly on male and female labor market participation (Barbieri et al., 2020; Casarico & Lattanzio, 2020; Centra et al., 2020) and inequality (Galasso, 2020).

Prior research has pointed out that recessions often affect men's and women's employment differently, with a greater negative effect on men (Rubery & Rafferty, 2013; Hoynes et al., 2012). In this vein, the job losses caused by the 2008 financial crisis particularly affected male-dominated sectors, such as construction and manufacturing (Del Boca et al., 2020). In contrast, the current crisis impacts both male and female employment (Hupkau & Petrongolo, 2020; Alon et al., 2020) since the social measures mentioned above have influenced sectors where both genders are employed (ILO, 2020). Namely, the current emergency has forced us to adopt and without warning diffuse forms of agile work, including flexible locations and flexible working hours (i.e., smart working and telecommuting work), thus enhancing the transition to 'remote work' (working from home or places different from the usual workplace) to contain the spread of the coronavirus and avoid economic collapse (Morgan, 2004).

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These new forms of work have begun to spread in the last few years, based on the removal of constraints of the space and working hours. In the USA, a flexible work arrangement is widespread among workers and still plays a key role in their decision to take or leave a job (Gallup, 2017). Similarly, the results of the sixth European survey carried out by the European Foundation for the improvement of living and working conditions pointed out that both men and women's working hours were not suitable with their family and social commitments (Eurofound, 2017), while having some freedom to arrange one's working hours increases the balance between work and home-life conditions, positively affecting gender equality (Eurofound, 2020).

Before the pandemic in Italy, agile work/working from a distance or digital work/flexible work was not widespread in its juridical variants. In most cases, they represented an opportunity dependent on the agreement between the employer and employee that remained in the "background" of both the private and public sectors, albeit collective bargaining has cultivated significant experiments in large and high-tech companies (Brollo, 2020). In such a context, the pandemic crisis has contributed to the diffusion of the organizational model of "smart working," which has grown in importance since it allows people to work outside their workplace and have a flexible schedule, thanks to the use of technological tools. In Italy, agile work—in the form of smart working—has been introduced by Law 81/2017, providing that by signing a written agreement with the company, the worker can perform his services without time or place restrictions, using technological tools, in part within the company premises, partly outside, without a fixed position, with only the maximum duration of daily and weekly working hours established by law and by the collective agreement.

Employees, employers, as well as institutions and scholars have manifested (not only in Italy but on a global scale) different points of view on the effectiveness of agile working, and there is no general agreement on the benefits and issues, thus marking that smart working comes—especially in this period of "forced" wide-spreading smart working—with a trade-off.

Drawing from this scenario, this work aims to understand if the application of new ways of working (such as smart and agile working) entered into force during the COVID-19 pandemic have positively contributed and/or are contributing to the work/life balance of women in their role as entrepreneurs, employees, and professionals (Pasquarella, 2017; Chierigato, 2020). The ultimate goal of this chapter is to trace an initial picture of a relatively new phenomenon in Italy that has been gaining momentum due to the pandemic crisis by analyzing the perspectives of a pivotal group of key interlocutors formed by women who are using smart working, developing some initial reflections based on their current experiences. The first insights derived from the explorative study will help us further develop hypotheses to be tested in future research.

The remainder of the chapter is structured as follows. Sections 2 and 3 provide a theoretical background on smart working and work–life balance focussing on the effectiveness, the benefits, and the issues of its adoption. Section 4 describes the methodological aspects, presenting the qualitative explorative study, while Sect. 5

reports results. Sections 6 and 7 include a discussion of our findings and concluding remarks.

## 2 Pro and Cons of Smart Working: A Leap into the Past?

The coronavirus outbreak has led to a huge increase in “smart working” across the world, but the socio-economic effects of this widespread model are still under-investigated. Despite its recent massive diffusion, in the past years, many entrepreneurs have demonstrated a weak interest in forms of agile/flexible work (Maino, 2018; Istat, 2019; Osservatorio Smart Working, 2019; Butera, 2020; Fondazione Studi Consulenti del Lavoro, 2020; McKinskey, 2020).

Prior literature has investigated these forms of flexible work, as part of the welfare initiatives adopted by companies to improve their employees’ working conditions and have been framed within the policies and actions of corporate social responsibility. In particular the research line of “corporate family responsibility” considered them as a sign of companies’ attention of companies towards the stakeholder represented by the employee(s)’ family (Del Baldo, 2013; Vigorelli, 2019; Lipari, 2019; Faldetta & Gabriele, 2020; Garofalo et al., 2020). On the other hand, agile working was analyzed in the context of gender studies with reference to the inclusion of women in the world of work and as a possible tool for active policies aimed at favoring the reconciliation of female work with respect to home and family needs (work–life balance) (Behson, 2005; Breugh & Frye, 2008).

Within this research stream, a previous study deemed that working from home under the same wage conditions and the employer’s control (“telecommuting”), who is rigorously keeping an eye on the work location and the working hours, could be beneficial for employees’ productivity and their work–life balance. However, this is all at the cost of feeling isolated, which, in the long run, may reduce the benefits and the desirability of this practice. In addition, telecommuting is compatible with only a limited number of (mainly routine) jobs (Bloom et al., 2014).

In recent years, the work–life balance issue has become a key topic at the academic, business, political, and social levels (Clark, 2000; Koubova & Buchko, 2013; McCarthy et al., 2010). It represents a core point for the progression of women’s employment as a response to demographic, economic, and cultural changes, such as the increasing integration of women in the workplace, the rising number of couples both working outside the home, the transformation of family structures, as well as population aging, technological advances, birth rate decline, and the need to improve human capital management (Maruyama et al., 2009; Kelliher & de Menezes, 2019; UE, 2019; UN, 2019; World Economic Forum, 2019). Accordingly, corporate welfare and agile work have been linked and agile work has been appreciated as a tool aimed at supporting workers in times of crisis and those facing the retreat of public welfare to match employees’ needs while promoting the company’s productivity (Maino, 2018). However, the latest contributions and surveys have pointed out the (sunken) costs and critical issues relative to

the growth of existing inequalities (McKinsey, 2019; McKinsey Global Institute, 2020; McKinsey and Company, 2020; Alon et al., 2020).

Nevertheless, the effectiveness of agile work is put “under pressure” due to the current crisis triggered by the pandemic. Recent studies have pointed out that many women have stopped working during COVID-19 because they are over-represented in insecure, hourly employment and sectors that have been hit the hardest by the pandemic (such as hospitality, leisure, retail, and tourism). Several female workers have consequently lost their jobs or have been furloughed at a higher rate than men. Recently, the United Nations warned that the pandemic could dilute decades of advancement on gender equality (McKinsey Global Institute, 2020).

Moreover, some recent studies have been questioning the effect of agile work on women’s work and life conditions. Empirically investigating how the introduction of smart working addresses the trade-off through the dimensions of productivity, well-being, and work–life balance, Angelici and Profeta (2020) have investigated both male and female workers’ conditions in a large Italian multi-utility company. The results suggest that in normal time promoting smart working represents an effective solution to increase productivity and improve well-being and work–life balance because flexibility in working hours and location for a certain number of hours each week lead to males’ increased participation in domestic work. In this vein, other studies confirm that through agile work employees are more able to stay focused, make decisions, manage their daily activities, and reduce their stress. Regarding gender effects, men proved to spend more time and were more engaged in household and care activities, thus underpinning the help in increasing gender equality through the role-balance within the family. Thus, removing the rigidity related to particular hours of work, smart working may reduce gender gaps in the labor market (Adams et al., 2020; Goldin, 2014).

Such results are partially divergent from the evidence that emerged from the research stream focused on the link between the effects of crises and recessions and gender issues. In this regard, evidence from past economic crises indicates that recessions often affect men’s and women’s employment differently, with a more significant impact on the male-dominated sector (Rubery & Rafferty, 2013).

However, the current crisis seems to have peculiar effects on work–life balance and the emergence of flexible work (Angelici & Profeta, 2020). COVID-19 forced domestic partners to reorganize their time at home due to the lockdown. Due to the pandemic, new work patterns, locations, and tasks in family life have been marked in several European countries (Adams-Prassl et al., 2020; Biroli et al., 2020), highly affecting the labor market and family work. In fact, both men and women are spending more time on domestic work. This increase is seen more in childcare than in other domestic worlds (Sasser Modestino, 2020) but the distribution of the extra work between couples appears to be highly unbalanced since the extra work is a burden mainly borne by women (Del Boca et al., 2020). Working women with children aged 0–5 have found balancing work and family more difficult during COVID-19. Particularly, it has manifested in terms of increased housework and childcare due to closed schools and nurseries, calling for at least one parent to stay home and mind the children (Queisser et al., 2020).

Recent empirically based studies from Spain (Farré et al., 2020; Sevilla & Smith, 2020) and the UK (Hupkau & Petrongolo, 2020) point out an equal distribution of household and childcare between men and women. Findings from surveys based in Italy (Mangiavacchi et al., 2020) and other countries, such as the UK (Hupkau & Petrongolo, 2020) and Spain (Farré et al., 2020; Sevilla & Smith, 2020) have reported a greater contribution of men to childcare. However, most of the extra work caused by the crisis has fallen on women.

Worrying signs have emerged from recent surveys from the USA where 11.5 m women lost their jobs between February and May 2020, compared to 9 m men (Pew Research Center, 2021), claiming that for some women, the coronavirus has also exacerbated other structural inequalities linked to factors such as ethnicity, class, or disability. Similarly, a report from the Institute for Fiscal Studies (IFS) showed that British mothers were 23% more likely than fathers to have temporarily or permanently become unemployed during the pandemic. Results raise several concerns about the effect on women's labor market participation.

In this vein, a recent study based in Italy has investigated housework and childcare arrangements of women and their male partners (Del Boca et al., 2020; Mangiavacchi et al., 2020; Rhubart, 2020). There are different impacts on the division of labor between housework and childcare within the household depending on the working arrangements of women and their partners at the time of the pandemic outbreak (Del Boca, 2015). Before the pandemic, many grandparents provided daily childcare, but the mandatory implementation of social distancing has substantially reduced the availability of their support. As a consequence, it has increased the burden on families already caused by school and childcare closures. In particular, working women with children aged 0–5 have found that balancing work and family is more difficult during the pandemic (Del Boca et al., 2020). Moreover, the critical health situation affecting the elderly and the generally higher fatality rates required many families living together or nearby to make additional efforts. The increased time spent at home have led to a reallocation of roles in household chores and family care. The new arrangements have the potential to further increase women's housework and childcare. Men and women have reacted differently to the changing circumstances: 68% of women are spending more time doing housework and 61% childcare; the respective percentages for men are lower and equal to 40 and 51%. Thus, women suffer from “the child penalty” more than their partners (Del Boca et al., 2020). Higher rates of male participation in domestic responsibilities (namely, housework) are associated with higher female participation rates in the labor market (Fanelli & Profeta, 2019). Current work arrangements may make it even harder for women to participate than for men.

Other studies from the Netherlands, the USA, and Germany offer similar findings; for instance, fathers said they were cooking more and spending more time on laundry and cleaning (Queisser et al., 2020). Their partners (women) agreed, although on average, they gave slightly lower estimates of how many things had improved (Collins, 2020). The pandemic crisis has had a major effect on the work and home situation of Dutch families with children and on average, more changed for mothers than for fathers. Since the crisis began, fathers have taken on more

household and care tasks, as well as childcare, than before, but despite this increase, mothers continue to do the majority of the tasks. Women (especially mothers) are called to face additional challenges: they have less time off, experience more work pressure, and still take on more household and care tasks (Yerkes M., Utrecht University, University of Amsterdam and Radboud University).

A similar picture has been depicted by a recent USA survey, the 2020 edition of *Women in the Workplace* (McKinsey, 2019)—the comprehensive study of the state of women and the largest study of the experiences of women and gender inequality in corporate America—which points out that companies risk losing women at all levels of management. On the one hand, women adopting flexible work have an opportunity to build a better workplace. On the other hand, many women claim,—like J. Huang—to be “at a crossroads right now because data tell us that while there are some benefits to remote work, employees are also dealing with financial uncertainty, burnout, and mental health issues.” As a result, certain groups are really struggling, like working moms, black women, and senior women, with a unique impact on working mothers. In other words, women are facing a new challenge that calls for a rethinking of previous workplace norms, such as what productivity looks like, supporting employees’ mental health, or fostering inclusion in a remote setting (Lupu et al., 2017). In fact, the COVID-19 crisis has prompted companies to rethink fundamental beliefs about remote work. Companies now say more jobs can be performed remotely, and 67% predict a significant share of their employees will regularly work remotely in the future. Employees see the benefits of remote work, too—almost 8 in 10 say they want to continue to work from home more often than they did before COVID-19. This could be the beginning of a seismic shift in the way we work, with enormous implications. Companies will be able to hire anyone, from anywhere, as opposed to limiting recruiting to specific regions. And they already anticipate these benefits: 70% think remote work will allow them to increase diversity in hiring. Moreover, remote work will open up opportunities and difficulties for existing employees—particularly mothers, caregivers, and people with disabilities.

But COVID-19 could also be a disaster for equality, as both scholars and managers—like C. Whaley, affirm, pointing out that the pandemic makes gender inequality worse because the family systems are regressing to more traditional norms due to the closure of schools, day-care centers, and summer camps (Collins, 2020). As a consequence, the ability of many dual-earner couples to both work because someone else is looking after their children is disappearing. Women are more frequently the ones to give up their jobs due to having lower salaries or earning expectations. In the EU, women earn an average of 16% less an hour than men, while the figure rises to 18% in the USA and is substantially higher in South Asia, Africa, and the Middle East (World Economic Forum, 2019). Women are also more likely to work part-time, typically due to existing childcare or other family responsibilities, which has also fed into many couples’ decisions for mothers, rather than fathers, to step back during COVID-19. Working women in the UK, Germany, and the USA did more childcare and home-schooling across all wage brackets, compared to men with similar earnings. The difference was amplified in couples where the man



worked outside the household during the pandemic (Universities of Oxford, Cambridge, and Zurich). The pandemic could dilute decades of advancement on gender equality (UN, 2019; Queisser et al., 2020).

Finally, findings point out that, even among full-time high-earning women who have so far maintained their careers while caring for children in the pandemic, many are increasingly concluding that the juggling act is unsustainable, as argued by Allyson Zimmermann, a Zurich-based executive director for Catalyst (a non-profit that works to improve corporate workplaces for women): “One [major client] shared that she’s seen senior women leave because they just can’t do it anymore. . . I am hearing more women are also going into part-time.”

### 3 Smart Working in the Italian Context: A Brief Picture

In Italy, smart working was introduced by the Law of May 22, 2017, No. 81 to spread a performance-oriented form of work by objectives to potentially increase efficiency and competitiveness and promote a better work–life balance, in accordance with the European recommendation.<sup>1</sup> With rare exceptions, the adoption of smart working has been limited to multinational companies operating in Italy. Until recently, it was quite unknown or only partially adopted by businesses. With the COVID-19 pandemic, it has been imposed de facto. In 2019, 570 thousand workers benefited from agile work, marking an increase of 20% compared to the previous year (Observatory of the Politecnico di Milano Management School, 2019). For over 7 out of 10 companies, the benefits outweigh the critical issues. Sixty-eight percent of companies—according to the survey carried out by the AIDP (Italian Association for the Management of Personnel)—are willing to extend smart working at the conclusion of the state of emergency. The benefits are significant—not only in terms of work–life balance and individual satisfaction but also in terms of people’s performance and the organization as a whole (Smart Working Observatory of the Politecnico di Milano, 2019).

However, its diffusion is not homogeneous in the business context. The situation is highly polarized. On the one hand, large companies already apply forms of agile work, are increasingly activating informal initiatives, and are planning to do so within the next 12 months. On the other hand, only 12% of SMEs have ongoing projects and more than a half of the companies without smart working projects are completely disinterested in the implementation of agile work. The generalized adoption of agile work represents a real challenge for SMEs and the Public Administration (PA), where structured smart working projects are limited to 16%. The

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<sup>1</sup> Agile working in Italy: smart working was introduced with the modernization of the Consolidated Income Tax Act (TUIR) and the tax leverage introduced with the 2016 Stability Law - confirmed in 2017 and 2018- in line with the resolution of the European Parliament, September 13, 2016, general principle No. 48, the issue of Directive no. 3/2017 on agile work within the Public Administration reform (Parlamento Europeo, 2019).

epidemic did not cause as much disarray in larger companies that have already adopted smart working, flexibly organizing their workflow, and equipping employees with the necessary devices to ensure their work no matter their location. In contrast, smart working beyond the emergency represents a challenge for SMEs.

The first Covid-related emergency law (Prime Minister, Decree of March 1, 2020) overcame certain restrictions on smart working by allowing flexibility both on the safety front (e.g., making it easier for the employer to comply with health and safety regulations related to smart working) and administratively, by introducing simplified mandatory communications procedures to labor authorities. Smart working has also played a role in safety legislation, which requested companies to maximize smart working for all activities suitable to be carried out by the worker at home or remotely. In addition, the Legislative Decree of May 19, 2020, No. 34 predicted the right of private-sector working parents with children under 14 years to adopt smart working even in the absence of individual agreements with their employers. Similar provisions have been confirmed by subsequent decrees (Fondazione Studi dei Consulenti del lavoro, 2020).

The persistence of the pandemic has forced employees to work from home for a prolonged period. “On the one hand, the current massive levels of unplanned, full-time use of smart working reveals that it is feasible both for routine and non-routine tasks and can be useful in emergency periods” (Bloom et al., 2014; Angelici & Profeta, 2020). On the other hand, while the use of smart working for a limited period can be beneficial both for employees and employers, in the long run, it causes workers to feel isolated, and negatively affect their productivity (reducing the relational capital) and work–life balance. These critical aspects should be carefully considered and are still under-investigated.

In summary, while it is hard to predict whether smart working will become an “ordinary way of carrying out work” in Italy, like in other countries, employers and employees are currently being called to “manage” the benefits and risks of smart working, which can reduce costs and grant the prosecution of business activities. However, it can also affect interpersonal relationships and family roles (Angelici & Profeta, 2020).

## 4 Methodology

This study has been developed following a deductive and inductive approach. The former draws from the literature on gender and work–life balance applied to the flexible form of smart working. Drawing from the theoretical framework mentioned above, we assumed that the increase in the adoption of smart working attributable to the COVID-19 pandemic has several contrasting effects on women’s working conditions and the work–life balance. This empirical study aims to provide initial insights on the positive and negative effects of smart working with a particular focus on its contribution or damage to the gender equality situation.

The latter is based on the explorative analysis relative to a small sample formed by key informant people (Yin, 2013; Eisenhardt et al., 2016). Data were collected from January to March 2020 through No. 12 semi-structured interviews lasting on average around 30 min. Researchers' notes from interviews were then corroborated through a second round of validation through e-mail. Interviews were anticipated by e-mail and then carried out through online meetings (using Meet, Zoom, and Skype). A not-structured questionnaire was used to investigate aspects relevant to the investigation.

Adopting a qualitative-based approach, the following sections introduce the explorative analysis of a group of women (married, aged between 29 and 60, with at least one child) covering different roles and positions (employees, entrepreneurs, managers, and professionals) in both private and public companies belonging to different sectors (finance, manufacturing, and education).

As far as our research aims are concerned, the most interesting source of information refers to the questionnaires aimed at understanding if they perceive smart working as an opportunity or a threat in managing daily work–life balance during the covid pandemic. The questionnaire included 14 questions, addressing the following aspects:

- The past (pre-COVID-19 pandemic), the current, and future adoption of smart-working.
- The perceived benefits deriving from the changes triggered by flexible working relative to both the professional and familial sphere.
- The difficulties faced in managing the new organizational and personal assessment imposed by smart working.
- The role of smart working with respect to work–like balance.

The semi-structured interviews were also suitable for collecting personal comments and suggestions valuable to assess the efficacy of smart working implementation concerning work–life balance and gender issues. The interviews were also a beneficial source of information that we coded based on our analytical framework to:

1. Detect, through the analysis of personal comments, and through the “women’s eyes” the weakness and strengths of flexible work.
2. Understand, through the suggestions provided by the interviews, how to ameliorate the implementation of smart working.

## 5 Findings

Interviews were submitted to 12 working women with at least one child. They are 29–56 years old with several children ranging from 1 to 4. Most have two school-aged children between 5 and 21 years old.

Ten out of 12 women have opted for a smart working contract during the pandemic ranging from 2 to 8 months. None of them had ever used smart working before the pandemic. Six work for private companies (belonging to the

manufacturing and financial sector, as well as professional firms) as white-collar workers and with managerial roles, and 6 work for public companies (educational institutions, local authorities). The type of smart working varies from horizontal to vertical, respectively from 4 to 8 h a day, or just a few days a week.

Table 1 includes a list of excerpts drawn from the interviews addressing the points aforementioned.

## 6 Discussion

Only one of the interviewees declared that her smart working experience was (and still is) positive, while two affirmed it was negative; the remaining nine respondents claimed it was neither positive nor negative.

Drawing from the analysis of the interviewees' overall opinions, their replies were put in order by assigning them to three main categories of judgments: (1) decidedly negative; (2) definitely positive and (3) lukewarm judgments, i.e., "stuck in the middle" between positive and negative perceptions.

Table 2 provides a brief picture of some declarations attributed to the categories mentioned above that are useful to subsequently point out the factors underpinning their positions.

First, most of the interviewees manifested a sentiment of perplexity towards the experience of flexible work. Respondents included in this group are women who, independently from the type of work carried out (employee, entrepreneur, manager) and the type of company (private or public), have to take care of their children, without the help of the partner or grandparents who usually (except for two cases) do not benefit from smart working. Therefore, they are called to provide additional services to support distance learning and manage the house, which has become more complex during the pandemic (cooking, cleaning, etc.). Even though they had additional time thanks to less travel, they felt called to provide additional services at home. In this regard, only a few of the respondents belonging to this group seem really happy to devote their time and energy to children care and house duties, while the majority of them claim that their "personal time" was reduced, and they were totally absorbed by work—in other words, full-time with family and work. The overall impression is that women have been "recaptured" by the familial sphere, and resubmitted to their role, while their work outside the home was a useful escape for their independence and more likely to grant them a work–life balance based on their partners' contributions.

Second, in almost all the cases (the first and second group) women had to face additional work. Six out of 12 women declared to have experienced more work all in all (while the other half claims to have worked the same number of hours) for different reasons: time with their children or elderly parents. These details are among the reasons underpinning the criticalities of smart working and are related to the number of children, their age, and education, and the presence of disabled children.

**Table 1** Summary of excerpts coded in light of the interpretative framework

Professional vs. familial benefits and/or constraints	“Two ‘sides’ should be considered: the professional one and the personal/family one. Concerning the latter, the experience was neither positive nor negative. But considering the extra-professional side, I have a lot of difficulties in managing work at home, especially because I need to take care of my children.”
Additional time working (overworking)	<p>“I worked the same hours I worked in the office because I forced myself to respect ordinary hours.”</p> <p>“I had to manage new additional extra-professional commitments because I had support and assist my children during their distance learning activities (both during the first period and the second pandemic stage).”</p> <p>“During the lockdown, we were all at home, and my children attended online lessons. My brother and I were smart working, so I had to spend additional time and energy to take care of them and devote additional time to managing my house, which was always occupied by my family members. Space management was also very problematic.”</p>
Positive (unexpected) professional aspects	“The main advantage is that have greater concentration. Furthermore, working from home, I have fewer distractions because, if I work in the office, I have to devote time to relationships with my colleagues and other employees. However, when my child is at home, it is more difficult for me to concentrate.”
Negative professional aspects	“The negative aspects are relative to daily technical problems in managing my duties online; I have to face problems with internet connectivity without support from the company’s staff. Secondly, I feel a relational gap given that it’s impossible to work with my colleagues at the office.”
Work–life balance improvements/goals	<p>“Work-life balance got worst. I had less time to devote to my family, and I lived in disorderly way. There were no more boundaries between my family and work life. The only good things were that in the evening sometimes I had a little time for myself during the week and that I could save money because I did not have to travel to work. I benefited from saving travel time and avoiding relative risks.”</p> <p>“Smart working was more beneficial to my husband than me and positively affected his work-life balance.”</p> <p>“Yes, work-life balance improved because I could “control” my time and manage it. However, I worked even more than before (starting working at home), but the opportunity to devote time to my children’s care is important for me, and I had more opportunities to take care of my children and my home.”</p>
Smart working experience before the COVID-19 pandemic	<p>“Before the pandemic, I never did smart working. I adopted some types of flexible work (telework) for some consulting activities addressed to other public institutions. Before this emergency, smart working was not part of the employees and the employers’ mentality.”</p> <p>“Before the pandemic smart working was not provided by my employer. It was proposed but only on an experimental level, and it was not accessible to everyone.”</p>
Willingness to adopt smart working in the future	“I think it would be beneficial to women to activate flexible work in the future.”

