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Work-family initiatives and innovation: time to explore the missing links?

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ABSTRACT

Innovation is one of the most important dimensions for companies to achieve a competitive advantage vis-à-vis their competitors. At the same time, employees willing to proactively and dynamically undertake work activities are among the crucial factors for achieving innovation. To foster willingness, companies need to take care of, among other things, their employees' work-life balance. This is so because conflicts between work and family commitments can produce negative effects on employees such as lack of motivation or lack of creative work, which in turn can adversely affect companies' innovation. To avoid such issues, companies are engaging in work-family initiatives i.e., voluntary organizational actions that intend to reduce work-family conflict and/or support employees' lives outside of work.

By offering work-family initiatives, companies signal their care toward the employees and are motivating them to participate actively and creatively in work activities. Previous studies show that human resource practices foster employee commitment, loyalty, learning, and motivation leading to innovation. Extending this line of reasoning, it can be argued that work-family initiatives also boost the innovation performance of a company.

The literature review reveals ambiguities related to the outcomes of the work-family initiatives as well as several important gaps in the existing literature. First, work-family initiatives have been broadly researched, yet, their effect on innovation is still largely unknown. Second, even though the debate around work-family initiatives in large companies is more developed, previous studies call for further understanding of this context, especially by exploring the underlying, individual-level mechanisms that enable the relationship between work-family initiatives and innovation. Third, with the main focus being put on large companies, the context of small and medium-sized enterprises has been rather left behind. Fourth, even though the family firms represent a distinguishable working context where overlaps between work and family systems are particularly relevant, the literature remains fairly silent on how the family business context may influence the effects of the work-family initiatives. To address these gaps, the objective of this thesis is to shed light on the work-family initiatives and their effect on innovation, by accounting for different firm sizes and governance types (i.e., family vs. non-family firms).

This thesis provides an original contribution to the debate on work-family initiatives, by suggesting that they represent a powerful signal that impacts innovation in family and non-family firms, both large and small sized. It also offers practical implications for managers, consultants, and policymakers.

CHAPTER 1
INTRODUCTION

Research objective

Innovation is one of the most important dimensions for companies to achieve a competitive advantage vis-à-vis their competitors (Calantone et al., 2006; Birkinshaw et al., 2008; Brem et al., 2016). A company's ability to innovate is crucial for its survival and for sustaining a competitive advantage (Lengnick-Hall, 1992; Keupp et al., 2012). To achieve a competitive advantage, companies may engage in innovation in different ways such as by introducing product or process innovation (Gunday et al., 2011) or by engaging in collaborations and partnerships for open innovation (Chesbrough et al., 2003).

Many factors influence firm innovation. Among them, extant research has emphasized the role of the employees (Pfeffer, 1995; Laursen and Foss, 2003; Shipton et al. 2005; Jiménez-Jiménez and Sanz-Valle, 2008; Chen et al., 2016; Seeck and Diehl, 2017; Wei et al., 2020) and, in particular, the role of employees who are committed, motivated and willing to undertake work activities proactively and dynamically, so to help the company develop its ability to innovate.

Employees' motivation, job satisfaction and commitment strongly depend on their work-family balance. Indeed, constraints arising from the conflict between work and family duties can produce negative effects on employees – such as lack of motivation, decreased levels of job satisfaction, lack of commitment, or even lack of creative work – that, in turn, also impact firm outcomes. To avoid such drawbacks, companies respond with different solutions. Work-family initiatives (WFIs thereafter) are voluntary organizational responses to address the above-stated issues. They are defined as "deliberate organizational changes in policies, practices, or the target culture that intend to reduce work–family conflict and/or support employees' lives outside of work" (Kelly et al., 2008, p. 310).

By offering WFIs, employers are signaling to their employees that the company cares for them and tends to meet their non-work concerns so that they can participate more actively and creatively in work activities. By investing dedicated resources to improve their work-life balance, the firm tends to increase their employees' willingness to contribute more actively to achieving the firm's goals. Having received such signals, employees will become more willing to commit to and engage in social exchange with the company. Motivated and committed employees are known to care more for the health of the organization or to engage more in flexible thinking (Loehr and Schwartz, 2006; Baas et al., 2008; Spreitzer et al., 2010). Given that motivation and job satisfaction are among the job attitudes that are proven to positively impact innovation (Seeck and Diehl, 2017), companies may expect that offering WFIs will motivate their employees more and thus favor firm innovation. In addition to exploring internal resources and ideas to improve their innovation, companies also need to engage in exchanges with external parties, through open innovation. Companies may also leverage the adoption of WFIs as a signal for external stakeholders, to legitimize themselves as caring partners in front of potential partners and thus increase their likelihood of attracting partners who will contribute to improving innovation.

The existing literature shows that the effects of such signals of care are less obvious than expected. One group of studies demonstrates that the WFIs have a positive effect on employees such as employee commitment (Wang and Walumba, 2007), employee loyalty (Roehling, 2001), job satisfaction (Ko et al., 2013), or reduced intention to leave the company (Lee and Hong, 2011), ultimately improving overall company performance, such as share prices or financial performance (Arthur, 2003). Other scholars, however, point out that the WFIs may also bring negative effects on the company, because, for example, they can "overexpose" employees' worries and thus lead to stigmatizing employees that use WFIs (Perrigino et al., 2018). Such a negative effect, in turn, can decrease employees' commitment to work, and hence, lead to negative effects on firm performance and innovation. It results, thereafter, that the signals of care may not always have the same effects on employees; they may be "heard" differently and may, therefore, produce different outcomes. In light of such ambiguities, the overarching research goal of this thesis is to explore the relationship between the adoption and use of WFIs and firm innovation.

In line with previous research, the overarching idea of this thesis is that WFIs enhance employees' commitment, job satisfaction and willingness and that employees who are committed, motivated, and willing to undertake work activities proactively and dynamically, play a crucial role in fostering innovation (Pfeffer, 1995; Laursen and Foss, 2003; Shipton et al. 2005; Jiménez-Jiménez and Sanz-Valle, 2008; Chen et al., 2016; Seeck and Diehl, 2017; Wei et al., 2020). In the thesis, the phenomenon of WFIs is captured from a firm level and from an individual level perspective. First, I[1] argue that the *adoption of WFIs* is an action that is beyond the basic legal requirements and is voluntarily done by the firm. Through the adoption, the firm signals to the employees that they matter and that the firm cares about their non-work concerns. In turn, employees engage in proactive behaviors that improve a company's innovation performance. Second, the adoption of WFIs as a signal for how companies treat their employees is a question of great relevance for external stakeholders. By *disclosing WFIs*, companies are informing the external stakeholders on the adopted WFIs and send a signal of dedication towards its employees and awareness that they play a key role in the company's success. This, in turn, increases its probability to be considered for future partnerships for open innovation. Last, I argue that the *use of WFIs* by employees increases the probability of an employee to engage in employee intrapreneurship.

[1] Since the chapters of this thesis have been developed with coauthors, where appropriate I use "we" instead of "I".

Literature gaps

Further to the literature review performed for this thesis (see Chapter 2), three literature gaps appear particularly relevant. First, WFIs have been broadly discussed in the context of large companies (Huselid, 1995; Arthur, 2003; Casper et al., 2007; Wei et al., 2020). This is so because large companies have been adopting WFIs more extensively than smaller companies; therefore, their context has been attracting scholars' attention for quite a long time. In fact, large companies are more likely to adopt WFIs because of the availability of resources, the presence of human resource departments that facilitate their implementation as well as their need to have in place practices that are formalized (Goodstein, 1994; Ingram and Simons, 1995; Perry-Smith and Blum, 2000). Nevertheless, this debate is far from being exhausted. In that direction, through the past years, few studies recall the need for further investigation of the individual-level mechanisms that enable employees who are offered WFIs in large companies to be more willing to provide extra effort for the company (Huselid, 1995; Perry-Smith and Blum, 2000; Wei et al., 2020). This is important because the mechanisms that enable the effect of WFIs may be different in large and small companies and also because understanding the underlying mechanisms will enable companies to better predict their effect on the firms' outcomes.

Second, the context of the small and medium-sized enterprises (SMEs hereafter) has been rather left behind. This is surprising because addressing the above issues in the context of SMEs is especially relevant. In fact, innovation is a crucial driver of performance and competitive advantage for SMEs (Adla et al., 2020), and second, because of their particularities, adopting WFIs in SMEs might enact individual and organizational outcomes (including innovation) in different ways and different extents, compared to large firms. For example, SMEs are known for having limited resources (De Massis et al., 2018); hence, adopting WFIs in an SME is more likely to make a greater impact on the employees than in large firms (Muse et al., 2005), and therefore may motivate employees of SMEs more than employees of large firms to engage in innovation.

Third, even though the family firms represent a distinguishable working context (Chrisman et al., 2016), where overlaps between work and family systems are particularly relevant (Chua et al., 1999; Caputo et al., 2018; Neckebrouck et al, 2018; Michael-Tsabari et al., 2020), the literature remains fairly silent on how the family business context may change the effects of the work-family initiatives. Family firms have their particularities, such as, for example, nurturing affective commitment (Sieger et al., 2011; Chirico and Salvato, 2016) or a stewardship culture (Miller and Le Breton-Miller, 2008). These particularities might create an environment in which the effect of WFIs on employees and the firm outcomes overall might be different than in non-family firms. Therefore, elaborating on family firm distinctiveness and the difference with non-family firms in this respect represents an important avenue to advance scholarly knowledge in management disciplines (Sharma, 2004; Zahra et al., 2004; Michael-Tsabari et al., 2020).

Research outline

In line with the exposed arguments, and to address the above-explained research gaps, the rest of the thesis unfolds as follows: further to the literature review (Chapter 2), three empirical, quantitative studies are presented, all of them covering different perspectives of the effect of WFIs on innovation. The first study (Chapter 3) explores the individual-level mechanisms that enable employees who use WFIs to socially exchange with the firm by engaging in intrapreneurship, thus approaching the topic from the perspective of the social exchange theory. The next two studies provide a firm-level analysis. The Chapter 4borrows from the signaling theory and considers the adoption of WFIs as a signal towards internal stakeholders, while Chapter 5 analyzes the adoption of WFIs as a signal towards external stakeholders

The summary of the three empirical pieces of research is as follows: the empirical study presented in Chapter 3 provides insights into the individual-level mechanisms that enable the relationship between WFIs and innovation. The main research question of this chapter is whether, in times of pandemic, employees of a family firm who use WFIs engage more in intrapreneurship, defined as an individual and anticipatory behavior that aims to create new businesses for the organization and to enhance an organization’s ability to react to market advancements (Gawke et al., 2019). In addition, given the challenging times during which this thesis has been written, this chapter also stresses the effects of the COVID-19 pandemic on employees’ engagement in intrapreneurship. To provide a deeper understanding of the underlying mechanisms that eventually enable this effect, this empirical research explores the effect of affective commitment and organizational support on the relationship between the use of WFIs and intrapreneurship. Counterintuitively, the results of this study suggest that, in times of pandemic, an increased possibility to use flexible working practices in family firms leads to lower affective commitment and lower engagement in intrapreneurship. This might be so because the social exchange between the firm and its employees in times of pandemic is disrupted, and as such leads to effects opposite to those desired.

Second, to advance the understanding of the effect of WFIs on innovation in the context of SMEs, Chapter 4 explores WFIs as a signal towards internal stakeholders, i.e., the employees, and tests whether the adoption of WFIs affects the likelihood of an SME to engage in product or process innovation. This study is based on a survey performed on a sample of manufacturing SMEs from Northern Italy. The results suggest that SMEs that adopt more than one WFI are more likely to engage in product or process innovation, while family SMEs that adopt any WFIs are less likely to engage in product or process innovation than non-family SMEs.

Finally, to address the third gap, Chapter 5 explores whether publicly listed companies leverage adopted WFIs as a signal to external stakeholders to increase their likelihood for open innovation. In addition, the study investigates whether family firms leverage adopted WFIs differently than non-family firms. A content analysis of non-financial annual reports of family and non-family companies listed on the Italian Stock Exchange is performed. The results suggest that disclosing WFIs positively affects the likelihood of companies engaging in open innovation. Concerning family firms, the results of this study reveal that the more family firms disclose WFIs the less likely they are to enter into partnerships and collaborations for open innovation in comparison to non-family firms.

The final chapter (Chapter 6) provides overarching conclusions, contributions, and avenues for future research questions.

Conclusions and contributions

The findings of this thesis open up novel research avenues regarding the effect of WFIs on innovation in family and non-family large and small companies. The main contribution of this thesis is the finding that the adoption of WFIs is a powerful signal that effectively conveys a message of care and commitment both toward internal and external stakeholders. This signal is shown as effective inwardly, when sent towards the employees, by improving firm innovation through improved job satisfaction and commitment. The signal is also shown to be effective outwardly when sent to external stakeholders. This is so because, when sent externally, to various organizations which could be potential partners for open innovation, it presents the company as an organization that highly values and takes care of its employees and recognizes their crucial role in achieving innovation. In turn, potential partners, knowing the importance of the employees in the process of innovation, become more interested to engage in open innovation with the company, the sender of the signal.

When exploring the individual-level mechanisms that enable an employee who uses WFIs to engage in innovative activities, the results of the study suggest that, instead of motivating the employees, the use of WFIs prevents them from walking an extra mile and engaging in extra-role activities. These results are, however, strongly conditioned related to the contingencies that the firm is experiencing, first because the survey was performed during the COVID-19 pandemic and resonates with previous studies that found a negative effect of the pandemic on employees' work attitudes (Delfino and Kolk, 2021).

Lastly, the findings of the three studies are consistent when considering the effect of the family firm status. Namely, in the first study the investigated context is a single-family firm in which, according to the results, the use of flexible working practices decreases the likelihood of employees engaging in intrapreneurship. Furthermore, in the next two studies, the adoption of WFIs in family firms negatively affects innovation. The findings of the three studies suggest that in family firms, the signal fails to convey the message of care towards employees, both internally and externally, albeit it conveys an opposite message which overturns the desired effect and makes employees less willing to participate and contribute to firm innovation. Such findings lead to reflections and call for future research. They suggest that the governance and ownership of the firm play an important role regarding the relationship between WFIs and innovation and that certain characteristics, which are intrinsic for family firms such as nepotism or agent-like behaviors that prioritize the family interest over the interest of the company, might create a "noise" in the signaling environment and to disable the signal to provide the desired effect.

Managerial implications

This thesis has practical implications for managers, consultants, or policymakers. First, it shows managers that the adoption of WFIs can improve firm innovation. Second, it shows that in SMEs, such an adoption can be efficient only if firms offer a substantial number of initiatives to their employees. It also shows that disclosing WFIs in non-financial reports pays off if the company is interested in partnerships and collaborations for open innovation. Third, it shows consultants that the adoption of WFIs can be useful for firms that are willing to advance their innovation aspirations. Lastly, it shows to the policymakers that WFIs are indeed a practical tool for firms to support their innovation and should therefore consider actions that support companies in further adopting them.

CHAPTER 2
LITERATURE REVIEW

Abstract

Through a review of 167 peer reviewed journal articles, this chapter provides an overview of the literature on work-family initiatives and their relation to innovation. Further to the historical, terminological and the review of the antecedents and outcomes of work-family initiatives, the literature review reveals three major literature gaps: a missing link between work-family initiatives and innovation in large and small and medium-sized family and non-family firms. Based on these gaps, a research agenda with future research directions is proposed.

Keywords: literature review; work-family initiatives; innovation; family firms

Introduction

Becoming competitive nowadays means going through a complex path, paved with many unknowns. One of the broadly accepted dimensions for being competitive is developing an ability to innovate, adapt to changes in the business environment (Lengnick-Hall, 1992; Calantone et al., 2006; Birkinshaw et al., 2008; Brem et al., 2016), as well as to create and apply new knowledge (Bengoa et al., 2020). While technology-driven antecedents do not seem to provide all answers on how companies achieve or improve innovation, previous studies show that an organization's capacity to innovate also largely resides in its employees' capabilities and motivation (Jiménez-Jiménez and Sanz-Valle, 2008). Achieving competitive advantage through people fundamentally changes the perception of the workforce as such. It means achieving success by investing in people, rather than replacing them or limiting their activities. In that way, "the workforce itself becomes a source of strategic advantage, rather than a cost to be minimized or avoided" (Pfeffer, 1995, p.95). Indeed, firms that took such approach seem to have managed to perform better than their competitors (Pffefer, 1995). Therefore, actions that improve employees' connection to the company and that are attracting their attention toward the company's goals and objectives start to become more important and gain more attention. According to Pfeffer (1981), actions that symbolize organizational concern can provide intangible benefits to organizations. By showing care towards the employees and their non-work concerns, companies are motivating them to participate more actively and creatively in work activities. This is indeed supported by various research findings, which show that employee treatment is positively related to a firm's performance (Ichniowski et al., 1994; MacDuffie, 1995; Arthur, 2003; Arthur and Cook, 2004; Kelly et al., 2008; Bloom et al., 2011). In their literature review of 2017, Seeck and Diehl point out that practices that foster employee commitment, loyalty, learning, and intrinsic motivation are bringing general benefits related to the company's performance but may lead to innovation.

Despite the academic debate on the relationship between human resource practices and innovation (Chowhan 2016; Shipton et al., 2017; Seeck and Diehl, 2017), this research body seems to have neglected an important subgroup of practices that is particularly on the rise in the last years - that of WFIs. Even though WFIs have been broadly researched by academics (Goodstein, 1994; Osterman, 1995; Milliken et al., 1998; Arthur, 2003; Bloom et al., 2011; Bourdeau et al., 2019), their effect on innovation is still unknown. This is surprising if one accepts as plausible the idea that an organization's capacity to innovate resides in its employees' capabilities and motivation (Jiménez-Jiménez and Sanz-Valle, 2008), while those are strongly related to the work-life balance of the employees (Bui et al., 2016; Aruldoss et al., 2020).

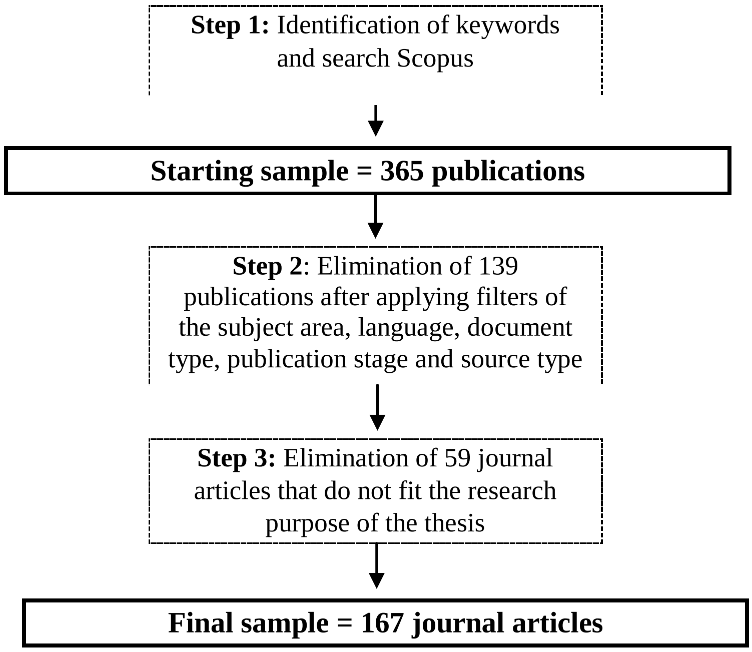
Being socially responsible toward employees is a strategic option that merits more attention because efforts that companies make in this direction seem to provide them with sustainable development, better management, and, thereby, competitive success. The interest in the development of socially responsible initiatives has increased significantly in the twenty-first century. Companies have been increasingly adopting WFIs to meet the needs of their employees (Clifton and Shepard, 2004). Following this trend, WFIs are attracting the attention of the national level policies as well. It is for more than one decade the European Union promotes work-life balance by supporting parental leave, childcare subsidies, and flexible working hours and in such a way encourages changes in the environment, structure, and organization of work (European Commission, 2004 - 2006). Also, growing public pressure has led leading companies to take actions that will lead to the improvement of the work-life balance of their employees to such an extent that today, many companies highlight such concerns as a priority social issue. However, to understand better the interest that companies, national policies, and academic circles have today, it is important to take a look backward and understand more in detail how exactly the evolution of WFIs happened, from a historical, terminological, and literature point of view.

Literature review methodology

To closely understand the debate around WFIs, we performed a literature review on the topic. Of the possible types of literature reviews that can be conducted for research purposes, we decided to conduct a scoping literature review (Arksey and O'Malley, 2005). This type of review was preferred against a systematic or an integrative literature review for a few reasons. First, due to the terminological ambiguity, the literature related to WFIs is scattered and fragmented. Second, the topic spreads across many disciplines and methodologies what makes a systematic literature review difficult. Third, the explorative nature of the overarching research question of the thesis requires a literature review that is adapted to this purpose. Lastly, a scoping literature review has been applied because it aims to map rather than assess the quality of the studies that are included (Peters et al., 2015).

To ensure a comprehensive literature review on the topic of WFIs, first, a deductive approach was applied. To that end, a search in the existing literature on WFIs was performed to identify the keywords that were mostly connected to the concept of WFIs. This step resulted in the identification of two sets of keywords. The first set of keywords refers to the content of the initiative and reflects the purpose of the initiative to address issues related to the interference between work and family life. As keywords that address the content of the initiative, the following were identified: work-family, family-friendly, family-responsive, work-life, and flexible working. The second set of words refers to the type of initiative and to the level of formalization in the organization that is adopting it. As keywords that address the type of initiative, the following were identified: initiatives, policies, practices, benefits, programs, and arrangements. Based on these two sets of keywords, a search was conducted through the Scopus database (See Figure 1, Step 1). The first search resulted in 356 publications. To focus the review, the search was limited to (1) subject area: social sciences; psychology; business management and administration; economics, econometrics, and finance; (2) languages: English language; (3) document type: journal article; (4) publication stage: published. This step resulted in 226 journal articles (See Figure 1, Step 2). Lastly, an additional qualitative analysis was conducted to ensure that all of the identified articles contributed to the topic of interest. For this step, an analysis of the abstract, the research question, the contributions, and the theoretical perspective were considered. This step resulted in the elimination of additional 59 journal articles (See Figure 1, Step 3). The final sample of interest resulted in 167 journal articles that were considered for this literature review. The process of sample creation is illustrated in Figure 1.

Figure 1
Illustration of the sample creation process



Overall, the findings of the literature review show that WFIs have been proven to have both positive and negative effects, on individual-level variables such as affective commitment, turnover intention (Grover and Crooker, 1995), or employee loyalty (Roehling et al., 2001); and on organizational level variables such as shareholder return (Arthur, 2003) or firm's performance (Perry-Smith and Blum, 2000). In the following subsections, we provide the main outcomes of the review.

A review of WFIs

Historical review of WFIs

Organizational involvement in work-family issues has evolved as a function of significant social, economic, and political changes (Goodstein, 1994). The evolution of WFIs went through a few historically important stages and among other factors, it is also tightly related to the notion of national state welfare. Until the 1970s, the welfare model remained concentrated in the state, both in the US and in Europe. However, after the US faced a certain decline in productivity, in 1975, Congress adopted the National Productivity and Quality of Working

Life Act, as a direct response to the decline in productivity. During this period, it became necessary for novel models to be introduced to foster the company's productivity. A model of such nature is the enhancement of the work environment in which the employee functions gain importance and attention. The changes introduced by the US government lead to a situation where already in the 1980s' WFIs represented a common feature in many US organizations (Fulmer and Coleman, 1984). Driven by the need to enrich the jobs of the workers, many organizations have developed programs that aim to improve the quality of work life. More than a decade later, after the year 2000, as the employment relationship started to take a different turn, and the standard model of 40 hours of the working week started to change in favor of more complex and more flexible working conditions, the welfare model dominated by the state started to fade, while the state started to transfer its responsibility to the private sector. Today, the rise in the adoption of WFIs is almost indisputable.

As the trend of WFIs was increasing, the types of WFIs adopted were changing from year to year, depending on the current societal needs. For example, as reported by Michelle Arthur in 2003, throughout the 1970s and 1980s, firms were adopting lower-cost alternatives to on-site child care such as emergency and sick-child care programs, shared childcare centers, and childcare referral services, in the late 1980s, elder care services and family-counseling services emerged as concerns, while from the 1990s onwards, firms started addressing flexible work arrangements, to meet perhaps the most serious conflict created by work-family tensions. Programs such as flextime, job sharing, compressed workweeks, and most recently, telecommuting were adopted.