(continued)

**Table 1** (continued)

Smart working productivity and creativity Worst or better conditions?	<p>"I did not perceive an increase in productivity and creativity. When I was at my workplace, I had the possibility to carry out more tasks, while at home I can only do some activities in the absence of several tools. Concerning my specific job, smart working has limited my work."</p> <p>"I adopted smart working for about 10 h per day; more than 50 h per week. I was definitely more productive, concentrated more and did not have continuous interruptions; at office, I usually spend a lot of time interacting with colleagues/clients. But I was overwhelmed by work, carried out also during holidays, and in general devoted more to it than in normal conditions."</p> <p>"My working conditions worsened because the pandemic broke all of our routines and because my business is still structured on paper. The advantage is the cancellation of travel times and the ability to better organize the various daily activities by shifting the working hours a little."</p> <p>"I was able to improve my productivity and creativity. For instance, during the pandemic, I succeeded in developing a new catalogue because I had more time to dedicate to this project."</p>
Extra (additional) work – professional tasks – family tasks	<p>Being at home more frequently, my support and presence were more required; in other words, I had to serve and to take care of everything. . . ."</p> <p>"Usually, a babysitter takes care of my son and helps him with his homework. During the pandemic, I did not have any external help, and I had to support him in his online activities."</p> <p>"I had to spend additional time supporting my children in their school activities."</p> <p>"Much more, and of course, I received the exact same salary. After all, how are the hours spent on your PC documented?"</p> <p>"More often than in normal conditions, I worked during holidays and the weekend. Moreover, during the Easter period, I did not even realize that it was a holiday, as Sunday had become an ordinary day, certainly no longer the day of the 'Dominus'."</p>
Benefits	<p>"The main advantage of working from home was the possibility of taking care of the house between one phone call and the next."</p>
New stress and technological dependence	<p>"I suffered from additional stress because I had many connection problems while working from home, which hinders my efficiency. Furthermore, I spent every day and all my working hours in front of my PC without the possibility of disconnecting."</p> <p>"Every time the distance learning was activated (class in quarantine or pupil in a state of emergency, as required by the institute regulations). I was continuously connected for teaching tasks, on-line meeting, training courses, interviews with parents that have taken place and are planned until the end of this school year."</p>

<p>Additional free time to devote to personal interest</p>	<p>"I found additional time to cultivate to my personal interests. I worked in those certain hours to preserve 'my time'."                  "During the first phase of the lockdown, I had additional time for me and my family, but only because all activities were blocked (not just working ones). But then the situation changed and I had to face more difficulties. I had to manage a lot of accumulated work."                  "It is really hard to keep working time within 8 h". But I have forced myself not to exceed 8 h a day."                  "I found it hard to 'pull the plug' because the bedroom, living room... 'places of rest,' were converted into classrooms and offices. I had to organize time and space at home, rendering them consistent to a workplace suitable for me and my children."</p>
<p>Additional time/energy for others</p>	<p>"I found additional time to take care of the house and, at the same time, to help my child with his homework. However, I had no additional time for me because the emergency triggered an extreme aggravation of my work-life balance, in particular, due to the fact that I had to support my son in his distance learning."                  "Without any doubt, distance learning will be activated in all the cases where it would not be possible to guarantee the service. However, the quality of the work carried out was lower, despite the expenditure of energy, than that of face-to-face lessons. This is because human relationships permits teaching, and emotional intelligence is profoundly affected. The much-heralded 'learning by doing' at a distance, in some activities (especially technological, artistic and musical) does not have the same effect. As a working mother, it was very demanding having to follow my daughter's school situation, while she was attending elementary school. The teachers did not activate any distance learning modes, limiting themselves to posting loads of homework of any subject on the electronic register that I had to explain, page by page. So I was also a teacher, but other people decided on the grades!"</p>
<p>Support from partners, grandparents, and children</p>	<p>"The support has not changed, but the fact that they were at home helped me manage my daughter's disability because she cannot be left alone."                  "I worked a lot more, without any support from external people."                  "I received greater support from my husband, who also adopted smart working."                  "During the coronavirus pandemic, receiving help from people outside of the family is a remote option. Fortunately, my husband supported me more in household activities, especially in cooking."</p>

**Table 2** Smart working evaluation through the eyes of the interviewees

Evaluation	Interviewees' excerpts
Negative experience (2 women)	<p>"I am not in favor of smart working. In my opinion, in the long run, is it not an effective solution for women. It can only be used temporarily because it could have counterproductive effects, both on a professional and personal level. As far as my duties are concerned, smart working diminishes my professional growth. I suffered from the lack of personal relationship with my colleagues. Furthermore, smart working made my family situation worse because I found it even harder to reconcile working times with family and home care."</p> <p>"I think smart working should not be imposed; rather it should be a choice suitable to women in certain periods of their professional and personal life and consistent to certain types of activities. In my case, I would prefer spending my time working at the office and thus separating work from family. At home I find it difficult to separate my 'duties'."</p> <p>"I believe there are social and relational aspects of work that cannot be bypassed. During my experience I faced several difficulties in teaming up with my colleagues. Furthermore, I had to solve daily problems with connecting and using tools (internet, Skype, zoom, etc.) to connect."</p> <p>"The main reason for my negative evaluation is attributable to my inability to set clear boundaries (with myself) concerning the hours I devote to work. When I'm in front of my PC I'm usually overwhelmed by duties and deadlines, so this hinders my work-life balance. In other words, I'm connected all the time."</p>
Positive experience (1 woman)	<p><i>"My experience has been positive since smart working allows me to find a better balance between my professional and private life through the mere fact of being present in my family environment."</i></p>
Neither positive nor negative (9 women)	<p>"I was able to better organize myself but it seems to me that the workload has not changed. The time gained from the flexibility has been devoted to assisting my children and managing additional homework, in the absence of external support."</p> <p>"The advantage is that I was not 'in a hurry' but, the negative side is that I'm always at home working all time and confusing my double roles, without having an ordinary break and a separation."</p> <p>"Smart working gave me the possibility to carry on the work at a time when it was not possible to physically go to my office, otherwise there were no other advantages or disadvantages."</p> <p>"The real benefits depend on the surrounding conditions (childcare, etc.). The benefit was being able to manage time more efficiently (travel times canceled)."</p>

Third, five women clearly asserted that they were not able to pursue an effective work–life balance. Six stated that the balance did not ameliorate; the situation improved in only one case, thanks to the capability to organize time to devote to the various activities and save time for themselves. Also, concerning additional time (i.e., saved time from travels, etc.), this time surplus has been devoted to taking care of other people or household chores rather than taking care of themselves and improving their wellness and quality of life. Moreover, the positive aspects (the benefits of smart working), even when explicitly declared, are usually accompanied



by the negative ones (there is an overlapping), and it is difficult to isolate and evaluate them.

Finally, only a limited number of women managed to “keep” the workspaces separated from the family duties. The challenge of getting some space for themselves only derives from a strict imperative to “be on time with work.”

## 7 Concluding Remarks

The emergency situation caused by the pandemic has made it possible to understand that much of the office work can be done from home. It has also made it possible, within a few months, to make video calls, webinars, links and to broaden everyone’s computer skills. On the one hand, benefits deriving from flexible work include cutting down on traveling and commuting costs, improving employees’ productivity, reducing absence rates, and increasing competitiveness. Moreover, removing the fixed working hours allows employees to adapt to working hours better according to their preferences and personal or family needs and increases their satisfaction and work–life balance. Time flexibility in the labor market for all workers (men and women) contributes to reducing the rewards for long hours, working at particular hours, and inflexible schedules, which are considered a major driver of gender pay gaps (Bertrand, 2018). Such flexibility may thus represent a step towards the “last chapter of the grand gender convergence” (Goldin, 2014).

However, some recent studies have raised several concerns (Del Boca et al. 2020; Angelici & Profeta, 2020). Working outside the workplace may reduce workers’ commitment, as well as interactions between workers and supervisors. In addition, blurring the boundaries between work and home may increase overtime and employees’ stress level and may worsen the work–life balance, especially penalizing women (Kelliher & de Menezes, 2019; Garofalo et al., 2020; Farré et al., 2020; Sasser Modestino, 2020). What are the possible implications of flexible work for long-term gender equity and the well-being of women and families?

In order to understand the reasons underpinning these conflicting positions on smart working, considering its effectiveness in a non-emergency situation, several aspects should be deepened to carefully consider the positive and negative effects of smart working, and verify whether it jeopardizes interpersonal relationships and hinders gender balance.

The pandemic is underscoring generations of inequitable social policy. It has dealt a striking blow to the childcare sector, which was already failing to support families. More than in normal times, insufficient childcare affects women’s work, wages, and their long-term economic outcomes (McKinsey, 2019, 2020). The risk of mothers leaving the labor force and reducing work hours to assume care-taking responsibilities has been estimated. Accordingly, the need for both immediate and long-term action to establish more progressive work–family policies, fundamental to achieve continued economic growth and advance gender equity has been pointed out (Kashen & Mabud, 2020). In this regard, in July 2020, a Washington Post article—

titled, “Coronavirus child-care crisis will set women back a generation”—pointed out that “[o]ne out of four women who reported becoming unemployed during the pandemic said it was because of a lack of childcare—twice the rate among men.”

The Covid pandemic forced domestic partners to reorganize their time at home due to the lockdown. Drawing from recent research, many parents are finding themselves in the position of having to provide remote learning supervision for their children (Del Boca et al., 2020). The impact of the pandemic on childcare is severe. Most families reported little change in how chores were divided, and a substantial number said that things had become more equally split. However, there is reason to suspect that the ongoing lack of childcare will have negative impacts on working parents that are scrambling, and most of the responsibility is falling on women. The British Journal for the Philosophy of Science caused a stir when it tweeted that women were submitting fewer papers during the coronavirus crisis. Megan Frederickson, an ecologist at the University of Toronto, later looked at into the data from scientific publications and confirmed that there had been a marked drop in female productivity compared to March and April last year.

In this context, the obvious solution of flexibility—a notion that was not backed by many businesses pre-pandemic, while now being key (Adams-Prassl et al., 2020)—should be cautiously considered. On the one hand, if done right, flexible working could be a game-changer for women’s careers. On the other hand, it hides implicit risks that can boost gender equality and should be taken into consideration, as the exploratory analysis demonstrates. Smart working does not always increase productivity while maintaining a good work–life balance. Women currently spend an average of 15 h a week more on unpaid domestic labor than men real time. Findings from other data sets collected in Europe and the USA reveal that smart working could generally favor a better work–life balance. However, with the suspension of school services, the benefits of smart working, in this phase, have helped men more than women, because they did not immediately have to take on all the family care responsibilities. Across Europe, women continue to perform most of the duties (“children penalty 2) and suffer from an increase in workload.

In this vein, the Italian context is particularly interesting from a gender standpoint because the labor market context is characterized by traditionally high gender gaps and conservative gender roles, which put most of the burden of housework and childcare on women. Working women with children aged 0–5 have found that balancing work and family was more difficult during the pandemic (Del Boca et al., 2020). In such a context, drawing from the results of the explorative study, smart working implies a “return home” that could be dangerous for women whose presence at home calls for them to serve their family’s needs. Drawing from the empirical analysis, we deem that new working arrangements have the potential to further increase women’s housework and childcare and that women are struggling during the pandemic.

Recent research has pointed out that parents suffer from more work pressure; they have less time off and their work–life balance is worse than before the pandemic. The impact on mothers is even greater. Women experience an increase in workload and have less time off than their male partners. Thus, the consequences of the

pandemic on female labor market outcomes risk being amplified by the unequal intrahousehold allocation of extra work (housework and childcare) created by the emergency.

These initial results call for further extensive empirical research aimed at verifying this hypothesis. We are aware that the study is explorative in nature and results cannot be generalized. However, the value and originality of this work rest on its contribution to delve into the work/life balance issues in the light of the COVID-19 emergency and suggest insights useful to critically evaluate the effectiveness of the new ways of working in a crisis context. Besides contributing to derive propositions useful to drive future research steps and frame the research design, the findings of the pioneer study contribute to solicit a debate on the “spot” or structural usefulness of flexible forms of working with respect to gender issues affecting women at work.

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# Female Agri-Food Start-Ups: Mapping the Italian Context During the Coronavirus Era



Giuseppe Modaffari and Gaetano della Corte

## 1 Introduction

Since last year, COVID-19 has led the world into a deep crisis. This virus has claimed numerous victims, over crowding the intensive care units of hospitals. With the aim of limiting contagions, the Italian government imposed a long lockdown during which economic activities were stopped and people were forced to stay at home. During the lockdown, only a few industries were allowed to operate, one of them being agriculture and agri-food. The agri-food sector is one of the most important sectors of the Italian economy (Aureli et al., 2004; Baregheh et al., 2012). The quality of Italian food has reached a status known around the world as “made in” (Bonfanti et al., 2018; Manfredi Latilla et al., 2018; Santoro et al., 2018). This status is attributed to various dairy products such as Parmesan and Pecorino cheese, wine, oil, various types of ham, and many others. In addition to this, there is a series of certifications, such as PDO and PGI, which guarantee the origin of the product (Bandinelli et al., 2020; Rossi et al., 2014). However, recently, farms have started to be competitive also in international markets, and have undergone a metamorphosis in their production cycle, leaving behind traditional patterns of manufacturing and production (Backer et al., 2009; Bresciani et al., 2013; Cillo et al., 2019a). In this direction, already since 2012 Italian law provides the possibility for companies to obtain the status of innovative start-up, achievable through compliance with formal and substantive requirements. The formal requirements concerning the commitment of the company to be established as a joint-stock company, including a cooperative; not to be listed; not to be more than 5 years

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old; not to derive from extraordinary operations; to be resident in Italy (or within the European Economic Area but with production headquarters in Italy); not to have an annual turnover of more than five million euros; not to have ever paid dividends; to have as its exclusive or prevalent purpose the development, production and marketing of goods or services with a high technological content. The substantial requirements, however, require that to be an innovative start-up (company) must alternatively: spend at least 15% of the greater value between turnover and cost of production in R&D and innovation; employ highly qualified employees of which at least 1/3 have PhDs, are PhD students or researchers, or at least 2/3 are in possession of a master's degree; be the owner, depositary, or licensee of at least one patent or the owner of a registered software.

This status grants several fiscal and tax benefits to companies in order to promote innovation and technological transition of Italian companies. The use of technology and innovation, especially during periods of crisis such as COVID-19, becomes vital for the sustainability of the sector and for rethinking the production process of farms.

Focusing on gender issues, the role of female entrepreneurs within this sector and in this particular historical moment is not very clear. Only a few contributions in the literature deal with women entrepreneurs within the agri-food sector. On the other hand, there is a real gap if we consider the issue of technology and innovation in female farms.

For this reason, the present contribution *aims to map the innovative female start-ups in the Italian agri-food sector during the Coronavirus era*.

To reach the declared goal a qualitative explorative research was conducted (Glaser, 1978; Glaser & Strauss, 1967; Stebbins, 2001). The survey was conducted on 12,068 innovative start-ups registered in the special section of the business register of the Italian chambers of commerce.

The results show that from the point of view of innovation and technology, the agri-food sector is still very poor and only 0.7% of Italian start-ups operate in this sector (91 companies out of 12,068). Regarding gender issues, the situation gets worse with only 10 innovative farms being led by women (11% of the sector; 0.08% of Italian start-ups).

The present chapter has several implications. From a theoretical perspective, it contributes to gender studies and to the business innovation field, especially during periods of crisis. From the managerial perspective, the work provides a first picture of the state of the art of Italian innovative agri-food start-ups, highlighting the current gap between the number of female and male companies.

The chapter is structured as follows. In the following Sect. 2, the literature review is developed. In Sect. 3, the methodology is set out. Next, the findings of the literature analysis are shown in Sect. 4. Conclusions are presented in Sect. 5, limitations and future line of research are addressed in Sect. 6.



## 2 Literature Review

Starting from a previous study (Paoloni & Modaffari, 2018) we can say the phenomenon of start-ups in Italy is growing fast (+3039 units from 2018). The advent of new technologies has been radical in the agri-food sector (Bresciani, 2017; Griffith, 2006; Griffith et al., 2010; Vrontis et al., 2016) but it is not enough to ensure the competitiveness of farms and adequate level of productivity. Recently, the studies on innovative techniques adopted by farms have been developed in several ways. For instance, many studies focused on new techniques as nutrigenomics and personalized nutrition (Kaput & Rodriguez, 2004; Komduur et al., 2008), animal cloning (Butler, 2009), nanotechnology foods (Gaskell et al., 2004), food irradiation (Bruhn, 1998; Siegrist et al., 2006), high-pressure processing (HPP) (Butz et al., 2003), and genetically modified (GM) foods and crops (Frewer et al., 2004) have been done. Moreover, another important aspect related to these new practices regards the analysis of customers' perception related to the farms' output in the market (Frewer et al., 2011; Pidgeon et al., 2005).

Also, recent literature have been focused on the block chain technology (BT) and processes' traceability is becoming essential in the agri-food sector to help the decision-making process (Bai et al., 2019; Gören, 2018; Saberi et al., 2019) and to achieve sustainability in supply chain management (SSCM) (Costa et al., 2013; Kamble et al., 2019). SSCM is defined as the management of material, information, and capital flows as well as cooperation among companies along the supply chain, while taking into account goals from all three dimensions of sustainable development, i.e., economic, environmental, and social dimensions, derived from customer and stakeholder requirements (Seuring & Müller, 2008). Understanding farms' environments becomes essential for them to better adapt their business models (Ansari & Kant, 2017; Ghisellini et al., 2018). The business model is considered to be the DNA of a firm (i.e., a farm), concerning the way in which a product or technology is commercialized and how it creates value for the firm itself (Chesbrough & Rosenbloom, 2002). Innovation introduced by technology causes the business model to guarantee higher product returns (Massa & Tucci, 2013), and helps firms to improve decision-making processes and firm performance, orienting them to products of superior quality (Lee et al., 2017). The use of green practices generates a positive effect for reaching a sustainable development performance (Hart & Sharma, 2004).

Several scholars assert that the main internal factors to reach a "sustainable business model innovation" (Osterwalder & Pigneur, 2010) are human resources, followed by environmental managerial concerns and environmental capability (Bossle et al., 2016).

In this area, Franceschelli et al. (2018) assert that sustainable innovation is a winning strategy to achieve business success, especially in the food industry, which is closely linked to sustainability from the points of view of nature and human health. From a managerial perspective, the main factor conducting farms to a sustainable

scenario is the use of technologies and the establishment of partnerships (Cillo et al., 2019a; Ferraris et al., 2017; Scuotto et al., 2017; Vrontis et al., 2017).

These two elements can be traced back to two components of intellectual capital, identified as structural capital (Cillo et al., 2019b; Cosentino et al., 2020; De Mori et al., 2016) and relational capital (Ferraris et al., 2020; Paoloni et al., 2020).

Linking the discussions above to the crisis contexts, such as the current one, several studies highlight the positive role of intellectual capital components in emergency response (Nahapiet & Ghoshal, 1998). It is possible to highlight a proactive role of structural capital, understood as the ability of organizations to mitigate the initial phases of the crisis, and a reactive role of relational capital, understood as the ability of organizations to overcome the crisis and return to normality (Jia et al., 2020). Particularly, the positive role of structural capital is made possible by the company's innovation and technological equipment, while the reactive role of relational capital is achieved through the establishment of relationships with other players in the environment (Paoloni, 2021; Prasad et al., 2015).

However, what is written in these general perspectives it is not observed from the gender studies' point of view. Although in the literature many contributions deal with regulatory aspects to encourage the employment of women in agriculture (Agar & Manolchev, 2020; Camarero, 2017; De Castro et al., 2017; Hoang, 2020; Knight, 2013; Lovgren et al., 2020; Palladino, 2020; Soma et al., 2021) only a few have analyzed the role of women within farms. For instance, de Castro et al. (2020) examining the business strategies involved in the devaluation of agricultural work, highlights that women are involved in more de-skilled jobs than men. Also, García-Sánchez et al. (2021) analyzing the firm's innovation capabilities in the agri-food sector, observes that a diversified board of directors and highly qualified female directors can be seen as a negative factor to financial performance and generating, on other hand, positive effects on the creation of efficient environmental policies or the promotion of proactive environmental innovation. In the opposite direction, focusing on the Russian agri-food context, Tleubayev et al. (2020) highlights the positive impact of the female board of directors on financial performance and earning levels in terms of ROS and ROA. These evidence are also confirmed by Hernández Ortiz et al. (2020) who analyzing the gender differences of board of directors, asserts that female directors with a high educational profile contribute to the growth of ROE of the company.

Considering the gap in the literature highlighted above, this study aims to outline the current situation of female companies engaged in the agri-food sector. Given the particular period of emergence of COVID-19, this study can be the starting point to observe the resilience of Italian female farms and develop further research ideas on the subject. The following section presents the followed methodology and the obtained results.

### 3 Methodology

The present work is supported by an exploratory descriptive qualitative (EDQ) research (Carvalho et al., 2005; Cleff, 2014). Exploratory research can be defined in several ways, but from a comprehensive perspective it consists of an attempt to explore something new and interesting, by working your way through a research topic (Swedberg, 2020). According to Sandelowski (2004) qualitative research findings have been shown to be necessary for the advancement of health research. EDQ design fits in the various qualitative approaches as phenomenology, ethnography, grounded theory and action research. Polit and Beck define explorative research as a method aimed at underlining how a phenomenon is manifested. Explorative research allows researchers to explore an issue with limited coverage, contributing to the development of new knowledge in that area (Glaser & Strauss, 1967; Glaser, 1978).

EDQ is a qualitative methodology suitable for addressing research objectives that aim to provide a direct description of phenomena (Sandelowski, 2004). Particularly, Caelli et al., 2003 points out that this methodology allows scholars to learn about the involved subjects, their characteristics and the locations of the phenomenon of interest.

According to Hunter et al. (2019), EDQ methodology was born as a hybrid methodology between the exploratory research proposed by Stebbins (2001) and the descriptive qualitative research promoted by Sandelowski (2004, 2010). Specifically, Stebbins (2001), defines explorative research as the conception of an exploratory project to be developed through research design, data collection, and final report writing.

Sandelowski (2010) emphasizes that qualitative descriptive studies are not intended to rescue poorly or partially conducted research. Rather, they are appropriate when a different, more interpretive qualitative methodology would not have been better suited to the research goals.

#### 3.1 *Definition of the Sample*

The data have been extracted from the database of the Italian chamber of commerce. According to Italian law, innovative start-ups are required to register in the special section dedicated to them in the business register. The special section of start-ups is constantly updated and includes several information about the companies, such as name, VAT number, geographical area, sector of activity, legal form, VAT, equity, shareholders and board of directors' composition, as well as details of the substantial requirements mandatory for them to be defined as an innovative start-up.

### **3.1.1 Geographical Area**

Regarding start-ups' location, the database only exposes the province of origin of the start-up. In order to classify the start-ups in the main geographical areas of Italy, the database has been integrated with the classification provided by ISTAT, which divides the start-ups into four main areas: North-West, North-East, Center (middle), and South Italy.

North-West area involves all start-ups originating in Liguria, Lombardy, Piedmont, and Valle d'Aosta regions. North-East area includes all start-ups originating in Emilia-Romagna, Friuli-Venezia Giulia, Trentino-Alto Adige, Veneto regions. The Center (middle) includes the regions of Lazio, Marche, Tuscany, and Umbria. The South includes the regions Abruzzo, Basilicata, Calabria, Campania, Molise, Puglia. Especially, Abruzzo is classified as Southern Italy for historical reasons, as it was part of the Kingdom of the Two Sicilies before the unification of Italy in 1861.

### **3.1.2 Sector of Activity**

The classification of the activity sector is carried out by ATECO code. The ATECO code is an identification number that defines in which sector the start-up company operates. The main identified sectors are: services, industry/crafts, trade, tourism, and agriculture/fisheries.

### **3.1.3 Legal Form**

This information is related to the legal form chosen for the establishment of the startup. At the date of the analysis, nine types were the main ones used: European Group of Economic Interest (EEIG); Limited Liability Company (LLC); Limited Liability Company with Sole Shareholder (LLC-SS); Simplified Limited Liability Company (SLLC and in Italy S.r.l.s); Limited Liability Consortium Company (LLCC); Cooperative Company (CC); Company Formed under the laws of another State (CFLAS) European company (EC); and Joint Stock Company (JSC).

### **3.1.4 Equity**

Given the recent regulations of the Italian government to set up corporations even with a share capital of more than one euro, Italian innovative start-ups have a very variable value of equity. For this reason, the Chamber of Commerce database offers a categorization by classes, each of which highlights a range of values. In detail in Table 1).

**Table 1** Range of class of social capital

Class of capital	Equity's nominal value
1	1 euro
2	From 1 up to 5000 euro
3	From 5000 up to 10,000 euro
4	From 10,000 up to 50,000 euro
5	From 50,000 up to 100,000 euro
6	From 100,000 up to 250,000 euro
7	From 250,000 up to 500,000 euro
8	From 500,000 up to 1,000,000 euro
9	From 1,000,000 up to 2,500,000 euro
10	From 2,500,000 up to 5,000,000 euro
11	Over 5,000,000 euro
ND	Information not declared

**Table 2** Description of start-ups composition

Composition: female/ youth/foreign	Description
Majority	$[\% \text{ of (Female or Youth or Foreign) Share Capital} + \% \text{ (Female or Youth or Foreign) Director}] / 2 > 50\%$
Strong	$[\% \text{ of (Female or Youth or Foreign) Share Capital} + \% \text{ (Female or Youth or Foreign) Director}] / 2 > 66\%$
Exclusive	$[\% \text{ of (Female or Youth or Foreign) Share Capital} + \% \text{ (Female or Youth or Foreign) Director}] / 2 = 100\%$

### 3.1.5 Shareholders and Board of Directors' Composition

The database provides a description of the composition of the equity and board of directors of start-ups in relation to gender (male–female), age of shareholders and directors, and origin (Italian or foreign).

In particular, three main parameters are identified: Majority, Strong, and Exclusive. Table 2 illustrates the details.

### 3.1.6 Substantial Requirements

As defined in the introduction, in order for a company to be defined with the status of innovative start-up, it is necessary to comply with certain qualitative requirements, defined as substantial. The database identifies these requirements through three categories, namely:

- Requirement no. 1: Expresses the 15% threshold of difference between costs and total value of production concerning R&D activity.
- Requirement no. 2: Expresses the composition of the team, formed by 2/3 staff with a Master's degree; or from 1/3 from PhD students, PhDs, or graduates, but with at least 3 years of experience in certified research activities.

- Requirement no. 3: Expresses the requirement of the company being a depository or licensee of industrial property, or owner of a registered software.