However, the continuously increasing trend of adoption of WFIs is not a simple reaction of the organizations to follow up on new regulations imposed by local governments, but also an effect of recent social and business trends that affect the work-life balance. In their study from 1999, Lobel et al. claim that in the future, the environmental trends having a major impact on the interference between work and family will evolve around two main business-related trends which are globalization and increasing needs for organizational flexibility and two external trends which are changing the family structure and technological change.

Terminological review of WFIs

The WFIs have been present in the practice, but also in the literature, since the 1980s and even before. However, a literature review on the topic of WFIs has revealed a significant lack of terminological clarity. What we call here “work-family initiatives”, exists under different terms in different fields, different countries, or geographical contexts. For example, in Germany they are related to the term "betriebliche Sozialpolitik” (Eng.: occupational social policy); in the UK a frequently used term is “occupational welfare”, whereas in Italy the most broadly accepted term is “welfare aziendale (Eng.: company welfare)”. The common denominator for all is that they are well distinguished from the welfare state and the social welfare given that their purpose is to support exclusively employees, unlike that of the social rights for citizens in the welfare state or that of the fiscal welfare granted by states to companies (Marshall, 1950; Titmuss, 1976).

To provide a more accurate overview of the different definitions used in the literature, but also to illustrate the terminological diversity through the years, Table 1 reports some of a non-exhaustive list definitions used in the literature until today:

Table 1 - A non-exhaustive list of terms and definitions of WFIs

Journal article (Authors, title, year of publication, journal)	Term used	Definition
Albrecht, G. H. (2003). How friendly are family-friendly policies? Business Ethics Quarterly, 13(2), 177-192.	Family-friendly policies	Business strategies intended to respond to the concerns of employees with family responsibilities.
Allen, T. D. (2001). Family-supportive work environments: The role of organizational perceptions. Journal of vocational behavior, 58(3), 414-435.	Family-friendly benefits	For the organization, work/family benefits are a means for maintaining a competitive advantage, raising morale, and attracting and retaining a dedicated workforce within today's turbulent work environment. For the employee, these benefits are designed to alleviate the difficulty inherent in coordinating and managing multiple life roles.
Arthur, M. M. (2003). Share price reactions to work-family initiatives: An institutional perspective. Academy of Management Journal, 46(4), 497-505.	Work-family initiatives	Work-family initiatives include any human resource program or policy previously identified in relevant scholarly literature as having the potential to alleviate employees' work and family conflicts.
Bourdeau, S., Ollier-Malaterre, A., & Houlfort, N. (2019). Not all work-life policies are created equal: Career consequences of using enabling versus enclosing work-life policies. Academy of Management Review, 44(1), 172-193.	Work-life policies	Control mechanisms that help organizations attain their goals by facilitating employees' fulfillment of their professional responsibilities.
Butts, M. M., Casper, W. J., & Yang, T. S. (2013). How important are work–family support policies? A meta-analytic investigation of their effects on employee outcomes. Journal of Applied Psychology, 98(1), 1.	Work-family support policies	Work–family support policies provide tangible support in the way of time, services, or financial benefits that ease the burden of dependent care
Casper, W. J., Fox, K. E., Sitzmann, T. M., & Landy, A. L. (2004). Supervisor referrals to work-family programs. Journal of occupational health psychology, 9(2), 136.	Work–family programs	Any employer-sponsored benefit or working condition that helps an employee to balance work and nonwork demands
Chou, K. L., & Cheung, K. C. K. (2013). Family-friendly policies in the workplace and their effect on work–life conflicts in Hong Kong. The International Journal of Human Resource Management, 24(20), 3872-3885.	Family-friendly policies	Family-friendly employment practices are created to help employees cope with work–family or work–life conflicts.
Ernst Kossek, E., Lewis, S., & Hammer, L. B. (2010). Work—life initiatives and organizational change: Overcoming mixed messages to move from the margin to the mainstream. Human relations, 63(1), 3-19.	Work-life policies	Work–life policies and practices are geared to enhance organizational structural and cultural/relational support for work, family, and personal life.
Faleye, O., & Trahan, E. A. (2011). Labor-friendly corporate practices: Is what is good for employees good for shareholders? Journal of Business Ethics, 101, 1-27.	Labor-friendly corporate practices	We define labor-friendly practices as those that involve the devotion of significant resources (financial and otherwise) to enhancing employee welfare and helping them balance their home and work lives
Frye, N. K., & Breaugh, J. A. (2004). Family-friendly policies, supervisor support, work–family conflict, family–work conflict, and satisfaction: A test of a conceptual model. Journal of business and psychology, 19, 197-220.	Family-friendly policies	Programs, rules, and procedures that your organization has in place to help you balance your work and family responsibilities.
Gray, M., & Tudball, J. (2003). Family-friendly work practices: differences within and between workplaces. Journal of industrial relations, 45(3), 269-291.	Family-friendly work practices	These work practices include things such as leave from work for family reasons; changes to work arrangements for family reasons; practical help with childcare and care of the elderly; and relevant information and training.
Grover, S. L., & Crooker, K. J. (1995). Who appreciates family-responsive human resource policies: The impact of family-friendly policies on the organizational attachment of parents and non-parents. Personnel Psychology, 48(2), 271-288.	Family-responsive human resource policies	Methods for ameliorating the conflict between working and raising families.
Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. Academy of management journal, 38(3), 635-672.	High-Performance work practices	Extensive recruitment, selection, and training procedures; formal information sharing, attitude assessment, job design, grievance procedures, and labor-management participation programs; and performance appraisal, promotion, and incentive compensation systems that recognize and reward employee merit have all been widely linked with valued firm-level outcomes.

Kelliher, C., & Anderson, D. (2010). Doing more with less? Flexible working practices and the intensification of work. Human relations, 63(1), 83-106.	Flexible working practices	Flexible working policies are normally designed to give employees a degree of choice over how much, when and where they work and to help them achieve a more satisfactory work–life balance; as such one would not expect the implementation of flexible working to result in the intensification of work.
Kelly, E. L., Kossek, E. E., Hammer, L. B., Durham, M., Bray, J., Chermack, K., ... & Kaskubar, D. (2008). 7 getting there from here: research on the effects of work–family initiatives on work–family conflict and business outcomes. The academy of management annals, 2(1), 305-349.	Work-family initiatives	Work–family initiatives are deliberate organizational changes—in policies, practices, or the target culture—to reduce work–family conflict and/or support employees' lives outside of work.
Ko, J., Hur, S., & Smith-Walter, A. (2013). Family-friendly work practices and job satisfaction and organizational performance: Moderating effects of managerial support and performance-oriented management. Public Personnel Management, 42(4), 545-565.	Family-friendly working practices	FFWPs are intended to ease tensions that emerge from work–family conflict, which has been defined as "a form of inter-role conflict in which role pressures from the work and family domains are mutually incompatible in some respect" (Greenhaus & Beutell, 1985, p. 77).
Konrad, A. M., & Mangel, R. (2000). The impact of work-life programs on firm productivity. Strategic management journal, 21(12), 1225-1237.	Work-life programs	Work-life programs are initiatives adopted by organizations to help employees manage the interface between their paid work and other important life activities, including family
Lee, S. Y., & Hong, J. H. (2011). Does family-friendly policy matter? Testing its impact on turnover and performance. Public Administration Review, 71(6), 870-879.	Family-friendly policies	A group of complementary benefits and programs designed to support employees who are faced with balancing the conflicting demands of work, family, and personal time in today's complex environment
Maniam, B., Leavell, H., & Pustejovsky, S. (2016). Family-friendly work practices in the US revisited. International Journal of Economics and Financial Issues, 6(6), 55-59.	Family-friendly work policies	These practices include working from home, sick leave, flexible scheduling, maternity leave, paid extended leave, on-site childcare, on-site dry cleaning, on-site gyms, and on-site eateries.
Moshavi, D., & Koch, M. J. (2005). The adoption of family-friendly practices in family-owned firms: Paragon or paradox? Community, Work and Family, 8(3), 237-249.	Family-friendly practices	Work/family programs are designed to reduce work/family conflict and include flexible schedules, childcare programs, and financial support for dependent care
Perrigino, M. B., Dunford, B. B., & Wilson, K. S. (2018). Work–family backlash: The "dark side" of work–life balance (WLB) policies. Academy of Management Annals, 12(2), 600-630.	Work-life balance policies	WLB policies are human resource policies within organizations that are designed to give employees greater control over when, where, and how work is conducted (Lewis, Gambles, & Rapoport, 2007).
Perry-Smith, J. E., & Blum, T. C. (2000). Work-family human resource bundles and perceived organizational performance. Academy of Management Journal, 43(6), 1107-1117.	Work-family policies/bundles	A work-family bundle can be defined as a group of complementary, highly related, and, in some cases, overlapping human resource policies that may help employees manage nonwork roles.
Rau, B. L., & Hyland, M. A. M. (2002). Role conflict and flexible work arrangements: The effects on applicant attraction. Personnel Psychology, 55(1), 111-136.	Flexible work arrangements	Flextime arrangements enable workers to adjust the timing of their work to better accommodate additional life roles.
Thompson, C. A., Beauvais, L. L., & Lyness, K. S. (1999). When work–family benefits are not enough: The influence of work–family culture on benefit utilization, organizational attachment, and work–family conflict. Journal of Vocational Behavior, 54(3), 392-415.	Family-friendly or family-supportive programs	Services that enable employees to better manage the interface between work and family.
Whyman, P. B., & Petrescu, A. I. (2015). Workplace flexibility practices in SMEs: Relationship with performance via redundancies, absenteeism, and financial turnover. Journal of Small Business Management, 53(4), 1097-1126.	Workplace flexibility practices	WFPs can be loosely defined to encompass both employee and organizational perspectives, as a large number of work arrangements and patterns aimed to enable employees and employers to adjust corporate activities to adapt to the demands of the working life and the economic climate.

As seen from the non-exhaustive list of definitions reported above, WFIs do not differ only in the definition itself, but also in the label, which includes variations between the words work-family, work-life, family-friendly from one side and policy, practice, program, benefit, initiative, and bundle from the other side. All those words have different meanings: policy – a set of ideas or a plan of what to do in particular situations that have been agreed to officially by a group of people, a business organization, a government, or a political party. Policies are covenants we collectively choose to live by, as articulated in legislation and regulation; practice – something that is usually or regularly done, often as a habit, tradition, or custom; program – a group of activities or things to be achieved. Program is a short-term intervention that creates temporary improvements in the wake of challenges; benefits – an advantage, such as medical insurance, life insurance, and sick pay, that employees receive from their employer in addition to money; initiative – a new plan or process to achieve something or solve a problem. Furthermore, in the literature, we observe a certain prevalence for the use of the label work-family in favor of work-life or family-friendly, and on the other side the prevalence of the use of the term policy in favor of the rest of the alternatives.

For this thesis and to avoid any further misunderstanding or overlaps in the meaning of the label, we adopt the term and the definition applied by Kelly et al. (2008, p.310) according to which:

> *Work-family initiatives are deliberate organizational changes—in policies, practices, or the target culture—to reduce work–family conflict and/or support employees' lives outside of work.*

Similar to the heterogeneity of the term itself, the list of WFIs remains broad and non-definitive, based on the preference and the resources of each company. Given the variety, in the literature, there are few efforts to classify WFIs. For example, in their study from 2001, Allen and colleagues, divide WFIs into two main categories: flexible work arrangements, in which they include initiatives such as flextime, compressed work week, telecommuting, and part-time work and dependent care supports, in which they include initiatives such as on-site childcare center, subsidized local childcare, childcare information/referral services, paid maternity leave, paid paternity leave, and elder care. In addition, Bourdeau et al. (2019) offer a second classification of WFIs, which is based on the way they operate, i.e., whether they operate in an enabling way, giving employees some latitude over when, where, and how much they work, or in an enclosing way, promoting longer hours on work premises. In that respect, the enabling work-life policies give employees latitude over when, where, and how much they work, which enables them to spend time and energy outside of work to take care of themselves and their family members whereas the enclosing work-life policies maximize employees' availability for work, as well as the time they spend on work premises. However, the classification of WFIs remains an open topic that is to be adopted or decided depending on the purpose of the research.

Apart from the classifications present in the literature, WFIs may also differ by the purpose for which they are intended to serve. To illustrate this, in Table 2, we provide a non-exhaustive list of WFIs that appear as most frequently used in the literature, provisionally clustered in two categories: generic and family-driven initiatives. Generic initiatives are those that serve a general purpose of employees, such as well-being or facilitating the work modes in a general way, while "family-driven" initiatives are those initiatives whose purpose is to alleviate the overlaps between the work and family life of the employees.

Table 2 – List of WFIs

Generic WFIs	Initiatives that enhance workplace flexibility
	Entitlement to switch from full-time to part-time work
	Entitlement to a job-sharing scheme
	Career breaks
	Compressed work weeks (total work hours in 4 days, not 5)
	Variable starting and quitting times
	Fitness center
	Psychological counseling
	Resource referral programs
	Shopping vouchers
	Medical check-up visits
Family driven WFIs	Providing fully or partially subsidized on-site childcare
	Employee childcare expenses
	Providing childcare information and referral services
	Workplace nursery
	Extra-statutory maternity leave
	Extra-statutory paternity leave
	Flexibility in case of an unexpected childcare emergency
	Assistance to employees with aging parents
	Tuition reimbursement
	Family insurance/savings plan

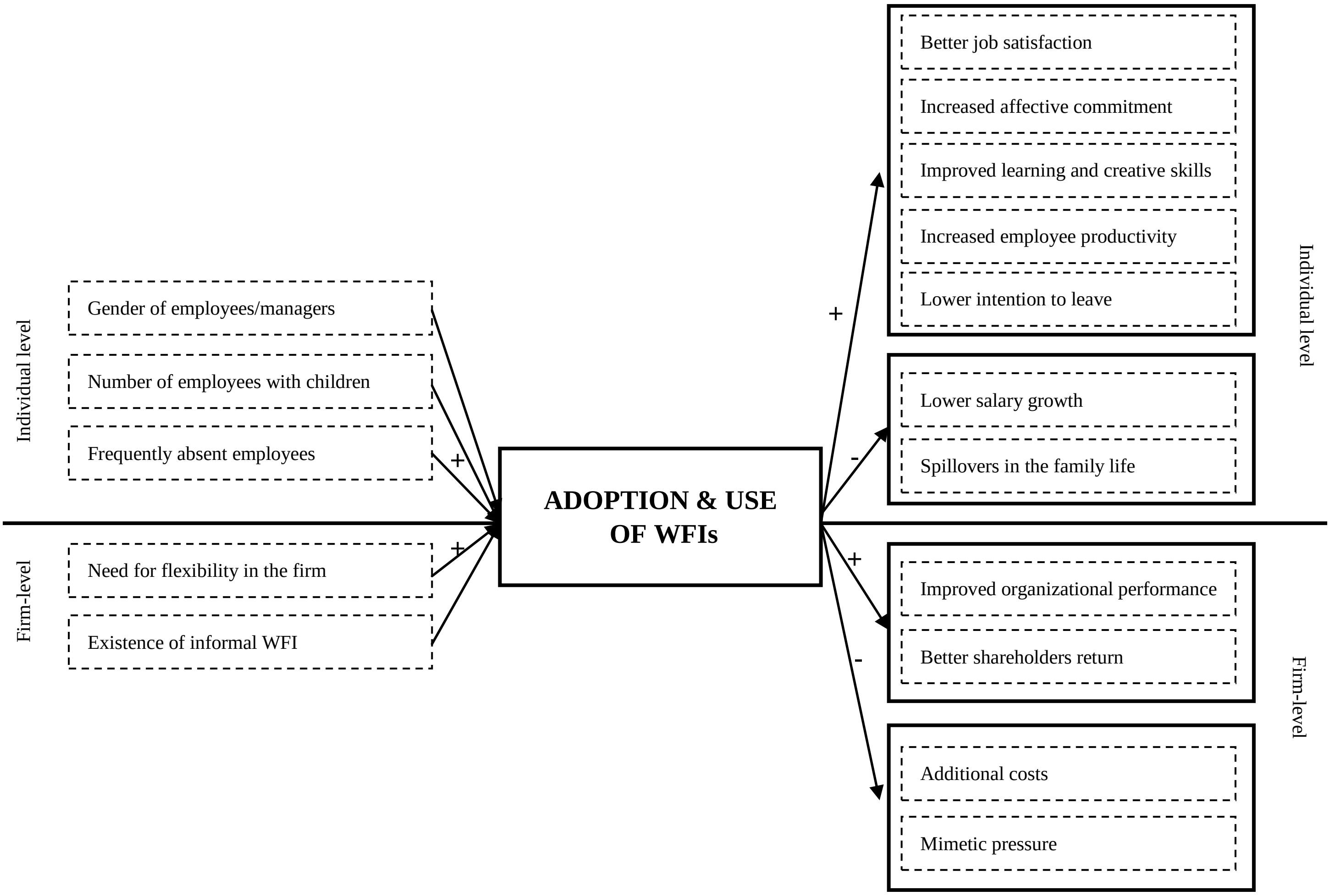
A review of the antecedents and outcomes of WFIs

Regarding the studies that have been exploring WFIs as an outcome, in an article from 1995, Paul Osterman states that firms that value employee commitment and have high commitment systems are more likely to adopt work-family programs; Milliken et al. (1998) prove that companies that have human resource executives for whom work and family issues are salient will tend to have higher levels of work-family responsiveness, while Thomson et al. (1999) show that employees who are female, married or have children living with them will be more likely to utilize work-family benefits than employees who are male, unmarried, or childless. Konrad and Mangel (2000) state that firms employing a larger percentage of professionals develop more extensive work-life programs and when a firm employs a higher percentage of professionals, the extensiveness of its work-life programs is more strongly positively related to productivity, while Bloom et al. (2011) show that firms with good management practices offer more WFIs.

With respect to WFIs as an antecedent to individual-level outcomes, Grover and Crooker (1995) conclude that family-responsive benefits will be positively related to affective commitment and turnover intention and that people who benefit from such initiatives will have a greater affective commitment to the organization, Lambert (2000) shows that the more useful workers find work-life benefits, the more likely they are to engage in citizenship behavior at both the organizational level and the individual level, while Roehling et al. (2001) prove that the presence of flexible-time policies is positively related to employee loyalty. Wang and Walumbwa (2007) state that employees' perception of the availability of childcare related family-friendly programs will be positively related to employee organizational commitment, Lee and Hong (2011) indicate that an employee's average level of satisfaction with a childcare subsidy policy is negatively associated with the turnover rate of the firm. Ko et al. (2013) find out that satisfaction with flexible work scheduling and dependent care programs is positively related to the job satisfaction of the employees and perceived organizational performance, while a year later, in 2014, James finds out that 61% of managers indicated an improved worker productivity because of the adoption of WFIs, while 54% indicated an improved corporate environment for learning and creativity. The effect of WFIs on the organizational level has also been largely explored. For example, in their article from 1996, Delaney and Huselid find that the types of HR practices that are affecting employee skills, motivation, and the structure of work are positively related to organizational performance; Perry-Smith and Blum in 2000 conclude that firms with more comprehensive bundles of work-family policies will have higher organizational performance than firms with less comprehensive bundles, while Arthur (2003) finds that firm announcements of WFIs positively affects the shareholder return. An illustration of the positive and negative individual-level and firm-level outcomes of WFIs are shown on Figure 2.

The WFIs have been explored through various theoretical perspectives, depending on the focus of the study and the level of analysis. For example, the social exchange theory has been used to support the view that employees feel obligated to reciprocate by adopting a more positive attitude toward the workplace, when they are exposed to a favorable work environment and desirable benefits and has been mainly associated with an individual level analysis (Wang and Walumbwa, 2007; Lee and Hong, 2011; Ko et al., 2013;). Second, few researchers used the signaling theory to explain the use of WFIs as a signal for the philosophy of the company and its commitment to the employees. For example, Butts et al. (2013) argued that the availability of WFIs is a signal used by the company addressed to the employees and showed a positive effect on employees' attitudes such as job satisfaction, affective commitment, and intentions to stay; Grover and Crooker (1995) argued that the availability of work-family support policies might be interpreted as a symbol of corporate concern while Casper and Harris (2008) used signaling theory to suggest that work-life policies) influence work attitudes through perceived organizational support and found support for this notion. Moshavi and Koch (2005) referred to the resource dependence theory, to point out that work-family demands are particularly strong in organizations that employ relatively large numbers of women. Institutional theory has been used to study how and why employers decide to provide work-family benefits to their employees (Goodstein, 1994; Ingram and Simons, 1995) or to point out the isomorphic reasons, i.e., the practices of 'similar firms' (e.g., those in the same industry, of equal size, etc.) to reduce uncertainty and increase their legitimacy and survival capabilities (DiMaggio and Powell, 1983). Apart from those, other theories such as equity theory, border theory, conflict theory, resource-based view, or signaling theory have also been used while exploring the topic of WFIs.

Figure 2 – A non-exhaustive summary of antecedents and outcomes of WFIs



Opportunities for future research on WFIs: innovation in family and non-family firms

WFIs and Innovation

As shown above, even though the literature on the effects of WFIs is quite broad, their effects on innovation remain underexplored. Human resources are proven to be crucial for organizational success (Baron and Kreps, 1999), including success and failure in company innovation performance (Laursen and Foss, 2003). It is, therefore, important to understand why and how employees could enhance innovation, and whether the deployment of certain human resource practices can produce the desired levels of innovation performance. The literature review on the topic led to important findings which are part of a broader debate related to the effect of human resource practices in general or employee treatment practices on innovation. The findings from this debate are relevant also for this research because they indicate that providing favorable working conditions to the employees positively impacts both employees and companies. I will provide a few examples of previous studies to illustrate the above said. Laursen and Foss (2003) studied whether the implementation of human resource practices impacts a company's probability to innovate and found support for their hypothesis. In their book chapter, they discuss how human resource practices influence innovation outcomes and provide insights on possible mediators that enable the link between human resource practices and innovation, such as knowledge sharing, social capital, and network effects. Second, using structural equation modeling with data collected from 173 Spanish firms, the study of Jiménez-Jiménez and Sanz-Valle (2008) suggests that human resource management enhances innovation and that human resource management practices influence product or process innovation. Moving towards a narrower debate, there are, to the best of my knowledge, only a few studies that deal with the effect of WFIs, as a specific subgroup of human resource management practices, on innovation. First, Chen et al. (2016) find a positive effect of an employee-friendly workplace and innovation. Second, Chen et al. (2016) suggest that firms with better employee treatment schemes produce patents that improve market valuation and facilitate better future operating performance, while Wei et al., (2020) explore the possible channels through which employee welfare can affect corporate innovation outputs. Their results suggest that improving employee welfare can retain more outstanding employees, attract positive media reports and create a harmonious working environment for corporate innovation, thus promoting the innovation outputs in manufacturing corporations.

The above-cited studies call for future research which I aim to address in this thesis. First, Laursen and Foss (2003) recognize, in their book chapter, that human resource practices are quite a heterogeneous group of practices and that studies tend to consider them as a bundle, thus failing to provide insights on which practices exactly affect innovation and why. In addition, the studies mentioned above consider practices that are different from WFIs, therefore leaving behind an important research gap to be bridged. For example, Jiménez-Jiménez and Sanz-Valle (2008) consider internal career opportunities, training, results-oriented appraisals, profit sharing, employment security, participation, and job descriptions as human resource practices, Chen et al (2016) measure high and low "workplace quality" to establish the quality of the employee-friendly workplaces, while Wei et al. (2020) consider employee welfare as a set of the following practices: employee income per capita, employee training, safety inspections, safety training, evaluations for awareness of condolences, total condolences and numbers of employees received condolences. These three examples indicate that even though there is an ongoing debate, previous studies scarcely exploit WFIs as defined in this thesis. Second, the study of Wei et al. (2020) calls future researchers to further explore the mechanisms through which employee welfare may affect innovation by exploring other possible channels, such as social or psychological ways through which employee welfare potentially impacts innovation. This call is in line with the one from Laursen and Foss (2003) for future exploration of the causal mechanisms that enable the relationship between human resource practices and innovation.

In addition to exploring the relationship between WFIs and innovation, the literature review revealed three contexts in which their adoption and their effect may be of further interest: the context of SMEs, the context of large companies, and the context of family firms. More details on this are presented in the next three subsections.

Focus on SMEs

The literature on WFIs within SMEs has been historically underdeveloped, as studies have tended to focus on larger organizations. However, the significant number of SMEs worldwide have a great strategic value for all countries and regions since these companies play a major role in overall economic growth (González-Loureiro and Pita-Castelo 2012; Klewitz and Hansen, 2014). Therefore, they deserve the needed support and guidance to continue operating at an acceptable level of performance (Hodorogel, 2009; Soininen et al. 2012). The few studies that explore WFIs in SMEs show intriguing results. For example, in their study from 2019, Moneva-Abadía and colleagues found out that in times of economic crisis, socially responsible strategies may be an important factor in SMEs' competitiveness. Moreover, their results indicate that WFIs have the potential to assist SMEs in responding to periods of constrained demand.

Like other firms, conditions such as weaker market demand typically cause SMEs to consider pursuing cost reductions. Yet, in contrast to larger firms, SMEs are expected to find a response without the benefit provided by the degree of resources and management specialization traditionally available to larger firms (Deshpande and Golhar, 1994). For example, the use of WFIs is different in SMEs than in larger firms, because the former generally have leaner and more unified organizational structures, differential patterns of ownership, and fewer management changes as well as a more informal and more reactive view in their business strategies (Matlay 2002; Tocher and Rutherford 2009). Furthermore, they are also less likely to have the expertise and knowledge that enable larger companies to introduce WFIs (Dex and Scheibl, 2001). It is a common understanding not just that large companies have easier access to and implement more WFIs, but also that large companies perform better in terms of innovation (Wei et al, 2020). Yet, as the “engine of driving revenue growth” (Patterson, 2014) and “the cornerstone of organizational survival” (Hurley and Hult, 1998), innovation appears to be even more crucial when it comes to SMEs because they need to confront the bigger companies that have a bigger market share, more resources and easier access to them.

This gap is quite apparent, nevertheless, for years the literature is suggesting that a focus on SMEs is needed (Chandler and McEvoy, 2000; Tocher and Rutherford, 2009). Addressing the topic of WFIs and their relation to innovation becomes particularly relevant in the context of SMEs, because the success of the SMEs largely depends on their human capital, but also on their flexibility to adapt to the new demographic and social context. This certainly opens a space for the development of many research questions focused on exploring the relationship between innovation and WFIs in SMEs. The literature has proven at least three dimensions that make the context of SMEs particularly intriguing: resources, governance, and goals (Brunninge et al., 2007, Sui and Baum, 2014). To explore how those dimensions resonate with the above-explained dimensions of innovation (psychological ownership and job satisfaction), we suggest exemplary research questions: does the adoption of job-sharing initiatives discriminate against radical vs. incremental innovation-oriented SMEs under resource constraints? Can psychological ownership explain these differences? Do organizational configurations (e.g., horizontal vs. vertical organization) affect this relationship? Does smart working initiative affect the knowledge-transfer-intense SMEs more than other types of SMEs?

WFIs in large companies

In the literature, it is broadly accepted that large organizations are more likely to have formal HR mechanisms for dealing with their personnel (Konrad and Mangel, 2000), in comparison to smaller size companies. This is possible because larger companies are also having access to more resources and support in management functions, including the design and implementation of human resource strategies (Deshpande and Golhar 1994; Chandler and McEvoy 2000; Cassell et al. 2002;). Also, the debate on WFIs is mainly developed in the context of large companies. It leaves, however, a few important calls for future research avenues.

The literature review revealed that findings on the effect of WFIs on employees and the firm's performance are quite consistent. I will illustrate this with a few examples. First, Michelle Arthur (2003) studied the effect of WFIs on the share price returns in large companies and found that the announcement of the adoption of WFIs in large companies increased their share price returns. Further on, Casper et al. (2007) found a positive relationship between supervisors' referrals and the use of WFIs by employees in large public organizations. According to Huselid (1995), who studied high-performance HR practices in publicly listed companies found to have a positive effect on employee outcomes such as turnover and productivity, but also on the overall corporate financial performance. Clifton and Shepard (2004) explored the effect of WFIs on employee productivity and found that the use of WFIs increases the productivity of employees in large companies. Last example, Wei et al. (2020) explored the impact of WFIs on innovation and found that practices related to employee welfare have rather positive effects on the innovation performance of large companies in China.

The debate on WFIs in large companies opens up a few avenues for future research that are relevant to this thesis. First, most of the studies cited above consider WFIs as a bundle, and therefore they call for a focus on specific WFIs, to consider their effect, rather than considering all practices as a bundle and thus generalizing their effect (Arthur, 2003). Second, Casper et al. (2007) focused on large companies in the public sector and therefore called future researchers to consider also large companies in the private sector, to check whether the findings coming from the public sector could be generalizable also in the public sector. Third, both Huselid (1995) and Clifton and Shepard (2004), which explored the effect of WFIs on employee productivity, call for further investigation into how example those individual-level mechanisms work to enable employees who are offered WFIs to be more willing to provide the extra effort and perform better for the company, which is also in line with the call for future research opened up by Wei et al. (2020) who suggest a need for exploring the individual level, social or psychological channels through which WFIs might impact employees or firm performance in general.

WFIs in family and non-family firms

According to the definition by Chua et al. (1999, p. 25), a family firm is "a business governed and/or managed to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families". As such, family firms differ from non-family firms along the dimensions of ownership, governance, and management; and these dimensions, in turn, affect the degree and the forms of innovation (De Massis et al., 2013; Duran et al., 2016). While the relationship between family firms and innovation is quite explored in the literature (De Massis et al., 2013; Duran et al., 2016), their relation to WFIs appears as significantly less explored.

The literature has identified that interdependencies between work and family are quite intense in the family business context (Beehr et al., 1997; Foley and Powell, 1997; Lansberg, 1999). Previous work-family research indicates that even when firms face similar institutional and resource-dependence contingencies, they may still vary in their degree of work-family responsiveness (Milliken et al., 1998). One possible explanation for this difference in firm responsiveness, not currently addressed in the extant literature, is the type of ownership. There are indications from the family business literature that studying family ownership may be an avenue for understanding different nuances in the adoption of WFIs (Michael-Tsabari et al., 2020). While it is intuitively suggested that family-owned firms may be supportive of employees' work/family conflicts, more recent research seems to suggest that family firms may not be as 'family-friendly' as thought (Moshavi and Koch, 2005; Neckebrouck et al., 2018). Several family business researchers have observed, for instance, that family business owners and managers are more used to the overlap between work and family systems than non-family-owned business managers. As a result, they may undertake less formally recognized actions to manage the relationship between the two systems than their non-family business counterparts. Exactly for that reason, the research suggests that family-owned businesses tend to address employee issues with a high degree of informality or to manage work-family conflict issues on a case-by-case basis, rather than formally implement policies (Lansberg, 1999), for example through informal meetings rather than formal business plans to set policy (Astrachan and Kolenko, 1994). Hence, these findings suggest that more formalized work/family initiatives are less likely to appear in family-owned businesses than in non-family-owned businesses.

However, the low number of studies on this topic indicates that the topic is insufficiently developed. Therefore, further exploration of the relationship between WFIs and innovation in the context of family firms, both SMEs and large, certainly deserves attention. To open a debate on how those characteristics affect the individual level dimensions introduced above, we suggest illustrative research questions such as: do WFIs increase psychological ownership more in firms whose founder is childless than when the founder has children? Does the gender composition of the board of directors play a role in the relationship between WFIs and innovation? Does the network of multigenerational families affect the relationship between job sharing and knowledge transfer in family SMEs?

Conclusion

The purpose of this literature review is to provide the reader with an overview of the topic of WFIs and to provide insights on whether and how they affect innovation. First, explain the literature review methodology and the main sources of data used for the review. Second, I show that WFIs started gaining shape and attention in the 1980s. To provide the reader insights into how WFIs evolve through the years and in different countries, I dedicate a subsection to the historical evolution of WFIs, which includes information on how the concept of WFIs has been exploited in different countries since 1980 onwards. Then, given the terminological heterogeneity of the topic, I also dedicate a subsection that provides an overview of the different terms and definitions of WFIs used in the current literature. In this subsection, I define WFIs as adopted in the entire thesis. Furthermore, to provide the reader with an overview of the debate on WFIs, I dedicate a subsection of the main antecedents and outcomes of the adoption and use of WFIs. To provide a clearer picture of the main effects of WFIs, I classified the outcomes into individual-level outcomes and firm-level outcomes.

The results of this literature review suggest a few important literature gaps which are the basis for the research avenues addressed in this thesis. The first gap that is revealed is that only a limited number of previous research discuss the effect of WFIs on innovation. Indications of research interest in the topic are found in a broader debate on the impact of human resource practices and innovation. These findings are then used as a basis to argue and motivate our discussion. Based on this first gap, I introduce a novel research agenda with three main research avenues: the effect of WFIs in the context of SMEs, in the context of large companies, and the context of family firms.

Overall, this literature review aims to explore the available literature and, based on the emerging gaps, to develop a research agenda suggesting uncharted avenues to be explored in future research. The findings of this literature review confirm that exploring the relationship between WFIs and innovation in the context of SMEs, large companies and family firms is a promising research avenue that is about to uncover its potential and open a challenging debate for future researchers.

CHAPTER 3

DO FLEXIBLE WORKING PRACTICES ENCOURAGE EMPLOYEE INTRAPRENEURSHIP? THE ROLE OF AFFECTIVE COMMITMENT AND PERCEIVED ORGANIZATIONAL SUPPORT

Abstract

This research explores the social exchange between the firm and its employees in times of pandemic. In particular, it investigates whether flexible working practices influence employee intrapreneurship. In addition, it explores whether affective commitment enables this relationship as well as whether employees who perceive to be supported by the organization when using flexible working practices are more affectively committed and therefore engage more in employee intrapreneurship. We test our hypothesis on data gathered from a survey administered during the COVID-19 pandemic in an Italian family firm. Our results show that, in times of pandemic, the social exchange between the firm and its employees is disrupted and, counter to our argumentation, an increased possibility to use flexible working practices leads to lower employee intrapreneurship. Furthermore, we find that this relationship is partially enabled by affective commitment. Lastly, our results suggest that employees who perceive organizational support when using flexible working practices are more affectively committed in comparison to employees who, in the same situation, do not perceive organizational support. Our research contributes to the intrapreneurship debate, by discussing the influence of flexible working practices, affective commitment, and organizational support on employee intrapreneurship in a challenging context represented by an Italian family firm during the COVID-19 pandemic.

Keywords: flexible working practices; employee intrapreneurship; perceived organizational support; affective commitment; social exchange

Introduction

Employee intrapreneurship (EI), defined as "an individual employee's agentic and anticipatory behavior aimed at creating new businesses for the organization (i.e., venture behavior) and enhancing an organization's ability to react to internal and market advancements (i.e., strategic renewal behavior" (Gawke et al., 2019: p509), is important for organizations to develop and strengthen their competitive advantage (Irvin and Rule, 1988; Kuratko et al., 2004). EI became even more important during the COVID-19 pandemic because it allowed companies to leverage their internal strengths, resources, and expertise to create a competitive advantage (Cherrington et al., 2021). Because of this, intrapreneurship and in particular, employee intrapreneurship is subject of an increasing number of academic studies (Antoncic and Hisrich, 2001; Valsania et al., 2016; Gawke et al., 2019; Neessen et al., 2019; Cherrington et al., 2021).

For employees to engage in EI, and to contribute to firm's goals and objectives, they need to be willing to do so. In the same time, employees' willingness is found to be stronger when they work in favorable working conditions, for example when they have the needed resources and time to develop new ideas (Rigtering and Weitzel, 2013). Because of this, organizations try to improve the working conditions so to increase the willingness of their employees to engage in EI and contribute to firm's goals and objectives. Literature claims that one way of improving the work conditions is through adopting work-family initiatives (Shockley and Allen, 2010; Kossek et al., 2014). This is so because employees that work in favorable working conditions tend to engage in a social exchange with the firm and to respond positively, by fully engaging and dedicating themselves to their jobs (Loehr and Schwartz, 2006; Spreitzer et al., 2010), by developing concern for the organization's health or by engaging into flexible thinking (Baas et al., 2008).

Flexible working practices (FWPs hereafter) are the most frequently adopted form of work-family initiatives (Anderson et al., 2002). They refer to practices through which companies offer flexibility about where and when employees do their work and include two practices: flexible working place and flexible working time (Kelliher and Anderson, 2010; Jeyasingham, 2020). In other words, with the help of FWPs, employees can split their working time between working from the office and working from home or a preferred off-site location or they can arrange the working time according to their needs.

Even before the COVID-19 pandemic, many organizations have been offering FWPs to enable employees better manage the overlaps between their work and family life (Shockley and Allen, 2010; Chong et al., 2020). As such, they have been widely explored in the literature (Albrecht, 2003; Arthur, 2003; Maniam et al., 2016). Since the COVID-19 virus was proven to transmit through physical contact (World Health Organization, 2020), the FWPs became the most applied working method during the pandemic. According to the U.S. Bureau of Labor Statistics, only in the US, in comparison to the 11% of employees applying the FWPs in 2019 (before the pandemic), around May 2020 (in course of the pandemic), 65% of the workforce were teleworking full-time. Thus, quite expectedly, the interest in those practices rose during the pandemic.

The effects of the use of FWPs on employees are ambiguous, especially comparing the periods before and during the pandemic. Before the pandemic, the use of FWPs has been mainly linked to positive outcomes, such as improved job satisfaction, or affective commitment (Butts et al., 2013). During the COVID-19 emergency, instead, negative outcomes, such as social or professional isolation or slower professional advancement, have been spotted as well (Charalampous, 2020; Waizenegger et al., 2020). Aiming to complement this ongoing debate, the objective of this research is to explore whether the use of FWPs in times of pandemic improves the social exchange between employees and the firm and motivates employees to engage in EI.

To better understand the relationship between the use of FWPs and EI, it is of crucial importance to understand the mechanisms that would eventually enable or strengthen this relationship. A stronger social exchange of the employees who are using FWPs could not be possible, we argue, unless they develop a feeling of connection with the firm that is, if they are committed to the organization in which they work (Camelo-Ordaza et al., 2011). This is so because affective commitment, defined as employees' emotional attachment to, identification with, and involvement in, the organization (Meyer and Allen, 1997), increases the sense of identification with the firm and in turn increases the employees' probability to engage in EI (Rhoades et al., 2001). To provide further evidence for these arguments, we explore the role of affective commitment, as a mediating mechanism that enables the effect of the use of FWPs on EI. Second, when using FWPs, we expect that the affective commitment of the employees towards the organization will be stronger if employees perceive organizational support (POS), defined as employees' perception of how much the organization is making an effort to provide them with necessary telework-related resources (Chong et al., 2020). In a context such as the COVID-19 pandemic, employees need support from the firm for dealing with the challenges that come with the use of FWPs, such as IT issues, access to relevant information, or the possibility to take autonomous decisions (Chong et al., 2020). Support from the firm in these circumstances will bring employees closer to the organization and will increase their commitment to the organization which, in turn, will motivate them to delve deeper into the social exchange with it and therefore to engage more in EI.

We test our hypotheses on data gathered from a survey administered to employees during the COVID-19 pandemic in a large Italian family firm. Our results show that, in times of pandemic, the use of FWPs leads to lower EI. Furthermore, we find that affective commitment, partially mediates the effect of FWPs on EI, i.e., an increased use of FWPs leads to lower AC, which in turn leads to lower EI. Lastly, our results show that employees who perceive organizational support are more likely to turn the use of FWPs into affective commitment.

Our research contributes to the intrapreneurship debate, by discussing the impact of FWPs, affective commitment, and POS on EI, in times of pandemic. Second, with this research, we contribute to the social exchange theory, by suggesting that in times of pandemic, the social exchange between the employees and the firm suffers from a major disruption which leads employees to detach from the firm and decrease their efforts towards the firm, such as engaging in intrapreneurial activities. This effect is closely related to the impact that the pandemic COVID-19 had on employment relationships and working practices in general (Delfino and Kolk, 2021). The disruption of the social exchange is particularly visible through the negative effect of an increased use of FWPs on affective commitment, which indeed shows that during the times of pandemic, employees who use flexible working practices more tend to rather detach from the firm, a finding which, in turn, explains the negative effect of FWPs on EI.

Theory and hypothesis development

Intrapreneurship: organization and employee level of analysis

The concept of intrapreneurship dates from the 1980s, and since then it received widespread attention in the literature (Pinchot, 1985; Antoncic and Hisrich, 2001; 2003; Gawke et al., 2019). The literature mainly distinguishes two types of intrapreneurship: organizational and employee intrapreneurship. To date, the most broadly accepted definition of organizational intrapreneurship is that it refers to an organization's corporate venturing and strategic renewal activities as a result of its employees' intrapreneurial behaviors and effective use of human resources management (Guth and Ginsberg, 1990; Floyd and Lane, 2000; Morris et al., 2010; Belousova and Gailly, 2013; Blanka, 2019). The second type of intrapreneurship is employee intrapreneurship. While the first one refers to firm-level activities, the second type of intrapreneurship is linked to individual-level behaviors. The concept of EI faced conceptual ambiguity and has been defined differently through the years (Gawke et al., 2019). Further to the literature review performed by Gawke et al. (2019), we agree hereby that the behavior-based approach most accurately represents the concept of EI and enables differentiation from other similar concepts such as innovative work behaviors. We therefore adopt their definition in our study. EI is important for organizations to develop and strengthen their competitive advantage (Rule and Irvin, 1988, Kuratko et al., 2004), especially in times of pandemic, when companies seek their competitive advantage in their key intangible assets, rather than in their products (Cherrington et al., 2021).

Previous studies suggest that with the support of human resource practices, organizations can motivate employees to participate in extra-role behavior such as EI (Farrukh et al., 2021). For example, Shin et al., (2018) suggest that human resource practices can be used as a facilitator of innovativeness and learning for the employees, Schuler and Jackson (1987) suggest that a high-performance human resource system can play a vital role in provoking employees' innovative behaviors, while Fu et al. (2015) state that through human resource practices organizations may allow the employees to create, implement and transfer their knowledge and thus enhance EI.

EI as a result of a social exchange

For employees to engage in EI, they need to be willing to engage in a social exchange with the firm, which will result in a stronger contribution to the firm's goals and objectives. The social exchange represents a positive and fair transaction between two parties which produces effective work behavior and positive employee attitudes. It is the main construct around which the social exchange theory (SET) is built (Blau, 1964; Emerson, 1976, Cropanzano and Mitchell, 2005). According to the SET, relations between individuals are explained through norms of reciprocity which generate obligations. In other words, individuals engage in exchanges with others with an expectation of future return, such as a reward or remuneration. Social exchange relationships are embedded into feelings of obligations, trust, interpersonal attachment, or commitment to specific exchange partners (Emerson, 1976). Unlike economic exchange relationships, which are based on tangible and financially-oriented interactions, individuals in social exchange relationships rather pursue long-term relationships based on emotions (Blau, 1964). In an organizational context, SET posits that employees who are treated positively will tend to positively reciprocate to the organization and as such, is acknowledged as an appropriate perspective to explain workplace behaviors by previous studies (Rigtering and Weitzel, 2013; Valsania et al., 2016; Mustafa et al., 2022).

Employees that use FWPs will consider having better working conditions, because by having flexible working place or time, they will more easily manage their work and non-work activities and responsibilities (Rigtering and Weitzel, 2013). In line with the tenets of SET, because they have such favorable working conditions and have been treated well by their employer, they will be more willing to return the favor. Therefore, they will tend to engage in activities that are in favor of company's goals and objectives. As previous studies suggest, employees that are having favorable working conditions tend to fully dedicate themselves to their job (Loehr and Schwartz, 2006; Spreitzer et al., 2010), to develop concern for the organization's health or to engage in flexible thinking (Baas et al., 2008). In continuation of this argumentation, and considering job dedication, concern for the company's health or flexible thinking as cornerstones of EI (Gawke et al., 2019), it follows that the more employees are using FWPs, the better working conditions they will consider to have and therefore, the more willing they will to socially exchange with the firm, by embedding extra effort into activities that foster the firm's growth and performance. In light of the foregoing, we frame our first hypothesis as follows:

Hypothesis 1: Employees who use FWPs more are more likely to engage in EI.

The mediating role of affective commitment

The previously discussed willingness of the employees to engage in EI is impossible without a feeling of commitment toward the organization (Camelo-Ordaza et al., 2011; Hashemi et al., 2012). Organizational commitment is a construct introduced by Meyer and Allen (1996) and refers to the link between the employee and the organization that increases the likelihood of an employee staying in the organization. According to Meyer and Allen (1990), employees can develop three types of commitment (affective, continuous and normative), and each type of commitment is linked to the reason why they remain in the organization. Namely, if employees are affectively committed to the organization, they shall remain because they want to; if they are continuously committed to it, they shall remain because they need to and if they are normatively committed to it, they shall remain because they feel obliged to do so. Even though the three components of organizational commitment have been widely addressed in the literature, this research is focused on the affective commitment because, as shown by previous studies, it is more strongly linked with work behaviors such as providing extra effort or investing oneself in cooperation (Organ and Ryan, 1995; Meyer et al., 2004).

Affective commitment is the energizing force that contributes to motivated behaviors and makes employees remain at their work because they are willing to, not because they need to (Meyer and Allen, 1997, Meyer et al., 2004). Employees that are affectively committed to an organization expect more from their employers and look for a job to which they can be fully engaged and dedicated (Loehr and Schwartz, 2006; Spreitzer et al., 2010). The affective commitment is proven to lead to positive emotions (Thoresen et al., 2003), which induce flexible thinking, a key element for the generation of novel ideas and creative outcomes (Baas, et al., 2008).

In line with SET, employees that have favorable working conditions tend to develop a sense of concern for the organization's health by developing affective commitment towards it (Rhoades et al., 2001; Coyle-Shapiro and Conway, 2005). The affective commitment is then manifested through their willingness to engage in behaviors that benefit the organization (Lavelle et al., 2007). Since EI requires significant effort and dedication, it is more likely to occur when employees are committed to their work (Kuratko, 2005). From the previous arguments it follows that the more employees are using FWPs, the more their working conditions will be improved, the more committed they will be to their work. Their commitment will then manifest through providing more effort and contributing to idea generation, creativity, and risk-taking to improve organizational functioning (George and Brief, 1992). Given the above, we hypothesize that:

> *Hypothesis 2: Affective commitment mediates the relationship between an increased use of FWPs and EI.*

POS as a moderating effect of the FWPs – EI relationship

POS, defined as employees' perceptions of the organization's recognition of their efforts is known to be essential for strengthening affective commitment (Eisenberger et al., 1990; Rhoades and Eisenberger, 2002). Employees that perceive to be supported by the organization, consider that their emotional needs are met, and engage in social exchange with the firm more strongly in comparison to employees that do not perceive organizational support. In other words, employees who perceive the organization as unsupportive and uncaring would most likely not enjoy working there and this would further decrease their emotional attachment to the organization (Casimir et al., 2014). During the pandemic, the POS has become even more important, because employees had to switch to FWPs quite abruptly and without much time or possibility to prepare for this work arrangement. Having the necessary support from the organization has been, therefore, crucial for performing daily work activities. While in its original definition, POS is linked to the organization's value of employees' effort, during the pandemic it became rather linked to "employees' belief in how much the organization is making an effort to provide them with necessary telework-related resources while they are working from home, such as information technology (IT) support, timely information, relevant work materials, and decision-making authority" (Chong et al., 2020, p. 1411).

Perceiving organizational support during this difficult period is expected to encourage employees to socially exchange with the firm, because, first, the support will facilitate their daily activities, which appeared complicated during the pandemic. Second, perceiving support in times of extreme uncertainty might strengthen the sense of belonging to the organization. Being embedded in a place characterized by a caring culture, in turn, may increase the willingness of the employees to positively reciprocate the organization (Alpkan et al., 2010), and will therefore make them more affectively committed to the organization, which in turn will encourage their innovative and intrapreneurial efforts.