To define the structure of the database, the next paragraph shows the results of the analysis conducted as of September 28, 2020, when the pandemic was in full swing.

## 4 Results

In order to provide a mapping of Italian female start-ups engaged in agri-food, this section will first illustrate the distribution by region and activities' sectors of Italian innovative start-ups. Then agri-food sector (identified in the agriculture and fishing sector) will be presented, and finally a focus will be dedicated to female start-ups operating in this sector.

### 4.1 Italian Innovative Start-Ups by Regions and Activity Sector

On September 28, 2020, there were 12,068 innovative start-ups registered in the special section of the register of companies. Table 3 illustrates the distribution for the four macro-areas identified in the previous section.

The area with the highest density of start-ups is the North-West (34%), followed by the South (25%), the North-East (21%), and finally Central (middle) Italy (20%).

Table 4 shows the distribution of start-ups in each region of the different geographic areas.

As shown in Table 4, the representative region of the North-West area is Lombardy with 3297 start-ups (27% of the total), of the South area Campania with 983 start-ups (8% of the total), of the North-East Veneto with 1008 start-ups (8% of the total), and in the Center (middle) Lazio with 1385 start-ups (11% of the total).

Referring to the activity sector, Italian innovative start-ups operate mainly in the service sector (9310 firms, 77.15% of the total). Also, industry/crafts sector with 2091 start-ups represents 17.33% of total, trade sector with 422 start-ups 3.50% of the total, tourism sector with 117 companies 0.97% of the total and finally the

**Table 3** Classification of innovative Italian start-ups per geographical area

Geographical area	Units	%
South	2963	25
Center (Middle)	2446	20
North-East	2506	21
North-West	4153	34
Total	12,068	100

**Table 4** Analytical classification of innovative start-ups per geographical area

Regions and geographical area	Units	%
<i>Abruzzo</i>	243	2
<i>Basilicata</i>	130	1
<i>Calabria</i>	280	2
<i>Campania</i>	983	8
<i>Molise</i>	89	1
<i>Puglia</i>	496	4
<i>Sardegna</i>	164	1
<i>Sicilia</i>	578	5
<b>South</b>	<b>2963</b>	<b>25</b>
<i>Lazio</i>	1385	11
<i>Marche</i>	352	3
<i>Toscana</i>	513	4
<i>Umbria</i>	196	2
<b>Center (Middle)</b>	<b>2446</b>	<b>20</b>
<i>Emilia-Romagna</i>	961	8
<i>Friuli-Venezia Giulia</i>	243	2
<i>Trentino-Alto Adige</i>	294	2
<i>Veneto</i>	1008	8
<b>North-East</b>	<b>2506</b>	<b>21</b>
<i>Liguria</i>	207	2
<i>Piemonte</i>	628	5
<i>Lombardia</i>	3297	27
<i>Valle D'aosta</i>	21	0
<b>North-West</b>	<b>4153</b>	<b>34</b>
<b>Italy</b>	<b>12,068</b>	<b>100</b>

**Table 5** Classification of innovative Italian start-ups per activity sector and geographical area

Sector/Geographical area	South	Center (Middle)	North-East	North-West	Total	%
Agriculture/Fisheries	29	11	17	34	91	0.75
Trade	131	78	61	152	422	3.50
Industry/Craft	447	372	681	591	2091	17.33
Service	2290	1962	1724	3334	9310	77.15
Tourism	44	19	20	34	117	0.97
ND	22	4	3	8	37	0.31
Total	2963	2446	2506	4153	12,068	100.00

agriculture/fisheries sector with 91 start-ups 0,75% of the total. Moreover, 0,31% of Italian startups havenot declared their sector activity.

As shown above, the activity sector was classified also by geographical area. Details are shown in Table 5.

To define the sample composition, the next section is dedicated to analyzing companies operating in the agri-food sector, meaning the agricultural and fisheries sector.

#### ***4.2 Italian Innovative Start-Ups in the Agri-Food Sector***

Currently, the agri-food represents a very residual activity in which innovative start-ups developed their business. For this reason, the aim of this section is to illustrate the geographical distribution of companies, their legal form and the share capital of each. Table 6 shows the location and the legal form of the innovative agri-food start-ups.

As Table 6 shows the innovative start-ups are located mainly in the North-West area (34 start-ups, 38% of the innovative agri-food start-ups), after that there is southern Italy (29 start-ups, 31%), the North-East area (17 start-ups, 19%), and finally the center (middle) area (11 start-ups, 12%).

For what concerns the legal form, the analyzed sample shows that only three forms recur in the agri-food sector. Particularly, the most legal form chosen by farms is LLC and with 86 start-ups it represents 94% of the sector, following there are the simplified LLC form with three start-ups (3%) and the cooperative company form with only two start-ups (2%).

Referring to the capitalization of the farms, as far as the LLC form is concerned, there is a start-up with a share capital of over five million euros and it is located in Piedmont (North-West). Other than that, the most recurrent capitalization value of the innovative Italian LLC farms is in Class 3 with a share capital value from 5000 up to 10,000 euros. Simplified LLC form is represented by 3 farms, all with a capitalization value from 1 up to 5000 euros (Class 2). Finally, capitalization value of the innovative farms established in cooperative company form is not identifiable because this information is not mandatory for this kind of legal form.

To outline the peculiarities of the companies that compose the innovative agri-food sector in Italy, the next section highlights the role of female entrepreneurship within it.

#### ***4.3 Italian Female Innovative Start-Ups in the Agri-Food Sector***

Start-ups led by women represent only 11% of the agri-food sector. In fact, only 10 start-ups out of 91 satisfy the requirements to be identified as “female.” The following classification covers their location, legal form, and capitalization value.



**Table 6** Analytical classification of innovative farms per geographical area

Geographical area/Legal form	LLC	SLLC	CC	Total
<i>Agriculture/Fisheries</i>	1	0	0	1
<b>ABRUZZO</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<i>Agriculture/Fisheries</i>	1	0	0	1
<b>BASILICATA</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<i>Agriculture/Fisheries</i>	1	2	0	3
<b>CALABRIA</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>3</b>
<i>Agriculture/Fisheries</i>	7	0	1	8
<b>CAMPANIA</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>8</b>
<i>Agriculture/Fisheries</i>	1	0	0	1
<b>MOLISE</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<i>Agriculture/Fisheries</i>	6	0	0	6
<b>PUGLIA</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>
<i>Agriculture/Fisheries</i>	4	0	1	5
<b>SARDEGNA</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>5</b>
<i>Agriculture/Fisheries</i>	4	0	0	4
<b>SICILIA</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<i>Agriculture/Fisheries</i>	25	2	2	29
<b>South</b>	<b>25</b>	<b>2</b>	<b>2</b>	<b>29</b>
<i>Agriculture/Fisheries</i>	4	0	0	4
<b>LAZIO</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<i>Agriculture/Fisheries</i>	2	0	0	2
<b>MARCHE</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>
<i>Agriculture/Fisheries</i>	2	0	0	2
<b>TOSCANA</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>
<i>Agriculture/Fisheries</i>	3	0	0	3
<b>UMBRIA</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<i>AGRICOLTURE/FISHERIES</i>	11	0	0	11
<b>Center (Middle)</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>11</b>
<i>Agriculture/Fisheries</i>	3	0	0	3
<b>EMILIA-ROMAGNA</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<i>Agriculture/Fisheries</i>	3	0	0	3
<b>FRIULI-VENEZIA GIULIA</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<i>Agriculture/Fisheries</i>	2	0	0	2
<b>TRENTINO-ALTO ADIGE</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>
<i>Agriculture/Fisheries</i>	9	0	0	9
<b>VENETO</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>9</b>
<i>Agriculture/Fisheries</i>	17	0	0	17
<b>NORTH-EAST</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>17</b>
<i>Agriculture/Fisheries</i>	0	0	0	0
<b>LIGURIA</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<i>Agriculture/Fisheries</i>	5	0	0	5
<b>PIEMONTE</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>

(continued)

**Table 6** (continued)

Geographical area/Legal form	LLC	SLLC	CC	Total
<i>Agriculture/Fisheries</i>	28	1	0	29
<b>LOMBARDIA</b>	<b>28</b>	<b>1</b>	<b>0</b>	<b>29</b>
<i>Agriculture/Fisheries</i>	0	0	0	0
<b>VALLE D'AOSTA</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<i>Agriculture/Fisheries</i>	33	1	0	34
<b>North-West</b>	<b>33</b>	<b>1</b>	<b>0</b>	<b>34</b>
<i>Agriculture/Fisheries</i>	86	3	2	91
<b>ITALY</b>	<b>86</b>	<b>3</b>	<b>2</b>	<b>91</b>

**Table 7** Analytical classification of innovative farms per composition and geographical area

Female start-ups				
Composition	Majority	Strong	Exclusive	Total
<i>Agriculture/Fisheries</i>	1	0	0	1
<b>BASILICATA</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<i>Agriculture/Fisheries</i>	0	1	0	1
<b>CAMPANIA</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>
<i>Agriculture/Fisheries</i>	0	0	1	1
<b>SICILIA</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
<i>Agriculture/Fisheries</i>	1	1	1	3
<b>SOUTH</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>
<i>Agriculture/Fisheries</i>	0	1	0	1
<b>MARCHE</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>
<i>Agriculture/Fisheries</i>	1	0	0	1
<b>TOSCANA</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<i>Agriculture/Fisheries</i>	0	2	0	2
<b>UMBRIA</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<i>Agriculture/Fisheries</i>	1	3	0	4
<b>CENTER (MIDDLE)</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>4</b>
<i>Agriculture/Fisheries</i>	1	0	0	1
<b>VENETO</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<i>Agriculture/Fisheries</i>	1	0	0	1
<b>NORTH-EAST</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<i>Agriculture/Fisheries</i>	0	2	0	2
<b>LOMBARDIA</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<i>Agriculture/Fisheries</i>	0	2	0	2
<b>NORTH-WEST</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<i>Agriculture/Fisheries</i>	3	6	1	10
<b>ITALY</b>	<b>3</b>	<b>6</b>	<b>1</b>	<b>10</b>

Table 7 breaks down the start-ups according to their characteristics described in the previous Sect. 3.1 based on which the composition of the start-ups can be defined as majority, strong, and exclusive.

Contrary to expectations, the area most populated by innovative female farms is the Center with four start-ups, followed by the South with three start-ups, the North-West with two start-ups, and the North-East with only one start-up.

Regarding the three female start-ups with a majority composition, one is located in North-East area, one in Center (middle) area, and one in the south of Italy.

The female innovative farm located in North-East area (to be more precise in Veneto region), assumes the LLC form, possesses a capitalization value from 5000 up to 10,000 euros (Class 3) and is registered in the special section of the register of companies since 2016. It fulfills the II requirement referring to the engagement of highly qualified employees of which at least 1/3 have PhDs, are PhD students or researchers, or at least 2/3 are in possession of a master's degree.

The female innovative farm located in Center area (to be more precise in Toscana region) assumes the LLC form, possesses a capitalization value from 50,000 up to 100,000 euros (Class 5) and is registered in the special section of the register of companies since 2020. It fulfills the I requirement referring to the condition of spending at least 15% of the greater value between turnover and cost of production in R&D and innovation.

The female innovative farm located in the southern area (to be more exact in the Basilicata region), assumes the LLC form, possesses a capitalization value from 5000 up to 10,000 euros (Class 3) and is registered in the special section of the register of companies since 2019. It fulfills I and II requirements. The I requirement refers to the condition of spending at least 15% of the greater value between turnover and cost of production in R&D and innovation, while the II requirement refers to the engagement of highly qualified employees of which at least 1/3 have PhDs, are PhD students or researchers, or at least 2/3 are in possession of a master's degree.

As regards the six female start-ups with a strong composition, three are located in the Central area, two in the North-West area, and one in the South of Italy.

Those in central Italy:

- No. 2 are localized in the region Umbria and both assume the LLC form. One possesses a value of capitalization of Class 5 while the other of Class 3. The one with a value of Class 5 is founded in 2016 but is registered in the special section of start-ups only since 2019. The one with Class 3 value is established and registered in 2019.
- No. 1 is localized in the region Marche, assumes the LLC, and has a value of capitalization from 5000 up to 10,000 euro (class 3).

All women's start-ups in Center (middle) area fulfill the I requirement regarding the condition of spending at least 15% of the greater value between turnover and cost of production in R&D and innovation.

Those in North-West Italy, both are located in the Lombardia region, assume the form of LLC, possess a capitalization value from 5000 up to 10,000 euro (Class 3) and are registered in the special section of the register of companies since 2019.

With regard to compliance with the substantive requirements, one meets the I requirement referring to condition of spending at least 15% of the greater value between turnover and cost of production in R&D and innovation, while the other

complies with the II requirement referring to the engagement of highly qualified employees of which at least 1/3 have PhDs, are PhD students or researchers, or at least 2/3 are in possession of a master's degree.

The female innovative farm located in Southern Italy (to be more precise in Campania), assumes the LLC form, has a share capital from 10,000 up to 50,000 euro (Class 4) and it is established in 2019. Focusing on the status of the innovative start-up, it fulfills the I requirement referring to the condition of spending at least 15% of the greater value between turnover and cost of production in R&D and innovation.

Finally, regarding the only female start-up with exclusive composition, it is located in the South of Italy (in detail in Sicily), assumes the form of SLLC, has a share capital of one euro and is established in 2017. Focusing on the status of innovative start-up, it fulfills the I requirement referring to the condition of spending at least 15% of the greater value between turnover and cost of production in R&D and innovation.

## 5 Conclusion

The introduction of technology and innovation has a radical impact on firms, leading them to a deep metamorphosis in order to remain competitive (Backer et al., 2009; Bresciani et al., 2013). As with other sectors, this change has also affected agri-food, which represents one of the most important sectors of the Italian economy (Aureli et al., 2004; Baregheh et al., 2012). The main changes that innovation and technology can bring to companies in the sector concern the productive activity, through the introduction of new technologies and organizational and strategic profiles and the adoption of new business models. Literature has developed significantly on these topics in recent years. Regarding the technologies introduced in the production process, the most recurrent themes are the use of new practices such as nanotechnology foods (Gaskell et al., 2004), food irradiation (Bruhn, 1998; Siegrist et al., 2006), or even genetically modified (GM) foods and crops (Frewer et al., 2004) and consumer perceptions of these new techniques (Frewer et al., 2011; Pidgeon et al., 2005).

Another important focus is being developed on blockchain technology (BT) which aims to ensure the quality of products, particularly high-quality products (Costa et al., 2013; Kamble et al., 2019; Lee et al., 2017), and help farms improve their decision-making (Bai et al., 2019; Gören, 2018; Saberi et al., 2019).

Regarding organizational and strategic profiles, the business model can be defined as the farm's DNA, concerning the way in which a product or technology is commercialized and how it creates value for the farm itself (Chesbrough & Rosenbloom, 2002). Innovative business models and the use of green practices promote higher product returns (Massa & Tucci, 2013) and lead farms toward sustainable performance (Hart & Sharma, 2004).

Sustainable innovation is a winning strategy to achieve business success, especially in the food industry, which is closely linked with sustainability from the points of view of nature and human health (Franceschelli et al., 2018). However, despite being an important sector, Agri-food in Italy does not show particular attention to innovation and technology. The Italian innovative start-ups engaged in this sector represent only 0.75% of the analyzed sample (91 firms up 12,068).

From the standpoint of gender studies, these issues do not seem to attract the attention of scholars, who are mainly focused on analyzing issues related to policies for the inclusion of women in agriculture (Agar & Manolchev, 2020; Camarero, 2017; De Castro et al., 2017; Hoang, 2020; Lovgren et al., 2020; Palladino, 2020) and observing gender diversity in terms of financial performance (García-Sánchez et al., 2021; Hernández Ortiz et al., 2020; Tleubayev et al., 2020). In addition, there are no qualitative studies aimed at analyzing sustainable innovation and technology from a managerial point of view.

Following the above line of study, the factors that lead the farms to sustainable innovation can be found in the IC components, particularly in the structural capital and relational capital (Cosentino et al., 2020; Paoloni et al., 2020; Scuotto et al., 2017). To be clear, aspects of structural capital can be traced back to the use of technology while aspects of relational capital can be identified in establishing relationships (Cillo et al., 2019a; Ferraris et al., 2017; Paoloni, 2021; Vrontis et al., 2017). Also, several scholars identify these two IC components as key factors in overcoming the crisis (Nahapiet & Ghoshal, 1998; Prasad et al., 2015), highlighting a proactive role of structural capital, understood as the ability of organizations to mitigate the initial phases of the crisis, and a reactive role of relational capital, understood as the ability of organizations to overcome the crisis and return to normality (Jia et al., 2020). Hence, it becomes crucial to develop knowledge on these issues that can ensure the survival of organizations in times of emergency. These themes can be observed also in the light of the current period, where the COVID-19 has claimed numerous victims, leading the world into a deep crisis.

For the reasons stated above, this first exploratory contribution proceeded *to map the innovative female start-ups in the Italian agri-food sector during the Coronavirus era*.

The results of the analysis show that the Italian landscape of female start-ups in agri-food is not encouraging. Innovative female farms represent 11% of the agri-food sector and 0.08% of Italian startups.

Also, from the point of view of capitalization, the Italian innovative female farms present unsatisfactory data. Almost none of them exceed 10,000 euros of social capital except for two. The first one reaches a level of capitalization within 50,000 euros, while the second one reaches a value within 100,000 euros. On the other hand, the only encouraging data are the ones related to their distribution: the innovative female farms are homogeneously distributed throughout Italy. This suggests that there are no gender diversity issues regarding the place of establishment of the companies.

Moving on to the qualitative analysis of this first exploratory study, only one of the 10 female innovative farms has an exclusive composition of only women and

only 3 out of 10 fulfill the substantial requirement linked to the high level of education of the team (II requirement).

## 6 Value and Limitation of the Work

The present chapter has several theoretical and practical contributions. From a theoretical perspective, it contributes to gender studies and reveals some connections in the domain of business innovation, in particular during periods of crisis. From the managerial perspective, the work provides a first picture of the state-of-the-art Italian innovative agri-food start-ups, highlighting the current gap between the number of female and male companies. Moreover, data on the level of capitalization of female start-ups and their distribution can help practitioners in assisting and the development of the firms.

The main limitations of the work concern the limited availability of data from companies. Small and medium-sized enterprises (SMEs), such as start-ups, are not required to disclose the same data as large companies and for this reason, through the research methodology chosen in this work, it was not possible to analyze additional information that was presented in the previous sections.

In order to explore the issues further, it is necessary to build on this first exploratory study to identify companies and analyze them through case studies.

## 7 Future Line of the Work

Future research perspectives will be addressed toward resilience analysis of innovative female farms. In order to develop the proposed theme, case studies will be developed to investigate the role of IC components during coronavirus emergencies. In particular, the analysis will be focused on the proactive role of structural capital and reactive role of relational capital. Moreover, even starting by present research, will be possible to develop studies aimed at analyzing differences in economic and financial performances related to gender issues.

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# The Lead Independent Director: A Role Suited to Women's Behavior?



Simona Arduini

## 1 Introduction

Even if board of directors are still male-dominated, the number of women on board have considerably increased, in the last two decades, also thanks to laws that required mandatory quotas for women. As the modern laws and the practices on corporate governance suggest, also to appoint in boards a large percentage of independent directors and, in some cases, to designate a lead independent director, the literature has explored two strand of research: the impact of women directors on governance and the relevance of independent directors on companies' management.

Since 1992, the year in which the idea of a "lead director" was launched for the first time (Lipton & Lorsch, 1992), a few researches focused on the appointment of the LID, both from a theoretical and an empirical point of view. The topic of attribution to women of the role of "leader" among independent directors, was even less explored, as the cases of women LID in corporations' reality are often overlooked.

The present chapter aims to fill this gap by investigating about the profile of an effective lead independent director and about the possibility that this profile could match with the behavior of a woman director. Particularly, the main research questions are: "may a woman fit the role of the lead independent director as good as a man?"; "which is the cultural and human profile of woman LID?"; "is the role of LID widespread among Italian women director?"; "how can we improve the involvement of women in leadership positions, like the LID appointment?"

This study will proceed as follows.

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In the next section, we provide the relevant literature on the lead independent directors' role. Particularly, we outline two opposite corporate governance models: the first, distinguished by the "unity of command," in which the CEO serves simultaneously as board chair; the second, featured by the separation of CEO and board chair, where the leadership benefits from an independent oversight. In both cases, the appointment of independent directors is needful and the presence of a LID is necessary or recommended; as many scholars advocated, the advantages—in terms of corporate's performance, governance's fairness, opportunity to exchange knowledge and skills, deepness of board's debates, etc.—of a board with a large percentage of independent members are innumerable.

In the third section, we examine the characteristics that a director must possess to be an effective LID (independent minded; respectful of roles; capable of weaving relationships and creating consensus; etc.) and we describe the profile that successful women LID might have.

Lastly, we describe the process of selection of the data set of Italian listed firms, we apply some techniques of descriptive statistics, comment on the results and underline the limits of the model, suggesting some future further researches.

## 2 Some Corporate Governance Models: An Overview

When Henry Fayol wrote his book "Administration Industrielle et Générale" (Fayol, 1916) that in the fifties turned out to be the founding masterpiece of modern management (Urwick & Brench, 1954)—and, particularly, of the classical management movement—he included, among his 14 Principles of Management, "l'Unité de Commandement" and "l'Unité de Direction." The first states that "un agent ne doit recevoir des ordres que d'un seul chef" (Fayol, 1916, p. 34), because the duality in command gives rise to inefficiency and it is a continuous source of conflicts. The second principle is based on the belief that organizations need "Un seul chef et un seul programme pour un ensemble d'opérations visant le même but" (Fayol, 1916, p. 34) and it allows the efforts of the organization to converge toward a common purpose. The two principles are closely connected but, while the first relates to the organizational structure of a company, the second concerns more what we call nowadays "corporate governance." While the Unity of Command may exist only if all the employees' efforts are focused on the same objectives, it is not the natural consequence of the Unity of Direction: the second can exist independently of the first.<sup>1</sup>

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<sup>1</sup>Some authors propose a different interpretation of the relationship between Unity of Command and Unity of Direction: "Fayol also believed that 'unity of command', or the notion that an employee should receive orders from one superior alone, was a necessary prerequisite to the attainment of unity of direction, Parker & Ritson, 2005, p. 187. Some others, however, favor a literal reading of the Fayol's work (Zanda, 1979, p. 146).

Fayol's theory on the relevance of unity of command was employed by the advocates of "organization theory" to support the model of CEO duality in the corporations' governance. CEO duality "is a board leadership structure in which the CEO wears two hats—one as CEO of the firm, the other as chairperson of the board directors" (Rechner & Dalton, 1991, p. 155); the unity of command, according to its supporters and considered, in this context, as "the existence of a single top manager with formal authority to whom all other managers report" (Finkelstein & D'Aveni, 1994, p. 1080), has some advantages, on the company's organization and on the development of the strategy. Firstly, it allows management to understand who has decision-making power (Donaldson & Davis, 1991) and, then, it gives much effectiveness to the decision-making process. Secondly, it reassures stakeholders about the existence of a single line of sight, because a dominant leader determines the company's destiny by subtracting the company from the uncertain events, determined by the surrounding environment. Lastly, strong CEOs take decisive actions and, hence, lead companies to success.

CEO duality has also many weaknesses, like promoting CEO entrenchment, driving to a potentially dangerous concentration of power, undermining the board's authoritativeness, enhancing self-interest of the leader.

The idea of separation between the CEO and the chairman was carried out by the supporter of Agency Theory, to limit the CEO duality's vulnerability. In fact, the non-duality model improves the economic welfare of the "principal," as self-serving activities are automatically reduced when the decision-making power is not concentrated only in one "agent"; if the two positions (CEO and chairman) are split, the board may more effectively exchange ideas and make proposals and better monitor and evaluate the actions of managers.

Some authors have also demonstrated that companies' performance increases whether non-duality model of governance is adopted; in particular, even if the potential relationship between CEO duality and firm performance has deeply divided the academics in the last 30 years, many authors argued that the lack of separation between CEO and chairman has a negative impact on company's financial and economics returns, either in developed countries (Donaldson & Davis, 1991; Jensen, 1993) and in emerging countries (Dhamija et al., 2014; Mittal Shrivastan & Kalsie, 2016; Varshney et al., 2013). Some other academics found no significant relationship between CEO duality and a company's performance (Baliga et al., 1996; Chen et al., 2008; Saibaba, 2013) or produced results that were not unique. In some instances they were valid only for non-family controlled companies or the results varied either according to the performance measures chosen or because they depended on certain industry conditions (respectively: Boyd, 1995; Uadiale, 2010; Yan & Kam, 2008; Yaseer et al., 2014). In other instances, they were not well determined, because they identified a relationship, without specifying its direction (Berg & Smith, 1978).

Only a few authors supported and demonstrated the idea of a high correlation between a powerful CEO and good firm's results, with reference to far East countries and/or emerging countries (Guo & Kga, 2012; Latif et al., 2013; Peng et al., 2007).

Other researches pointed out that performance may be a cause and not a consequence of a “dual” CEO profile. As Finkelstein and D’Aveni (1994) demonstrated, CEO duality is more dysfunctional when either informal CEO power and company performance is high, because if these two variables are low, strong leadership is recommended. However, the effects of a dual or not-dual model can be mitigated by the presence of a vigilant board, that is a board motivated and encouraged to monitor and discipline its leader; in fact: “the negative association of board vigilance and duality was stronger when both informal CEO power and firm performance were high, and the positive association of vigilance and duality was stronger when both informal CEO power and firm performance were low” (Finkelstein & D’Aveni, 1994, p. 1100); similar conclusions were achieved also by Elsayed (2007), with reference to the Egyptian market.