In the second hypothesis, we suggest that the employees that are using FWPs more are more likely to engage in EI because they have been affectively committed to the organization. In addition, if these employees perceive to be supported by the organization during the pandemic, we can expect that they will be even more committed and therefore will engage more in EI than those who perceived to be less supported by the organization. This is so because employees who use more FWPs will need more support from the organization to perform their tasks remotely or in different working hours, such as IT support, timely information, relevant work materials, and decision-making power. If they perceive to have the needed organizational support while using FWPs, they will more likely become affectively attached to the organization because, in addition to the use of FWPs, their working conditions will be ultimately improved by the additional support they will receive from the organization. This, in turn, will strengthen their social exchange with the firm and will increase their willingness to engage more in EI, which otherwise would have been particularly challenging, especially during COVID-19, when employees were isolated, working from their homes with limited access to information. Therefore, we frame our last hypothesis as follows:

Hypothesis 3: POS positively moderates the mediated relationship between the use of FWPs and EI via affective commitment in such a way that the strength of the mediated relationship is higher for employees with high POS in comparison to employees with low POS.

Method

This research is based on a survey administered in May 2021 to 1500 employees of an Italian family firm from the IT sector. The survey was prepared and delivered using the "Google Forms" software in Italian language. The questions are based on previously validated scales. The questionnaire is comprised on three sections: section A, which includes questions on FWPs and the work-family interface; section B, which includes questions related to EI and the relation of the employees with the organization, and section C includes general information for the respondents. The response rate of the survey was 25% (369 responses).

Variables and measures

Dependent variable. To construct our dependent variable “Employees Intrapreneurship”, we refer to the scale developed by Gawke et al., 2019, by using the following question: On a scale from 1 to 5, please indicate how much you agree with the following statements (1) I undertake activities to realize change in my organization; (2) I undertake activities to change the current products/services of my organization; (3) I contribute ideas for strategic renewal for my organization; (4) I conceptualize new ways of working for my organization. All items were loaded well into one single factor (factor loadings above 0.5), from which we constructed our dependent variable.

Independent variable. To construct our independent variable "Flexible Working Practices", the respondents were asked to indicate which percentage of flexible working they have requested as a maximum threshold. When respondents answered that they requested 5 days of flexible working, such answer scored 100%, while an answer for 4 days of flexible working and 1 day of work in the office scored 80% for flexible working requested. We have constructed this variable based on the assumption that the employees were actually granted the amount of FWPs they asked for. Our assumption is based on the formulation of previous question in the same survey, which asks employees for how many months they have been adopting FWPs. To ensure accuracy of our variable, through an additional check, we confirmed that employees that provided the percentage of FWPs they requested, have been adopting them for at least one month.

Mediating variable. To construct our mediating variable "Affective Commitment", we use the scale from Meyer and Allen (1996). The respondents were asked the following question: on a scale from 1 to 5, please indicate how much you agree with the following statements: (1) I would be very happy to spend the rest of my career with this organization, (2) I enjoy discussing my organization with people outside it, (3) I really feel as if this organization's problems are my own, (4) I think that I could easily become as attached to another organization as I am to this one (R), (5) I do not feel like 'part of the family' at my organization (R), (6) I do not feel 'emotionally attached' to this organization (R), (7) This organization has a great deal of personal meaning for me, (8) I do not feel a strong sense of belonging to my organization (R).

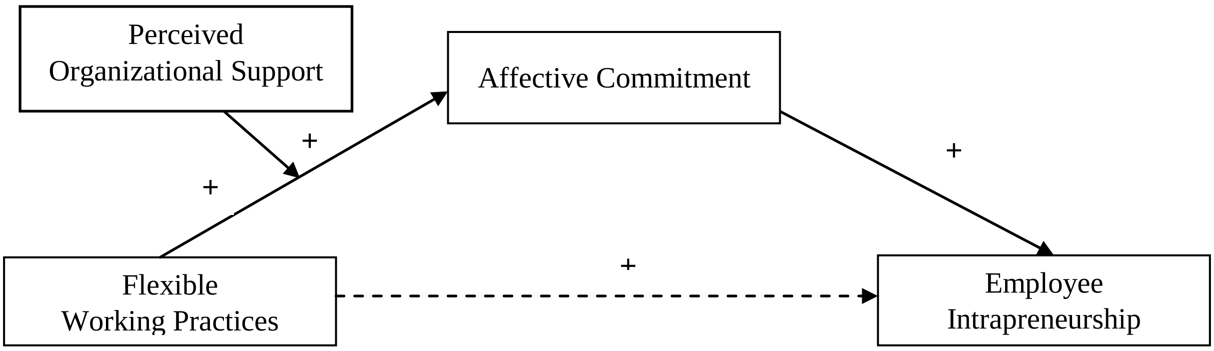
Moderating variable. To assess the moderating effect, we have introduced the variable "Perceived Organizational Support". This variable is based on the study by Chong et al. (2020), and is based on the following question: Indicate how much you agree with the following statements on a scale from 1 to 5, where 1 means I do not agree at all and 5 means I completely agree: (1) During this COVID-19 work-from-home period, my company goes out of its way to provide me with task support (e.g., IT support, decision-making authority, etc.); (2) My company takes a personal interest in whether I have all the work tools and resources that I need to work well at home during this COVID-19 period; (3) My company makes it easy for me to retrieve task resources (e.g., information, materials, IT resources) while I work from home during this COVID-19 period.

Control variables. We use a few variables to control our model. First, given that previous studies showed males as more likely to act in an intrapreneurial way (Park et al., 2014), we introduced a gender variable in our model. Second, we considered organizational tenure as a possible variable that may affect our model because previous studies showed that long tenure in a firm negatively affects intrapreneurship in terms of innovation performance (Blanka, 2019). This is so because, as Camelo-Ordaz et al. (2011) argue, long tenure is associated with a passive attitude toward decision-making, resistance to change, and therefore a reduced willingness to exhibit innovative behavior and implement new ideas. We considered whether the employee is a middle-level manager or not because, as Kuratko et al. (2005) noted, middle-level managers are a relevant tie between top-level management's corporate entrepreneurship visions and employees' intrapreneurial initiatives. In addition, we have controlled if the respondents face inter-role conflict (Netemeyer et al., 1996) by measuring work-family conflict and family-work conflict, two types of conflict that reflect the degree to which the roles and the responsibilities from the work interfere with those from the family domain (work-family conflict) and vice versa (family-work conflict) and whether they provide a work effort to their job. Also, we controlled our model by introducing two variables that reflect the household structure of the respondent: one dummy variable that measures whether the respondent has children and a second dummy variable that measures whether the respondent has an adult to take care of. This is important to understand, because, as previous studies show, conflicts and responsibilities arising from overlaps between work and family life affect individual initiatives (Bolino and Turnley, 2005). Lastly, we used a dummy variable to control whether respondents have an enterprising family background or not, because, as previous studies suggest, having an enterprising family background affects individual entrepreneurial activities (Georgescu and Herman, 2020).

To test our main model, we performed a simple linear regression.

Our theoretical model is given in Figure 1.

Figure 1: Theoretical model



Results

Table 1 presents the descriptive statistics and correlations for all the variables used in this study.

Table 1 - Correlation matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) EI	10 00											
(2) FWPs	-0.111	10 00										
(3) AC	0.376*	-0.029	10 00									
(4) Org_Supp	0.173*	-0.059	0.438*	10 00								
(5) Mng	0.188*	-0.086	0.091	0.047	10 00							
(6) Gender	0.173*	0.072	0.049	-0.028	0.088	10 00						
(7) Tenure	-0.083	0.026	0.023	-0.042	0.012	-0.085	10 00					
(8) WF_C	0.062	-0.072	-0.122*	-0.181*	0.250*	-0.064	0.090	10 00				
(9) FW_C	-0.052	-0.058	-0.127*	-0.082	-0.050	0.111*	0.013	-0.013	10 00			
(10) HS_Chld	0.041	-0.065	0.069	0.081	0.079	0.119*	0.029	0.070	-0.073	10 00		
(11) HS_Adlt	0.038	0.028	0.075	0.075	0.004	-0.043	0.100	0.075	-0.082	0.229*	10 00	
(12) Entr_Fam	0.088	-0.045	-0.115*	-0.003	0.046	-0.101	-0.075	-0.024	-0.107*	0.017	-0.083	10 00

Our first hypothesis predicts that the use of FWPs will positively affect EI. Contrary to what was hypothesized, our results suggest that the use of FWPs significantly and negatively affects EI (β = -0.763**) (see Table 2, Model 1).

Table 2 - Regression table

VARIABLES	(Model 1) EI	(Model 2) AC	(Model 3) AC	(Model 4) EI	(Model 5) EI	(Model 6) EI
FWPs	-0.763**	-0.517*	-0.319		-0.521*	-0.288
	(0.330)	(0.302)	(0.290)		(0.303)	(0.327)
Org_Supp			0.317***			0.0396
			(0.0566)			(0.0682)
Org_SuppXFWP			0.113*			-0.159**
			(0.0675)			(0.0764)
Mng	0.222	0.277**	0.307**	0.190	0.0961	0.104
	(0.147)	(0.135)	(0.123)	(0.119)	(0.136)	(0.140)
Gender	0.446***	0.0562	0.148	0.400***	0.416***	0.412***
	(0.135)	(0.124)	(0.111)	(0.113)	(0.124)	(0.126)
Tenure	-0.00543	0.00488	0.01000*	-0.00473	-0.00743	-0.00664
	(0.00691)	(0.00635)	(0.00580)	(0.00578)	(0.00633)	(0.00657)
WF_C	0.0580	-0.165***	-0.134**	0.133**	0.130**	0.142**
	(0.0655)	(0.0602)	(0.0557)	(0.0555)	(0.0610)	(0.0635)
FW_C	-0.0822	-0.169***	-0.119**	0.0465	-0.00550	-0.00685
	(0.0676)	(0.0620)	(0.0556)	(0.0572)	(0.0627)	(0.0632)
HS_Chld	-0.0243	0.103	0.102	-0.0870	-0.0813	-0.0949
	(0.154)	(0.142)	(0.127)	(0.128)	(0.141)	(0.143)
HS_Adlt	0.0420	0.182	0.188	0.0551	-0.0353	-0.0333
	(0.140)	(0.128)	(0.115)	(0.116)	(0.128)	(0.130)
Entr_Fam	0.213	-0.174	-0.135	0.361***	0.290**	0.250*
	(0.153)	(0.141)	(0.126)	(0.130)	(0.141)	(0.142)
AC				0.486***	0.454***	0.449***
				(0.0606)	(0.0668)	(0.0768)
Constant	0.263	0.101	-0.194	-0.341**	0.219	0.0149
	(0.343)	(0.314)	(0.293)	(0.158)	(0.313)	(0.330)
Observations	233	232	227	277	232	227
R-squared	0.109	0.104	0.282	0.269	0.260	0.262

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

Our second hypothesis predicts that affective commitment mediates the relationship between the use FWPs and EI. To test the mediation model, we applied the method introduced by Baron and Kenny (1986). According to this method, four conditions have to be matched to support a mediation effect: (1) the independent variable should impact the dependent variable; (2) the independent variable should impact the mediator; (3) the mediator should impact the dependent variable; and (4) when the mediator is added, the impact of the independent variable on the dependent variable either disappears or is reduced. According to the Baron and

Kenny method, the testing of a relationship through a mediator can result in a complete mediation (i.e., the independent variable does not affect the dependent variable once the mediator is introduced), or partial mediation (the effect of the independent variable on the dependent variable is reduced once the mediator is introduced).

Following this procedure, the results show that the negative indirect effect of the use of FWPs on EI is decreased when the affective commitment is introduced as a mediation variable (β -0.763** ➔ β -0.521*). This indicates that affective commitment partially mediates the relationship between the use of FWPs and EI, which supports our hypothesis. Second, when checking the second condition (the effect of the independent variable on the mediator should be significant) the results show that the direct effect of the use of FWPs on affective commitment is negative, meaning that an increased use of FWPs decreases the affective commitment of the employees (β = -0.517*) (See Table 2, Model 2). This finding might help in understanding the negative indirect effect of the use of FWPs on EI through the mediation of the affective commitment (β = -0.521*) (see Table 2, Model 5).

Our third hypothesis predicts that the effect of the use of FWPs on EI mediated by affective commitment will be positively moderated by POS. To test this hypothesis, first, we have introduced POS as a moderator (a product of POS and FWPs) on the direct relationship between FWPs and affective commitment. The results of this test show that POS positively moderates the relationship between FWPs and affective commitment (β = 0.113*) (See Table 2, Model 3). Next, to test the moderating effect of POS on the overall model, we introduced POS as a moderator in the first path of the model and checked whether POS moderates the relationship between the use of FWPs and EI, mediated by affective commitment. The results show that the positive moderation of POS, however, does not change the overall statistically significant negative effect of the use of FWPs on EI (β = -0.159**) (See Table 2, Model 6).

Robustness checks

We subject the above results to a few sensitivity tests. First, as a robustness check, we introduced in our model an alternative measure to our independent variable. Instead of using the percentage of FWPs that respondents have requested as a maximum threshold, we restricted the use of FWPs only to those respondents that requested 100% as a maximum threshold for using FWPs, meaning that we only considered respondents that were working remotely 100% of their working time. To capture this nuance, we created a dummy variable that scored 1 if the respondent requested 100% of FWPs. Results confirm the previously obtained effects, reinforcing the conclusion that EI is significantly influenced by the use of FWPs.

Second, given that most of the variables are based on 5-item Likert scales, we considered common method variance (CMV) as a possible source of endogeneity in our study. To address this issue, we have performed Harman's Single-Factor Test, as this test is considered to be the most common test carried out by researchers to examine the CMV in their studies (Podsakoff et al., 2003). A Harman one-factor analysis is conducted to check whether a single factor is accountable for variance in the data. In this method, all items from every construct are loaded into a factor analysis to check whether one single factor emerges or whether a single general factor results in the majority of the covariance among the measures. If no single factor emerges and accounts for the majority of the covariance, this means that CMV is not a pervasive issue in the study. In our sample, the test resulted in 6 separate factors. In addition, the results indicate that the variance of the first factor explains 17% of the total variance, indicating a relatively minor CMV for our variables. Therefore, our results suggest that common method variance is not an issue in this study.

Third, we applied the bootstrap technique to check the robustness of our models. The results from the bootstrap test of the model 5 are significant at the level of 10%, while the results from the bootstrap test of the model 6 are not significant.

Discussion and conclusion

This chapter aims to shed light on how the use of FWPs affects EI, whether this relationship is mediated by affective commitment and whether POS positively moderates the relationship between the use of FWPs and affective commitment and in turn increases the effect of the use of FWPs on EI. This relationship is investigated in 2021, during the COVID-19 pandemic, in an Italian family firm. Three hypotheses are developed for this research, according to which, in line with the tenets of the SET, employees who are using FWPs consider to have favorable working conditions and because of this feel obliged to return the favor to the firm by engaging in EI.

The interpretation of the results of this study is strongly conditioned by the timing and the circumstances in which the data were collected. Namely, the interpretation of these results calls for consideration of the role of the COVID-19 pandemic during which the questionnaire was administered or more in general, the role of exogenous shocks. The COVID-19 pandemic presented unique, unforeseen disruptions that diverted employees' attention from everyday working activities (Chong et al., 2020). In other words, our results suggest that in times of pandemic, the social exchange between the firm and its employees has been disrupted. Counterintuitively, according to our study, the increased use of FWPs does not strengthen the willingness of the employees to engage in EI, but rather to detach from the company. Previous studies already alerted on the negative effects of FWPs, such as professional isolation, for example (Charalampous, 2020; Waizenegger et al., 2020). In times of pandemic, as our results suggest, such isolation may be counterproductive and may overturn the desired effect of FWPs.

Scholars suggest that the COVID-19 crisis compelled the majority of employees to switch to full-time telework abruptly and without many options to prepare for this work arrangement. This abrupt change disrupts the social exchange and decreases the feeling of commitment toward the company. A lower commitment, in turn, manifests in lower engagement in EI (Kilic et al., 2021). Therefore, the negative effect of the use of FWPs on EI may be explained by the lower affective commitment, which, per se, can be understood as a broader effect of the pandemic. Also, our results show that the affective commitment has a positive impact and motivates employees to engage in intrapreneurial activities. Lastly, our results show that, in times of pandemic, employees who perceive organizational support when using FWPs are more affectively committed to the organization in comparison to employees who do not perceive organizational support. This finding is in line with previous research according to which POS leads to positive outcomes, such as higher levels of affective commitment attendance, performance, job satisfaction, or job engagement (Rhoades et al., 2001; Ahmed and Nawaz, 2015). Overall, using FWPs in times of pandemic appears as fundamentally different from using FWPs before the pandemic, and therefore has different effects on employees' behaviors.

Lastly, this survey is performed in an Italian family firm, which is a distinguishable type of organization, as compared to non-family firms (Chrisman et al., 2005). As confirmed by the two other empirical studies conducted for the purposes of this PhD thesis, the family business context features some particular characteristics, such as agent-like behaviors of the managers (Christman et al., 2007; Neckebrouk et al., 2018) which may downplay the effect of the work-family initiatives on innovation. Further to the findings of the two empirical papers, we consider that the fact that the survey has been conducted in a family firm plays an important role in the overall findings of this research.

Our research contributes to the intrapreneurship debate, by discussing the influence of FWPs, affective commitment, and POS on EI, in times of pandemic. It suggests that an increased use of FWPs decreases the likelihood of employees to engage in EI. This effect is closely related to the influence that the pandemic COVID19 had on employment relationships and working practices in general (Delfino et al., 2021). Furthermore, it advances the understanding of the role of affective commitment and suggests that even during difficult times of the pandemic, the affective commitment is very important because it enables employees to not detach from the firm, but to rather turn towards internal processes and identify more with the firm. Lastly, it suggests that in times of pandemic, POS of employees using FWPs strengthens the affective commitment, but does not change the overall negative effect of the use of FWPs on EI.

Our study has, however, a few limitations. First, our data is cross-sectional, and a follow-up survey may contribute to reaching firm conclusions on the causal relationship and understanding whether the negative relationship is indeed due to the pandemic or if there might be other underlying reasons through which they may be explained. Second, the survey is conducted in a single company, which may be limited to achieving an overall conclusion regarding the effects of the pandemic. To generalize conclusions, future researchers may conduct a survey that will cover more companies, and especially more than one sector. Third, the study is limited to the Italian context. Considering that Italy was the first country to be hit by the pandemic, this fact may influence the results, therefore conducting research that covers more countries may help future researchers to obtain more generalizable conclusions. Fourth, in our research, we consider FWPs as a bundle, treating flexible working time and flexible working place together and equally. Considering the effect of each practice separately may have a different effect on EI and therefore, may bring future researchers more precise insights on which practice influences EI and why. Lastly, the bootstrap technique revealed that the confidence interval of both tests includes zero. We consider the result of these tests with caution because our sample is limited in size and our variables are created from factor analysis, which may interfere with the reliability of the bootstrapping method. However, given the results, we call for future research to consider other existing methods to test the second and third hypotheses and to provide further contributions to the reliability of the data.

This research also has a few practical implications. Understanding how and under which circumstances the use of FWPs affects EI has the potential to enable managers and executives to manage employees better, which is crucial for corporate entrepreneurship. Our research offers a perspective that is radically different from that of the usual approach to FWPs used in organizations, according to which FWPs lead to improved productivity, job satisfaction, or other positive outcomes for the employees. While managers could consider the positive role of nurturing affective commitment for their employees, offering FWPs and organizational support should be done with caution and especially by considering the circumstances in which they are offered.

CHAPTER 4

ARE WORK-FAMILY INITIATIVES AN ASSET OR A LIABILITY? A SIGNALING PERSPECTIVE ON FAMILY AND NON FAMILY SMEs

Abstract
This study uses survey-based data from manufacturing SMEs in Northern Italy to test whether the adoption of work-family initiatives (formal and voluntary actions undertaken by a firm to support the work-life balance of its employees, WFIs), affects the likelihood of an SME to innovate and whether this is contingent to family control on the firm. Our results support the view of SMEs as firms in which the adoption of WFIs, a type of signal of owners' commitment towards their employees, is crucial to foster innovation. However, this is the case only when WFIs are extensively adopted (i.e., more than one initiative). Our results also indicate that the effect of WFIs on innovation outputs is reduced in family SMEs compared to non-family SMEs, which might indicate an agency- rather than stewardship-like organizational culture.

Keywords: work-family initiatives, innovation, signaling theory, small and medium-sized firms, family control

Introduction

The importance of innovation for SMEs has been well documented in the literature (Acs and Audretsch 1988, 1990; Rothwell 1989; Nooteboom, 1994; Hall et al., 2009; Triguero et al., 2014; Radicic et al., 2020). Within this literature, the ability of SMEs to leverage human resources to innovate has proven to be one of their main challenges (Madrid-Guijarro et al., 2009; Strobel and Kratzer, 2017; Adla et al., 2019). This has been explained by extant works through several reasons, such as employees' limited skills and expertise (Larsen and Lewis, 2007; Adla et al., 2019), lack of training or qualifications (Tourigny and Le, 2004; Adla et al., 2019) or weak management commitment to innovation (Madrid-Guijarro et al., 2009). Yet, to improve their innovation outcomes, SMEs cannot forego unleashing the potential of their workforce, because the individual voice of the employees matters in SMEs even more in comparison to large companies (Muse et al., 2005). We suggest that one possible way to support SMEs' likelihood to innovate is by supporting the employees' potential through the adoption of work-family initiatives (WFIs hereafter), defined as formal and voluntary actions undertaken by a firm to support work-life balance of the employees and to reduce work–family conflict (Rau and Hyland, 2002; Chou and Cheung, 2013; Ko et al., 2013), is

While only recently the literature has started exploring the effect of WFIs on innovation in large firms (Wei et al., 2020), it remains quite silent whether they might ultimately lead to innovation in SMEs. This is a matter of importance because employees in SMEs might differently react to the adoption of WFIs, compared to what might happen in large firms. For example, SMEs are known for having limited resources (De Massis et al., 2018). Because of this, an investment in WFIs by an SME can have a stronger symbolic and emotional value for the employees, and hence make a greater impact on their contribution to firm innovation. On the other hand, it is not obvious whether SMEs represent an organizational context where employees might respond more favorably to their employer's care, so to yield organizational performance, such as innovation output. For example, SMEs are known for adopting organizational practices in informal ways (including some WFIs arrangements). While this facilitates open communication and creates a "family atmosphere" that is beneficial for employees (Wilikinson, 1999) and may thus support employee's contribution to innovation, in a small firm it can also lead, for example, to overexposure of employees personal preoccupations and thus trigger some side-effects of the WFIs, such as stigmatizing employees that use WFIs (Perrigino et al., 2018).

SMEs are of further interest to this topic because, due to their size, typically, the owners are heavily involved in the management processes (Bennedzen and Wolfenzon, 2000). Since most SMEs are family-controlled (Memili et al., 2015; Valenza et al., 2021), the involvement of the family owners in these firms is of crucial importance for the firm outcomes (Chrisman et al., 2012) and in particular for innovation (Carney, 2005; De Massis et al., 2013; Chrisman et al., 2015; De Massis et al., 2015). Indeed, family business researchers claim that the involvement of the family in the firm can lead to a specific organizational culture that affects firm behaviors (Chrisman et al., 2005; Chrisman et al., 2007; Eddleston et al., 2012). Having in mind such particularity of family firms and in particular of family SMEs (Miller et al., 2008), it remains to be understood whether the effect of the adoption of WFIs on innovation output differs between family and non-family SMEs.

We address these open issues by investigating *whether the adoption of WFIs by SMEs is associated with the likelihood to innovate and if this differs between family and non-family SMEs*. Borrowing from signaling theory and in line with the existing debate on WFIs, we argue that – by adopting work-family initiatives – the firm sends their employees a signal regarding the values and the philosophy of the organization (Pfeffer, 1981; Casper and Harris, 2008; Butts et al., 2013). We further hypothesize that the employees who receive such a signal develop rather positive work attitudes such as job satisfaction or affective commitment toward the firm. In turn, by leveraging on the intrapreneurship literature, we claim that such positive work attitudes are likely to contribute to a firm's innovation (Eisenberger et al., 1990; Shipton et al., 2005; Tsai and Huang, 2019). Finally, we assume that in the context of family SMEs, the positive work attitudes resulting from the adoption of WFIs will be further strengthened by the stewardship culture nurtured by family owners, because such culture implies a strong engagement towards the employees (Milleret al., 2008; Fiamini et al., 2021). Because of this, we theorize that family SMEs that adopt WFIs will be more likely to innovate than non-family SMEs that adopt WFIs.

To test our hypotheses, we take advantage of survey data from a sample of 211 manufacturing SMEs in Northern Italy. Our results reveal that the adoption of WFIs, measured dichotomously (adoption versus non-adoption), does not affect the likelihood of a firm to obtain product or process innovation. Instead, the analysis reveals the need to further understand the role of the strength of the signal sent to employees, i.e. the extent of adoption of WFIs. In fact, in our sample, innovation is more likely to happen in SMEs that adopt more than one WFIs, in comparison to those that adopt only one initiative or merely intend to do so in the future. Furthermore, and contrary to what was hypothesized, we find that the effect of WFIs on innovation is reduced in family SMEs compared to non-family SMEs, both when the mere adoption of WFIs and the extent of such adoption are considered.

Our research offers two main contributions. First, it adds to the debate on employee management and innovation in the context of SMEs (Shipton et al., 2005; Rasheed et al., 2017). In line with the basic tenets of signaling theory, this research shows that the link between the adoption of WFIs and innovation in SMEs does exist and that it differs among types of SMEs (e.g., family and non-family); as such, it deserves more scholarly attention. Moreover, the originality of our contribution lies in the finding that for the signal to be "heard" by the employees in SMEs, it needs to be sent with a certain frequency (Connelly et al., 2011; Janney and Folta, 2003). Put differently, to unleash the creative potential of their employees, SMEs need to make strong efforts and send convincing signals to effectively communicate their message of care to the employees. Second, it contributes to the debate on the role of human capital in innovation in family SMEs by suggesting that family governance matters. We interpret our results by arguing that there are certain contingencies in family SMEs, such as agency alike behaviors, which can prevail and overshadow the influence that the signal of adopting WFIs otherwise has on innovation (Carney, 2005). In conclusion, our findings suggest that the adoption of WFIs is a "double-edged sword" that can both improve or diminish the engagement in innovation in family and non-family SMEs and that, as such, deserves further scholarly attention.

Theory and hypothesis development

In general, innovation refers to identifying and using opportunities to create new products or processes (Acs and Audretsch, 1988). Previous studies have largely dealt with innovation in SMEs (Acs and Audretsch, 1990; Rothwell 1989; Nooteboom 1994; O'Regan and Ghobaian, 2005; Triguero et al., 2014), which is understandable, given the prevalence of SMEs in the leading economies (Classen et al., 2014). Engaging in innovation is crucial for SMEs for many reasons, above all to build and maintain a competitive advantage, and to face pressures from both local and international competitors (Woschke et al., 2017).

Since innovation requires the active participation of the employees in the firm (Van de Ven, 1986; Dougherty, 1992), firms try to foster the contribution of their employees in the innovation process in different ways, for example, by implementing employee equity incentives (Chang et al., 2015) or by improving employees' working conditions (Chen et al., 2016). This is particularly relevant for SMEs, where, because of the limited workforce, their voice counts to a higher degree (Muse et al., 2005).

Innovation in SMEs: The role of WFIs

WFIs are "deliberate organizational changes in policies, practices, or the target culture that intend to reduce work–family conflict and/or support employees' lives outside of work" (Kelly et al., 2008: 310). They are designed to help employees manage the interface between their paid work and other important life activities, including family (Lobel et al., 1999), and to help organizations attain their goals by facilitating employees' fulfillment of their professional responsibilities (Bourdeau et al., 2019). WFIs such as leave policies, flexible work arrangements, and health and well-being benefits for employees, to name a few, have been broadly explored in the management literature in the past few decades (Goodstein, 1994; Osterman, 1995; Milliken et al., 1998; Arthur, 2003; Bloom et al., 2011; Bourdeau et al., 2019). Apart from attracting scholars, the relevance of the WFIs is also confirmed practicewise. Within the European Union, for example, the European Quality of Life Survey from 2016 shows that many families in the European Union struggle to effectively balance their professional and domestic responsibilities. In response to such issues, but also to growing public pressure, many firms are required to take action to improve the work-life balance of their employees. According to the report on *Reconciliation of work, family, and private life in the European Union: Policy review*, published in 2013 by the European Institute for Gender Equality, the European Union itself actively encourages changes in the environment, structure, and organization of work to enhance work-family balance, such as incentivizing parental leave, childcare, or flexible working hours, just to name few.

Empirical research reports both positive and negative effects of WFIs on individual and organizational performance. Some of the positive aspects include better learning capacity and creativity of the employees (James, 2014), improved employee commitment (Grover and Crooker, 1995), better job satisfaction (Ko et al., 2013), and improved organizational performance (Perry-Smith and Blum, 2000). Yet, the literature also indicates that WFIs can lead to some negative effects on employees' behaviors, such as stigmatizing employees that use WFIs (Perrigino et al., 2018), or reduced work productivity due to a feeling of overprotection (Bradley et al., 2017).

Despite the increasing interest in WFIs across all types of firms, the literature on WFIs in SMEs remains quite limited. This lack of knowledge is quite surprising if we consider the key role of human resources in SMEs' success (Deshpande and Golhar, 1994). From the emerging and recent literature, it appears that, because of a general lack of resources and formalized human resource practices, compared to large firms, SMEs tend to adopt WFIs to a lower extent or to not formalize such adoption at all (Lavoie, 2004; Adame-Sanchez and Miquel-Romero, 2012). However, the few studies on the topic report that undertaking work-family actions toward employees, such as providing a fair rewards system, investing in training and development, or offering competitive compensations can have positive impacts on SMEs' performance (Muse et al., 2005). Central to this literature is the concept of *adoption* of the WFIs, i.e., the integration of WFIs in the firm to be offered to the employees, which affects their perception of the firm's support and care towards their non-professional preoccupations (Butts et al., 2013). In line with previous studies (Kossek, 2006; Beauregard and Henry, 2009; Butts et al., 2013), we look at an SME's adoption of WFIs as a *signal* used to unleash the potential of their employees.

Signaling theory

Signaling theory was first introduced by Spence (1978) and was initially used by labor market scholars, for example, to explain how employees use their education as a signal to attract employers. More recently, signaling theory widely spread to other fields such as strategic management, finance, entrepreneurship, and psychology (Connelly et al., 2011). According to signaling theory, individuals interpret an organization's observable actions as signals of less observable firm characteristics, by forming impressions about the philosophy and the culture of the firm (Goldberg and Allen, 2008). The signaling theory explains how an information asymmetry can be reduced between two interested parties (e.g., firm principals on one side and employees on the other). As such, the theory builds on five main elements: a *signaler* (person or firm, the entity that sends the signal) sends a *signal* (actions insiders take to intentionally communicate positive, imperceptible qualities of the insider, that should be observable and costly) to a *receiver* (the entity to which the signal is addressed). Once the signal is sent from the signaler to the receiver, upon signal *reception*, the receiver reacts with feedback (Connelly et al., 2011). As Connelly and colleagues further state, signaling theory has been mainly applied in studies that deal with signals sent toward entities outside of the organization (e.g., investors, clients, or job candidates). However, various studies show that it can be also applied to studies that deal with internal signals, to explain how intraorganizational actions influence employees' attitudes. For example, Suazo et al., (2009) apply signaling theory to explain how, when a firm sends a signal to its employees (e.g., allocation of funds to training), it intends to communicate to its employees an otherwise unobservable characteristic, such as commitment to long-term employment.

Signaling theory has also been applied to SMEs, to explain various phenomena. For example, Huettermann and Bruch (2019) used signaling theory to explain the positive relationship between health-related human resource management practices and company performance. Also, just recently, Shahzad et al., (2022) referred to signaling theory to explain how entrepreneurial orientation in SMEs predicts innovation performance through human resource management practices.

WFIs as a signal for innovation in SMEs

The literature has already shown that the adoption of WFIs by firms helps attract and retain employees and improve their work attitudes (Kossek and Friede, 2006). Indeed, through the adoption of WFIs as an action that is beyond the basic legal requirements and is voluntarily adopted by the firm, the firm signals to the employees that they matter and that the firm cares about their concerns, even outside of their strict professional domains. When firms make WFIs available to employees, the employees, in turn, interpret this as a signal that their organization is supportive of their family life. Such a signal enacts positive work attitudes, such as job satisfaction or affective commitment (Grover and Crooker, 1995; Casper and Harris, 2008; Butts et al., 2013). Job satisfaction is an internal state expressed by the affective and/or cognitive evaluation of job experience (Brief, 1998), while affective commitment is a favorable emotional state resulting from the employee’s emotional attachment to the organization (Meyer and Allen, 1990; Ahmad et al., 2012). Both job satisfaction and affective commitment have been related to innovation by previous studies (Pierce and Delbecq, 1977; George and Brief, 1992; Lee and Hong, 2011, Chen et al., 2016). The causal relationship between those two work attitudes and the likelihood that the firm successfully introduces a product or process innovation can be explained by a few arguments. First, employees with high job satisfaction are proven to be more self-confident and as such interact more with their surroundings, which is crucial for promoting innovation, especially through the exchange of ideas and experience (Xerri, 2014). Second, employees who are satisfied with their jobs and are committed to the organization, are ready to "go the extra mile" in terms of fulfilling their work duties or coming up with creative ideas, when necessary (Akehurst et al., 2009). According to George and Brief (1992), when employees feel more satisfied and more committed, they tend to help each other more, protect more the organization, tend to develop their competencies, and feel keener on generating suggestions for improvement. Also, according to Rose et al. (2009), if employees feel satisfied with their jobs, they will commit more and therefore will perform better. Because of that, they will look for various methods to improve their work and will be more able and open to generating and accepting new, innovative ideas. Given the arguments from the above-cited studies and considering the symbolic and emotional value of adopting WFIs in SMEs, we argue that the signal generated by the adoption of WFIs in SMEs would be particularly effective for improving job satisfaction and affective commitment; these, in turn, will help the company lowering the barriers and costs that usually hinder innovation in SMEs (Torres de Oliveira et al., 2022) and thus positively affect the likelihood to obtain innovation. Therefore, we hypothesize that:

> *Hypothesis 1: The adoption of WFIs in SMEs is positively associated with the likelihood to innovate.*

The contingent effect of family control

The context of the SMEs is important because, in these firms, owners are typically involved in management processes (Bennedsen and Wolfenzon, 2000), have a more immediate relationship with the employees, and therefore may influence firm outcomes through influencing the work attitudes of the employees. Since most SMEs are family-controlled (Memili et al., 2015; Valenza et al., 2021), the involvement of the family owners in these firms is of crucial importance for the firm outcomes (Chrisman et al., 2012). Because family owners identify more strongly with the firm, they are also more willing and able to influence its organizational culture (Miller et al., 2008). Hence, it is of further interest to explore whether family SMEs that adopt WFIs affect employees' work attitudes differently, so that in turn, those differently affect innovation.

A family firm, as defined by Chua, Chrisman, and Sharma (1999: 25), is "a business governed and/or managed with an intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families". In general, family firms can nurture either agency behaviors driven by self-interest or a stewardship-alike organizational culture, driven by devotion and emotional attachment (Neckebrouck et al., 2018; Fiamini et al., 2021). However, as claimed by Miller et al. (2008) and Fiamini et al., (2021), typically, in family SMEs a stewardship-alike culture is more frequently seen.

According to the stewardship theory, the behavior of the steward is collectivist by nature. The steward strives to achieve the objectives of the organization and to protect and maximize shareholders' wealth through firm performance because, by doing so, the steward's utility functions are maximized (Davis et al., 1997). In family SMEs, family members tend to adopt stewardship-like behaviors manifested through devotion to the continuity of the firm, striving for closer connections with customers to sustain the business, and building a strong community of employees (Miller et al., 2008). This latter dimension of "spillover" of the stewardship culture from the family members to all employees, can even be a source of competitive advantage of the family SMEs against their non-family counterparts, because by nurturing such a culture, employees feel as part of the same team and are therefore willing to make increasing efforts, by seeking common objectives and benefits for all (Vallejo, 2008). In other words, the stewardship culture translates into a sense of community and support, which affects employees in such a way that they become more motivated and loyal to keep the firm healthy and to improve prospects for its future (Goffee and Scase, 1985).

In our first hypothesis, we argued that WFIs have a positive effect on the likelihood of a firm to innovate because the employees develop positive work attitudes, which, in turn, support innovation. Given that, as explained above, family SMEs foster a stewardship culture more than non-family SMEs (Miller et al., 2008), the positive work attitudes, such as satisfaction with the job and more commitment and loyalty towards the firm signaled by the adopting of WFIs are expected to be stronger in a family SMEs. Namely, we argue that the adoption of WFIs in a family SME, compared to a non-family SME, will generate stronger positive work attitudes, because of the fertile ground prepared by the stewardship culture, i.e., when individuals identify with their organization, they engage more easily in work behaviors that support the firm interest, and not only their own (Sieger et al., 2013; Jaskiewicz and Dyer, 2017). Having stronger positive work attitudes, we assume that employees will be motivated to help each other even more, will be willing to protect more the organization, and will feel more engaged in generating suggestions for improvement (George and Brief, 1992). Therefore, the previously discussed positive effect of work attitudes on the likelihood to innovate is expected to be stronger in family SMEs. In non-family SMEs, instead, stewardship behavior is less likely to manifest and employees might be less likely to strive to achieve the objectives of the organization. We thus assume that non-family SMEs represent a less fertile ground to turn the positive work attitudes generated by the adoption of WFIs into innovation output. Based on these arguments we frame our second hypothesis as follows:

Hypothesis 2: Family control positively moderates the relationship between WFIs and innovation in SMEs, in such a way that the adoption of WFIs is more strongly associated with the likelihood to innovate in family SMEs than in non-family SMEs.

Data and method

Sample and data description

This study is based on a sample of manufacturing SMEs from the Lombardy region, Italy. In this study, we analyze the WFIs through the *employee welfare*[2] a widespread form of employee support in Italy, which refers to a set of benefits that a company makes available to its employees and their families to improve their private and working life (Ciarini and Lucciarini, 2015). This form of employee support is chosen for this research for conceptual and contextual reasons. Conceptually, it overlaps with the definition of WFIs, defined as deliberate organizational changes in policies, practices, or the target culture that intend to reduce work–family conflict and/or support employees' lives outside of work" (Kelly et al., 2008, p.310). Contextually, because it is a widespread form of employee support in Italy, introduced in the regulation in 1986 (TUIR, Legge 22 dicembre 1986, n. 917). However, as in other countries, it has been primarily used by large firms. To facilitate its application in SMEs, in 2016 the Italian government has introduced new measures, through the Stability Law, which incentivizes firms that offer this form of support to their employees. It is since 2016 that "welfare aziendale" gained increased attention in Italy, with a significant rise in SMEs introducing it, as stated in the "*Rapporto Welfare Aziendale PMI",* published by the Italian bank Generali in 2019.

The data for this research is extracted from a survey jointly performed by an Italian bank and a firms' association in 2018. The method for data collection was computer-assisted telephone interviews. This survey was then complemented with a second survey, conducted in

[2] Italian: *welfare aziendale*

2020 (designed by the authors and executed in collaboration with the bank) through which additional data were collected on family ownership, family involvement in management, and governance for the subsample of family firms. The collected information refers to the period from 2015 to 2017. The survey has been conducted on a sample of nearly 1,000 firms, with a response rate of 25%. Large firms were eliminated from the sample of interest to ensure the focus on SMEs. The final sample consists of 211 SMEs.

Variables and measures

Dependent variable. Similar to previous studies (Manu, 1992; Bocquet et al., 2013; Andries and Charnitzki, 2014) we consider a firm as likely to innovate if it has introduced a new product or a new process, based on the following question: “Has your firm introduced an innovative product or an innovative process in the last three years?” Based on this information, we measured whether a firm has engaged in innovation or not by developing a dummy variable *Innovation*, which scores 1 for firms that have introduced either an innovative product or an innovative process.

Independent variable. To measure the adoption of WFIs, firms were asked whether they have adopted “*welfare aziendale*” with possibilities to answer either (1) “no, and we do not intend to do so”; (2) “no, but we intend to do so” (3) “yes” and (4) “I do not know what *welfare aziendale* is”. Our independent variable “*Adoption of WFIs*” is a dummy variable that scores 1 for the firms that have adopted WFIs (answers equal to (3) “yes”) and 0 otherwise.

Moderating variables. We use two dimensions to capture whether a firm is a family SME: (a) the ownership shares and (b) the presence of family members in management positions in the firm (Chrisman et al., 2012; Werner et al., 2018). Both dimensions are self-reported by the respondent of the survey. As for the ownership share, even though different studies adopt different threshold levels of family ownership, most family business scholars agree that the family must be the dominant coalition within the firm with authority over corporate decision-making (Chua et al., 1999; Chrisman et al., 2005). While among large and publicly traded companies, a threshold of 5-10% is considered, studies on SMEs require a family to hold the majority of the shares to be considered a family business (Gomez-Meija et al., 2011; Memili et al., 2015; Classen et al., 2014). Therefore, in line with these authors, we consider only firms in which a family owns more than 50% of the firm shares. As for the second dimension, we checked whether family members occupy management positions in the firm. To build our moderating variable *Family SMEs*, we created a dummy variable that scores 1 for firms that own more than 50% of the shares and that have at least one family member in managerial positions.

Control variables. Given the significant impact that certain factors have on innovation and to identify the marginal effect of WFIs avoiding confounding effects, we adopt a set of control variables. Firm capabilities are crucial to its long-term success and innovative performance (Teece et al., 1997); therefore, solid knowledge usually developed by investing in RandD capacity is crucial (Cohen and Levinthal, 1990; Chen et al., 2016). Because of this, we control for the R&D activities of the firm, by introducing a variable that captures the intention of the firm to accentuate the R&D Department (*R&D Intention*) – a dummy variable that indicates whether the firm has decided to put strategic emphasis on the R&D department in the next 3 years. In addition to the R&D activities and given that the R&D activities cannot capture all innovation efforts, especially for small firms (Mairesse and Mohnen, 2010), similar to the approach of Bocquet et al. (2013), we control our model for the percentage of skilled employees (*Graduates*) – a dummy variable which indicates whether at least 10% of the personnel has a university degree, as a proxy for the quality of human capital, that might affect the percentage of personnel dedicated to innovation. As for the importance of the firm to create a team of well-trained personnel (Cohen and Levinthal, 1990), first, we control the model for the engagement of the firm in regular training activities (*Trainings*) – a dummy variable which indicates whether the firm regularly offers training activities in the domains of environmental sustainability, use of software and digital devices, e-commerce and digital marketing, cyber security, technologies 4.0, technical competencies from the sector. Jaruzelski and Dehoff (2008) find that the level of innovation is different across industries. Hence, we include two industry-related control variables. First, we create a dummy that indicates whether the firm is performing activities classified into 3 main categories: Food, Clothes, and Home Interior (*MadeInItaly1*), and a second dummy that controls for automation industry activity (*MadeInItaly2*). In addition, literature shows that firm size also likely matters in terms of innovation (Russo and Fouts, 1997; Wagner, 2010), because even though large firms have the resources to invest in technological activities and exploit external opportunities, smaller ones can also be very innovative (Dougherty and Cohen, 1995). To control for size, we created a dummy variable (*MicroFirm*) which includes firms with a turnover of up to 2M EUR. We also controlled for two additional variables, since they were also found to be significant for innovation by previous studies: *Business Plan* – a dummy variable that indicates whether the firm has a long-term business plan in place (Upton et al., 2001) and *External Managers* – an intention of the firm to engage external managers in the future (Colombo et al., 2014). The summary of the main variables used for this study is provided in Table 1.

Results

Table 1 provides descriptive statistics and a correlation matrix of the variables included in our model.

Table 1
Means, standard deviations, and correlations for all variables

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Innovation	0.872	0.335	1.00													
2. Adoption_of_WFIs	0.308	0.463	0.07	1.00												
3. Intentional_Adoption	0.246	0.432	0.12	-0.38*	1.00											
4. Low_Ext	0.147	0.355	-0.04	0.62*	-0.24*	1.00										
5. High_Ext	0.161	0.369	0.13	0.66*	-0.25*	-0.18*	1.00									
6. Family SME	0.325	0.470	0.02	-0.00	0.05	-0.03	0.03	1.00								
7. Graduates	0.185	0.389	-0.00	0.13	0.07	0.01	0.16*	0.07	1.00							
8. R&D_Intention	0.389	0.489	0.19*	0.06	0.04	0.05	0.02	0.06	0.12	1.00						
9. Micro_Firm	0.346	0.477	-0.08	-0.12	0.00	-0.05	-0.10	-0.14*	-0.04	-0.13	1.00					
10. MadeInItaly1	0.237	0.426	0.01	-0.20*	0.07	-0.14*	-0.12	-0.05	-0.09	-0.01	-0.03	1.00				
11. MadeInItaly2	0.227	0.420	-0.03	0.10	-0.07	0.06	0.07	0.06	0.12	0.05	0.01	-0.30*	1.00			
12. Business_Plan	0.190	0.393	0.15*	0.20*	-0.05	0.17*	0.08	0.10	0.08	0.26*	-0.25*	-0.01	0.03	1.00		
13. External_Managers	0.275	0.448	0.11	0.05	0.07	-0.08	0.13	0.15*	0.06	0.18*	-0.16*	0.01	0.07	0.14*	1.00	
14. Trainings	0.540	0.500	0.07	0.06	-0.00	-0.10	0.17*	0.05	0.02	-0.01	-0.05	-0.13	0.09	0.06	0.14*	1.00

Note: * $p<0.05$

In the sample of interest, 34% of companies are micro firms, 47% are small firms and 18% are medium-sized firms, while family SMEs represent 33% of the total sample. Overall, 38% of the firms reported that they have *not adopted*, nor have the intention to adopt WFIs; 25% reported they have not adopted WFIs *but intend to*; 31% answered that they have *adopted* WFIs and 7% reported that they *do not know* what WFIs are. Concerning the dependent variable, 73% of the firms engaged in innovation in the 2015-2017 period. Out of them (155 firms), 98 of them engaged in the innovation of products, 106 engaged in the innovation of process, and 49 engaged both in product and process innovation[3].

Considering the binary nature of our dependent variable, to test our model, we use a logistic regression model (Wong et al., 2008). Concerning the first hypothesis, our results show that the adoption of WFIs is not significantly associated with innovation ($p>0.05$), i.e., we do not find support for Hypothesis 1 (See Table 2).

[3] The total number of firms engaging in innovation does not add up to 155 since the question allowed a multiple-choice answer.

Table 2
Effect of Adoption of WFIs on Innovation

Variables	Innovation
Adoption_of_WFIs	0.538
	(0.384)
Graduates	-0.0949
	(0.428)
R&D_Intention	0.660*
	(0.364)
Micro_Firm	-0.540
	(0.340)
MadeInItaly1	0.555
	(0.430)
MadeInItaly2	-0.105
	(0.395)
BusinessPlan	0.195
	(0.489)
External_Managers	-0.0562
	(0.382)
Trainings	-0.0771
	(0.329)
Constant	0.791**
	(0.371)
Observations	211

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

Concerning our second hypothesis, after introducing the Family SMEs as a moderating variable, first, the direct effect of WFIs becomes positive and statistically significant (coeff. 1.412; $p<0.05$), i.e., the adoption of WFIs in SMEs significantly affects their likelihood to engage in innovation. However, contrary to Hypothesis 2, as shown in Table 3, the interaction effect is negative, i.e., family SMEs that adopt WFIs are less likely to innovate than non-family SMEs (coeff. -2.141; $p<0.05$).

Table 3
Moderating effect of family SMEs
on the relationship between the adoption of WFIs on Innovation

Variables	Innovation
Adoption_of_WFIs	1.412**
	(0.549)
Adoption_of_WFIxFamily_SME	-2.141***
	(0.810)
Family_SME	0.269
	(0.419)
Graduates	-0.148
	(0.444)
R&D_Intention	0.666*
	(0.371)
Micro_Firm	-0.614*
	(0.354)
MadeInItaly1	0.684
	(0.434)
MadeInItaly2	-0.0172
	(0.407)
Business_Plan	0.202
	(0.505)
External_Managers	0.00319
	(0.393)
Trainings	0.0766
	(0.343)
Constant	0.575
	(0.404)
Observations	209

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

Endogeneity check

Since both the adoption of WFIs and innovation can be affected by unobservable factors, we check for potential endogeneity concerns by introducing an instrumental variable (Bascle, 2008), using a two-stage modeling approach. As discussed by Kennedy (2008), to be eligible as instruments, variables need to be significantly correlated with the potentially endogenous variable (hereby "Adoption of WFIs"), but not with the dependent variable (hereby "Innovation"). A variable that meets these conditions is *Welfare Fiscal Advantages*, a dummy variable that scores 1 for firms that declare to be aware of the fiscal advantages for introducing "*welfare aziendale*", and 0 otherwise. By using this instrumental variable, we apply two-stage least squares estimators and compute the Durbin-Wu-Hausman chi-square test and Wu-Hausman F-test.5 Since both are not significant (p>0.05), we could not reject the null hypothesis that the variable *Adoption of WFIs* is exogenous, thereby mitigating the endogeneity concerns.