Krause and Semadeni asserted that it is not relevant whether to separate CEO and Chairman, but when and how to make it (Krause & Semadeni, 2013); particularly, they affirmed that the transition from a “dual” model to a “separation” one can take place in three different ways: the apprentice separation, the departure, and the demotion. In the first case, the powerful director relinquishes the CEO title to be chair; in the second the governance changes dramatically, because two different people replace the previous “dual” CEO; in the third hypothesis, the CEO renounces the office of chairman, to be “simply” an executive chief. Companies’ performance, therefore, may be increased by the separation whether firms have weak results; and may be decreased when the firm performances well. Furthermore, given the current performance, the impact of a demotion on the expected results is greater than the effects of other types of separation. Lastly, the likelihood of a return to a “unity of command” model is greater in the case of apprentice separation, because this model does not guarantee the chairman’s independence.

The examination of the aforementioned literature leads to the conclusion that whatever the adopted leadership model, the presence of independent directors and, in particular, of a LID, is necessary or recommended: in the case of CEO duality, the LID may limit the CEO entrenchment and create opportunities for confrontation between him and independent directors<sup>2</sup>; in the hypothesis of separation between the CEO and the chairman, the lead independent director has to be able to create adequate counterweights between property and management, especially in the case the chairman is also the person who controls the corporation (Comitato per la Corporate Governance, 2020, p. 11).

In addition to the laws—that have advocated, in the last 30 years, in the main developed countries, the presence of independent directors on boards—many scholars have highlighted the advantages of a Board composed of a significant

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<sup>2</sup>It is important to underline that non-executive directors (NEDs) are not necessarily independent. Directors are independent when they are “a person other than an Executive Officer or employee of the Company or any other individual having a relationship which, in the opinion of the Company’s board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director,” NASDAQ (2009), rule 5605. In this chapter, however, the term “independent director” and “NED” might be used as synonyms.

percentage of independent members. Firstly, they can act as a balance needle between majority shareholders and other investors' interests. They were identified as a "solution to the manager-shareholder agency problem" (Varottil, 2010, p. 294) and Bebchuk and Hamdami (2017) argued that Independent directors protect investors from shareholders' opportunism; they, in fact, address the conflicts of interest that may potentially arise between the controlling shareholder and investors, safeguarding the latter from the diversion of company's value.

Secondly, other scholars, relative to the topics of reputation, fairness and ethics, asserted that independent directors' dissension improves market transparency (Jiang et al., 2016) and that they are "a deterrent to fraud and mismanagement and unaccountability decisions" (Kishore, 2018, p. 8).

Lastly, with reference to firm's value, Krifa and Maati (2017) tested the hypothesis that independent directors, as professionals with specialized skills, could guide the management to effectively increase shareholder's value during M&A processes; even if they concluded that M&A operations, led by overconfident managers, destroy value in a way that cannot be mitigated by the presence of NEDs, they, however, highlight the role of the independent director in modern corporations. Giráldez and Hurtado (2014), conversely, supported the theory that independent directors are able to maximize shareholder value, by monitoring and controlling the management, providing advice and skills and promoting the acceptance of ethical codes and practices. A significant number of scholars also tested the relationship between director independence and firm performance for a sample of companies in Western economies or in emerging ones (Gupta et al., 2014, p. 62). Unfortunately, the results of the last 10 years' research on emerging countries are very variable: Prabowo and Simpson (2011) show that the share on independent directors on board doesn't affect the performance of family-controlled companies in Indonesia; Nguyen et al. (2017), with reference to Vietnamese companies, found a negative relationship between independent directors and firms operating performance; on the contrary Hamezah and Nor Izah (2017) prove that the impact of related party transactions on firm's performance in Malaysia is positive when there are the INEDs on board and Hamezah and Intan Maiza (2019) explain that is not the presence of independent director, nor their financial knowledge, but times INEDs dedicate to their appointment to impact positively companies' performance.

It is worth highlighting that some researches show that the positive impact on a firm's performance generated by the presence of independent directors may be enhanced by female directors (Terjesen et al., 2015), as women are flexible, collaborative, and able to manage difficult situations; they are "more likely to take active roles on their boards (Terjesen et al., 2015, p. 451), attending assiduously board meetings, asking questions, debating issues, supporting participative leadership and holding higher ethical standards. Therefore, an adequate percentage of women on board may improve public disclosure and earnings quality and "lead to better performance outcomes" (Terjesen et al., 2015, p. 452). Some authors also tested the positive impact of female directors on corporate social responsibility reporting (Poucheta-Martinez et al., 2019) and concluded that the CSR disclosure improves if the presence of independent women directors on board increases, within the limits of

a percentage that marks the tipping point, beyond which the relationship assumes an inverse trend. On the same topic, further research, referred to the Chinese market (Sial et al., 2019) shows that female and independent directors play a moderating role in the two-way association between corporate social responsibility and earnings management.

Many of the above considerations, both in terms of independent directors and the characteristics of women on board, can be applied, to a greater extent, to the topic of the lead independent director.

### 3 The Characteristics of an Effective LID

Following corporate governance laws, regulations, and codes—adopted in the main developed countries in the last 20 years—the circumstances in which a company may or have to appoint a lead independent director are related to the case of CEO duality (the chairman and the CEO are the same person or are related by close family ties or are both part of the executive management team, ASX Corporate Governance Council, 2010; Roth, 2012–2013, pp. 787–815; Singapore Institute of Directors, 2007) and to the hypothesis that the chairman is also the person who controls, individually or jointly the corporation, or for the big corporations, if requested by the majority of independent directors (Comitato per la Corporate Governance, 2020).

Some authors (Gregory, 2018), after having identified the multiplicity of situations that make the appointment of the LID necessary or appropriate, sketch the tasks that commonly he/she plays and define his/her human and professional profile. With reference to the tasks, some other scholars have shown that the lead independent director appointment can improve firm performance and reduce the trade-off between the unity of command and independent monitoring (Krause et al., 2017). The authors underline also that a LID “should be able to add value to the firm to the extent that he or she can strike” the balance between duality and non-duality (Krause et al., 2017, p. 2244). After having formulated five different hypotheses, regarding the kind of board that choice a LID, the power of the person chosen, the impact on firm performance, the relationship with CEO power and the relationship with the possibility of CEO-board chair separation, they conclude, among other things, that thanks to the LID governance changes if his/her appointment is neither wholly “symbolic,” nor wholly substantive, “but somewhere in the middle” (Krause et al., 2017, p. 2244). Literature and practice recognize, also, the following roles of a LID (Plouhinec, 2018): being a mediator between shareholders and directors, improving communication between the firsts and the second; monitoring the relationship between the board chair and CEO; representing the instances and the requests of non-executive directors; resolving conflicts within the board; leading the search for a new board at the end of directors’ mandate; providing leadership in crisis situations; improving board performance (Monks & Minow, 2011, p. 262) and assisting with the board of directors annual self-assessment process.



Therefore, the LID is not a person who “lead” the board, but he/she is the subject that is able to exercise an independent judgment within the board. He/she is the “one who is most respected” (Lipton & Lorsch, 1992, p. 71).

The professional and human characteristics of the LID are closely linked to the role he/she has to play; Gregory (2018) pinpoints that he/she must have:

- A problem-solving attitude. He/she has to be able to lead in a crisis and to facilitate consensus “bringing out the best in the board” (Gregory, 2018, p. 5).
- Communication and relationship-building skills. He/she has to maintain a cooperative mood within the Board, between the Board and the CEO and also between the Board and management team; he/she must be capable to grasp the messages that come either from the fellow directors and from the CEO and to transmit them constructively.
- A supportive behavior, which makes him/her being respectful of different skills and viewpoints of all directors and also ready to recognize the authority of the CEO, while maintaining his/her position as “leader.”

He/she also must be independent minded, independent from management and from shareholders, free from egoistical needs and available to dedicate time and energies to his/her appointment. Even if theory and practice of corporate governance consider many of these personal qualities and, particularly, “intellect,” “character,” and “personality” (Tricker, 2019, pp. 346–347) as desirable attributes in all directors, we consider them at least essential for a LID; however, it is undeniable that the effectiveness of independent directors—and, therefore, of the lead independent director, too—is affected by personal characteristics (Bravo & Reguera-Alvarado, 2018).

The strong interpersonal skills of a LID include also, for some other authors (Monks & Minow, 2011, pp. 262–263), the ability to manage a crisis and to focus board's talent and wisdom in difficult situations.

We highlighted, in the previous descriptions, both the qualities of female directors that “enhance the relationship between the independence of the board and firm performance” (Terjesen et al., 2015, p. 467) and the behavioral characteristics of the LID and we found some similarities: the spirit of collaboration; the attitude to manage difficult situations; the flexibility; the participative and supportive leadership; the availability to spent times for their appointment.

We believe that, even if the possibility for a LID to operate effectively depends mainly on his/her professional and human qualities, regardless of gender, gender affects the thinking style (Stone, 2015) and, consequently, makes women more suitable for activities, like the LID, that combine leadership with the capacity for dialogue, listening, supporting, being creative. Therefore, we suppose that a woman LID, with the same professional qualification, is able to play her role more effectively than a man. We underline such an assumption must not be generalized, because it refers exclusively to the position of the lead independent director, that—due to its origins and characteristics—is a role requiring, in addition to professional features, a specific human profile.

As evidenced by the professional profile and by the human and cultural values that inspire the work of some successful women, who have played the role of LID in leading US companies (Chase, 2021; in particular, interviews to: Gina Galgano Hoagland; Margot Leberberg Carter; Katina Dorton) there are qualities, more pronounced in women, that are able to lead a company to a sustainable success: the use of a “healthy, creative power”; the attention to socioeconomic inequalities (that a big company can help eliminate); the sensitivity to diversity in experiences and perspectives; the possibility to be involved in a long-term strategy that impacts positively on the operating environment.

As the aforementioned literature has never verified if the role of the lead independent director is generally played by women, as the analysis of the human and cultural characteristics of an effective LID would suggest, it is interesting to conduct an empirical research on a sample of Italy’s top listed companies.

Therefore, we will try to answer the following research questions:

Is the lead independent director a role exerted in the Italian listed companies?

The position of the LID is interpreted as a male or a female role, in Italy?

What are the qualities of the women who hold the role of the LID in Italian listed companies?

## 4 The Situation of Italian Listed Companies

To answer the aforementioned question, we selected a sample of about 120 listed Italian companies in the period 2017–2020 (with a minimum of 114 companies in 2017 and a maximum of 121 companies in 2020). The slight difference, over time, in the sample size depends on the delisting and/or new listing. In particular, the companies listed in the FTSE MIB segment (“large cap,” 40 companies in each year, except on 31/12/2019)<sup>3</sup> and those listed in the “Star” segment<sup>4</sup> (about 80) were considered.

The data we used for the sampling are available on the web site of “Borsa Italiana” (Italian Stock Exchange, [www.borsaitaliana.it](http://www.borsaitaliana.it)).

For each company we collected the following information, drawn from the Annual Corporate Governance Reporting for the years 2017–2020:

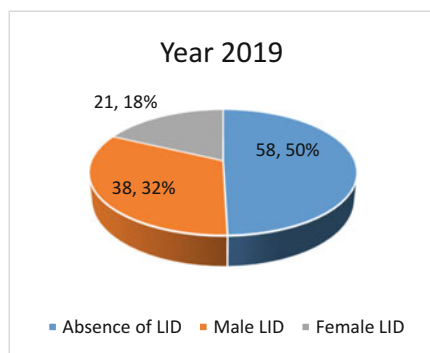
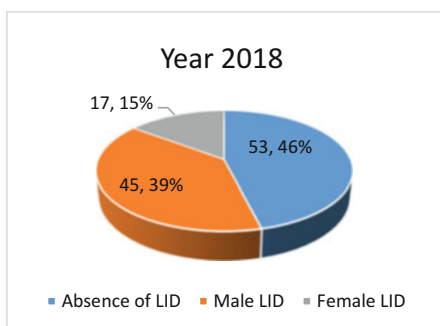
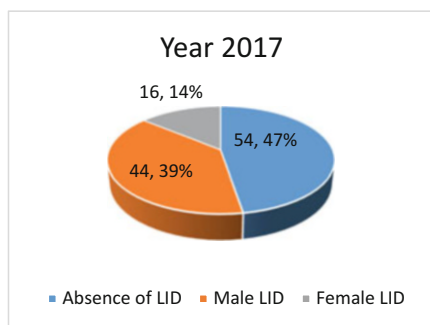
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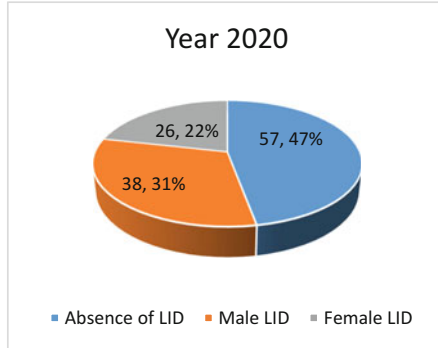
<sup>3</sup>The FTSE MIB, in Italy, is the benchmark stock market index. It includes the 40 most traded companies’ stocks, listed at the telematics stock market (MTA) or at the investment vehicles telematics market (MIV). These companies represent more than 80% of the total capitalization and more than 90% of the total exchanges.

<sup>4</sup>“Star” is a stock exchange segment dedicated to the listing of medium and small capitalization companies, characterized by the requirement of excellence in terms of liquidity, transparency, and corporate governance.

- The existence or not of the role of the LID.
- The gender of the LID, if appointed.
- The professional characteristics of the LID, if a woman.

The following aerograms synthesize the main results of the statistics about the presence of women LIDs in Italian listed companies.

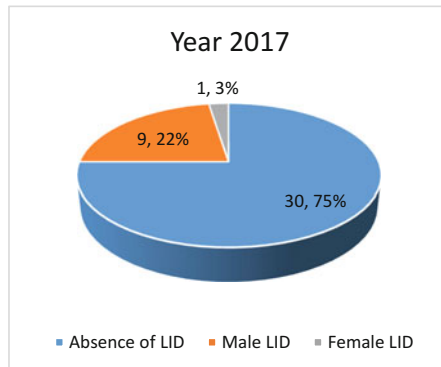


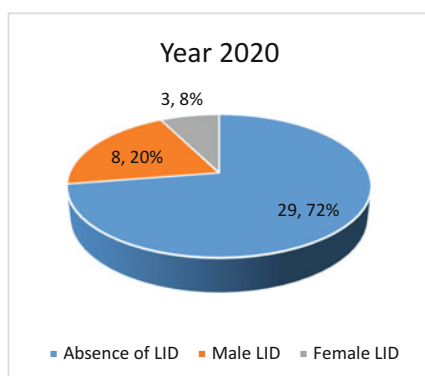
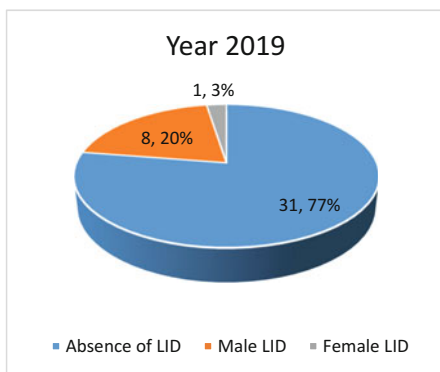
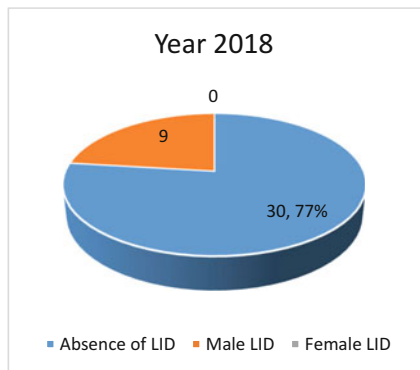


In Italy, in the years 2017–2020, more than half of the listed companies have not appointed a director as a LID; in the remaining companies, the male LIDs are more than double the women LIDs in the years 2017–2019, while in the year 2020 the percentage of female lead independent directors is growing: there are 26 women LID’s in 64 listed companies that decided to appoint a LID.

The situation of large cap companies is dramatically different from that of companies listed in the “Star” segment.

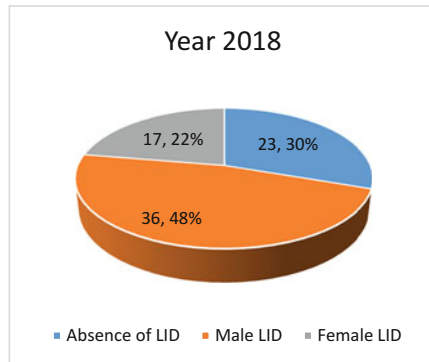
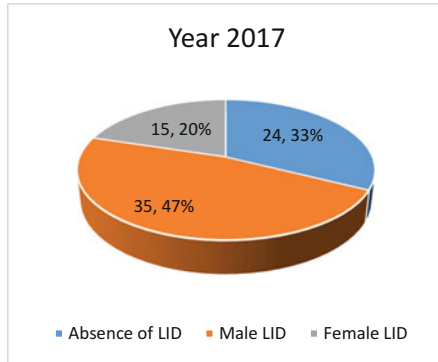
The following graphics represent the percentage, over the years, of the female LID’s in the large cap companies.

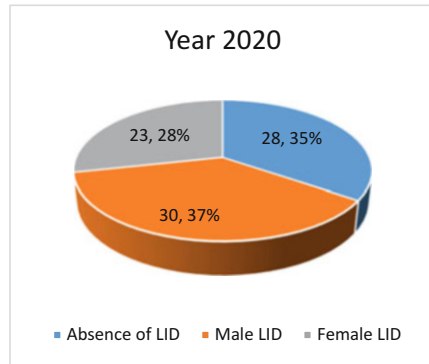
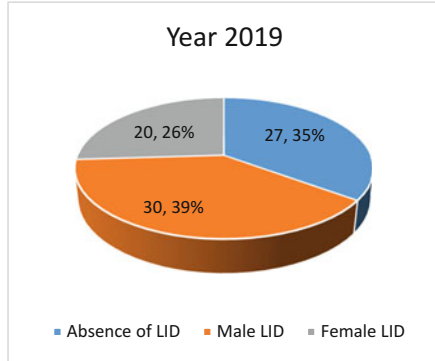




In the large cap segment, the appointment of the LID involves a minority of companies (less than 30%) and, even if the percentage of women LID's is increasing over time, the LID is generally a man.

The following graphics represent the percentage, over the years, of the female LID's in the companies listed in the "Star" segment.





Among the companies listed at the “Star” segment, a large percentage have an independent director appointed as “lead”; the number of women LID, in the last 4 years, has grown significantly and has gone from half the percentage of men to an almost equivalent proportion.

The difference between large cap and “Star” listed companies can be explained both by the application of corporate governance regulations, that makes the appointment of the LID substantially mandatory in certain situations, more frequent in small and medium caps (such as the CEO duality and the control of the corporation by the chairman) and by the characteristics of the “Star” listed firms, that, as mentioned, must be “virtuous” companies, also from the point of view of governance.

With reference to the profile of Italian women LIDs, we examined their professional characteristics, by the analysis of the *curriculum vitae* published in the companies’ web site and we remarked the following:

- The vast majority have a degree in Economics or in Business; a minority have a Law or Engineering degree; just one woman has a Medicine degree.
- Many women LIDs have a PhD, or an executive MBA, or attended a post-graduate specialization course.

- Many female LIDs are also chartered accountants and/or statutory auditors or lawyers.
- A high percentage of women LIDs taught or teaches in a University course; some are full or associate professors and some others are adjunct professors.

## 5 Conclusions and Implications for Future Researches

The current study contributes to emphasize the literature debate on the role of women in leading corporations and to deepen the topic of the appointment of lead independent directors in Italian listed companies.

As the literature review presented earlier shows, the academics, who examined the topic of the composition of the board of directors, analyzed the positive impact of the independent directors on companies' governance and emphasized the role of women on boards in terms of flexibility, ability to co-operate, managing difficult situations, holding higher ethical standards. At the same time, very few authors studied the subject of the appointment of the LID and the qualities that an effective lead independent director has to have got. No one has deepened the relationship between the characteristics of an effective LID and the professional and human profile of many female directors.

Therefore, we believe the current study can open the way for new strands of research for academics and for further lines of action for corporate governance's practitioners, concerning the relevance of the LID role in corporate governance and the possibilities for women to be much more involved in leading positions. Indeed, the empirical study we conducted demonstrates that the number of women in leading positions in Italian listed companies is growing, even if the gap to fill (in terms of percentage of women LIDs) is still large, especially in the big corporations.

The current research also presents numerous limitations. The results cannot be generalized and the conclusions of the analysis should have to be compared to the outcomes of studies referred to the main developed countries. It could be also interesting to collect some other data on human profile of the women LIDs, eventually by the interview method of research.

We are confident this study represents the first step to develop gender studies in the companies' corporate governance, and, overall, to underline that the possibility for a LID to operate effectively depends mainly on his/her professional and human qualities, regardless of gender, even if the gender may affect the thinking style and the human and cultural values of a leader.

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# In Search of Materiality for Nonfinancial Information Under the Female Lens, After the Directive 2014/95/EU Transposed. A Multiple Italian Case Study



Antonietta Cosentino and Marco Venuti

## 1 Introduction

Over the last decade, there has been a growing interest by international organizations, national authorities, and businesses in nonfinancial information reports. Moreover, in several circumstances, there has been a shift from voluntary to mandatory disclosure. For instance, this obligation was introduced by the European Directive 2014/95, which yields that from 2017 large companies (exceeding 500 employees) belonging to the Member States are required to give some social, environmental, and governance disclosures.

In conformity with the past, the doctrine has continued to examine the general and specific issues of nonfinancial information reports (Gulenko, 2018; Helfaya et al., 2019; Khlif & Achek, 2017; Leopizzi et al., 2020; Liao et al., 2015; Mazzotta et al., 2020; Michelon et al., 2015; Paoloni et al., 2016).

At the directive level, a specific issue which the doctrine has not focused particular attention on is the amount of information provided by businesses.

The issue of gender inequalities and the contribution of women in companies is extensively debated in the literature. Instead, there are few contributions on the topic of the information relevance on gender issues, with particular regard to women's issues. The gender concerns have been examined by the literature with regard to the correlation between the presence of women, especially in boards, and companies performance, the ESG or GHG information produced, but not on the quality and quantity of information, provided by companies regarding the subject of gender (Cucari et al., 2018; Furlotti et al., 2019; Harjoto et al., 2015; Purwa et al., 2020;

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Setó-Pamies, 2015). The present investigation is situated in the conceptual framework of the legitimacy theory to verify the extent of the information provided by large companies about women working in these before and after the national legislation application on nonfinancial disclosure. More precisely, this is a study that fills a gap in the existing literature and can have an impact not only on the behavior followed by companies but also by European and international policymakers.

This chapter aims to analyze the changes that the entry into force of the European Directive 2014/95 produced on the disclosure of large Italian publicly listed companies, with regard to the gender inequality issue and to the contribution of female presence in businesses. In particular, this study examines the quality, the quantity, and the modalities of information presentation related to women in these, in order to verify to what extent the issue linked to the condition of women is considered relevant by companies in the context of information relating to personnel, and what impact the transposition of the Directive in terms of adopted standards has produced on the disclosure. In addition, this chapter strives to verify whether the COVID-19 information reporting focused on the effects that COVID-19 could have on women working in companies and, therefore, whether there was a specific report about the impact that COVID-19 had on women's performance in businesses.

In this vein, we can formulate our research questions:

- RQ1: Within the context of information related to personnel, how relevant is the issue linked to the condition of women?
- RQ2: What impact on disclosure has the transposition of the Directive produced?
- RQ3: Was there a specific disclosure on the impact that COVID-19 had on women's performance?

To comply with the chapter aims a qualitative research methodology based on multiple case studies is used. The authors carry out a content analysis on the nonfinancial statement (NFS)—or on similar documents—produced by Italian nonfinancial companies listed on the FTSE-MIB before and after the first application in Italy of the national legislation implementing the European Directive. More precisely, in this first analysis of the topic, the NFS concerning the years 2016 and 2019 are examined in order to observe the changes in the information reporting on gender over time (e.g., gender inequalities, and contribution of the female presence in companies). In conducting the research, a scoring model based on key disclosure parameters is used.

This study can fill a gap in the existing literature and can have an impact not only on the behavior followed by companies but also by European and international policymakers. At the same time, the study's conclusions propose insights to policymakers in order to measure the effectiveness of the rules on nonfinancial disclosure, given the absence of a precise framework that requires companies to adopt uniform and universally accepted accounting standards or principles. This chapter can also contribute to the current consideration about the updating of the mentioned directive by the EU and European and international accounting bodies.

The chapter is structured as follows. In the Sect. 2, a theoretical framework is set out. Next, research methodology, results and discussion are shown in Sect. 3. Implications for future research and conclusions are presented in Sect. 4.

## 2 Theoretical Framework

In this chapter, the matter of gender disclosure provided by large listed companies is addressed from the perspective of the legitimacy theory. This theory is described by Tyler (2006) as “the characteristic of being legitimized by being placed within a framework through which something (...) is viewed as right and proper” (Tyler, 2006, p. 376).

According to this theory, the legitimacy of an organization depends on whether its actions are considered acceptable or not in light of the system of values, norms, beliefs, and definitions of the social context to which they relate (Suchman, 1995).

Thus, the societal organization is so highly related to the expectations of its stakeholders (shareholders, creditors, customers, suppliers, workers, NPOs, authorities) that, according to Deegan (2007), this theory represents one of the most valuable insights into the organization to undertake actions that are more acceptable to the different categories of stakeholders. Due to the importance of this feature, many scholars, such as Guthrie and Parker (1989), Gray et al. (1995), have used the theory of legitimacy in their studies as the most suitable basis for legitimizing corporate existence and their practices.

At the heart of this theory, there is the idea that an implicit contract was formed between individual organizations and the social context in which they operate (Chen & Roberts, 2010). Expectations are based on numerous social shared norms hence the survival and success of an organization depend on its ability to meet these expectations in the fulfilment of this tacit contract (Cho et al., 2015) as well as on how the organization will legitimize its operations to the public (Deegan, 2004).

In accordance with DiMaggio and Powell (1983), organizations always try to operate within the limits of their social spheres by striving to be perceived as legitimate. Consequently, the greater the likelihood of an adverse change in society’s expectations of how an organization operates, the greater the organization’s desire to change these adverse views to ensure their legitimacy (Branco & Rodrigues, 2006). Furthermore, Dowling and Pfeffer (1975) argue that organizations recognize that a change of opinion may require some corrective actions. Corporate sustainability practices must be accompanied by appropriate disclosure, since they are the most effective corrective actions (Cormier & Gordon, 2001).

According to the theory of legitimacy, corporate disclosure strategies are then applied by organizations to achieve social acceptance (Deegan 2002; Deegan et al., 2002). In a context of mandatory reporting, where the coercive force of the law prevails, companies disclose nonfinancial information, as obliged, and therefore the State plays a role in supporting the ideology of legitimation (Archel et al., 2009). Within this approach, the EU Directive could be seen as a political action to provide

corporate nonfinancial disclosure with material legitimacy, which is a form of legitimacy that allows organizations to merge what matters to the company with the primary concerns of its key stakeholders (Dumay et al., 2015).

As a matter of fact, the NFS and the sustainability reports are tools for communicating sustainability performance to stakeholders and also a mean for legitimization before them (Safari & Areeb, 2020).

In the search for legitimacy, the organization can adopt various approaches. The legitimacy literature distinguishes between symbolic and substantive methods.

On the one hand, the substantive methods are “attempt to obtain legitimacy through changes in actions and policies, as a strategic response to external conditions; in sum, it should be critical for external public to “know much more about whether those changes in strategy also changed in action” (Hopwood, 2009). A substantive approach applied to nonfinancial information implies that the organization publishes reports capable of improving the quality of the information provided regarding the conduct held and the initiatives were undertaken. On the other hand, the symbolic approaches are “stakeholders’ perceptions of the firm, engaging in apparent actions that lead key stakeholders to believe that the company is committed to societal requirements” (Ashforth & Gibbs, 1990) and, thus, to create a positive corporate image (Hopwood, 2009). Nonfinancial information becomes a means of communication that is exploited as an opportunity to disguise corporate activities, obfuscate negative performance (Cho et al., 2010), and project corporate images detached from reality (Boiral, 2013).

Accordingly, from this viewpoint, the disclosure of nonfinancial information (NFI) becomes a way to influence external perceptions and to build or maintain legitimacy to operate (Dawkins & Fraas, 2011; Suchman, 1995). Indeed, organizational legitimacy is often constructed and maintained through the use of symbolic actions (Dowling & Pfeffer, 1975; Elsbach, 1994; Neu et al., 1998) that are part of the public image of the organization.

Although various studies apply the legitimacy theory to nonfinancial information (Mazzotta et al., 2020; Velte & Stawinoga, 2017), few researches apply it specifically with regard to the disclosure provided by companies on the matter of gender disparities.

In part, this is because, in the past, companies have dealt with the problems of women and equal opportunities in their annual reports in a limited way (Adams et al., 1995; Adams & Harte, 1998; Benschop & Meihuizen, 2002). Adams and Harte (1998) explored the issue of gender and female employment in the annual corporate reports of major UK banks and retail companies. Their research shows that numerous companies have made simple political statements about women’s employment while little is said about their performance.

Similarly, Benschop and Meihuizen (2002) investigated gender information in annual financial reports through texts, statistics, and images in the Netherlands. The authors found that stereotyped images are dominant, and the data produced confirms the traditional gender division of labor.

If these studies show a limited interest in the topic of gender, using an essentially symbolic approach in the disclosure provided, other studies arrive at different results, representative of more substantial approaches.

Among the US listed organizations, Gul et al. (2011) find that diversity disclosures (such as those on gender diversity) at the board level enhanced a firm's stock price informativeness, increased transparency and encouraged private information sharing in small firms. Disclosures about women and minorities in organizational annual reports and other sources therefore should not be considered as mere window dressing (Gamson et al., 1992). Such types of disclosures show an organization's intent to promote its strategies while highlighting its commitment to diversity to its stakeholders (Singh & Point, 2004). Along with commitment, the presentation of such factors underlines organizational stewardship for its diversity objectives (Bernardi et al., 2002).

With the introduction of the European directive on nonfinancial information, there was a shift from an optional to a mandatory disclosure, which is also of a social nature. Leopizzi et al. (2020) underline that this legislation has brought an improvement with a positive increase in the level of information reporting in all sectors and for all types of risks. Venturelli et al. (2017) examined "the information gap for Italian companies and, consequently, the adjustments required by the new Directive on nonfinancial information." This author uncovered that an information gap remains, although the implementation of the directive should help to fill it in the coming years. Analyzing the Italian case, the chapter achieves results in line with that part of the literature according to which the role of regulation in improving the quality of disclosure of nonfinancial information (Beets & Souther, 1999; Deegan, 2007). Therefore, the potential contribution of the EU directive to nonfinancial disclosure in Italy appears to be greater than we had expected.

Nevertheless, the issue is debated. According to Brown (2009), the quantitative increase would not be accompanied by a qualitative increase since the use of a standardized framework would penalize the use of company- and sector-specific indicators and information.

Indeed, other empirical studies show that regulation is not always associated with improvement in the quality of nonfinancial information (Lock & Seele, 2016), or at least that regulation alone cannot guarantee a better level of nonfinancial disclosure (Costa & Agostini, 2016; Luque-Vilchez & Larrinaga, 2016). In this sense, the study by Ioannou and Serafeim (2014) of the Chinese and South African contexts produced controversial results.

Based on the theory of legitimacy, the chapter investigates the differences that the entry into force of the European Directive 2014/95 has produced on the exposure of large Italian listed companies and therefore whether there has been an effective commitment that has led to greater attention and information on the topic (substantial approach), or if there is only an attempt to build an image of commitment designed to positively influence the perceptions of stakeholders (symbolic approach). According to Hopwood (2009), companies can adopt disclosure strategies to build a new, more legitimate image, reduce the number of questions asked and maintain a level of secrecy. Therefore, it is possible that the fulfillment of a legal obligation does not



improve what is known about the objectives, activities, and social and environmental impacts of a company but rather serves to protect the organization from external pressures.

### 3 Research Methodology, Results, and Discussion

In compliance with the chapter aims, it was used a qualitative research methodology was based on multiple case studies. More precisely, the authors analyzed gender information published in nonfinancial statements (or similar documents) by Italian nonfinancial companies listed on the FTSE-MIB. The FTSE-MIB index was taken into consideration, due to the fact that it represents the most important Italian stock index, including the 40 companies with the greatest capitalization on the Italian capital market.

The data extraction took place in February 2021.

For the research purposes, the companies present in this index were selected both on 31/12/2016 (the year before the first application in Italy of the national legislation implementing the European directive) and on 31/12/2019 (the last date on which the NFS are available of these companies, at the time of the research took place).

In Table 1, the authors show the sample selected, on the basis of the criteria mentioned above.

**Table 1** Research sample

No.	Società Industriali FTSE MIB 20
1	Atlantia
2	Buzzi Unicem
3	Campari
4	Cnh Industrial Sustainability report
5	Enel
6	Eni
7	Exor
8	Ferrari
9	Fiat Chrysler Automobiles
10	Italgas
11	Leonardo
12	Moncler
13	Prysmian
14	Recordati
15	Saipem
16	Snam
17	Stmicroelectronics
18	Tenaris
19	Terna—Rete Elettrica Nazionale
20	Tim Italia

**Table 2** Variables investigated

Score number	Variables
1	Number of times certain specific terms occur (women, gender, gender equality, diversity-equal opportunities)
2	Comprehensiveness of the information on gender produced with respect to what is required by the GRI
3	Information methods: qualitative/narrative
4	Information methods: quantitative/table form
5	Presence of comparative data that allow obtaining indications on the trend of the information provided

Source: Authors' elaboration

The method applied in this study is the content analysis, since it is a methodology widely used by researchers to measure the quality, quantity, and presentation of the information produced in corporate reporting (Amran et al., 2006; Gray et al., 1995; Hackston & Milne, 1996; Haniffa & Cooke, 2002; Raar, 2002). Indeed, content analysis is “a research technique for the objective, systematic and quantitative description of the manifest content of communication” (Berelson, 1952).

This research technique allows realizing a replicable and valid inference from the data, according to the context (Krippendorff, 1980). For this scope, the present study relies on a set of query tools, checklists, and decision rules, specific to research questions.

Therefore, specifics were set to minimize the margins of discretion present in the research to make the activity carried out replicable.

To answer the first two questions of the research, a scoring model, based on key disclosure parameters, was prepared. This model makes it possible to use homogeneous parameters to examine the information on gender provided by companies listed in the FTSE-MIB40 both in the sustainability report published in 2016 and in the NFS published in 2019.

As matter of fact, the examination is aimed at comparing the changes that have taken place in this information following the introduction of ad hoc legislation. Table 2 shows the variables investigated to assign the score of the parameters.

In selecting these parameters, it was considered that the companies in the sample used the GRI standards before and after the transposition of the directive on nonfinancial information.

For each parameter, the score assigned varies from zero to one. The value is zero when the parameter is below a value representing an average level of compliance with GRI's requests or the number of times that terms referring to gender are reported. The value is one when this threshold value is exceeded. The threshold value is equal to the average value of the degree of compliance, obtained taking into consideration the results achieved in the two years. For example, if the GRI provides that 12 KPIs on gender are provided and of these, on average, between 2006 and 2019, the companies provided six, the companies that provided at least six of these indicators scored one, the other zero. Table 2 shows the specific methods of

**Table 3** Variables analyzed and score

Parameters	Score	
Materiality	$x \geq 80$	= 1
	$x < 80$	= 0
Compliance with the GRI standards	Yes	= 1
	No	= 0
Qualitative gender disclosure (narrative)	$x \geq 8$	= 1
	$x < 8$	= 0
Quantitative gender disclosure (tabular)	$x \geq 6$	= 1
	$x < 6$	= 0
Trend	$x \geq 5$	= 1
	$x < 5$	= 0
Total		5

Source: Authors' elaboration

assigning scores concerning each parameter examined, also illustrating in detail the procedure followed in carrying out the research. Table 3 summarizes the variables investigated and the score assigned to them.

To ensure the reliability of the score, the authors underwent a short training period to master the checklist and decision rules. The authors were also exposed to several examples of the various types of risk information. Subsequently, the understanding and skill of the researchers were tested using the inter-rater or inter-observer method, where each author is involved in analyzing the same set of material. In this case, four DFNs were analyzed separately. The results of the content analysis performed by both authors were then correlated to determine the extent of the agreement. The result showed that there were no significant differences between the scores.

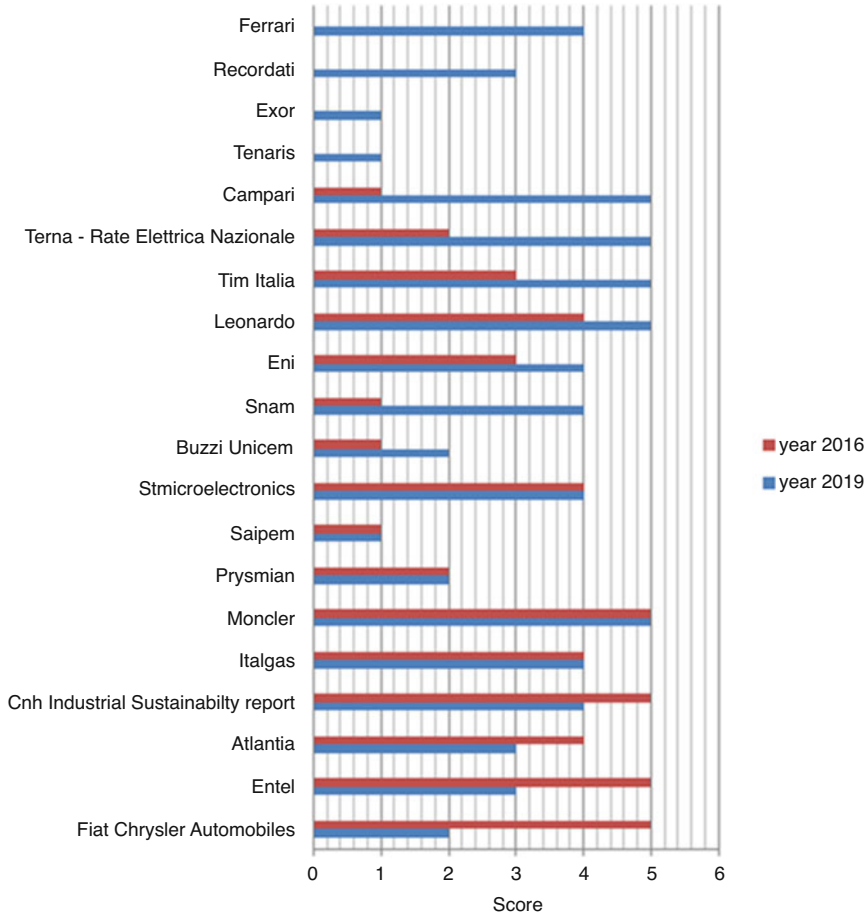
Figure 1 shows the comparison of the results detected in the two years of observation.

The introduction of the legislation on nonfinancial disclosure (NFD) resulted in an improvement in information on gender differences and the contribution of women in the company for 55% of the companies in the analyzed sample (Fig. 2). This result reveals a significant impact of the legislation on corporate disclosure. The entry into force of the directive has prompted 20% of the analyzed companies to introduce the gender issue in their NFS and 35% of them to significantly improve this information.

The introduction of the directive did not produce any effect on disclosure for 25% of the sampled businesses, while for 20% of them a worsening was observed.

Figure 3 highlights the improvement of the parameters, analyzed in this study, following the application of the directive. In 2016, only 20% of the NFSs analyzed achieved the full score of five (Fig. 3b) while in 2019 this percentage rises to 25 (+25%) (Fig. 3a). The percentage of NFSs that achieve the medium/high score (four) from 20 passes to 30% with a 50% increase with a linear trend of the increasing forecast (Fig. 3a, b). Figure 3c highlights the increasing trend of improvement for all five analyzed parameters except the last one.

The comparison of the overall results detected in the sample observed in the two years of reference reveals an improvement in corporate disclosure on the gender inequalities issue, with particular regard to the role of women in businesses.

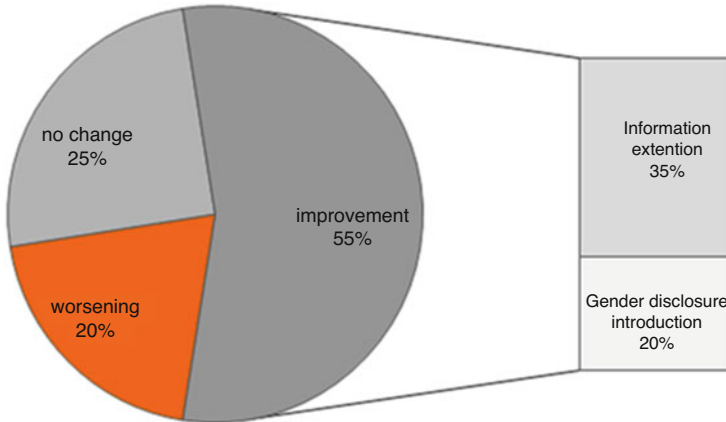


**Fig. 1** Results comparison

As a matter of fact, the authors observed both an improvement in the overall score (+34%) and an increase in the number of companies that obtain a score equal to or greater than three (Table 4).

A further parameter for measuring the directive impact on gender issues within the NFD context is summarized in Table 5.

The research results highlight a qualitative and quantitative improvement in the NFD regarding gender issues. Before the implementation of the directive, for example, only 35% of the companies in the sample considered the issue of gender to be relevant in nonfinancial disclosures. In 2019, the percentage rose to 60%. Similarly, for the parameter relating to qualitative information, while that relating to quantitative information remains almost stable.



**Fig. 2** Impact of the EU 2014/95 Directive on corporate disclosure

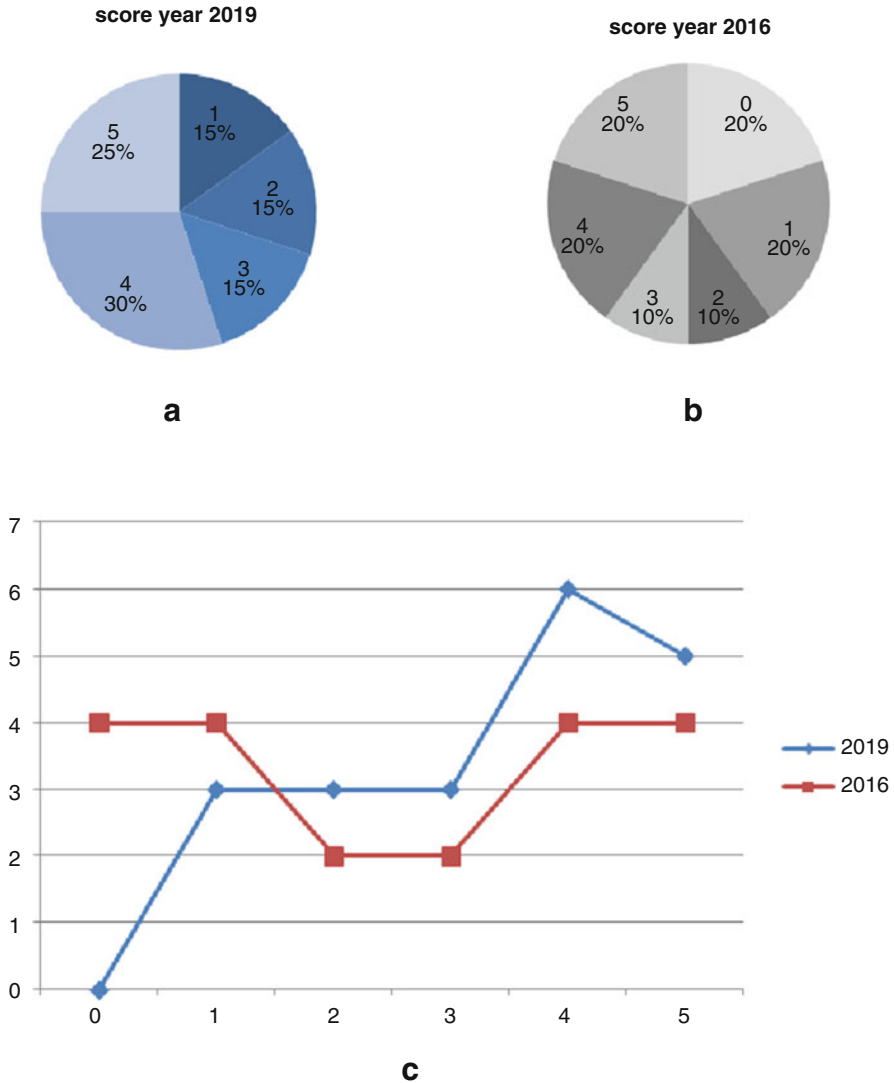
The only worsening parameter, even though restrained ( $-7.3\%$ ), seems to be the one concerning the comparisons with the previous years about the information on gender issues.

To answer the RQ3, the DFNs and the consolidated financial statements of 2019 of the 20 sampled companies were examined to verify whether these documents included information on any eventual impacts deriving from the COVID-19 crisis, regarding the situation of women within the company.

A complete reading of the documents was carried out to verify the existence of any reference. In this case, the conducted analysis was objective and was independent of any discretionary assessment regarding the type of initiative or impact reported. The value range ranked from zero to one. “Zero” corresponded to the absence of any information on the subject, “one” to its presence, without going into the merits of the type of information provided. From an initial examination of the available documents, it does not appear that specific attention was paid by the nonfinancial companies listed on the FTSE-MIB40 to the impact of COVID-19 on the situation of women.

## 4 Conclusion

The issue of gender differences and the contribution of women in companies is extensively treated in the literature. Instead, there are few contributions on the issue of the relevance of information on gender issues, with particular regard to women’s issues (Adams et al., 1995; Adams & Harte, 1998; Benschop & Meihuizen, 2002). This study is placed in the conceptual framework of the legitimacy theory (Chen & Roberts, 2010; Suchman, 1995; Tyler, 2006) to verify the extent of the information provided by large companies on women in the company before and after the



**Fig. 3** Improvement analysis of the single parameters. (a) Scores detected in NFSs (year 2019), (b) scores detected in NFSs (year 2016), (c) trend of improvement from 2016 to 2019

**Table 4** Improvement of the gender relevance in NFD

Results	2016	2019	Variation
Average score	2.5	3.35	+34%
Amount of companies with a score $\geq 3$	50%	70%	+40%

**Table 5** Improvement of the gender relevance in the NFD detected for each parameter

Variables	2016%	2019%	Improvement of the gender issues in NFD
Materiality	0.35	0.60	+71%
Compliance with the GRI	0.80	1	+25%
Qualitative gender disclosure	0.35	0.60	+71%
Quantitative gender disclosure	0.59	0.60	+1.7%
Trend	0.59	0.55	-7.3%

application of the national regulations on nonfinancial disclosure (Gray et al., 1995; Guthrie & Parker, 1989).

This chapter has analyzed the changes that the entry into force of Directive 2014/95/EU has produced on the disclosure of large Italian listed companies, with particular regard to the issue of gender differences and the contribution of women in companies. Specifically, the quality, quantity, and methods of presentation of information relating to women in these companies were examined, in order i) to verify how much the issue linked to the condition of women is considered relevant by companies in the context of information relating to personnel, and ii) what impact the transposition of the Directive in terms of adopted standards has produced on disclosure.

About the first aspect, the analysis reveals that there is a growing interest in the topic but, even today, it is not possible to assert that it is considered of primary importance, since only a relatively small number of companies, required to analyze gender issues, give relevance to the topic. Still many companies (30% of the sample examined) provide limited information and, in any case, only 25% of them provide a piece of complete satisfactory information, according to the parameters used in this study.

Regarding the second aspect, the results obtained explain that the directive impact on the quality and quantity of information produced by businesses is largely positive.

These results appear consistent with previous studies such as DiMaggio and Powell (1983), according to organizations always try to operate within the limits of their social spheres by striving to be perceived as legitimate. Thus, the greater the likelihood of an adverse change in society's expectations of how an organization operates, the greater the organization's desire to change these adverse views to ensure their legitimacy (Branco & Rodrigues, 2006) and achieve social acceptance (Deegan et al., 2002).

The chapter also investigated any information provided by the companies examined in the financial and nonfinancial disclosure 2019 on the effects that COVID-19 can have on women working in the firm and therefore if there was specific information on the effect that COVID-19 on female work in the company. No empirical evidence was found on this aspect.

This study can contribute to the literature about gender studies by investigating the relevance that companies attribute to information on gender issues, with particular regard to women. At the same time, the conclusions of the research offer insights to policymakers to measure the effectiveness of the rules on nonfinancial disclosure

in the absence of a precise framework that requires companies to adopt uniform and universally accepted accounting standards or principles. The chapter can also contribute to the ongoing reflection on the updating of the directive on the subject by the EU and European and international accounting bodies.

This research has some limitations. It is, indeed, a preliminary research that offers some indications of the status quo and current trends. To reach conclusions of general validity, it is necessary to extend the sample, including the financial companies listed on the FTSE-MIB40. Furthermore, it is necessary to extend the reference time horizon, including at least the 2020 NFSs.

Another limit of the research is described by the reduced articulation of the scores assigned to the parameters (zero or one), helpful for a first screening but not suitable for grasping the different sensitivities of companies to the issue of gender.

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# Gender Budgeting in Italian Universities



Federica Ricci, Gaetano della Corte, and Martina Manzo

## 1 Introduction

The topic of gender budgeting in the academic field has been widely investigated from different perspectives.

Much research has gone into analyzing the models of women's career advancement in universities. Generally, some studies based from a feminist perspective (O'Neil et al., 2008; White, 1995) argue that existing models, such as Levinson et al. (1978) proposing linear progression through a series of life stages, are based on male patterns of behavior.

In contrast, O'Neil et al. (2008) suggest that women's career advancement follows different dynamics than men. For example, O'Leary and Sandberg (2008) observes that women measure success less by corporate advancement and more by subjective measures such as personal satisfaction and growth.

Concerning the academic contest, Probert (2005) shows that women are under-represented in Australian universities because they have less human capital than men, measured in formal qualifications and work experience.

Doherty and Manfredi (2010) conducted an empirical study in four English universities and found that women tend to plan their careers less than men. Indeed, many more women than men have no plans about their future steps, feel that they have already reached their career goal, have no further aspirations, or are ready to

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think about retirement. The authors conclude that several factors can explain these differences. The first one is that when women are mothers, they find their loyalty divided between home and work, and, as a result, they are less focused on their careers. A second explanation is that women can be unmotivated because they are tired of the barriers encountered along the way.

Generally, the literature concludes that many factors are contributing to gender disparity in high education leadership.

For instance, these factors include a lack of structured networking and mentoring programs, family-related compromise; male-centric leadership models and norms; the prejudice which disparages women and presumes they cannot assume high responsibilities; women have different expectations (Bornstein, 2008; Burkinshaw & White, 2017; Doherty & Manfredi, 2006; Dunn et al., 2014; Hoobler et al., 2014).

Hence, women leaders represent just a minority (Erlemann, 2016; Fritz & Knippenberg, 2017), and their underrepresentation in senior leadership positions continues to be a significant challenge in higher education despite international campaigns for gender equality and equality (Nyoni et al., 2017; Parker et al., 2018).

The phenomenon of a female leader is the only woman in the room in the meeting of university management boards is not uncommon (Tran & Nguyen, 2020).