Post-hoc analysis

Given the non-significant results revealed from testing our first hypothesis, we investigated our model from other possible angles, by performing a few additional tests. In line with the signaling theory, the signal efficiency may further increase or decrease, depending on the signal frequency (Connelly et al., 2011; Janney and Folta, 2003). If this is so, then the greater the extent of adoption of WFIs offered by the firm, the more positive work attitudes it should be expected to generate. This implies that if the firm offers a substantial number of WFIs, employees will receive a stronger signal and will respond more favorably, by developing stronger job satisfaction and by being even more committed to their work. This argument, which resonates with some preliminary findings available in the literature (Arthur, 2003; Casper and Buffardi, 2004; Butts et al., 2013), might suggest that the extent of adoption matters. If the firm adopts more than one work–family initiative, it might send a stronger signal of concern, which could result in more positive work attitudes. In turn, the more satisfied and committed employees are, the more they can help each other, and the more they might be willing to protect the organization, develop their competencies, and generate suggestions for improvement. As a result, they may contribute more to the firm's engagement in innovation. Hence, we tried to disentangle different cases of WFIs adoption, with different degrees of extent. To test this, we reconstructed our dependent variable into three more nuanced independent variables that capture incremental degrees of engagement toward the adoption of WFIs. The variable "*Intentional Adoption*" is derived from the question indicated in the section above. It is a dummy variable, that considers only firms that do not have adopted WFIs but have an intention to do so (i.e., it includes answers under option (2)). The other two variables are based on the number of WFIs adopted. To do this, similar to the measure used by Osterman (1995), we considered the number of adopted initiatives based on the following question: Could you indicate in which areas your firm proposes welfare practices? (the full list of initiatives is given in Appendix 1). Based on this question, we create two independent dummy variables that grasp two levels of adoption extensiveness of "welfare aziendale": *Low Adoption Extensiveness* (*LowExt*) – a dummy variable that takes the value of 1 for firms that have adopted only one initiative and 0 otherwise – and *High Adoption Extensiveness* (*HighExt*) – a dummy variable that takes the value of 1 for firms that have introduced more than one initiative and 0 otherwise.

The results obtained from this post hoc analysis are reported, for both main and moderation effects, in Tables 4 and 5, and bring a new light on the tested hypothesis. Namely, our analysis shows that the effect of WFIs on innovation does not simply depend on the adoption per se, but rather on the extent of adoption of these initiatives. While compared to "*No Adoption*" (baseline case), the effects of the "*Intentional Adoption*" and "*Low Adoption Extensiveness"* of WFIs on the likelihood of innovation are not significant, we found that the "*High Adoption Extensiveness*" of WFIs significantly increases the likelihood of SMEs to engage in innovation (Table 4).

Table 4

Effect of the Extent of Adoption of WFIs on Innovation

Variables	**Innovation**
Intentional_Adoption	0.632
	(0.419)
Low_Ext	0.533
	(0.511)
High_Ext	0.978*
	(0.538)
Graduates	-0.233
	(0.439)
R&D_Intention	0.659*
	(0.368)
Micro_Firm	-0.526
	(0.340)
MadeInItaly1	0.559
	(0.432)
MadeInItaly2	-0.0507
	(0.399)
Business_Plan	0.219
	(0.493)
External_Managers	-0.1000
	(0.388)
Trainings	-0.122
	(0.337)
Constant	0.621
	(0.391)
Observations	211

Standard errors in parentheses

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

Table 5
Moderating effect of family SMEs
on the relationship between the extent of adoption of WFIs on Innovation

Variables	**Innovation**
Intentional_Adoption	0.787
	(0.521)
Low_Ext	1.436**
	(0.714)
High_Ext	1.952**
	(0.818)
Intentional_AdoptionxFamily_SME	-0.333
	(0.893)
Low_ExtxFamily_SME	-2.322**
	(1.094)
High_ExtxFamily_SME	-2.169*
	(1.144)
Family_SME	0.340
	(0.520)
Graduates	-0.347
	(0.469)
R&D_Intention	0.668*
	(0.377)
Micro_Firm	-0.610*
	(0.361)
MadeInItaly1	0.699
	(0.442)
MadeInItaly2	0.0758
	(0.415)
Business_Plan	0.223
	(0.509)
External_Managers	-0.0319
	(0.401)
Trainings	0.0239
	(0.352)
Constant	0.371
	(0.446)
Observations	209

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

When we introduced the three new independent variables in the moderated model (Table 5), unlike the Intentional Adoption, both the Low and the High Adoption Extensiveness appeared as statistically significant when moderated with the variable "*Family SME*". The results are overall consistent with what we found above regarding Hypothesis 2, because the obtained coefficients are again negative, which confirms that even in the case of extensive adoption, the moderating effect of being a family firm downplays the previously established positive effect of WFIs on innovation. The marginal effects of being a family SME as confronted with being a non-family SME is represented on the interaction plots in Figure 1, 2, and 3.

Figure 1

Interaction plot of the moderating effect of Family SMEs on the Adoption of WFIs

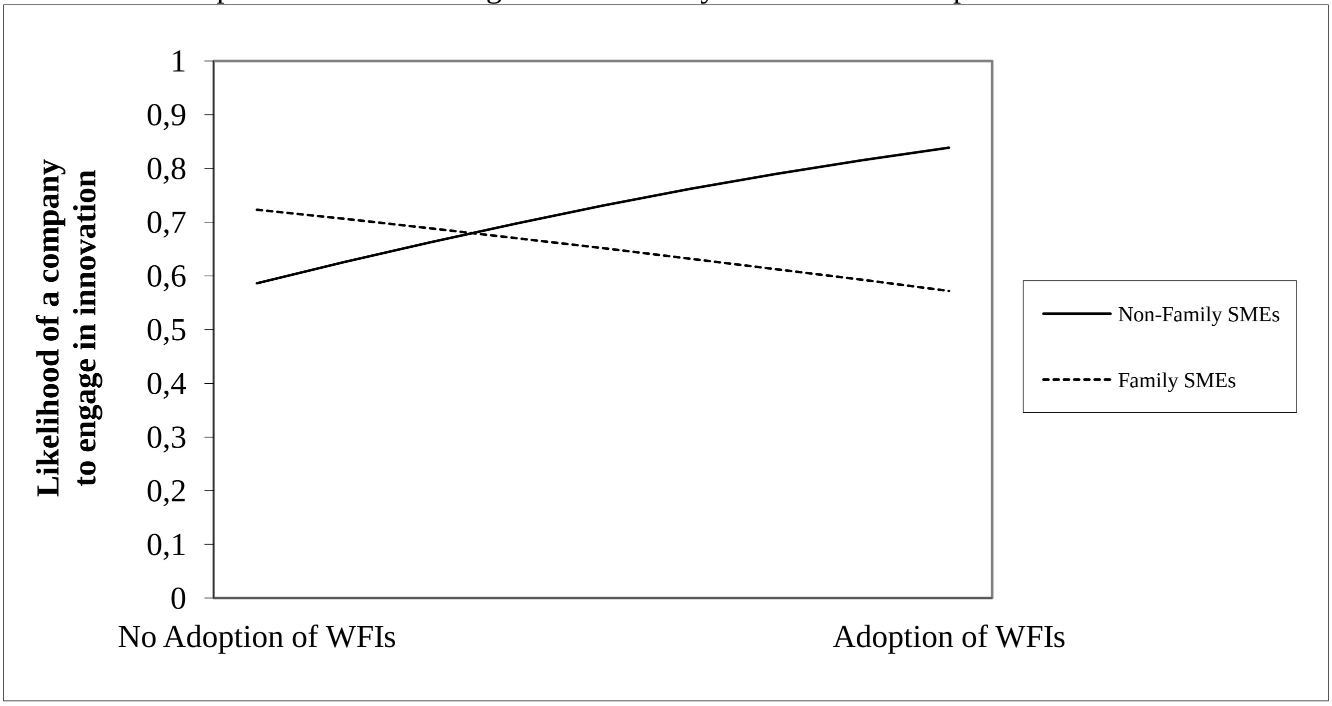


Figure 2
Interaction plot of the moderating effect of Family SMEs on
High Extension Adoption of WFIs

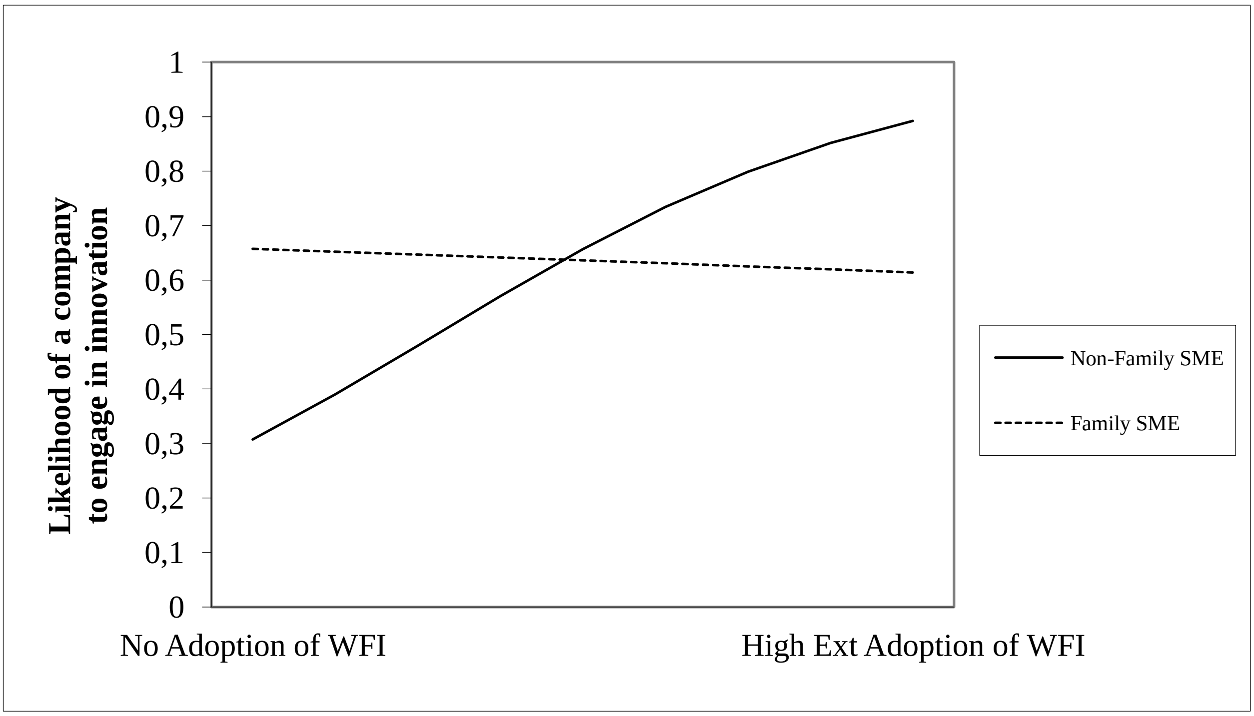
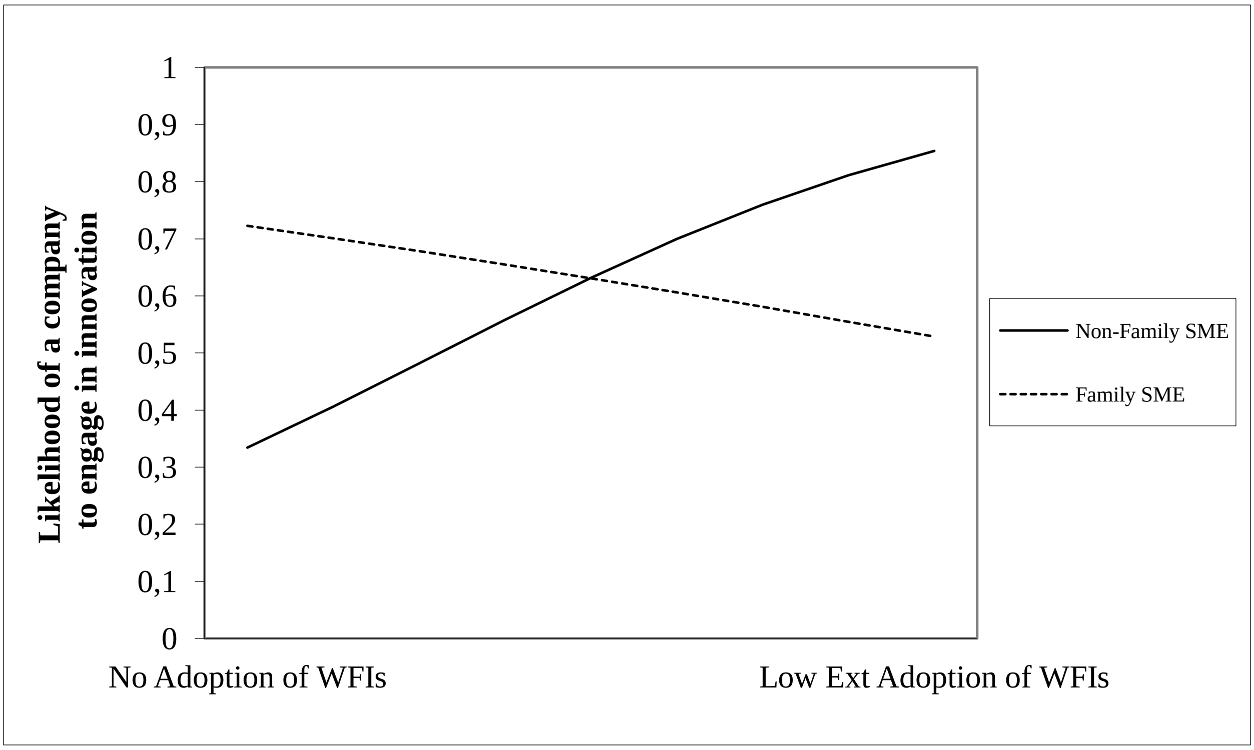


Figure 3
Interaction plot of the moderating effect of Family SMEs on
Low Extension Adoption of WFIs



Discussion and conclusion

Our results show that the effect of WFIs on innovation in SMEs is not obvious and that a nuanced approach, especially considering the extent of WFIs adoption and ownership characteristics, is needed. Our results suggest that the adoption of WFIs in SMEs, seen as a signal that a firm sends to its employees to support their positive work attitudes, *does* affect SMEs' likelihood to engage in innovation. However, our results also highlight that the adoption of WFIs matters for innovation only when a certain extent of adoption occurs. Namely, we show that SMEs can leverage the adoption of WFIs as a tool for improving innovation if they offer their employees more initiatives at a time, rather than adopting only one initiative. This is so because apart from the frequency of the signal matters particularly (Connelly et al., 2011; Janney and Folta, 2003). The adoption of one single initiative translates into a weak signal that does not reach the work attitudes of the employees to the level that would be turned into a more effective contribution to innovation. The adoption of more than one initiative, instead, translates into a strong signal that is powerful enough to direct the work attitudes of the employees towards effective contribution to innovation. This finding implies that SMEs that adopt more than one initiative are more likely to innovate. This is in line with the signaling theory, according to which, the signal efficiency may increase or decrease, depending on its frequency (Connelly et al., 2011; Janney and Folta, 2003) and is also in line with previous studies which show that the number of adopted WFIs matters and that the effect of initiatives availability is more strongly related to employee outcomes as the number of initiatives increases (Arthur, 2003; Butts et al., 2013).

Further to this, our results show that when discussing the effect of WFIs on innovation, whether the firm is a family or non-family SME is a crucial component that should be carefully considered. We expected that the stewardship culture would prevail in family SMEs because previous studies claim that a stewardship culture should prevail in SMEs with private ownership where families are having most of the shares (Miller et al., 2008). Since the family companies in our sample fit these criteria, we expected that the signal of care sent through the adoption of WFIs will flourish in an environment where stewardship alike behaviors are nurtured. Because of this, we expected that employees will be more satisfied and committed and therefore will increase the probability of the firm to engage in innovation. However, the counterintuitive results revealed from our analysis are challenging this argumentation. First, they challenge the basic assumption that family control in SMEs leads to the development of a stewardship culture. Rather the opposite, our results open the gate for a different outcome, i.e., that these companies, under certain conditions, may develop an agent-alike culture. As Schulze et al. (2001) suggest, private ownership and owner-management, especially in the case of family firms, can rather lead to agency-like behaviors. Because of the concentration of the shares in the family, the self-interest of the owners over the organization may prevail, and the benefit of the family may be, then, pursued at the expense of the benefits of the employees. This may lead to cultivating inequality and injustice among employees (Chua et al., 2009), thus decreasing motivation and satisfaction and negatively affecting employees' performance (Fiamini et al., 2021). In circumstances where the behaviors of the owners driven by self-interest, or the interest of the owning family are prevailing, the signal of offering WFIs to the employees, *per se*, regardless of its extent, is not efficient, because the agent-alike behaviors interfere and affect the work attitudes of the employees in such a way that employees are not convinced that the firm cares about their concerns, even though it offers them WFIs. Therefore, they may become less motivated to work and may develop negative work attitudes that, in turn, reduce the firm's likelihood to innovate. This can be interpreted through the characteristics of family governance (Carney, 2005). Namely, it can be argued that the reasons why the signal of care to employees in family SMEs is not effective are linked to their propensity for parsimony, personalism, and particularism (Carney, 2005). Because the family's wealth is at stake, family SMEs are even more prudent than their non-family counterparts and investments in WFIs might be conceived by family SMEs as a substitute, rather than a complement, to investments in innovation. Furthermore, the concentration of organizational authority in the hands of few family members and their tendency to view the firm as “our business” usually ends up in nepotistic behaviors. In such a situation, employees might believe that WFIs are activated to favor only family members active in the firm and not to address their personal and family-related needs, thus undermining the positive effect of WFIs on innovation outputs.

This research advances the small business, family business, and human resource literature in several ways. First, we show that an extensive adoption of WFIs in SMEs can be considered an efficient signal of care toward employees and that in turn, it increases the likelihood of the SMEs to engage in innovation. With this finding, first, we add to the small business literature, revealing the context-specific value of the adoption of WFIs in SMEs, and then to the human resource literature which explores the effect of various employee treatment strategies on firm outcomes (Shipton et al., 2005; Jiménez-Jiménez and Sanz-Valle, 2008; Chen et al., 2016; Seeck and Diehl, 2017), by pointing out the value of WFIs as a tool for improving innovation outcomes. Our main contribution, however, is the finding that the signal has the desired effect only if it is sent with a certain frequency. Namely, our analysis reveals that an SME that wants to motivate its employees through the adoption of WFIs, so that the employees provide a more efficient contribution to its innovation output, can do so only if it adopts more than one initiative. Otherwise, if they adopt only one initiative, the employees may not "hear" the signal, and may not, therefore, react. Second, even though in general, the adoption of WFIs can be indeed considered as a signal for improving innovation in SMEs, our analysis shows that the effect changes for family SMEs i.e., SMEs where the family owns most of the shares and at least one family member is involved in management positions. In such circumstances, our results reveal that the adoption of WFIs decreases the likelihood of the firm to engage in innovation. These findings shed light on the importance of the culture that owners nurture and spread to their employees and alert that the signal sent through the culture can interfere with the signal sent through the adoption of WFIs. It is therefore important for family SMEs that adopt or intend to adopt WFIs to seek other supporting mechanisms, such as a more stewardship-oriented organizational culture so that the signal sent by adopting WFIs is strong and effective enough for employees to contribute to innovation.

Our study has a few limitations which also open possibilities for future research directions. First, the sample of SMEs used for this research is limited to the manufacturing sector. Considering the adoption of WFIs in a different sector might bring up new insights because, in different sectors, the relevance of the innovation is also different, therefore the efforts of the companies to support positive work attitudes might have a different effect. Therefore, we invite future researchers to extend the empirical analysis to other industry sectors, apart from manufacturing. Second, the theoretical reasoning of each hypothesis relies on individual-level dimensions such as job satisfaction, affective commitment and stewardship or agency-alike behaviors which lack measures and data. This limitation can be overcome by considering a set of data that includes information that measures individual-level dimensions of employees that are lying under the discussed macro relationship. Third, our data set has been limited to the initiatives that are covered by employee welfare as used in Italy and lacks information on certain initiatives deemed crucial by the literature, such as flexible working time or working from home, which might influence the results. Therefore, we invite future researchers to consider a wider scope of WFIs and explore whether such a scope could contribute to this debate with different results.

This study also has a few practical implications for managers, consultants, or policymakers. First, it shows managers of SMEs that they can count on adopting WFIs to improve their innovation, but that such an adoption can be effective only if they offer a substantial number of initiatives to their employees. Second, it shows consultants that the adoption of WFIs can be useful advice for SMEs that are willing to advance their innovation aspirations. Lastly, it shows to the policymakers that WFIs are indeed a practical tool for SMEs to support their innovation and should therefore consider actions that support SMEs in further adopting WFIs.

In conclusion, our findings suggest that the adoption of WFIs is important for SMEs to improve their innovation output. They show that SMEs can leverage their employee's innovative capacity if they engage in extensive adoption of WFIs. Lastly, they reveal that the adoption of WFIs in family SMEs reduces their likelihood to innovate, a finding that we explain by referring to the agency-like culture of the family owners which may undermine employees' work attitudes.

Appendix 1

List of considered WFIs

1. Childcare and child education (school costs, school tests, babysitter, summer/winter centers)
2. Interest rates on credits
3. Costs for the assistance of older or disabled family members
4. Shopping vouchers
5. Supplementary pension
6. Health and well-being (reimbursement of medical expenditures, checkups, specialist visits, medical visit discount tickets)
7. Leisure and free time (subscriptions, guided visits, museums, etc.)
8. Subscription to public transport
9. Fuel vouchers
10. Car sharing and carpooling
11. Travels (hotel stays, holidays, flights, etc.)

CHAPTER 5

DISCLOSING WORK-FAMILY INITIATIVES AS A SIGNAL FOR OPEN INNOVATION IN FAMILY VERSUS NON-FAMILY LARGE FIRMS: A CONTENT ANALYSIS

Abstract

To improve innovation and increase their competitive advantage, firms might explore external ideas and resources by engaging in open innovation, rather than focusing only on internal ones. To increase the likelihood of partnerships, companies seek ways to legitimate themselves as caring partners in front of external stakeholders. Drawing upon signaling theory, the purpose of this study is to explore whether companies leverage the adopted work-family initiatives as a signal to external stakeholders, to increase the likelihood of open innovation. In addition, we explore whether family firms leverage more on the adopted work-family initiatives to engage in open innovation than non-family firms. To test our hypothesis, we perform a content analysis of non-financial annual reports of listed Italian companies. Our results suggest that emphasizing work-family initiatives in non-financial reports increases the likelihood of companies to engage in open innovation. However, our analysis reveals that the more emphasis family firms give to work-family initiatives in their non-financial reports, the less likely they are to engage in open innovation. We discuss our findings in the context of the open innovation and family business literature.

Keywords: work-family initiatives, content analysis, signaling theory, open innovation, family business.

Introduction

Innovation is recognized as the main driver for companies to prosper, grow and sustain high profitability (Lengnick-Hall, 1992; Christensen, 2013). To increase their innovation capacities and thus improve their competitive advantage, companies are confronted with the question of "how to innovate" and "how to manage innovation". Recent studies suggest a new model for innovation management based on the need for companies to open up their innovation processes, especially by using the input of outsiders to improve internal innovation processes, or by searching for outside commercialization opportunities for what has been developed internally (Chesbrough, 2003; Elmquist et al., 2009; Gassman et al., 2010). The Open Innovation (OI hereafter) is considered to be the successor of “closed innovation” and as such is recognized as a crucial source of competitive advantage for companies (Chesbrough, 2003). Open Innovation is a concept that has attracted a lot of attention both in practice and in academia (Gassman et al., 2010; Markovic et al., 2020). It represents an innovation concept according to which the company does not use only internal knowledge and ideas to build innovation, but rather opens up towards the outside, by engaging in partnerships and collaborations, or by engaging employees outside of their organizational borders to absorb external ideas (Chesbrough, 2003).