According to Awang-Hashim et al. (2016), this situation can contribute to building a bad image for social justice. In addition, it can adversely affect the universities' development, causing the need to involve more women to carry out gender equality as well as to bring positive changes, since the "presence of women in leadership roles in higher education will contribute to positive and unique experiences which they will not have under gender-homogeneous leadership."

We believe that in the persecution of a strategy aimed at gender equality in universities, a key role is played by the gender budget, as a reporting tool of the gender equality strategy implemented and, at the same time, of the resources used to carry out this strategy.

Although the literature has extensively investigated the causes of inequalities in the academic field, few contributions analyze the strategic role of gender budgeting as a reporting and planning tool for policies to guarantee gender equality.

Given that, the purpose of this chapter is to analyze the state of the art of gender budgeting in a sample of Italian public universities to highlight the potential that gender budgeting can have to reach gender equality.

To achieve this goal, the authors intend to answer the following research questions:

- RQ1. What is the state of the art of the incidence of gender in the composition of Italian universities (student component, research fellows, postgraduates, teaching staff, technical-administrative staff and directors)?
- RQ2. What are the positive actions taken by Italian universities in gender budgeting to improve gender equality?
- RQ3. What is the level of integration between the positive actions favoring gender equality and the planning of the financial resources necessary to carry out these actions in the gender budgets of the sample considered?

This paper contributes to expanding the international literature on the connections between gender studies and academic context. Our literature review emphasizes the topic analyzed as an emerging issue, which allows us to identify new trends and future directions for research.

The major implication of the paper is to advance knowledge and practice about gender budgeting in academic contexts.

The relevant evidence of the chapter relates to a better understanding of the gender budget as a concrete tool for planning positive actions to improve gender equality in Italian universities.

The chapter is structured as follows.

In the following Sect. 2, the method of the literature review is set out. Then, the findings of the analysis are shown in Sects. 3 and 4. Implications, future lines of research and conclusions are presented in Sect. 5.

## 2 Literature Review

The gender budget can be defined here as a reporting tool of the equal opportunities strategy.

The term “equal opportunities” do not involve only gender-gap, but refers to all the actions aimed at eliminating broader discrimination, referring to “the well-being in the workplace of all subjects; to guarantee them access to the same condition of treatment, career progression and safety; and pursue any form of discrimination related to the belonging of people to a different gender, age, sexual orientation, race, ethical origin, disability and language.”

Accepting Pulejo (2013) approach, here it refers to gender as a “social category,” functional to the analysis of the different behavioral models, lifestyles, roles, and expectations of individual subjects. Moreover, as a social category, gender has an economic value as it conditions the way individuals act, increases needs whose satisfaction depends on the attention to their diversity in the workplace, as well as on the efficiency of public interventions in pursuing equal rights and opportunities for all.”

Similarly, Addabbo et al. (2011) define the gender budget as “a tool that measures the impact on men and women of the choices made, starting from the assumption that they are not gender-neutral.”

From an institutional point of view, in 1985, in the third United Nations world conference on women in Nairobi, the need emerges to implement gender mainstreaming strategies worldwide to promote actions to bring out active participation of women in social and economic life. The European Union accepts the principle of gender mainstreaming and, in particular, recognizes the gender budget as an implementing tool for the principle of gender mainstreaming. Indeed, the European Parliament (2003) recognizes how gender budgeting can be identified as an application of gender mainstreaming in the budgetary procedure, and it emphasizes the analysis of the impact of public policies on women and men and inserts the

gender perspective at all levels of the process of building public budgets, and aims to restructure income and expenses in order to promote equality between the sexes. Again, in 2010, the European Parliament, with the resolution “United Nations platform for action for gender equality,” underlines the need to combat gender inequality and promote its integration into legislative, budgetary, and political processes economic.

On a global level, gender equality represents one of the 17 sustainable development goals that States have committed to achieving by 2030.

At the same time, various interventions on the issue of gender budget take place in Italy.

In particular, in May 2007, the directive of the Minister for Reforms and Innovations of the Public Administration “Measures to implement equality and equal opportunities between men and women in public administrations” underlines the need to promote a culture oriented towards respect and enhancement diversity. In applying this principle, public administrations must present the data on personnel with distinct evidence by gender and highlight, always distinguishing by gender, different variables, including the salary and the time spent in the occupational positions. Furthermore, the directive requires public administrations to promote budget analysis representing which and how many resources are reserved for women, men, and both.

The Italian directive of May 2007 represents a milestone in the cultural and social path of gender policy since it introduces the gender budget in Italian public administrations. Moreover, it qualifies the gender budget not only as a simple instrument of non-financial reporting but as a tool that requires an economic analysis, by gender, of the allocation of available resources.

Hence, following these national initiatives, universities begin to align towards a gender mainstreaming strategy. For instance, in 2014, the national conference of the Equality Bodies of Italian universities promoted the implementation of an interdisciplinary working group to outline a proposal for guidelines for gender budgeting in universities.

Then, on September 19, 2019, the CRUI Group for gender budget presented the guidelines in Italian universities at the rectors’ conference.

In the universities, gender budgeting is an essential tool for promoting gender equality and integrating a gender perspective in the institutional policies to allocate economic resources. It can be defined as a document that performs two functions: firstly, it photographs the state of the art concerning the gender distribution of the different components of the university (students, teaching staff, technical-administrative staff); secondly, it monitors the actions taken by the university in favor of gender equality, and evaluates their impact on university policies, also analyzing the economic and financial resources invested.

The two purposes of gender budgeting need to be integrated. Hence, context analysis is necessary to plan positive actions and allocate economic resources to reduce any gender gaps that may be present in the university. To completely understand the context, monitor the level of achievement, and measure any

deviation, it is useful analyzing the effects generated by the planned actions and the impact of budgetary expenditure on women and men.

All this considered, in the next paragraph, an empirical analysis is carried out on a sample of 16 gender budgets that were drawn up by Italian public universities to systematize:

1. Positive actions planned by Italian universities within the gender budget to implement the gender equality strategy.
2. Details of the economic and financial resources planned by Italian universities within the gender budget to implement these positive actions.

The following section summarizes the empirical research that the authors conducted.

### **3 Research Methodology**

The empirical research is conducted on a sample of 16 gender budgets drawn up by the following Italian public universities:

1. Alma Mater Studiorum University of Bologna “Alma Mater”
2. Polytechnic of Turin
3. University of L’Aquila
4. University of Basilicata
5. University of Brescia
6. University of Catania
7. University of Florence
8. University of Foggia
9. University of Genoa
10. University for Foreigners of Perugia
11. University of Rome “Sapienza”
12. University of Udine
13. University of Mediterranean Studies of Reggio Calabria
14. University of Naples “Federico II”
15. IUAV University of Venice
16. Polytechnic University of Marche

To completely represent the national territory, the sample is composed by selecting one public university for each region. The following regions are not involved from the number of Italian regions:

- Aosta Valley (since there is only one private university in the area)
- Molise
- Sardinia
- Trentino-Alto Adige

The latter three do not have the gender budgets available on the website.

**Table 1** Distribution of the selected universities by region

Region	University selected
Abruzzo	University of L'Aquila
Basilicata	University of Basilicata
Calabria	University of Mediterranean Studies of Reggio Calabria
Campania	University of Naples "Federico II"
Emilia-Romagna	Alma Mater Studiorum University of Bologna "Alma Mater"
Friuli Venezia Giulia	University of Udine
Lazio	University of Rome "Sapienza"
Liguria	University of Genoa
Lombardy	University of Brescia
Marche	Polytechnic University of Marche
Piedmont	Polytechnic of Turin
Puglia	University of Foggia
Sicily	University of Catania
Tuscany	University of Florence
Umbria	University of Perugia
Veneto	IUAV University of Venice

Table 1 shows the combination of regions/universities.

## 4 Finding

To answer the RQ1, which refers to the systematization of gender incidence by category in Italian universities, the authors analyzed all the gender budgets involved in the sample and sorted the gender data according to the following classification:

- Students
- PhD students
- Trainees
- Research fellows
- Teaching staff
- Directors

The data was obtained by analyzing the gender budgets available on the universities' official websites. The research was carried out considering the latest available budget. However, there is no time alignment with the latest available budget (for example, some are dated 2018, others 2016).

The Tables 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 show the results of this analysis.

Concerning the University of L'Aquila it emerges that:

- Among the students, women prevail.
- Among PhD students, women prevail.



**Table 2** Incidence by gender of the University of L'Aquila

University of L'Aquila	2018					2017					2016				
	Women	Men	% women	Total		Women	Men	% women	Total		Women	Men	% women	Total	
Enrolled students	9637	8044	54.50	17,681		10,025	8061	55.43	18,086		10,769	8311	56.44	19,080	
PhD students	113	90	55.67	203		112	85	56.85	197		115	105	52.27	220	
Trainees	\	\	\	\		196	116	62.82	312		198	124	61.49	322	
Research fellows	45	75	37.50	120		\	\	\	\		\	\	\	\	
Teaching staff	199	351	36.18	550		\	\	\	\		\	\	\	\	
Directors	0	1	0	1		0	1	0	1		0	1	0	1	
TA staff	\	\	\	\		27	29	48.21	56		137	101	57.56	238	
Total	9994	8561	53.86	18,555		10,360	8292	55.54	18,652		11,219	8642	56.49	19,861	



**Table 4** Incidence by gender of the University of Mediterranean Studies of Reggio Calabria

	2019					2018					2017					
	Women	Men	% women	Total	Women	Men	% women	Total	Women	Men	% women	Total	Women	Men	% women	Total
University of Mediterranean Studies of Reggio Calabria																
Enrolled students	2142	1805	54.27	3947	2089	1854	52.98	3943	2110	1972	51.69	4082				
PhD students	\	\	51.00	\	\	\	52.00	\	\	\	50.00	\				
Trainees	\	\	63.00	\	\	\	60.00	\	\	\	61.00	\				
Research fellows	\	\	54.20	\	\	\	54.00	\	\	\	53.89	\				
Teaching staff	98	123	44.34	221	36	125	22.36	161	94	122	43.52	216				
Directors	2	2	50.00	4	2	2	50.00	4	2	2	50.00	4				
T.A. staff	161	80	66.80	241	161	80	66.80	241	161	80	66.80	241				
Total	2403	2010	54.45	4413	2288	2061	52.61	4349	2367	2176	52.10	4543				

**Table 5** Incidence by gender of the University of Naples “Federico II”

	2016			2015			2014					
	Women	Men	% women	Total	Women	Men	% women	Total	Women	Men	% women	Total
University of Naples Federico II												
Enrolled students	46,884	36,726	56.07	83,610	47,254	35,420	57.16	82,674	48,464	36,780	56.85	85,244
PHD students	\	\	57.00	\	\	\	56.00	\	\	\	57.00	\
Trainees	\	\	60.00	\	\	\	58.00	\	\	\	59.00	\
Research fellows			56.00				54.00				57.00	
Teaching staff	886	1523	36.78	2409	912	1554	36.98	2466	658	1571	29.52	2229
Directors	5	3	62.50	8	5	3	62.50	8	5	3	62.50	8
T.A staff	1423	1638	46.49	3061	1452	1659	46.67	3111	1478	1702	46.48	3180
Total	49,198	39,890	55.22	89,088	49,623	38,636	56.22	88,259	50,605	40,056	55.82	90,661

**Table 6** Incidence by gender of the University of Bologna “Alma Mater”

University of Bologna “Alma Mater”	2019			2018			2017					
	Women	Men	% women	Total	Women	Men	% women	Total	Women	Men	% women	Total
Enrolled students	46,123	36,813	55.61	82,936	46,793	37,201	55.71	83,994	46,500	37,427	55.41	83,927
PhD students	769	855	47.35	1624	687	760	47.48	1447	623	678	47.89	1301
Trainees	828	719	53.52	1547	763	652	53.92	1415	755	593	56.01	1348
Research fellows	610	582	51.17	1192	605	535	53.07	1140	610	592	50.75	1202
Teaching staff	1124	1678	40.11	2802	1098	1645	40.03	2743	1072	1649	39.40	2721
Directors	7	7	50.00	14	7	8	46.67	15	7	8	46.67	15
T.A staff	1961	992	66.38	2954	1929	987	66.15	2916	1952	1004	66.04	2956
Total	51,442	41,646	55.27	93,068	51,882	41,788	55.39	93,670	51,519	41,951	55.12	93,470









**Table 10** Incidence by gender of the University of Brescia

University of Brescia	2020					2019					2018				
	Women	Men	% women	Total		Women	Men	% women	Total		Women	Men	% women	Total	
Enrolled students	\	\	45.50			\	\	45.90			\	\	45.90		
PhD students	\	\	37.70			\	\	37.80			\	\	37.70		
Trainees	286	428	40.10	714		323	439	42.40	762		368	508	42.20	875	
Research fellows	58	70	45.31	128		61	59	50.83	120		59	63	48.36	122	
Teaching staff	228	384	37.25	612		220	377	36.85	597		220	377	36.85	597	
Directors	2	1	66.67	3		2	1	66.67	3		2	1	66.67	3	
TA staff	320	170	65.31	490		320	170	65.31	490		320	170	65.31	490	
Total	894	1053	45.92	1947		926	1046	46.96	1972		969	1119	46.43	2087	

**Table 11** Incidence by gender of Polytechnic University of Marche

	2018				2017				2016			
	Women	Men	% women	Total	Women	Men	% women	Total	Women	Men	% women	Total
Marche Polytechnic University	6900	8483	44.85	15,383	7032	8558	45.11	15,590	7172	8524	45.69	15,696
Enrolled students	167	170	49.55	337	179	181	49.72	360	172	198	46.49	370
Trainees	269	206	56.63	475	247	198	55.51	445	258	201	56.21	459
Research fellows	121	113	51.71	234	112	122	47.86	234	103	114	47.47	217
Teaching staff	184	353	34.26	537	167	350	32.30	517	168	356	32.06	524
Directors	1	1	50.00	2	1	1	50.00	2	1	1	50.00	2
TA staff	342	189	64.41	531	332	201	62.29	533	325	207	61.09	532
Total	7984	9515	45.63	17,499	8070	9611	45.64	17,681	8199	9601	46.06	17,800

**Table 12** Incidence by gender of the Polytechnic of Turin

	2018				2017				2016			
	Women	Men	% women	Total	Women	Men	% women	Total	Women	Men	% women	Total
Polytechnic of Turin												
Enrolled students	10,041	24,645	28.95	34,687	10,112	25,145	28.68	35,257	10,345	25,078	29.20	35,423
PhD students	253	510	33.16	763	253	510	33.16	763	250	507	33.03	757
Trainees	\	\		\	\	\		\	\	\		\
Research fellows	171	373	31.43	544	170	370	31.48	540	171	368	31.73	539
Teaching staff	284	702	28.78	986	280	708	28.34	988	278	694	28.60	972
Directors	3	3	50.00	6	3	3	50.00	6	3	3	50.00	6
TA staff	546	335	62.00	881	546	338	61.76	884	544	334	61.96	878
Total	11,298	26,568	29.84	37,866	11,364	27,074	29.56	38,438	11,591	26,984	30.05	38,575

**Table 13** Incidence by gender of the University of Foggia

University of Foggia	2015				2014				2013			
	Women	Men	% women	Total	Women	Men	% women	Total	Women	Men	% women	Total
Enrolled students	9407	5109	64.80	14,516	9381	5766	61.3	15,173	9237	5277	63.02	14,658
PhD students	\	\	61.30	\	\	\	72.10	\	\	\	64.10	\
Trainees	\	\	59.00	\	\	\	56.00	\	\	\	61.10	\
Research fellows	8	10	44.44	18	8	10	44.44	18	8	10	44.44	18
Teaching staff	69	216	24.21	285	70	210	25.00	280	68	215	24.03	283
Directors	0	1	0	1	0	1	0	1	0	1	0.00	1
TA staff	191	147	56.51	338	190	150	55.88	340	195	155	55.71	350
Total	9675	5483	63.83	15,158	9649	6137	61.12	15,786	9508	5658	62.10	15,310



**Table 15** Incidence by gender of the University of Florence

University of Florence	2018				2017				2016			
	Women	Men	% women	Total	Women	Men	% women	Total	Women	Men	% women	Total
Enrolled students	51,428	36,183	58.70	87,611	50,576	34,856	59.20	85,432	50,318	34,679	59.20	84,997
PhD students	881	906	49.30	1,787	871	857	50.40	1,728	931	913	50.50	1,844
Trainees	1,193	930	56.20	2,123	1,131	809	58.30	1,940	1,138	674	62.80	1,812
Research fellows	814	742	52.30	1,556	859	756	53.20	1,615	816	676	54.70	1,492
Teaching staff	1,684	2,495	40.30	4,179	1,648	2,472	40.00	4,120	1,669	2,621	38.90	4,290
Directors	10	15	40.00	25	10	15	40.00	25	10	15	40.00	25
TA staff	1,550	750	67.40	2,300	1,591	763	67.60	2,354	1,598	816	66.20	2,414
Total	57,560	42,021	57.80	99,581	56,686	40,528	58.31	97,214	56,480	40,393	58.30	96,873

**Table 16** Incidence by gender of the University for Foreigners of Perugia

University for Foreigners of Perugia	2020					2019					2018				
	Women	Men	% women	Total		Women	Men	% women	Total		Women	Men	% women	Total	
Enrolled students	710	374	65.50	1084		671	379	63.90	1050		617	324	65.57	941	
PhD students	13	12	52.00	25		16	8	66.67	24		15	8	65.22	23	
Trainees	\	\		\		\	\		\		\	\		\	
Research fellows	3	2	60.00	5		7	1	87.50	8		4	3	57.14	7	
Teaching staff	23	32	41.82	55		22	35	38.60	57		24	33	42.11	57	
Directors	0	1	0	1		0	1	0	1		0	1	0.00	1	
TA staff	116	58	66.67	174		124	61	67.03	185		124	64	65.96	188	
Total	865	479	64.36	1344		840	485	63.40	1325		784	433	64.42	1217	





- Among the trainees, in 2016 and 2017, women prevail, whereas the data are not available for 2018.
- Among the research fellows, men prevail.
- Among the teaching staff, men prevail.
- Among directors, men prevail.
- Among technical-administrative staff, in 2016 women prevail, whereas in 2017 prevail men. Data are not available for 2018.

Concerning the University of Basilicata, it emerges that:

- Among the students, men prevail.
- Among PhD students, women prevail.
- Among the trainees, women prevail.
- Among the research fellows, there is a perfect gender balance.
- Among the teaching staff, men prevail.
- Among directors, data are not available.
- Among technical-administrative staff, men prevail.

Concerning the University of Mediterranean Studies of Reggio Calabria, it emerges that:

- Among the students, women prevail.
- Among PhD students, women prevail.
- Among the trainees, women prevail.
- Among the research fellows, women prevail.
- Among the teaching staff, men prevail.
- Among directors, there is a perfect gender balance.
- Among technical-administrative staff, women prevail.

Concerning the University of Naples, it emerges that:

- Among the students, women prevail.
- Among PhD students, women prevail.
- Among the trainees, women prevail.
- Among the research fellows, women prevail.
- Among the teaching staff, men prevail.
- Among directors, women prevail.
- Among technical-administrative staff, men prevail.

Concerning the University of Bologna, it emerges that:

- Among the students, women prevail.
- Among PhD students, men prevail.
- Among the trainees, women prevail.
- Among the research fellows, women prevail.
- Among the teaching staff, men prevail.
- Among directors, there is a perfect gender balance.
- Among technical-administrative staff, women prevail.

Concerning the University of Udine, it emerges that:

- Among the students, men prevail.
- Among PhD students, data are not available.
- Among the trainees, women prevail.
- Among the research fellows, data are not available.
- Among the teaching staff, men prevail.
- Among directors, men prevail.
- Among technical-administrative staff, women prevail.

Concerning the University of Rome, it emerges that:

- Among the students, women prevail.
- Among PhD students, data are not available.
- Among the trainees, women prevail.
- Among the research fellows, data are not available.
- Among the teaching staff, men prevail.
- Among directors, women prevail.
- Among technical-administrative staff, women prevail.

Concerning the University of Genoa, it emerges that:

- Among the students, women prevail.
- Among PhD students, data are not available.
- Among the trainees, women prevail.
- Among the research fellows, there is a perfect gender balance.
- Among the teaching staff, men prevail.
- Among directors, men prevail.
- Among technical-administrative staff, women prevail.

Concerning the University of Brescia, it emerges that:

- Among the students, men prevail.
- Among PhD students, men prevail.
- Among the trainees, men prevail.
- Among the research fellows, men prevail.
- Among the teaching staff, men prevail.
- Among directors, women prevail.
- Among technical-administrative staff, women prevail.

Concerning the University of Marche, it emerges that:

- Among the students, men prevail.
- Among PhD students, there is a perfect gender balance.
- Among the trainees, women prevail.
- Among the research fellows, women prevail.
- Among the teaching staff, men prevail.
- Among directors, there is a perfect gender balance.
- Among technical-administrative staff, women prevail.

Concerning the Polytechnic of Turin, it emerges that:

- Among the students, men prevail.
- Among PhD students, men prevail.
- Among the trainees, data are not available.
- Among the research fellows, men prevail.
- Among the teaching staff, men prevail.
- Among directors, there is a perfect gender balance.
- Among technical-administrative staff, women prevail.

Concerning the University of Foggia, it emerges that:

- Among the students, women prevail.
- Among PhD students, women prevail.
- Among the trainees, women prevail.
- Among the research fellows, men prevail.
- Among the teaching staff, men prevail.
- Among directors, men prevail.
- Among technical-administrative staff, women prevail.

Concerning the University of Catania, it emerges that:

- Among the students, data are not available.
- Among PhD students, data are not available.
- Among the trainees, data are not available.
- Among the research fellows, data are not available.
- Among the teaching staff, men prevail.
- Among directors, data are not available.
- Among technical-administrative staff, women prevail.

Concerning the University of Florence, it emerges that:

- Among the students, women prevail.
- Among PhD students, there is a perfect gender balance.
- Among the trainees, women prevail.
- Among the research fellows, women prevail.
- Among the teaching staff, men prevail.
- Among directors, men prevail.
- Among technical-administrative staff, women prevail.

Concerning the University of Perugia, it emerges that:

- Among the students, women prevail.
- Among PhD students, women prevail.
- Among the trainees, data are not available.
- Among the research fellows, women prevail.
- Among the teaching staff, men prevail.
- Among directors, men prevail.
- Among technical-administrative staff, women prevail.

Concerning the University “IUAV” of Venice, it emerges that:

- Among the students, women prevail.
- Among PhD students, there is a perfect gender balance.
- Among the trainees, women prevail.
- Among the research fellows, women prevail.
- Among the teaching staff, men prevail.
- Among directors, men prevail.
- Among technical-administrative staff, women prevail.

In the light of the analysis carried out, authors conclude that in the Italian universities observed, and the women prevalence is higher among students, trainees, postgraduates and technical and administrative staff.

None of the universities observed records a women prevalence among teaching staff, especially considering the highest role like full or associate professor. Indeed, women tend to be locked to the role of researcher, and they struggle to get ahead and make a career.

These results confirm that there is a phenomenon of vertical segregation in the academic context.

Then, to respond to RQ2, that is below written:

*What are the positive actions taken by Italian universities in gender budgeting to improve gender equality?*

To summarize the most frequent positive actions implemented by the universities involved in the sample, the authors read all the latest gender budgets available on the university’s official website. They reveal that the most frequent positive actions planned by the universities in the sample and reported in the gender budgets are the following:

1. The promotion of the workplace well-being
2. Fight against straining and mobbing, harassment and discrimination
3. The improvement of a work-life and study-life balance
4. The availability of training
5. The implementation of a listening desk
6. Equal opportunities in research

Table 18 shows, in detail, the universities that present in their gender budgets each positive action.

Concerning the first positive action, the improvement of workplace well-being, in most cases it consists of monitoring the level of stress, mapping the problems in the workplace, identifying the main problems that affect the rejection of students who do not pass the exams, organizing training activities, and preventing mobbing.

For instance, the University of Florence, together with the University of Naples “Federico II,” concerning the implementation of workplace well-being, highlights how essential it is that the positive actions planned do not remain on paper. They have to be rooted in the culture of the university. What does it mean? It means that internal stakeholders (teaching and TA staff) and external ones (students) have to be perfectly aware of the strategic direction of promoting workplace well-being. For

**Table 18** Positive actions shown in the gender budgets of the universities observed

	<i>Action 1</i> The promotion of the workplace well	<i>Action 2</i> Fight against straining and mobbing, harassment and discrimination	<i>Action 3</i> The improvement of a work-life and study-life balance	<i>Action 4</i> The availability of training	<i>Action 5</i> The implementation of a listening desk	<i>Action 6</i> Equal opportunities in research
University of L'Aquila	✓	✗	✓	✓	✗	✗
University of Basilicata	✗	✗	✗	✗	✗	✗
University of the Mediterranean Reggio Calabria	✗	✗	✗	✗	✗	✗
University of Naples "Federico II"	✓	✓	✓	✓	✓	✓
University of Bologna "Alma Mater	✓	✗	✓	✓	✓	✓
University of Udine	✗	✗	✗	✗	✗	✗
University of Rome "Sapienza"	✗	✗	✗	✗	✗	✗
University of Genoa	✓	✗	✗	✗	✗	✗
University of Brescia	✓	✗	✓	✗	✗	✓
Polytechnic University of Marche	✓	✓	✓	✓	✓	✓
Polytechnic of Turin	✗	✗	✗	✓	✗	✓
University of Foggia	✗	✗	✓	✓	✗	✓
University of Catania	✗	✗	✗	✗	✗	✗
University of Florence	✓	✓	✓	✗	✗	✗

(continued)

Table 18 (continued)

	<i>Action 1</i> The promotion of the workplace well	<i>Action 2</i> Fight against straining and mobbing, harassment and discrimination	<i>Action 3</i> The improvement of a work-life and study-life balance	<i>Action 4</i> The availability of training	<i>Action 5</i> The implementation of a listening desk	<i>Action 6</i> Equal opportunities in research
University for Foreigners of Perugia	✓	✗	✗	✓	✗	✗
IUAV University of Venice	✓	✗	✓	✗	✗	✓

this purpose, these universities constituted a quick means of communication within the scientific community by activating a phone number that everyone can use to report any disease, inequality, and mobbing. In particular, this listening channel was advertised by the University of Florence by printing bookmarks and distributing them for free within the university.

As of positive action 2, different strategies were identified to avoid unjustified gender inequalities, exasperated forms of control, and harassment that can damage personal dignity. Thus, most of the actions planned by the universities of the sample concerned the set of conferences, workshops, and study days to spread this culture within the university and prevent the previously mentioned disease. For instance, in 2018, two meetings aimed at preventing mobbing were organized at the University of Florence.

As far as positive action 3, in the sample considered, in most cases, the work-life and study-life balance is linked to the opportunity of using suitable structures to reconcile personal and professional needs. Hence, some universities provide to their employee some facilities for their children (such as nursery schools); in other cases, the same purpose is pursued through some agreements with public and private entities for easy access to external facilities for children and care and assistance services for the older people and people with disabilities. An attractive solution is promoted from the University of Foggia, which since 2013 has helped teaching and technical-administrative staff to take care of their children when, in the summer months, schools are closed. Indeed, the University of Foggia set up a socio-pedagogical project that welcomes the children of university employees from three to ten years old.

Regarding the fourth positive action, namely the staff training, many universities implemented research groups to develop educational tools and methods for improving equal opportunities and gender equality and fighting gender and race stereotypes. A worthy initiative was taken by the University of Naples “Federico II.” In January 2010, it established an interdisciplinary laboratory of studies and research named “DGF”<sup>1</sup> that offers constant training to promote collective well-being within the university and outside. For instance, it supports families with disabilities, separation problems, and families where different cultural and ethnic matrices intersect. Hence, the laboratory’s stakeholders are represented not only by university members but also other teaching staff of every order and degree, students, regardless of their study title, and all parents.

The fifth positive action, namely the implementation of a listening desk, is a widespread tool within the universities of the sample analyzed. It supports staff and students that have psychological distress in their work or study path, and it is helpful when conflicts arise at the workplace, stress increases, motivation declines and other strictly work or study problems happen. The listening desk aims at conducting

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<sup>1</sup>The acronym stands for the Italian words “Donne, Genere e Formazione,” namely “Women, Gender and Training.”

individual interviews to build a helping relationship to reorganize the person's resources and develop strategies to cope with difficult situations.

Finally, the sixth positive action consists of improving equal opportunities in research, and it is pursued by elaborating evaluation and merit criteria for access to university scientific research funds. In this context, the action taken by the University of Foggia should be mentioned since some research activities were set to spread gender equality. For instance, a research group on gender pharmacology was established at the Department of Clinical and Experimental Medicine to analyze gender differences in responding to drugs and the role of gender in the different responses to natural substances. In addition, the University of Foggia dedicated an Erasmus 2010–2011 program (Life along learning program) entitled "Teaching methods for the education of adult women." Later, the University of Foggia proposed other Erasmus programs related to gender equality. Finally, we report the activation of

the course of pedagogy of gender differences and the course of the history of gender education in the curriculum Education and Training of the Department of Humanities.

Once understood which are the most frequent positive actions programmed in the gender budgets of the Italian public universities considered in the sample, we can move on to RQ3, which is here recalled:

RQ3. What is the level of integration between positive actions favoring gender equality and the programming of financial resources needed to implement such actions in the gender budgets of the sample?

To answer RQ3, it is necessary to understand the level of integration between the programming of positive actions and the financial resources allocated to such actions.

Indeed, to implement the strategic actions planned by the universities in the gender budget to improve gender equality, the universities have to allocate economic and financial resources for each of these solutions.

The gender budget can, in fact, become a concrete strategic tool for gender equality only if it is based on adequate and appropriate economic and financial planning.

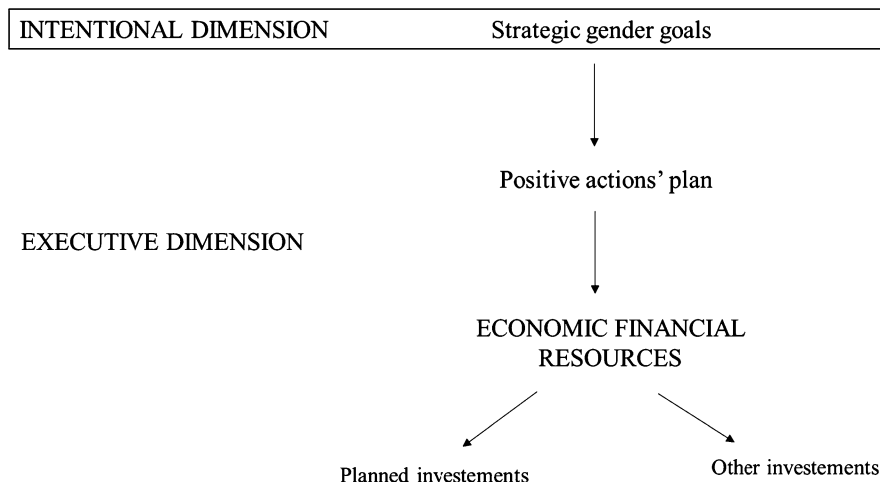
In particular, the gender budget has to respect the following characteristics:

1. on the one hand, it is necessary to define all the actions that universities must implement to realize the gender equality strategy truly.
2. on the other hand, the planned actions have to be supported by allocating economic and financial resources.

The definition of positive actions, to which point 1 refers, consists of explaining the initiatives that the universities intend to implement, so it refers to an intentional dimension.

Whereas the identification of the financial resources, which point 2 mentions, represents the shift from the intentional to the executive dimension.





**Fig. 1** The shift from the intentional to the executive scope in the gender equality strategy

Thus, only by planning the financial resources suitable for covering the expenses necessary for the implementation of positive actions, the universities can carry out a gender equality strategy.

The following chart outlines what has been stated above (Fig. 1):

The authors analyzed the sample to verify in which and how many gender budgets the gender equality strategy was not only intentional but was supported by financial planning.

In particular, the gender budgets of the sample were analyzed to check whether there was evidence of indicators of expenditure to cover the planned actions.

Table 19 summarizes the results of the analysis.

As it is clear, in most cases, the gender budgets of the sample considered did not contain any information about the resources allocated to gender equality policy actions.

The only worthy exceptions are listed below:

1. University of Foggia
2. University of Brescia
3. IUAV University of Venice

In particular, the University of Foggia shows in its 2016 gender budget (the last one available) a table containing the costs in euros of the different categories for 2013–2015 classified by gender.

Table 20 shows these results.

The table shows that concerning the students, costs incurred for women are always higher.

Similarly, as for the category of technical, administrative staff, costs incurred for women are always higher, whereas, concerning teaching staff, costs incurred from the universities for males are more consistent.

**Table 19** Gender expenses indicators in the gender budgets of the universities in the sample

University	Gender expenses indicators	Description
University of L'Aquila	X	There are no expense indicators
University of Basilicata	X	There are no expense indicators
University of the Mediterranean Reggio Calabria	X	There are no expense indicators
University of Naples "Federico II"	X	There are no expense indicators
University of Bologna "Alma Mater"	X	There are no expense indicators
University of Udine	X	There are no expense indicators
University of Rome "Sapienza"	X	There are no expense indicators
University of Genoa	X	There are no expense indicators
University of Brescia	✓✓	Cost of components; economic resources necessary for the implementation of positive actions
Polytechnic University of Marche	X	There are no expense indicators
Polytechnic of Turin	X	There are no expense indicators
University of Foggia	✓	Cost of components
University of Catania	X	There are no expense indicators
University of Florence	X	There are no expense indicators
University for Foreigners of Perugia	X	There are no expense indicators
IUAV University of Venice	✓	Cost of components

Indeed, the university staff's analysis of the gender budget shows that full professors, associate professors, and researchers on fixed-term contracts are predominantly male, while among assistant professors, the female component prevails. This phenomenon confirms the consistency of vertical segregation that allows women to access the academic career (as researchers) but prevents them from reaching higher levels (full professor or associate professor).

As far as the technical-administrative staff, however, it can be observed that the prestigious roles of directors and high professional staff (EP category), the male component always prevails, while in all other roles, numbers are reversed.

Furthermore, analyzing the students, it emerges that female students represent the majority (64% in 2013 and 2014, and 62% in 2015).

There is, therefore, a problem of vertical segregation, which makes women have a lower income than men.

However, in response to our RQ3, although the gender budget of the University of Foggia, compared to the other gender budgets of the sample considered, may appear innovative because of the statement of costs classified by gender of the

**Table 20** Costs of the different categories of the University of Foggia, classified by gender, years 2013–2015

Components	2013		2014		2015	
	F	M	F	M	F	M
Rector	–	33,466	–	33,466	–	33,466
Pro-rector	13,387	10,877	13,387	10,877	13,387	10,877
Department Director	8367	41,833	8367	41,833	8367	41,833
Academic Senate's member	10,709	53,546	13,387	50,869	16,964	48,191
Member of the board of director	4351	39,156	8701	34,805	13,052	26,104
President of the evaluation of department organism	–	7179	–	7179	–	7179
Member of the department evaluation organism	4859	14,578	4859	14,578	4859	14,578
President of the board of Auditors	–	9571	–	9571	–	9571
Full member of the board of Auditors	14,578	–	14,578	–	14,578	–
Department governance organism	56,250	210,206	63,278	203,178	70,306	191,799
Full Professors	1,740,000	8,700,000	1,856,000	8,236,000	1,856,000	8,004,000
Associate Professors	2,923,20	4,222,400	3,248,000	4,141,200	3,248,000	4,790,800
Researchers	5,278,000	4,988,000	4,988,000	4,814,000	4,814,000	4,408,000
Researchers on fixed-term	92,800	139,200	139,200	232,000	603,200	696,000
Teaching staff	10,034,000	18,049,600	10,231,200	17,423,200	10,251,200	17,898,800
General director	–	125,886	–	125,886	–	125,886
Category EP	603,200	788,800	603,200	788,800	556,800	788,800
Category D	2,088,000	1,426,800	2,088,000	1,357,200	1,983,600	1,357,200
Category C	3,103,000	2,407,000	3,016,000	2,407,000	2,987,000	2,291,000
Category B	417,600	371,200	417,600	371,200	417,600	348,000
Collaborators and language experts	162,400	46,400	162,400	46,400	162,400	46,400
TA staff	6,374,200	5,166,086	6,287,200	5,096,486	6,107,400	4,957,286
Students	37,799,282	21,262,096	38,388,553	21,593,561	37,291,982	22,856,376
Total	54,263,732	44,687,988	54,970,231	44,316,425	53,990,888	45,904,261

Source: Miur teacher registry and website [www.unifg.it](http://www.unifg.it)

**Table 21** Expenses for salaries of teaching and research staff by gender

Role	Average net remuneration	Average net remuneration	Absolute value of gap	Percentage of gap
	F	M		
Full professors	57,756.57	75,632.40	17,875.82	30.79
Associate professors	52,009.90	55,034.42	3024.51	12.09
Assistant professors	51,259.00	47,721.55	-3547.45	-6.92
Researchers on fixed-term	31,167.57	37,796.65	6629.08	21.27
Total	192,203.04	216,185.02	23,981.96	12.48

Source: Gender budget 2019, IUAV University of Venice

**Table 22** Expenses for salaries of managerial and technical-administrative staff by gender

Category	Average net remuneration	Average net remuneration	Absolute value of gap	Percentage of gap
	F	M		
Category C	21,940.13	26,321.16	4381.03	19.97
Category D	28,232.18	30,844.86	2621.68	9.29
Category EP	38,737.64	42,990.56	4242.92	10.95
Directors	74,293.29	70,618.64	-3674.64	-4.95
Category C on fixed-term	21,225.54	20,202.27	-1486.67	-7.01
Category D on fixed-term	7711.99	23,840.05	2621.68	n.c.
Directors on fixed-term		70,618.64		n.c.
Total	185,088.78	285,632.78	6085.32	n.c.

Source: Gender budget 2019, IUAV University of Venice

different categories, still it is not qualified as a suitable tool to provide preventive information about the gender-differentiated expenditure.

Indeed, the gender budget of the University of Foggia reports only an ex-post and not an ex-ante distribution of costs by gender.

As of the university of Venice, it includes in its gender budget two tables to differentiate by gender the funds destined to

1. Remuneration of teaching and research staff
2. Remuneration of managerial and technical-administrative staff

In particular, Table 21 shows the expenses for the remuneration of teaching and research staff, while Table 22 shows the remuneration of managerial and technical-administrative staff divided by gender.

Moreover, there are some significant gender differences regarding the remuneration of the staff at the University of Venice.

**Table 23** Costs of professors and researchers, 2019

Role	Total		Women		Men	
	N	Costs <sup>a</sup> (€)	Costs (€)	Costs/total costs (%)	Costs (€)	Costs/total costs (%)
Full Professors	167	15,351,760	3,436,262	22.38	11,915,498	77.62
Associate Professors	230	14,787,760	4,895,850	33.11	9,891,910	66.89
Assistant Professors	108	6,527,450	30,990,991	47.35	3,436,459	52.65
Researchers on fixed-term (B)	42	1,974,838	772,715	39.13	1,202,123	60.87
Researchers on fixed-term (A)	50	1,451,060	772,336	53.23	678,724	46.77

<sup>a</sup>Cost net of social security contributions

In particular, as far as the teaching group, among full professors, a gap of 31% is recorded in favor of men; among associate professors, the gap measures 12%; whereas, among researchers, the gap amounts to 21%.

Like in the University of Foggia, a 7% gap favoring women is recorded among assistant professors. Overall, there is a 12% gap in favor of men.

Once again, the data seem to confirm that vertical segregation affects women more frequently than men.

Referring to technical-administrative staff men's salaries remain higher than women's, but only at the high professional level, whereas in the executive categories, the situation is the reverse.

In addition to this information about the distribution of expenditure by gender, there is no economic and financial resources plan referring to positive actions necessary to implement the gender equality strategy.

As widely stated, to translate the strategy into concrete actions, a valid plan of economic and financial resources devoted to these actions is essential.

In the sample observed, the only gender budget that appears innovative is the one drawn up by the University of Brescia.

The University of Brescia, in fact, in the definition of positive actions aimed at implementing the gender equality strategy, illustrates not only the distribution of expenses related to the teaching and technical-administrative staff but also the economic forecasts necessary to implement the planned actions.

Tables 23, 24, and 25 show, respectively, the costs incurred for professors and researchers, the costs for research fellows, Adjunct Professors and language experts, as well as the costs incurred for technical and administrative staff.

Here too, the differences in staff remuneration of women and men are consistent.

In particular, the composition of teaching staff records a 55.24% gap in favor of men among full professors, a 33.78% gap among associate professors, a 5.3% gap among Assistant Professors, and a 21.74% gap among researchers on fixed-term (B). There is, however, a 6.46% gap in favor of women among researchers on fixed-term (A).

**Table 24** Costs for research fellows, Adjunct Professors, language experts, 2019

Role	Total		Women		Men	
	<i>N</i>	Costs <sup>a</sup> (€)	Costs (€)	Costs/Total costs (%)	Costs (€)	Costs/Total costs (%)
Research fellows on 31.12.2019	120	1,939,847	1,009,328	52.03	930,518	47.97
Research fellows managed during the year	184	2,488,476	1,248,160	50.16	1,240,315	49.84
Adjunct Professors	836	8,930,191	333,843	37.38	559,175	62.62
Language experts	4	73,520	34,835	47.38	38,685	52.62

<sup>a</sup>Cost net of social security contributions

**Table 25** Costs of technical and administrative staff, 2019

	Role	Total		Women		Men
	<i>N</i>	Costs <sup>a</sup> (€)	Costs (€)	Costs/Total costs (%)	Costs (€)	Costs/Total costs (%)
Directors	0	0	0	0	0	0
Directors on fixed-terms	3	193,260	89,535	46.33	103,724	53.70
Category EP	26	1,114,424	707,407	63.48	407,016	36.52
Category D	128	4,377,903	2,683,213	61.29	1,694,689	38.71
Category C-B	333	8,284,555	5,520,339	66.63	2,764,215	33.37

<sup>a</sup>Cost net of social security contributions

Concerning the category of research fellows, Adjunct Professors and language experts, a 2.35% gap in favor of women is recorded only among research fellows in 2019 and those managed during the year. In contrast, there is a remuneration gap favoring men in the category of Adjunct Professors and language experts.

Again, as shown for the universities of Foggia and Venice, the remuneration differences among technical-administrative staff show a gap in favor of women only for the high-skilled roles while the situation is the opposite for managerial positions.

The innovative element is represented by Table 26, which shows the economic resources needed to maintain the actions aimed at reducing gender inequality mentioned above and the requests for the resources needed to develop the actions already implemented and for new actions. Finally, Table 27 shows the summary of economic forecasts for the three-year time period 2021–2023.

In light of the findings shown in Tables 26 and 27, we can state that the University of Brescia is the only one truly alert to obtain the information about the level of integration between positive actions and the financial resources allocated to implement them. The gender budget, thus, becomes an integral part of the University's planning and interpretation tools, which interacts with the primary management documents and affects their elaboration.

**Table 26** Economic resources necessary for the implementation of Gender Budgeting actions, year 2021

Type of action	Action	Actor	Stakeholders involved	Economic forecasts 2021			Total
				Maintenance	Development	New implementation	
Work-life and study-life balance	Contributions to access to the nursery school and to support the families with diseases	GAC <sup>a</sup>	Teaching staff, researchers, TA staff	40,000.00	10,000.00		50,000.00
	Summer centers	GAC	Teaching staff, researchers, TA staff	45,000.00	10,000.00		55,000.00
	Facilitations for transports	GAC	Teaching staff, researchers, TA staff	10,000.00			10,000.00
	Total action			95,000.00	20,000.00		115,000.00
Actions to contrast the horizontal segregation	Orientation about gender education	GAC	Primary and secondary first grade schools based in Brescia/Local school office			10,000.00	10,000.00
	Orientation to increase the applications for the study courses on areas underrepresented	GAC	Secondary schools of second grade schools based in Brescia			10,000.00	10,000.00
Gender lessons	Economic contributions for students' applications for the study courses where they are under-represented	GAC-Students secretariat	Secondary schools of second grade schools based in Brescia			10,000.00	10,000.00
	Total action						
	Classes to sensitize about gender topics	GAC	Students of the University of Brescia			30,000.00	30,000.00
	Training courses to improve the quality of leadership and	GAC	Teaching staff, researchers, TA staff	5000.00		5000.00	10,000.00

(continued)

Table 26 (continued)

Type of action	Action	Actor	Stakeholders involved	Economic forecasts 2021			Total
				Maintenance	Development	New implementation	
	teamworks management, with a gender perspective						
	Total action					10,000.00	15,000.00
Actions to contrast mobbing, harassment and discrimination	Trusted advisors	GAC	Teaching staff, researchers, TA staff	6000.00			6000.00
Gender research	European and national research	Departement research centres		130,000.00			130,000.00
	Total action			130,000.00			130,000.00

Source: Gender Budget of the University of Brescia, 2020

<sup>a</sup>GAC stands for Guarantee Act Committee



**Table 27** Economic resources necessary for the implementation of gender budgeting actions, years 2021–2023

Type of action	Action	Actor	Stakeholders involved	Economic forecasts		
				2021	2022	2023
Work-life and study-life balance	Contributions to access to the nursery school and to support the families with diseases	GAC <sup>a</sup>	Teaching staff, researchers, TA staff	50,000.00	50,000.00	50,000.00
	Summer centers	GAC	Teaching staff, researchers, TA staff	55,000.00	55,000.00	55,000.00
	Facilitations for transports	GAC	Teaching staff, researchers, TA staff	10,000.00	10,000.00	10,000.00
	Total action			115,000.00	115,000.00	115,000.00
Actions to contrast the horizontal segregation	Orientation about gender education	GAC	Primary and secondary first grade schools based in Brescia/Local school office	10,000.00	10,000.00	10,000.00
	Orientation to increase the applications for the study courses on areas underrepresented	GAC	Secondary schools of second grade schools based in Brescia	10,000.00	10,000.00	10,000.00
	Economic contributions for students' applications for the study courses where they are under-represented	GAC-Students secretariat	Secondary schools of second grade schools based in Brescia	10,000.00	10,000.00	10,000.00
	Total action			30,000.00	30,000.00	30,000.00
Gender lessons	Classes to sensitize about gender topics	GAC	Students of the University of Brescia	5000.00	5000.00	5000.00
	Training courses to improve the quality of leadership and teamwork management, with a gender perspective	GAC	Teaching staff, researchers, TA staff	10,000.00	10,000.00	10,000.00
	Total action			15,000.00	15,000.00	15,000.00
	Trusted advisors	GAC	Teaching staff, researchers, TA staff	6000.00	6000.00	6000.00

(continued)

**Table 27** (continued)

Type of action	Action	Actor	Stakeholders involved	Economic forecasts		
				2021	2022	2023
Actions to contrast mobbing, harassment and discrimination	Total action			6000.00	6000.00	6000.00
Gender research	European and national research	Departement research centres		130,000.00	130,000.00	130,000.00
	Total action			130,000.00	130,000.00	130,000.00
	Total actions			296,000.00	296,000.00	296,000.00

Source: Gender Budget of the University of Brescia, 2020

<sup>a</sup>GAC stands for Guarantee Act Committee

## 5 Conclusions and Future Lines of Research

This research work focused on the analysis of a sample of gender budgets drawn up by selected Italian public universities to analyze, on the one hand, state of the art regarding the actions planned to contrast gender inequality and, on the other hand, to verify the level of integration between these positive actions and the allocation of economic and financial resources.

The analysis was conducted on a sample of 16 universities, representative of all the regions of the Italian territory. As previously mentioned, the Valle d'Aosta (as there is only one private University), Molise, Sardinia and Trentino-Alto Adige (as their website do not show any gender budget) were not involved in the group of Italian regions.

The empirical analysis allows us to draw the following conclusions. Firstly, the phenomenon of vertical segregation is still very widespread in Italian public universities, both in the teaching and technical-administrative staff components. Indeed, findings show that it is more difficult for women to reach senior positions (full professor and associate) and managerial roles (high-skilled roles).

Secondly, a joint effort by the analyzed universities is appreciated to program positive actions to carry out a gender equality strategy. The strategic actions planned by the universities are usually oriented towards workplace well-being and work-life balance.

Thirdly, it emerged that there are almost no ex-ante economic-financial forecasts of positive actions. The University of Brescia is the only one that provides a preventive indication of the resources needed to implement positive actions to carry out a gender equality strategy. Without economic planning, the gender strategy cannot be efficient, and the gender budget remains just a reporting tool to record the gender differences among the various categories. Hence, future research lines can aim to sensitize all universities to consider the gender budget as an active tool of gender equality through synchronized planning between the strategy and the economic-financial resources.

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# Relational Capital's Support in Innovating a Female-Run Business: The Case of an Italian Organic Farm



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## 1 Introduction

Recently, the global debate has paid attention to the theme of gender equality. Two of the main indicators that could be used to examine the actual women's situation are their presence in the labour market and the growing number of female entrepreneurs (Martínez-Rodríguez et al., 2021). Female-run enterprises have some peculiarities compared with male-run businesses, such as differences in funding and motivations, difficulties in starting a business and so on (Cesaroni & Sentuti, 2016; Itani et al., 2011; McGowan et al., 2012; Moss-Racusin et al., 2018; Wu et al., 2019). To all of these, it is possible to add the peculiar intellectual capital—comprising human capital (HC), structural capital (SC) and relational capital (RC)—that exists in female-run companies (Paoloni et al., 2019). Focusing on RC, it could produce cooperation and innovation, improving trust, confidence and transfer of knowledge (Walecka, 2020). In fact, this relational aspect is more significant in female-run enterprises than in male-run ones because in the first case, their networks could support businesswomen and help them handle new ventures' complexity, overcoming the major difficulties associated with this phenomenon (Paoloni & Dumay, 2015; Cesaroni & Paoloni, 2016; Paoloni & Lombardi, 2017). Regarding this matter, several scholars have focused on the types of relations established by female entrepreneurs (e.g. Cesaroni & Paoloni, 2016; Churchill et al., 1987; Paoloni, 2021; Rodríguez & Santos, 2009) yet leaving in the shadows the kinds of relations that could support innovation in female-run enterprises. This theme could be significant, considering both the prejudice and the discrimination that women still suffer in

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entrepreneurship (Sarri & Trihopoulou, 2005), as well as their greater motivation to pursue innovative change (Fu et al., 2021).

In this light, the present work aims to examine this literature gap by answering this research question (RQ):

RQ. What relationships are able to support an innovation process in a female-run enterprise?

To answer the RQ, a female-run Italian enterprise that has undergone an innovation process (namely the shift to organic agriculture) is chosen as the case study (Yin, 1984). The data were collected through semi-structured interviews (Runeson & Höst, 2009). The obtained information is related to the firm, focusing on the support that RC has provided to the young female entrepreneur to convert traditional agriculture production to organic farming.

The paper is structured as follows. In Sect. 2, a literature review is presented. Then, in Sect. 3, the research protocol is described, and the adopted interpretative model is illustrated. Next, the findings related to CAOS model (Sect. 4) and the types of relations (Sect. 5) are shown. Finally, the discussion and the conclusions are presented (Sect. 6).