Since OI becomes unavoidable source of competitive advantage, entering into more partnerships and collaborations with external stakeholders that enable the inflow and outflow of knowledge and ideas becomes a crucial concern for companies. Therefore, companies are searching for ways how to legitimate themselves in front of external stakeholders to increase the likelihood of such partnerships and collaborations (Roszkowska-Menkez, 2018). A possible way to do this is to disclose contents in the non-financial reports to highlight the unique traits of the company. In doing so, companies will signal to potential partners the otherwise unobservable, but unique and valuable, characteristics of the organization, expecting that, in turn, the partners will be attracted by these signals and will be more interested to collaborate or partner with the company (Naveed et al., 2020). Among the key insights included in the non-financial reports that could be of interest to potential partners are the work-family initiatives (WFIs hereafter) adopted by the company (Petera and Wagner, 2017; Bulut et al., 2020). This is so because WFIs contribute to increased motivation of employees, which in turn is essential for knowledge sharing and sourcing, both important determinants of OI (Engelsberger et al., 2022; Naqshbandi et al., 2023).

While previous research pointed out the importance of WFIs to motivate internal stakeholders to engage in OI (Markovic et al., 2020), it is still silent on how companies can leverage the adoption of WFIs to attract the attention of external stakeholders and to increase the likelihood for more partnerships and collaborations for OI. Exploring this question further is of importance because companies are expected to engage more OI and therefore must explore all possible ways how to do so. To provide answers to this open question, the purpose of this research is to explore the disclosure of WFIs in non-financial reports as a signal to potential partners for engaging in OI.

The question whether disclosing WFIs can be a relevant signal in the eyes of potential partners for open innovation, is even more significant for family firms. This is so because first, family firms are known to exploit innovation less and non family firms and second, when exploiting innovation, family firms tend to exploit internal resources, rather than to open up to exploiting external ones (Casprini et al., 2017). Yet, for family firms to be as competitive as non-family firms, they need to exploit all possible resources to innovate, therefore exploring the possible mechanisms that enable family firms to exploit open innovation is of crucial importance for them, and is yet, until today, scarcely addressed by existing research. Family firms are known to feature certain characteristics, such as a stewardship culture, which are shown to be beneficial and favorable for their employees (Miller et al., 2008). Given that family firms are well known for being a welcoming environment for employees (Querbach et al., 2020), disclosing content related to socially responsible issues, including employees, serves as a confirmation and therefore leads to improved relations with external stakeholders (Chiu and Sharfman 2011; Campopiano and De Massis, 2015; Cabeza-García et al., 2017; Gjergji et al., 2021). Because of this, one may expect that when family firms disclose content related to WFIs, this will stress even more their dedication towards the employees, which in turn will convince the external stakeholders that family firms are to be considered as caring partners more than non-family firms, and will therefore tend to engage in partnerships with them more than with non-family firms. To further explore the above said, the second purpose of this chapter is to explore the disclosure of WFIs in non-financial reports as a signal to potential partners for engaging in OI is different in family in comparison to non-family firms.

This research is based on empirical evidence gathered from non-financial annual reports of 137 listed Italian companies that have been content-analyzed (Neuendorf, 2002; 2017). Through regression analysis, our results reveal that through disclosing more content on WFIs, companies are signaling their care towards the employees to external stakeholders, who in turn, engage more in collaborations for open innovation in comparison to companies that disclose less information on WFIs. This is so because the adoption of WFIs improves employees' motivation, which is a key factor for engaging in open innovation. In addition, our results reveal that being a family firm negatively moderates the relationship between WFIs and Open Innovation, i.e., the more content related to WFIs family firms disclose, the less likely they are to engage in OI. This finding suggests that the ownership and the governance of the firm are determining factors for the effectiveness of the WFIs as a signal to external partners for OI.

With this research, we contribute to the ongoing debates about the antecedents of OI and to the family business literature. First, this study introduces WFIs disclosure as a signal organization can leverage to increase the likelihood of OI (Petera and Wagner, 2017; Bulut et al., 2020). Second, it contributes to the family business literature, by confirming that family firms represent a context that is different from non-family firms, and that because of their particularities, the disclosure of WFIs gives rise to effects different from the disclosure of WFIs in non-family firms.

Theoretical background

OI and non-financial disclosure

To improve their innovation capacities and thus increase their competitive advantage, companies started diversifying their approach toward innovation. Recently, a new model for innovation management started gaining attention both in practice and in academia, based on the need for companies to open up the innovation process to create business value (Elmquist et al., 2009; Gassman et al., 2010). This novel approach, known as "Open Innovation", has been introduced by Chesbrough in 2003 (Chesbrough, 2003:1). The OI is considered to be the successor of what is known as "Closed Innovation", where companies generate their innovative ideas, and then develop, build, market, distribute, service, finance, and support them on their own (Chesbrough, 2003a, p. 20). The basic premise of the IO concept is opening up the innovation process, especially by using the input of outsiders or by searching for outside opportunities to promote what has been developed internally. Even though in the literature the OI still does not represent a clear-cut concept, one of the most frequently used definitions is: 'the use of purposive inflows and outflows of knowledge to accelerate internal innovation and to expand the markets for external use of innovation, respectively (Chesbrough et al., 2006: 1). There are two main types of OI: Inbound OI, which refers to internal use of external knowledge, and outbound OI which refers to external
the exploitation of internal knowledge.

A key element for both types of OI is entering into partnerships and collaborations with external stakeholders that enable the inflow and outflow of knowledge and ideas. Because of this, a crucial concern for companies that want to engage in OI is how to legitimate themselves in front of external stakeholders, so to increase the probability of such partnerships and collaborations (Roszkowska-Menkez, 2018). One possible way to get noticed and considered for partnership is to highlight the unique, valuable traits of the company, such as adopting work-family initiatives in the non-financial disclosures (Petera and Wagner, 2017; Bulut et al., 2020). This is so because WFIs are known to increase employees' motivation, which in turn is essential for knowledge sharing and sourcing (Engelsberger et al., 2022; Naqshbandi et al., 2023), important determinants of OI.

WFIs disclosure as a signal for OI

Disclosing information relevant to firms is an important part of firms' activities and an essential business management tool for firms' communication with their stakeholders (Sierra-Garcia et al., 2018). To meet their stakeholders' interests, organizations disclose various types of information, such as financial, social, or environmental achievements (Greenwood et al., 2019; Romito and Vurro, 2021; Hadro et al., 2021). Over the last few years, financial disclosure has been criticized for providing limited information on the company’s functioning (Seetharaman et al., 2002). While financial disclosure provides an overview of the financial performance of the company, scholars argue that disclosing only financial information fails to provide an accurate picture of the performance of companies. Non-financial disclosures, instead, complement the financial ones and offer additional insights related to social or environmental topics relevant to stakeholders. As such, they are considered part of the firms' overall strategy (Romito and Vurro, 2021). The non-financial disclosures include activities beyond legal obligations, and are, therefore, an opportunity for companies to communicate with their stakeholders. Non-financial disclosure has developed significantly in the past four decades. While in the beginning, non-financial disclosures were a simple description of topics such as employee rights, community issues, or environmental matters, today they are an important tool for strategic communication with potential investors, through which a firm signal to external stakeholders its openness for transparency and communication (Aluchna and Roszkowska-Menkes, 2019).

Disclosing initiatives that enhance the well-being and the work-life balance of the employees improves firms' reputation (Dominguez, 2011) and is used for firms to communicate to external stakeholders the efficiency and effectiveness of their internal HR practices (Brown et al., 2005). By disclosing the adopted WFIs, firms signal to external stakeholders that the employees are a valuable part of the organization and that the company is deeply concerned for them (Petera and Wagner, 2017).

Signaling theory holds a prominent position in the field of management (Connelly et al., 2011), and human resource management (Suazo et al., 2009). This theory was first introduced by Spence (1978) and was initially used by labor market studies, to explain how employees use their education as a signal to attract employers. Signaling theory suggests that the more informed party tries to credibly convey information about itself to the less informed party to reduce information asymmetry (Spence, 1978). As Connelly and colleagues (2011) state, signaling theory has been mainly applied in studies that deal with signals sent toward entities outside of the organization (e.g., investors, clients, and job candidates). In that sense, it has been used to provide explanations on how content, voluntarily disclosed in non-financial reports, may signal the company's values such as organizational image, intentions, or performance to external stakeholders (Bae et al., 2018; Clarkson et al., 2019), such as investors or potential partners. For example, Clarkson et al. (2019) find that disclosing information on sustainability by large companies attracts more socially responsible investors, Simoni et al. (2020) find that companies publish sustainability reports as a tool for maintaining good relations with their stakeholders, while Naveed et al. (2020) show that disclosing non-financial information has a positive impact on potential investors.

For external stakeholders, it is difficult to get relevant information on the firm's practices, which apart from environmental and social include also the practices related to human resources. To reduce the information asymmetry in this respect, the company (sender) can proactively disclose content related to their human resources (signals) to the relevant parties, such as potential partners (receivers). The disclosure would provide a visible signal of the company's attitudes, management practices, and intentions related to employees, thus educating the stakeholders that the firm’s care towards its employees is at the core of its organizational philosophy and culture. This message is especially important to be conveyed by firms interested in OI, because motivated employees are known to contribute better to OI, especially by being more willing to share knowledge. Given this, firms would like to convince the potential partners that their future colleagues are treated well and thus more willing to engage in various activities related to OI, such as participation in communities for knowledge exchange (Bogers et al., 2018). After receiving the signal, the potential partners might assume that the firm is committed to its employees and therefore consider it for potential partnership. According to the signaling theory, in addition to the signal itself, what matters is the signaling intensity (Connelly et al., 2011). While a weak signal incites limited feedback, a strong signal can lead to positive stakeholder reactions (Suazo et al., 2011).

In line with these arguments, we expect that the extent of content reported in the non-financial reports will determine the strength of the signal and its effect. The more content related to WFIs is disclosed, the more powerful the "signal of care" will be, the more convinced potential OI partners will be that the firm is treating their employees well, the more willing they will be to enter into collaboration, and partnership for OI with the company. Given this, we frame our first hypothesis as follows:

> *Hypothesis 1: The extent of content related to work-family initiatives in the non-financial reports is positively associated with the likelihood of companies to engage in OI.*

WFIs disclosure as a signal for OI in family versus non-family firms

Broadly defined, a firm is considered a family firm if members of the founding family own a considerable share of equity, and hold positions in top management and/or are on the board of directors (Chen et al., 2008). Roughly two-thirds of companies worldwide and one-third of publicly listed firms can be considered family firms (Family Firm Institute, 2017), which makes family firms the most prevalent organizational form in the world (Dyer and Dyer, 2009).

Research on non-financial disclosure of family firms remains scarce; however, from the little that is known, family firms differ from non-family firms when it comes to content disclosure on socially responsible issues (Campopiano and De Massis, 2015). This is explained by the unique traits of the family firms such as corporate governance (Randøy and Goel 2003), their approach to internationalization (Piva et al. 2013), or innovation (De Massis et al. 2013). Family firms are known to disclose content related to socially responsible issues to achieve better visibility, to respond to the expectations of their stakeholders, or to establish good relations with them (Chiu and Sharfman 2011; Campopiano and De Massis, 2015; Cabeza-García et al., 2017; Gjergji et al., 2021).

Family firms are also known to be different from non-family firms in the culture that they are nurturing within their organization. One of the distinguishable traits of the family firms is their stewardship culture (Miller et al., 2009). In the family business context, a good steward is a leader who is a caretaker of the firm's assets and desires to pass a healthier and stronger business to future generations (Eddleston et al., 2007). Among the other effects of the stewardship culture, the caretaking for the firm and its continuity can result in stewardship over the employees (Arregle et al., 2007; Miller and Le Breton-Miller, 2005), which may be articulated through building a group of talented, motivated and loyal employees to keep the firm healthy and improve prospects for its future (Allouche and Amann, 1997; Goffee and Scase, 1985).

In our first hypothesis, we suggest that disclosing more content on WFIs will signal to the external stakeholders the dedication of the firm towards its employees that is otherwise invisible to outsiders. In turn, external stakeholders will consider such companies more for engaging in collaborations for OI, because they will be interested to partner with firms whose employees are motivated and therefore more willing to engage in OI activities, such as, for example, knowledge sharing. Given that family firms are already known to nurture a favorable environment for employees, disclosing WFIs in their non-financial disclosures will stress further the dedication to their employees and will therefore increase the likelihood of external stakeholders to consider them for future collaborations, in comparison to non-family firms. Therefore, we assume that being a family firm positively moderates the relationship between WFIs disclosure and OI and we frame our second hypothesis as follows:

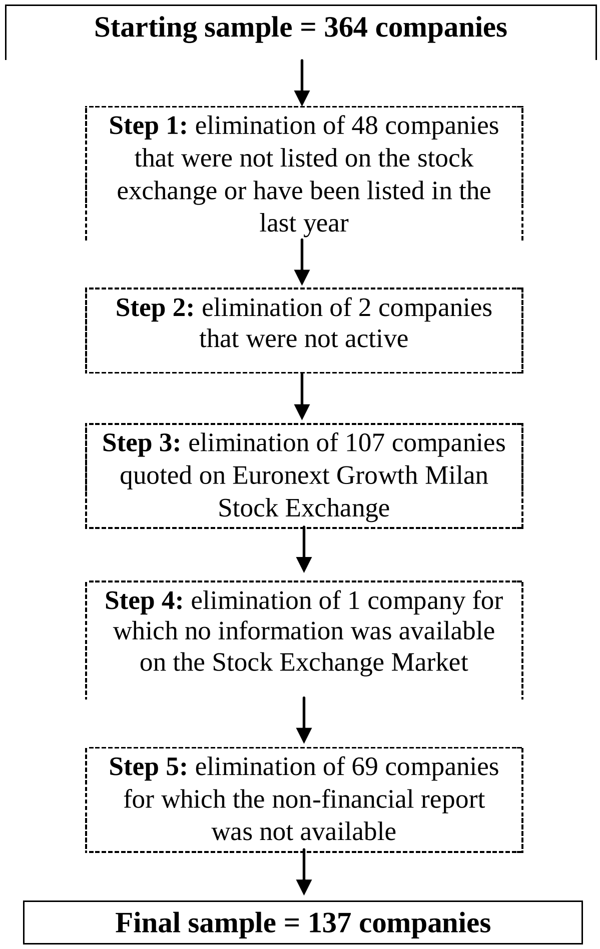
> *Hypothesis 2: Being a family firm positively moderates the relationship between disclosing WFIs and OI in such a way that the family firms that disclose more content on WFIs are more likely to engage in OI in comparison to non-family firms more content on WFIs.*

Methodology

Sample

The present study is performed on a sample of 137 non-financial reports of Italian companies listed on the Italian Stock Exchange. To create our sample, information for the companies listed on the stock exchange in November 2021 was extracted from the AIDA database. The first extraction resulted in 364 companies. Out of those companies, the following were excluded: 48 companies were not listed on the stock exchange, or have been listed only recently; 2 companies were not active anymore; 107 companies were quoted on the Euronext Growth Milan, a stock exchange dedicated to SMEs; 1 company for which no information for the stock exchange market was available and finally 69 companies for which the non-financial report for the year 2020 was unavailable. After the elimination of those companies, the final sample consisted of 137 companies (See Figure 1).

Figure 1 – Steps for creation of the study sample



Sources of data

To collect the necessary data and create our variables, we used two sources of data. The first source of data is the AIDA database, which was used to collect general information for the companies such as financial information, number of employees, sector of activity, and family ownership. The second source of data comes from the non-financial reports which were used to extract data on WFIs and OI. The method of data extraction and analysis is explained in the chapter below. Since the purpose of this research is to explore the effect of disclosed content on WFIs on future partnerships and collaborations, the content on WFIs was collected from the non-financial reports from 2018, while the content on OI was collected from the non-financial reports from 2020.

Content analysis

Content analysis is a method of codifying written text into various groups or categories based on selected criteria (Unerman 2000; Campopiano and De Massis, 2015). For this research, the content analysis was performed on the non-financial reports, both for the OI and for WFIs, with the help of the software NVivo.

For the OI part, the coding procedure followed a hybrid method, combining an inductive and a deductive approach (Neuendorf, 2017). First, a deductive approach was used. To that end, a search in the existing literature on OI was performed to identify the words that were mostly connected to the concept of OI (Huizingh, 2011; Natalicchio et al., 2017; West and Bogers, 2014). As a result of this step, a list of potential keywords of interest was created. Second, an inductive approach was used. For this step, a qualitative analysis of a few reports was performed to understand how many times the previously selected keywords appear in the reports and whether there are other keywords used by companies that represent the concept of OI and which can be found in the reports. As a final result of the two steps, the keywords selected to represent the concept of OI are Open Innovation, Engagement, Collaboration, and Partnership. Once the keywords were selected, each non-financial report was uploaded and analyzed in the software NVivo.

Concerning the WFIs, in this study, the topic is approached through the concept of "employee welfare", a widespread form of employee support in Italy. This form of employee support is chosen for conceptual and contextual reasons. Conceptually, because it is close to the definition of WFIs, defined as deliberate organizational changes in policies, practices, or the target culture that intend to reduce work–family conflict and/or support employees' lives outside of work" (Kelly et al., 2008, p.310). Contextually, because employee welfare is particularly applied in Italy, the country where the companies of our sample are located.

To understand the content of employee welfare in the non-financial reports, we refer to the " Rapporto Welfare Aziendale PMI", published by the Italian bank Generali in 2019, which highlights 12 different areas of employee welfare: (1) supplementary pension, (2) assistance services, (3) safety and accident prevention, (4) supplementary health, (5) insurance policies, (6) work and life balance and support for parents, (7) economic support for employees, (8) culture and leisure time, (9) training for employees, (10) support for the education of children and family members, (11) support and social integration for the weak categories, (12) welfare extended to the community. For coding purposes, to ensure a more consistent classification, the 12 categories were grouped into four macro categories: (1) health and assistance, (2) work-life balance, (3) youth, training, and social mobility, and (4) attention to the community. Next, the research continued by searching in the non-financial reports parts of text such as sentences, parts of sentences, or words that refer to employee welfare. Each identified part of the text has been assigned to an appropriate category (Appendix 1).

Dependent Variable. To construct the dependent variable, each non-financial report was uploaded and analyzed in the software NVivo. With the help of the software, in each report, the number of times each of the keywords appeared was counted. Then, this number was divided by the total number of words in the report. Based on this information, the dependent variable Open Innovation Index represents a percentage of all the keywords for OI that appear in the reports divided by the total number of words in the report.

Independent variable. With the help of the software NVivo, in each report, we coded contents that contain elements related to each of the four macro-categories explained above, i.e., (1) health and assistance; (2) work-life balance; (3) youth, training, and social mobility; and (4) attention to the community. The coding was done by identifying sections in the report (words, sentences, paragraphs ==> see Appendix 1 for more details) that correspond to each macro category separately and by calculating the number of characters of each of these identified sections. Through this step, we obtained the number of characters with which each macro category is represented in the report. The number of characters for each macro category is then divided by the total number of characters in the report. The result is the percentage with which each macro category is represented in the report. To construct our independent variable, we summed the percentages obtained for each of the four macro categories and obtained the percentage of content related to company welfare with respect to the overall content of the report.

Moderating variable. To consider a company as a family business, two conditions were analyzed. Referring to the study by Villalonga and Amit (2006), the first condition is that at least 20% of the company's shares are owned by family members. The second condition is that at least one member of the family that owns the share package is part of the board of directors. To verify the two conditions, the shareholder repartition available on the sites of the Italian Stock Exchange and CONSOB was used. In case when this information was not available on these two sites, the information was collected from the company's websites. In cases where the shareholding of the company was divided between different members of the same family, the company was considered to be controlled by a single owner, with a share equal to the sum of the different divisions owned by the family members. The same sources used for the shareholding structure were used to verify the composition of the Board of Directors, by checking the surnames of the members of the board.

Control variables. Prior studies suggest that there are specific factors influencing OI that need to be controlled. For our model, we have included a few control variables that were found as relevant for OI. First, Lassen and Laugen (2017) find a significant effect of the company age for OI, suggesting that older companies are less open to innovation than younger companies.

To control for the age of the company, we measured the number of years since the company's establishment. Second, the size of the company is used by various studies as a variable potentially influencing OI adoption. In particular, previous studies find that larger companies are adopting OI more intensely than smaller companies (Chesbrough, 2003; Chesbrough and Crowther, 2006), while others suggest a positive relationship between company size and OI (Schroll and Mild, 2011; Bianchi et al. 2011). To measure the company size, we consider the number of employees that the company has. Abulrub and Lee (2012) find that industry type resulted in significant differences when it comes to cooperation with external partners. To control for the industry types, we have included the following industry sectors as dummies: first, as the study of Radnejad and Vredenburg (2015) shows, the need for technical innovation is rapidly increasing in the oil and gas sector, as a result of the nature of the new complex fossil fuel reservoirs, but also in the sectors of technology (Chesbrough and Crowther, 2006; West and Gallagher, 2006), finance (Mosteanu and Faccia, 2021) and consumer goods (Miglietta et al., 2017). Lastly, Chesbrough and Crowther (2006) suggest that increasing revenues is the main driver which leads firms to engage in OI. Therefore, we have included the revenues as the last control variable in our model.

To test our model, we performed a simple linear regression.

Results

Table 1 provides descriptive statistics and a correlation matrix of the variables of our model.

In our sample, 61 companies were classified as family firms and 76 companies were classified as non-family firms. The average company age is 48 years, with the oldest company being established in 1831 and the youngest in 2017. The average number of employees is 8,948, with the biggest company having 136,158 employees and the smallest 114 employees.

Table 1 – Correlation matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) OIIx1000	10.00										
(2) WF_INDEXx1000	0.293*	10.00									
(3) FBusiness	-0.163	-0.081	10.000								
(4) Age	-0.015	0.093	-0.158	10.000							
(5) Size	0.177*	0.046	-0.192*	0.186*	10.000						
(6) Revenues	0.124	0.112	-0.181*	0.097	0.525*	10.00					
(7) Sec_Ind	-0.106	-0.127	0.1201	0.039	-0.107	-0.117	10.000				
(8) Sec_Fin	-0.008	0.197*	-0.297*	0.185*	0.279*	0.133	-0.301*	10.000			
(9) Sec_Consumo	-0.066	-0.182*	0.185*	-0.060	-0.102	-0.114	-0.308*	-0.217*	10.000		
(10) Sec_Tech	-0.006	0.151	-0.141	-0.092	-0.077	-0.046	-0.151	-0.106	-0.109	10.000	
(11) Sec_OG	0.068	-0.028	-0.017	-0.066	0.057	0.430*	-0.127	-0.089	-0.092	-0.0452	10.000

The results of the first model supported our hypothesis. As shown in Table 2, our results reveal that companies that disclose more content on WFIs are more likely to engage in OI, in comparison to companies that disclose less information on WFIs (coef. 0.014, p-value<0.05).

Table 2 – Regression results

Variables	OIIx1000	OIIx1000
WF_INDEXx1000	0.014***	0.019***
	(0.003)	(0.004)
WF_INDEXxFBusiness		-0.014*
		(0.008)
FBusiness		0.018
		(0.108)
Age	-0.000	-0.000
	(0.000)	(0.000)
Size	0,000	0,000**
	0,000	0,000
Revenues	0,000	0,000
	0,000	0,0000
Sec_Ind	-0.113	-0.127
	(0.085)	(0.084)
Sec_Fin	-0.180*	-0.234**
	(0.101)	(0.101)
Sec_Consumo	-0.082	-0.083
	(0.097)	(0.096)
Sec_Tech	-0.157	-0.254
	(0.153)	(0.154)
Sec_OG	0.064	0.102
	(0.198)	(0.194)
Constant	0.531***	0.559***
	(0.085)	(0.094)
Observations	137	137
R-squared	0.149	0.195

Standard errors in parentheses

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

As shown in Table 2, the results of the second model, however, show an opposite effect of what is hypothesized. In particular, our results show that family firms that disclose more content related to WFIs are less likely to engage in OI (coef. -0.014, p-value <0.01).

Discussion and conclusion

This research sheds light on the important yet overlooked topic of disclosing WFIs for OI purposes in family and non-family firms. Borrowing from signaling theory and empirical evidence gathered through a content analysis of the non-financial reports of 137 Italian companies listed on the Italian Stock Exchange, this study reveals a novel perspective on the effect of the WFIs disclosures on the likelihood of companies to engage in OI as well as a challenging perspective on the difference of this effect between family and non-family firms.

Previous studies showed that non-financial reports can be used as a communication tool to gain the trust of interest groups (Chiu and Wang, 2015) and that these reports can positively affect companies' reputations (Bae et al., 2018). Seen as such, non-financial reports constitute an opportunity for the firms to promote their good image in front of their stakeholders (Lopez-Santamaría et al., 2021). In line with this debate, our results show that disclosing WFIs as a signal that a company sends to its stakeholders indeed increases the visibility of a company in front of its stakeholders and increases their interest to engage in innovative partnerships with the firm-sender of the signal. Furthermore, we show that the power of the signal increases when more content on the topic is disclosed, thus increasing also the interest of potential future partners to enter into cooperation or partnerships.

This finding, however, changes, when we introduce the moderating effect of the family status of the sampled firms. In our second hypothesis we expect that through disclosing content related to their employees, such as WFIs, family firms would signal to their potential partners that they take good care of all their employees. Previous researchers suggest that family firms nurture a stewardship culture that is beneficial for employees (Miller et al., 2009) and act in a socially responsible way to preserve their image and reputation (Dyer and Whetten, 2006), as well as to satisfy the expectations of external stakeholders (Cruz et al., 2014). Therefore, we expected that, by disclosing contents related to WFIs, they would stress even more their care towards the employees which in turn will signal to potential partners that employees of their potential partner are motivated and therefore more likely to engage in open innovation activities. Our results are unexpected in this respect, showing that the more family firms disclose content related to WFIs, the less likely they are to engage in OI. In this direction, our findings raise the question of whether disclosing more content on WFIs instead of reassuring them, actually raises the concerns of the potential partners on the culture nurtured by the family firms, and therefore raises doubts about the motivation of the personnel.

This paper aims to make some key contributions to the literature. First, this paper contributes to the OI debate, which calls for future investigations on the possible antecedents that might increase a company's probability to enter into partnerships and collaborations for innovation (Gassmann et al., 2010). To that end, this research suggests that disclosing WFIs can be considered an antecedent of OI. In particular, it suggests that companies signal to external stakeholders their commitment toward their employees through disclosing WFIs. In turn, external stakeholders consider such companies as caring partners and tend to consider them more for collaborations and partnerships for OI, because they consider that employees of such companies are motivated enough to engage in OI. Second, this paper contributes to the family business debate, and in particular to the debate on non-financial reporting in family firms (Campopiano and De Massis, 2015), by highlighting that family firms are indeed a particular context in which disclosing WFIs provides different effects to OI in comparison to non-family firms.

As with all research studies, also this study has a few research limitations. First, to consider the likelihood of a company to engage in OI, due to lack of other information, we considered the number of keywords present in the non-financial reports, meaning that we consider that if more words on OI are present, we assume that the company has engaged in more partnerships and collaborations. To overcome this limitation, future researchers could also consider actual partnerships and collaborations in which the company engaged. Second, the negative effect of the moderating variable is based on a single measure of family business. Given the heterogeneity of the definitions and therefore measures of what is considered to be a family business, we suggest future researchers consider also other measures of family business and verify whether the effect would change in this respect.

This research provides implications for academic, practitioners and policy makers. Namely, it shows to academics that disclosing WFIs is a signal that can be exploited externally, toward external stakeholders and that as such has the potential to be considered as a possible antecedent to open innovation. Next, it suggests to practitioners that the adoption of WFIs as such is an activity which effect is not limited to the employees of the company, but that has a broader effect extending toward external stakeholders. Second, it shows to practitioners that disclosing WFIs is a possible way for a companies to leverage their internal actions toward employees in front of external stakeholders and that efforts are worth investing in that direction to further understand the right amount and content of WFIs to be communicated in the non-financial disclosures. The findings of this research are also relevant for policy makers, especially by suggesting that contents related to WFIs is an important section of the non-financial disclosures and as such can be subject of further formalization or a mandatory requirement in non-financial disclosures.

This research represents an exciting research agenda which paves the avenue for futures researcher to consider overcoming the limitations of this research and to complement it with other research that will provide further insights on how companies can leverage WFIs disclosure and which are the other possible effects of WFIs disclosure for companies that are adopting them.

Appendix 1: Examples of coding of contents related to WFIs			
Macro category	**Subcategory**	**Content description**	**Example**
Health and health assistance	Health assistance, insurance coverage and assistance for wellbeing	A set of health care activities provided, insurance coverage offered, and other activities generally aimed at the physical and psychological well-being of employees and family members.	"Health promotions is at the heart of numerous initiatives carried out by the Group's offices and orders, ranging from flu vaccination programs to sexually transmitted diseases (e.g., HIV) prevention programs and awareness campaigns on health lifestyles" (Annual financial report, SaliniImpergilo) *"La promozione della salute è al centro di numerose iniziative svolte dalle sedi e dalle commesse del Gruppo, che variano da programmi di vaccinazione antiinfluenzali a programmi di prevenzione delle malattie sessualmente trasmissibili (es. HIV) e campagne di sensibilizzazione su stili di vita salutari" (Relazione finanziaria annuale, Salini Impregilo)*
	Safety and incident prevention	All activities dedicated to the employees including trainings aimed at safety and prevention from incidents, not only on working place.	"The action taken to reduce risks include technical interventions (CE marked machines equipped with safety systems and subjected to periodic checks, forklifts subjected to periodic checks and equipped with warning systems such as horn and flashing lights), procedural (specific procedures, emergency plans) and behavioural through continues information and staff training." (Sustainability report. Italmobiliare) *"Le azioni intraprese per la riduzione dei rischi comprendono interventi tecnici (macchine marcate CE dotate di sistemi di sicurezza e sottoposte a controlli periodici, carrelli elevatori sottoposti a controlli periodici e dotati di sistemi di avviso come clacson e lampeggianti), procedurali (procedure specifiche, piani di emergenza) e comportamentali tramite continua informazione e formazione del personale." (Rapporto di sostenibilità, Italmobiliare)*
	Supplementary pension	Plans aimed at supplementing the pension provision provided by contract. For example, joining or setting up supplementary pension funds.	"It is planed an additional contribution from the employer to the forms of supplementary provision." (Consolidated non-financial statement) *"E' prevista una contribuzione aggiuntiva, da parte datoriale, alle forme di previdenza complementare." (Dichiarazione consolidata di carattere non finanziario, Toscana Aeroporti)*
Work-life balance	Work-life balance, parents support	It includes all activities aimed at improvising the reconciliation of the employees' private and professional life and all activities aimed at helping and supporting parents.	"Consolidation and strengthening of the initiatives for the family support with particular attention to the services in support of the employees who are taking care of elderly people" (Consolidated non-financial statement, ENI) *"Consolidamento e il potenziamento delle iniziative a sostegno della famiglia*

			con particolare attenzione ai servizi a supporto dei dipendenti che si prendono cura di persone anziane o non autosufficienti" (Dichiarazione consolidata di carattere non finanziario, ENI)
	Economic support of employees	Together with the economic aid of any kind that the organization provides to its employees, such as monetary payments or conventions with external companies.	"Flexible benefit, the company wanted to supplement the benefit amount provided by the National Collective Labour Agreement CCNL for Metalworking sector, with an additional benefit, for a total amount made available to individual eligible employees of € 250 per year" (Consolidated non-financial statement, Exprivia) *"Flexible Benefit, l'azienda ha voluto integrare l'importo del benefit previsto dal CCNL Metalmeccanico, con un ulteriore benefit, per un totale complessivo messo a disposizione dei singoli dipendenti aventi diritto di € 250 annui." (Dichiarazione consolidata di carattere non finanziario, Exprivia)*
	Culture and leisure	Together with activities aimed at improving the time spend outside the workplace, such as cultural activities dedicated to the company population, sporting events dedicated to the employees, etc.	"Various initiatives in favor of the employees and their families managed by the CRAL" (Sustainability Report 2018, Saras) *"Iniziative varie a favore dei dipendenti e delle loro famiglie curate dal CRAL Aziendale" (Bilancio di sostenibilità 2018, Saras)*
Youngsters, training and social mobility	Employee training	All the training activities that the company promotes for employees, excluding activities related to health and safety.	"Accelerate – Over 6060 high-potential resources were involved in the first edition of an international training and development project in a period of six months, for a total of approximative 6 000 hours, focused on further development of the Leadership Framework and on implementation of project work on issues of particular interest to the company " *"Accelerate – Oltre 60 risorse ad alto potenziale sono state coinvolte nella prima edizione di un progetto internazionale di formazione e sviluppo della durata di sei mesi, per un totale di circa 6.000 ore, focalizzato sull'approfondimento del Leadership Framework e sulla realizzazione di project work su temi di particolare interesse per l'azienda." (Bilancio di sostenibilità e innovazione 2018, Leonardo)*
	Support for education of the children and the family members	Activities promoted by the company to support the education of the children and family members of the employees, such as scholarship or internship for children or family members.	"There are also numerous initiatives aimed at young people and in particular students, children of the employees: merit-based scholarship, camps and study travels abroad, trips and excursions within the region for the families, recreational/ educational activities for the children." (Sustainability Report 2018, Saras) *"Numerose sono inoltre le iniziative rivolte ai giovani ed in particolare agli*

			studenti, figli dei dipendenti: borse al merito, colonie e viaggi studio anche all'estero, gite ed escursioni per le famiglie in ambito regionale, attività ludico/formative per i bambini." (Bilancio di sostenibilità 2018, Saras)
	Support for vulnerable people and social integration	Aid provided by the company for vulnerable employees and activities aimed at promoting integration within their own company. Furthermore, it includes activities aimed at promoting gender diversity.	In Malaysia, for example, special rooms for prayers have been set up inside the plant, which differ according to the religious beliefs of the employees, and consumption of some food product has been banned precisely in respect of cultural differences." (Consolidated non-financial statement of Caltagirone group, Caltagirone) *"in Malesia, ad esempio, all'interno dello stabilimento sono stati adibiti appositi locali per la preghiera, differenti a seconda del credo religioso dei dipendenti, ed è stato vietato il consumo di alcuni prodotti alimentari proprio nel rispetto delle differenze culturali." (Dichiarazione non finanziaria consolidata del gruppo Caltagirone, Caltagirone)*
Attention to the community	Attention to vulnerable groups outside the organizations	All the activities carried out by the company in support ot the vulnerable groups outside the organization. It does not include financial support.	"The intervention to adapt pedestrian paths in order to facilitate the accessibility of passenger with reduced mobility" (Consolidated non-financial statement, Bologna G.Marconi Airport) *"l'intervento di adeguamento di percorsi pedonali al fine di agevolare l'accessibilità dei passeggeri a ridotta mobilità" (Dichiarazione consolidata di carattere non finanziario, Aeroporto G. Marconi di Bologna)*
	Involvement of the community and external stakeholders	All activities aimed at involving stakeholders and the community, such as dialogue with external parties or the participation of community members to understand areas for improvement.	To strengthen and expand the dialogue with stakeholders, Iren has created the Territorial Committees which aim to ensure deeper rooting in the local communities, thanks to participatory planning actions and moments of consultation on aspects such as environmental and social sustainability, innovation and the quality of the services provided." (Sustainability Report 2018, Iren) *"Per rafforzare e ampliare il dialogo con gli stakeholder, Iren ha dato vita ai Comitati Territoriali che hanno lo scopo di garantire un più profondo radicamento nelle comunità locali, grazie ad azioni di progettazione partecipata e a momenti di consultazione su aspetti quali la sostenibilità ambientale e sociale, l'innovazione e la qualità dei servizi forniti." (Bilancio di sostenibilità 2018, Iren)*
	Collaborations and projects	All the collaborations with third parties, excluding research projects with schools and universities, and all projects carries out for community, either with the help	"During 2018, Fincantieri, as a strategic company for the national system, as well as listed on the stock exchange, signed an important institutional collaboration agreement with the State Police for the exchange of information on criminal events recorded on its IT infrastructure" (Sustainability Report

		of third parties or individually. Collaborations aimed at innovations, research and development are excluded.	2018, Fincantieri) *"nel corso del 2018 Fincantieri, in qualità di azienda strategica per il sistema nazionale, nonché quotata in borsa, ha siglato con la Polizia di Stato un importante accordo di collaborazione istituzionale per lo scambio informativo su eventi di natura criminale registrati sulla propria infrastruttura informatica" (Bilancio di sostenibilità 2018, Fincantieri)*
	Education, awareness-raising activities, schools, and universities	All activities aimed at the education of subjects outside the organization, especially schools and universities. Collaborations with schools and universities and all those activities aimed at progress of the students fall into this category. In addition, community outreach activities are included.	"In Romania, the partnerships with the Universities of Craiova, Pitesti and the Polytechnic University of Bucharest concern the recognition of scholarships and support for an IT Academy and a Master in Automotive for the faculties of electrotechnics, industrial automation, electronics, mechanics, and physics. " (Power is nothing without control, Pirelli) *"In Romania le partnership con le Università di Craiova, Pitesti e il Politecnico di Bucarest riguardano il riconoscimento di borse di studio e il supporto ad una IT Academy e ad un Master in Automotive per le facoltà di elettrotecnica, automazione industriale, elettronica, meccanica, e fisica." (Power is nothing without control, Pirelli)*
	Charity foundations, financial support for people in difficulty	Charity foundations which belong to the company or to which the company is part of or which the company supports, and all financial aid that the company promotes for subjects outside the organization.	"Banco Alimentare Abruzzo: donation to the Associazione Banco Alimentare dell'Abruzzo Onlus, which aims to operate at the service of the needy together with the many structures involved in the fight against poverty" (Consolidated non-financial declaration, Openjobmetis) *"Banco Alimentare Abruzzo: donazione all'Associazione Banco Alimentare dell'Abruzzo Onlus, che ha l'obiettivo di operare al servizio dei bisognosi insieme alle tante strutture impegnate nella lotta alla povertà" (Dichiarazione consolidata di carattere non finanziario, Openjobmetis)*
	Investments, sponsorships, events	All the investments, sponsorship and events promoted in the fields of art, entertainment, music health, etc. It mainly includes everything related to the cultural aspect lined to the community.	"Title sponsor of the 2018 edition of the traditional sporting event Maratona of the city of Rome, certified with the" IAAF Road Race Gold Label ", is the most participated competitive event in Italy, which took place on 8 April 2018 with departure from via dei Fori Imperiali "(Sustainability report of the Acea group, Acea) *"title sponsor dell'edizione 2018 della tradizionale manifestazione sportiva Maratona della città di Roma, certificata con la "IAAF Road Race Gold Label", è l'evento agonistico più partecipato d'Italia, che si è svolto l'8 aprile 2018 con partenza da via dei Fori Imperiali" (Bilancio di sostenibilità del gruppo Acea, Acea)*

CHAPTER 6
CONCLUSION

A company's ability to innovate is crucial for building a competitive advantage (Lengnick-Hall, 1992; Keupp et al., 2012). Among the many factors that influence firm innovation, extant research has emphasized the role of the employees (Pfeffer, 1995; Laursen and Foss, 2003; Shipton et al. 2005; Jiménez-Jiménez and Sanz-Valle, 2008; Chen et al., 2016; Seeck and Diehl, 2017; Wei et al., 2020) and, in particular, the role of employees who are willing to undertake work activities proactively and dynamically. Since employees' willingness to pursue the company's goals may interfere with their work-family balance, companies are in quest for possible ways to improve the work-life balance of their employees. WFIs are voluntary organizational responses to address the above-stated issues. .

The WFIs have been used by companies since the seventies and have been explored by many academic scholars since the nineties, which confirm their relevance both for academic debates and for practitioners (Goodstein, 1994; Osterman, 1995; Milliken et al., 1998; Arthur, 2003; Bloom et al., 2011; Bourdeau et al., 2019). The WFIs became particularly relevant during the pandemic COVID-19 when most employees were asked to work from home and to rapidly adapt to the newly applied working conditions (Chong et al., 2020).

The literature review performed for this thesis revealed ambiguous findings related to the antecedents and outcomes of WFIs, both on an individual and firm level. One group of studies found positive effects of employees and companies, such as improved loyalty, job satisfaction, and affective commitment or improved overall company performance (Roehling, 2001; Wang and Walumba, 2007; Arthur, 2003). A second group of studies, however, showed that WFIs can also negatively affect employees and companies and can worsen their work attitudes, which in turn can negatively affect firm performance (Perrignino et al., 2018).

Furthermore, the literature review showed that the effect of WFIs on innovation has been lacking scholarly attention, but that deserves further investigation. This is so because to be competitive, companies need to engage in innovation. Therefore, companies tend to exploit different ways to engage all possible resources, in particular their employees, to improve innovation (Pffefer, 1995; Laursen and Foss, 2003; Shipton et al. 2005; Jiménez-Jiménez and Sanz-Valle, 2008; Chen et al., 2016; Seeck and Diehl, 2017; Wei et al., 2020).

Lastly, the literature review revealed a few calls for further research that deserve further scholarly attention and that have been addressed in this thesis. First, previous studies call for further investigation of individual-level mechanisms that enable the effects of WFIs on firm-level outcomes in large firms (Laursen and Foss, 2003). Second, a call has been identified to explore the effects of WFIs in smaller firms especially because SMEs have started adopting WFIs later than large companies, therefore their effects are less known. This question is of relevance because the context of SMEs is different from the context of large firms and as such may enact different individual-level mechanisms that will give rise to different effects on firm-level outcomes (Hodorogel 2009; Soininen et al. 2012). Third, family firms represent a particular working environment and are distinguished from non-family firms, for example, by the relationships between the owners and the employees or the family and non-family members' employees (Miller et al., 2008). Such particularities, indeed, could interfere with the effect of the WFIs and strengthen or loosen their effects and therefore need further investigation (Michael-Tsabari et al., 2020).

Since innovation is the focal outcome of this thesis, to grasp the term innovation in a comprehensive manner, it has been approached from three different points of view. Namely, in Chapter 3 the topic of innovation is approached from an individual point of view, by exploring employee intrapreneurship, defined as individual anticipatory behavior that aims to create new businesses for the organization and to enhance an organization’s ability to react to market advancements (Gawke et al., 2019). Furthermore, in Chapter 4, the innovation is approached through a more traditional "closed innovation" point of view, by considering as innovative, companies that have introduced an innovative product or service in the last three years. Lastly, in Chapter 5, the innovation is approached through the concept of Open Innovation, a recent approach to innovation considered to be the successor of the Closed Innovation approach (Chesbrough, 2003).

In line with previous research, the overarching idea of this thesis is that WFIs enhance employees' commitment, job satisfaction and willingness of employees to engage in activities that require extra effort and that employees who are committed, motivated, and willing to undertake work activities proactively and dynamically, play a crucial role in fostering innovation (Pffefer, 1995; Laursen and Foss, 2003; Shipton et al. 2005; Jiménez-Jiménez and Sanz-Valle, 2008; Chen et al., 2016; Seeck and Diehl, 2017; Wei et al., 2020). In line with this idea, I provide a comprehensive view of the WFIs phenomenon by analyzing it both from a firm level perspective, by considering the adoption and the disclosure of WFIs and from an individual level perspective, by considering the use of WFIs by employees.

Theoretically, this overarching idea has been captured through two dominant theoretical perspectives. To explain the individual-level mechanisms that underlie the effect of the use of WFIs on firm-level outcomes, elements from the social exchange theory have been used, to argue that when a firm offers WFIs to employees, they feel obliged to return the favor and therefore engage in innovative behaviors that contribute to firm innovation. To explain the firm-level outcomes of the adoption of WFIs, instead, arguments from the signaling theory have been used. Namely, I argue that the adoption of WFIs by SMEs and large firms is a signal that the firm sends both to internal stakeholders (Chapter 4) and to external stakeholders (Chapter 5), to communicate the otherwise unobservable, but unique and valuable traits of the organization. In turn, the receivers of the signal positively grasp its meaning. To strengthen the line of argumentation, we complement the signaling theory with arguments borrowed from the intrapreneurship literature, by claming that stakeholders that received the signal understand that the non-work concerns of employees have been addressed and therefore employees are more satisfied with their job, more committed to the organization and that in turn, more motivated to contribute to innovation. When considering the family firms as a working environment distinguishable from the non-family firms, we complement the theoretical arguments of the signaling theory with elements borrowed from the stewardship theory to explain that the positive signal of the adoption of WFIs is further strengthened in family firms because of the stewardship culture nurtured by the family owners and spilled to employees.

The findings of the thesis can be summarized as follows: the adoption of WFIs is a signal that conveys a message of care toward employees. When such signal is sent within the organization, to the employees, it positively affects their work behaviors, and in turn positively affects innovation. When such signal is sent outside of the organization, to potential partners, it legitimizes the company's care toward employees and in turn increases the likelihood for the company to engage in partnerships for open innovation. The effect of the use of WFIs instead, revealed a negative effect on employee intrapreneurship because the use of WFIs such as working from home in relation to the particular circumstances arising from the COVID-19 pandemic detached the employees from the organization and decreased their affective commitment toward the firm, which in turn, decreased their likelihood to engage in employee intrapreneurship. Lastly, family firms indeed feature particular characteristics, distinguishable from non-family firms, which interfere with the effect of the signal and, contrary to our argumentation, invert their otherwise positive effect on innovation.

This thesis provides two important original contributions to the existing literature. First, it complements the debate on WFIs by introducing innovation as a possible firm-level outcome and by showing a positive effect on innovation, which is in line with and further confirms the overarching idea of this thesis that employees and the heart and the soul of the company's innovation. Second, it provides contributions to the family business literature, by suggesting that the governance and ownership of the firm play an important role in the relationship between WFIs and innovation. In particular, the results of this thesis suggest that if certain characteristics, which are intrinsic for family firms, such as nepotism or agent-like behaviors that prioritize the family interest over the interest of the company prevail, the adoption of WFIs is a signal that will convey a rather negative message of family members prioritization and will negatively affect innovation. This finding is consistent when the signal is sent internally, to the employees and externally, to potential partners. When the signal is sent to the employees, because of nepotistic behaviors frequently present in family firms, employees might believe that WFIs are activated to favor only family members active in the firm and not to address their personal and family-related needs of all employees, thus overturning the positive effect of WFIs on innovation outputs. When the signal is sent externally, to potential partners, they will rather suspect that stressing too much on WFIs by family firms actually hides an internal culture which demotivates employees, and therefore tend to consider them less of open innovation partnerships.

This thesis has limitations, which open up avenues for further research. First, this research is limited to datasets only from Italian companies, and therefore the conclusions and the suggestions of the thesis are strongly influenced by the Italian context. To generalize the conclusions, future researchers might explore the phenomenon in other countries. In addition, given that Italy is part of the European Union, which has a harmonized approach to encouraging companies to support the well-being of employees, future research could contribute to this debate by considering countries also outside of the European Union, to provide the reader with different insights on the topic. Second, in two out of three studies, the concept of employee welfare has been used as a proxy for work-family initiatives. The heterogeneity of the work-family initiatives, however, calls future researchers to also consider other initiatives that are not part of the employee welfare as applied in Italy and therefore have not been considered in the respective studies. Third, in the first empirical study, the underlying, individual-level mechanisms that explain the effect of the adoption of work-family initiatives on innovation have been explored; however, the effect of this research is strongly influenced by the pandemic during which the data was collected. To understand the effect of the underlying mechanisms in large firms more accurately, future research could explore them in a context that is not directly and immediately affected by the pandemic, by applying similar research after a certain time. Lastly, the data used for the three studies are cross-sectional. Future researchers may consider exploiting longitudinal data to strengthen the conclusions on the causal relationship between work-family initiatives and innovation.

This thesis offers practical implications mainly for managers, consultants, and policymakers. First, it shows managers of SMEs that they can count on adopting work-family initiatives to improve the company's innovation, but that such an adoption can be efficient only if they offer a substantial number of initiatives to their employees. It also shows that disclosing work-family initiatives in the non-financial reports pays off if the company is interested in partnerships and collaborations for OI. Second, it shows consultants that the adoption of work-family initiatives can be useful advice for firms that are willing to advance their innovation aspirations. Lastly, policymakers can benefit from the contribution of this dissertation as I suggest that work-family initiatives are indeed a practical tool for firms to support their innovation and should therefore consider actions that support companies in further adopting them.

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