## 2 Literature Review

Female entrepreneurship is significantly increasing over the last few decades and pushing the scholars' attention to this topic in the recent past (Deng et al., 2020; Paoloni, 2021). This growing phenomenon is due to the re-evaluation of the female figure in society, which started in the 1980s, witnessing women transform themselves from housewives to new businesswomen. This new vision is also supported by the keen interest that the gender equality theme has gained, especially in the most recent global debate (see, e.g., the UN Agenda 2030, goal no. 5), where gender equality is considered able to produce significant macroeconomic effects on GDP growth and productivity (Ostry et al., 2018).

In this long journey to female emancipation, some policies have been set up to support female entrepreneurship at both national and international levels<sup>1</sup> (Skonieczna & Castellano, 2020). However, even if there has been a slight increase, especially in small-sized firms (McManus, 2017), the presence of female-run enterprises is still limited compared with male-owned firms (Kiefer et al., 2020). This finding is mainly due to the complications that women still face on their path to independence (Dal Mas & Paoloni, 2020); suffice it to think of the first difficulties that a female entrepreneur may encounter in accessing the funds to start her own business or in balancing her work with her historical role in the family or in obtaining

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<sup>1</sup>See, for example, European programmes and actions, such as the WEgate platform and the gender-smart financing.

a specific and qualified education, especially in science, technology, engineering and mathematics (STEM) disciplines (Cesaroni & Sentuti, 2016; Itani et al., 2011; McGowan et al., 2012; Moss-Racusin et al., 2018; Wu et al., 2019). Such issues could arise despite the fact that because of their historically peripheral role in entrepreneurship, female entrepreneurs are more likely to engage in an innovation process (Prabowo & Setiawan, 2021), or at least, they could have a positive impact on increasing different kinds of organisational innovation (Fu et al., 2021). Therefore, to be successful, the innovative process should be supported by specific characteristics of female entrepreneurs that can enable minimising all the difficulties and discrimination that could affect women (Sarri & Trihopoulou, 2005).

Perceived as the moment of change for a company, the innovative process could be well supported by some intangible assets, such as intellectual capital,<sup>2</sup> especially RC (Bode & Macdonald, 2016; Jia et al., 2020; Li et al., 2021; Prasad et al., 2014). In fact, the literature analysis makes it possible to understand that intellectual capital, particularly RC, helps in handling new venture complexity, overcoming the major complications associated with this phenomenon and contributing to an innovative process (Ryu et al., 2021), above all, in female enterprises. RC may even increase an organisation's flexibility, especially when facing difficulties, crises or unexpected disruptions (Jia et al., 2020; Johnson et al., 2013; Kuminova & Bykova, 2014).

RC is also considered a key factor that enhances knowledge sharing among both intra-organisational and inter-organisational stakeholders (Cabrito et al., 2018; Chesbrough, 2003; Inkinen et al., 2017). In fact, in contrast to the past, organisations may not be regarded as isolated, but they produce knowledge and therefore innovate, due to their continuous relations with external stimuli (Nonaka, 1994; Ryu et al., 2021). This is particularly true when considering the female-owned enterprises that used to be more supported by RC, especially composed of family or close-friend relations (Cesaroni & Paoloni, 2016; Dal Mas & Paoloni, 2020; Paoloni & Dumay, 2015; Paoloni & Lombardi, 2017). Considering all the discrimination and prejudice that women may suffer (Sarri & Trihopoulou, 2005), RC plays a key role in supporting female entrepreneurs, providing more stability, security, organisational and moral aid, and helping them succeed (Paoloni, 2021). They benefit more from RC than men because women who are more likely to engage in any kind of innovation process (Fu et al., 2021) are also more able to exploit firms' relations, reflecting a more cooperative leadership style (Shapiro & Sokol, 1982). In this context, some authors (Cesaroni & Paoloni, 2016; Churchill et al., 1987; Dal Mas & Paoloni, 2020; Paoloni & Dumay, 2015; Rodriguez & Santos, 2009) have focused on the differences between the relationships built by female entrepreneurs and those created by male entrepreneurs, finding differences in the composition as well, since the networks built by women are made up of a larger number of females than males

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<sup>2</sup>Intellectual capital comprises human capital, that is, the codified knowledge, skills, innovation and abilities of individual employees; structural capital, consisting of hardware, software, databases, patents and trademarks; and relational capital, identified with the relationships that an entrepreneur can establish and manage with customers, institutions, financiers and other stakeholders (Bontis et al., 1999; Edvinsson & Malone, 1997; Walecka, 2021).

and tend to be of a modest size. The reason for these differences lies in the diverse ways of building both personal and professional relationships (Paoloni, 2021) and above all, in the need to find a balance between these two worlds to reach the goal of reconciling work and family (Aldrich et al., 1989; Anderson et al., 1994; Cinamon & Rich, 2002). On the contrary, the RC literature seems to pay no attention to understanding what type of RC composition, created and managed by female entrepreneurs, could support innovation. In this light, this study aims to fill this literature gap.

### 3 Research Protocol

#### 3.1 *Research Method, Case Selection and Data Collection*

In the present research, a qualitative single case study is performed (Yin, 1984). It is suitable for examining a complex phenomenon in its real-life context and it could be used at all levels of research, starting with generating hypotheses to build theories and generalise results (Eckstein, 1975; Flyvbjerg, 2006).

The term “qualitative” means that this study uses “interpretive techniques directed at describing, translating, analysing, and otherwise inferring the meanings of events or phenomena occurring in the social world” (Covaleski & Dirsmith, 1990, p. 543). This type of methods has been already used in different papers (e.g. Cosentino et al., 2021; Paoloni et al., 2020; Paoloni & Dumay, 2015) that applied the CAOS (C—Caratteristiche personali, A—Ambiente, O—Organizzazione and S—start-up) model (Paoloni, 2021), which is an approach used to analyse the type of relationships.

The selection of the case study, a fundamental issue that could determine the rigour and the validity of the research (Flick et al., 2004), is attributable to the information-oriented selection (Flyvbjerg, 2006). Following the expectations about its information content, the chosen case is an organic farm situated in the south of Italy because it is a clear example of a female-run enterprise where a woman could produce a significant and innovative change, switching from traditional to organic agriculture.

The information was collected through semi-structured interviews since they would allow the entrepreneur to specify the concepts and the ideas that she values the most (Horton et al., 2004), ensuring flexibility and freedom for both her and the researcher (Runeson & Höst, 2009). The two interviews were conducted remotely, each lasting 45 minutes on average. The required information concerns some specific firms’ aspects, its organisation and the environment where it operates, as well as information related to the personal characteristics of the female entrepreneur, according to the information required by the CAOS model (Paoloni, 2021).



### 3.2 *The Model for Analysing the Case Study: CAOS Model*

The interpretative model used, the CAOS model (Paoloni, 2021), is useful for the aim of this paper, because it facilitates describing the main characteristics of the firm, the entrepreneur and the environment. Therefore, it would be able to describe the existing relationships.

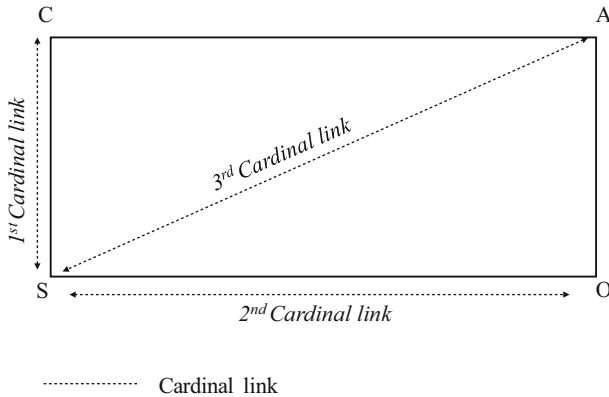
The determinants of the model are as follows:

- *The entrepreneur's personal characteristics (C)* includes the distinguishing traits of the female entrepreneur that help her perform her role in the firm, as well as influence her capability to build networks and gain advantages from them (Dal Mas & Paoloni, 2020). In this element, personal information about the entrepreneur (complete name, age, education and previous experience) and the firm's information (denomination, legal status, sector, size and location), business vision and governance are included.
- *The environment (A)* refers to external characteristics, namely the firm's socio-economic and cultural context that could influence its behaviour.
- *The organisational and managerial aspects (O)* includes, among others, the role assignments, the responsibility identification and the definition of the operative and management procedures.
- *The observation period (S)* originally identifies the start-up phase and here, is considered the moment of the observation.

These variables are strictly interrelated and can create several types of links that can vary, considering their intensity/nature (formal or informal) and stability (durable or temporary). Formal relationships are characterised by the presence of a need or an obligation of different natures: legal (e.g. employees' contracts), managerial (e.g. links between the company and the consultants or professionals) and economic (e.g. links characterised by commercial exchanges with customers, suppliers and lenders) (Mercuri et al., 2021). Informal relationships are those that indirectly help the entrepreneur without creating constraints or obligations, such as relationships with relatives, family, friends or colleagues (Paoloni, 2021).

Based on the frequency with which the relationship is activated, it is possible to recognise permanent relationships, which indicate the existence of lasting and prolonged bonds over time, due to mutual trust and confidence (Luo et al., 2004; Paoloni & Dumay, 2015). These relationships arise from a loyalty process that generates lifetime value and brings competitive advantage (Nooteboom, 2002; Williamson, 1993). Building and maintaining a high degree of trust, the entrepreneur can keep the relationship stable and collaborative (Costabile, 2001; Luo et al., 2004). In contrast, temporary relationships are characterised by occasional exchanges where there is no strong confidence between the stakeholders and the company (Cosentino et al., 2021).

Within these bonds, it is possible to identify the cardinal links that are the cornerstones of all business relationships (Paoloni et al., 2020), focusing on a



**Fig. 1** CAOS model (Paoloni, 2021)

specific moment of the analysis (S) to understand the causes and the effects of the relations' establishment.

The CAOS model, highlighting the cardinal links, is presented in Fig. 1.

Cardinal links are classifiable into three groups, also mapped based on the Paoloni's matrix (Paoloni, 2021). The first cardinal links (S–C/C–S) identify all contacts that the entrepreneur activates in the observed period. These are strictly related to the entrepreneur's characteristics, needs and motivations. These could be both formal relationships (e.g. all the contacts that connect the enterprise to the lenders, customers, suppliers, financial administration and other stakeholders) and informal ones (familiar relations). The second cardinal links (S–O/O–S) are activated to organise the enterprise, defining roles, tasks and responsibilities. The third cardinal links (S–A/A–S) concern the relationship between the firm and the external environment where it operates.

## 4 Application of the CAOS Model in the Selected Case Study

The variables of the CAOS model are separately analysed in this paragraph.

### 4.1 Personal Element (C)

The young entrepreneur was the owner of a family farm located in the south of Italy. She officially assumed the qualification of a professional agricultural entrepreneur in

September 2005, at the age of 28, after taking over the reins of the company with a generational change from her father. Although she represented the fourth generation of a family of farmers, there was no continuity between her studies and the role she has decided to play in the company. Indeed, she began her studies at the Faculty of Pharmacy, University of Bari, until she decided to drop out to completely devote her time to the family business. The motivation that has led her to abandon her studies was linked to the loss of her only brother. This event has made her think that all the sacrifices of her parents and before them, of her grandparents, converging in her brother's dreams, could be repaid with her full dedication to the family farm. However, the young woman not only inherited the firm but also decided to innovate it, following a specific direction—she wanted to convert all productions into organic farming, continuing the process that her father has already had applied to the olive groves. In consolidating the idea of transforming the entire company production into organic farming, the entrepreneur also felt flanked and supported by a group of people who were, at the time, part of her personal relationship sphere, such as her parents and boyfriend, who have emotionally and practically supported her in facing the organic challenge. Indeed, her father dealt with the application of organic policies in the olive production, whereas her boyfriend helped her by working as an employee of the company. This choice to completely convert to organic agriculture represented a real challenge because of the various difficulties involved in immersing herself in this sustainable practice. First, lots of technical changes had to be made about land, seeds and machinery. Second, the entrepreneur was aware that she would obtain lower production in terms of quantity, even if it would have higher quality, and it would favour the well-being of the soil, plants, humans and the planet in general. It was, therefore, extremely important to invest in machinery that is in line with the needs related to the composition of the soil, but first, to work in order to manage well the healthiness and cleanliness of the soil, free from weeds, and therefore, to be able to sow within the month. In the interview with the entrepreneur, she said:

*Doing organic is literally different than doing conventional. You are immersed in a completely new world, you have to forget about chemistry, you just have to operate in a way that is according to time and that favours time.<sup>3</sup>*

To support this process in the best way, she decided to resort to external experts who would help her in evaluating and implementing the innovation process.

#### **4.1.1 Macro-Business Element (A)**

The new agricultural entrepreneur thus found herself managing a plot of land equal to 101 hectares, 97 of which are still nowadays intended for arable land (wheat,

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<sup>3</sup>All the quoted texts that are written in italics are extracted from the interview with the female entrepreneur.

barley, oats and legumes) and two for olive groves. The farm is in South Italy, a typical agricultural landscape of hills and arable land.

Nevertheless, in recent years, climate change has represented a source of great discomfort, making the fields clayey and difficult to cultivate. This phenomenon has led the entrepreneur to make important decisions to make her farm more adaptive to these new challenging conditions, such as buying modern machinery that is more suited to the current soil conditions. It has significantly contributed to her decision to convert the production into pure organic agriculture.

Organic agriculture is “a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. It emphasises the use of management practices in preference to the use of off-farm inputs, considering that regional conditions require locally adapted systems. This is accomplished by using, where possible, agronomic, biological, and mechanical methods, as opposed to using synthetic materials, to fulfil any specific function within the system” (Codex Alimentarius, 1999, Art. 7). By using organic methods, dangerous global threats can be countered, such as the impoverishment of soil and natural resources, climate change and other risky issues related to decreasing soil fertility (Lockeretz, 2007). Those who decide to invest in the organic sector are also increasingly growing in number, recognising a significant market opportunity in it and taking advantage of the financial incentives made available by the Common Agricultural Policy (CAP).<sup>4</sup> Therefore, this investment choice was done also by the female entrepreneur.

Concerning the category associations, it seemed that in the specific analysed case, they did not represent valid support in the phase of conversion to organic farming. Her experiences with this category had started with her membership in “Confagricoltura Youth”.<sup>5</sup> Growing up over the years, the entrepreneur realised that Confagricoltura did not provide valid help to the territory. Furthermore, her father had contacts with Coldiretti,<sup>6</sup> but, as the entrepreneur explained during the interview, the organisation turned out to be completely absent. Hence, she decided to break up with it. Instead, the help of external experts who have supported her in the actualisation of her choice was much more important.

On the one hand, to compile and submit the CAP application in order to obtain the economic support that the EU reserves for farmers, the woman was followed by a local accountant, whose father had already been supporting the company before her takeover.

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<sup>4</sup>It represents the set of rules that the European Union, since its inception, has intended to issue to itself, recognising the centrality of the agricultural sector for a fair and stable development of the member countries (Ministry of Agricultural, Food and Forestry Policies, 2021). In Italy, these policies are in the hands of the Ministry of Agricultural, Food and Forestry Policies that manages funding on behalf of the European Community.

<sup>5</sup>Confagricoltura is one of the main farmers' organisations in Italy. It is committed to the development of farms and the primary sector in general, for the benefit of the community, the economy, the environment and the territory.

<sup>6</sup>Coldiretti is the largest association of representation and assistance of Italian agriculture.

On the other hand, two additional figures who provided her with valuable help were two agronomist technicians, friends of the family, whom the female entrepreneur still considers her brothers:

For 16 years, they have always had the “right words” for me, the most suitable solution for me, and they also supported me with the CAP question.

Additionally, in 2007, through the 2006 INAIL<sup>7</sup> contribution, she made a huge conversion that involved the following: the disposal of asbestos from workplaces, the adjustment of the electrical system, the waterproofing of the roofs and, to reduce the risk of falls and falling debris, the facade renovation with plaster and painting, as well as the floor upgrade with a monolithic anti-slip trim.

Although the prevailing source of this type of investment was that made available by the 2006 INAIL contribution, the entrepreneur also resorted to the use of equity and financing by a local bank, which has always helped her since her takeover. Indeed, there is evidence that the territorial presence of local banks drives a more stable relationship between small lenders and borrowers (Modina & Polese, 2008).

Finally, concerning the production and sale of organic products, the company could count on the networks of suppliers and customers that have always trusted it and its brand.

## 4.2 *Business Element (O)*

The case under study was an individual company whose ownership, control, management and decision-making process were carried out by the young female entrepreneur, supported by her boyfriend, who held the position of agricultural family assistant. The entrepreneur played an operational role, had high technical-administrative skills and took care of the relationships with the various stakeholders linked to her business. Her boyfriend devoted himself completely to the “practical” part, but since the agricultural sector was characterised by predominantly male rather than female protagonists, he was also responsible for communicating with some male stakeholders.

The company's vision was to continue the family tradition—oriented towards the development of organic practices—which usually avoids the use of preservatives; respects the environment, the territory and biodiversity; and has no negative impact on future generations, promoting the importance and wealth produced by agriculture as the foundation of life. As a result, the company's mission was to prepare the healthy and well-kept soil, able to accommodate seeds that would sprout and produce good, safe and controlled outputs in full compliance with organic production standards.

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<sup>7</sup>The INAIL (Istituto Nazionale per l'Assicurazione contro gli Infortuni sul Lavoro) is an Italian statutory corporation overseen by the Ministry of Labour and Social Policies.

As asserted by the protagonist in this case study, profit was not her main purpose as the entrepreneur. In fact, she preferred implementing organic agriculture, which was not a convenient choice in terms of money but was more in line with her ethics.

Furthermore, from the dialogue with the entrepreneur, it can be affirmed that her purposes were not limited to mere profits. On the contrary, her aim was to achieve full and long-term customer satisfaction that would allow her to maintain the ancient traditions, the sharing and care of the territory and human responsibility.

### **4.3 *Time Element (S)***

The examined temporal element is the moment when the female entrepreneur decided to expand the entire cultivation to organic farming techniques, already introduced by her father in the cultivation of olive groves. Organic agriculture is fundamental to accomplishing sustainable development. In fact, adopting truly sustainable organic agriculture systems on a broad scale is one of the best opportunities for ensuring both food and ecosystem security (Reganold & Wachter, 2016). In absolute terms, Italy represents the third country by organically cultivated area (two million hectares), preceded by Spain (2.35 million hectares) and France (2.24 million hectares (Nomisma, , 2020)).

## **5 Analysis of Relationships**

### **5.1 *Cardinal Bonds of the First Kind (S-C/C-S)***

When the female entrepreneur decided to convert all production to organic agriculture, she was supported by her family members and her partner, with her father and her boyfriend playing the most significant roles in the innovation process. She also found valid help from external experts, such as the agronomists and the accountant, who shared with her the important information necessary to evaluate the challenging choice in the best way and to complete the CAP application.

All the above-mentioned people represent informal and permanent relationships. If it seems quite natural that her father and boyfriend have supported her, help from others was just as important. For example, the accountant has collaborated with her for a long time, even before she took over the company from her father. Moreover, the agronomists were already linked to her through a deep friendship.

## 5.2 *Cardinal Bonds of the Second Kind (S-O/O-S)*

Cardinal bonds of the second type include the relations set to organise the company and clearly define the functions, roles, tasks and responsibilities associated with it, as well as the various relations between corporate bodies (lines of influence) (Paoloni, 2021). The analysed case is an individual company that outsources every activity that is not strictly linked to the productive process. As a result, the link of the second kind simply involves the bond between the entrepreneur and her only employee (her boyfriend), which can be defined as an informal and permanent bond.

## 5.3 *Cardinal Bonds of the Third Kind (S-A/A-S)*

Coming from an already well-established reality, the agricultural entrepreneur has found herself immediately surrounded by a network of contacts that her father had already established some time before, such as those with suppliers (of equipment and seeds), customers (who buy oil directly from the company) and the accountant. They remained close to the entrepreneur even during the innovation process, supporting her values and still trusting her. Additionally, the new relationships that belong to this third kind—and have been established by the young woman—involve the link with the local bank, which has always been a faithful lender since she took over the company, and with the two agronomists, who were family friends. All these relationships are identified as permanent and informal since they have been linked to the woman for a long time through friendship bonds. The only exception is represented by the relationship that emerged in the moment when the entrepreneur applied to the CAP, with the aim to obtain financing to support the organic agriculture investment. In this case, it can be asserted that the relationship is formal and temporary, considering that the application has been submitted to the European Community, through the Ministry of Agricultural, Food and Forestry Policies.

The relationships identified during the analysis are shown in Fig. 2.

## 6 Discussion and Conclusion

Even if female entrepreneurship is extremely important in the global economy and is relevant to achieving gender equality, the presence of female-run enterprises is lower than that of male-owned firms (Kiefer et al., 2020). This is caused by various characteristics of women's businesses, such as the difficulties to obtain external financing (Dal Mas & Paoloni, 2020), balance a woman's work with her family role (Itani et al., 2011; McGowan et al., 2012) and access and attend STEM education (Moss-Racusin et al., 2018; Wu et al., 2019).

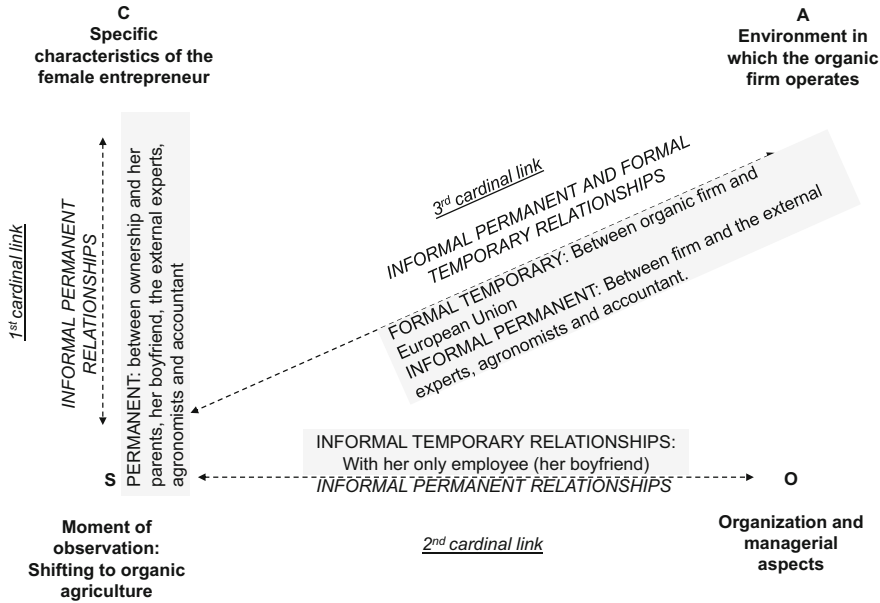


Fig. 2 Relationships of the Italian organic firm identified by the CAOS model

Nonetheless, female entrepreneurs possess some strengths that could give them competitive advantage in business rivalry. One of these is represented by the RC created by these owners that could contribute, if well created and managed, to supporting the changes (Bode & Macdonald, 2016; Jia et al., 2020; Prasad et al., 2014), such as the introduction of the innovative process.

The literature analysis reveals that some authors (Cesaroni & Paoloni, 2016; Churchill et al., 1987; Dal Mas & Paoloni, 2020; Paoloni & Dumay, 2015; Rodriguez & Santos, 2009) have focused on the qualitative interpretation of relationships. However, in many cases, the theme of the types of links that are useful to overcome the challenges in the female-run companies is left in the shadows.

For these reasons, in the present study, the aim is to understand what relationships could support female-owned companies during a critical change, consisting of the innovation process that requires new knowledge and competencies to support new investments.

From the analysis, it can be stated that a valid network is an essential element that must be considered in such a crucial phase. This assertion is supported by the analysis, based on the CAOS model (Paoloni, 2021), that allows an interpretation of the relationships of the firm under study.

As explained in the present work, there still remained some stakeholders' mistrust in women's businesses; in fact, the girl interviewed confirmed that, sometimes, she has left the floor to her boyfriend when there was the necessity to dialogue with suppliers because "they are men, they better understand each other". Indeed, it was easier for him to gain trust, even if he was an employee, while she entirely managed every aspect of the company. Nevertheless, the entrepreneur's friendly and



determined behaviour, combined with her competencies, allowed her to establish a rich and very important network. Indeed, observing this entrepreneur, it is possible to identify a “visionary” and “democratic” leadership (Goleman, 2013) towards her only employee, namely her boyfriend, as well as towards all external experts whom she consults. On the other hand, it is interesting to notice that even if the category associations should represent a major landmark for enterprises, small and medium enterprises (SMEs) in general and this firm in particular used to show little interest in them. The entrepreneur considered them absent and useless to her, and she decided to break up each previous bond.

As it emerges from the analysis, the network that supported the company's innovation process is mainly composed of permanent and informal relationships, typical of female-owned SMEs (Paoloni, 2021). Indeed, SMEs, rather than large firms, usually resort to informal relationships that are often based on familiar and personal links (Paoloni, 2021). As a result, these entrepreneurs feel the need to establish longer relationships with their stakeholders in order to reach their goals (Lombardi, 1996), and a strategic role is played by their personal contacts. Therefore, the preference for informal and permanent relationships is even higher, typical of women's businesses. Differently from men, the reason why female entrepreneurs prefer informal relationships is linked with how the women live personal relationships and the professional world. Hence, they look for relationships that reflect their personal needs as entrepreneurs, such as the needs for stability, security and organisational and moral support.

As for the duration of the relationships, the consequence of the above statements is that female entrepreneurs prefer persons whom they can trust and always rely on, therefore referring to people who already belong to their personal and social spheres.

This paper contributes to the existing literature, trying to fill its gap by connecting the RC in female-owned firms to the innovative process. Other contributions concern the methodological part since this study represents an application of the CAOS model, in which, for the first time, the moment of observation is an innovation process.

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