Do work-life balance measures influence the profitability of Spanish listed companies?

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Abstract

Purpose: This paper analyses the effect on economic profitability of the adoption of work-life balance practices.

Design/methodology/approach: Based on a sample of Spanish listed companies during the period 2015-2022, the aim was to contrast the effect of a work-life balance index on economic profitability.

Findings: The regression analysis, clustered at firm level, shows a positive and significant effect of the index on economic profitability, suggesting that companies’ practices to achieve a work-life balance could be a source of competitive advantage increasing human capital.

Originality/value: Firstly, investigating the consequences of work-life balance practices at company level rather than at individual level, and secondly, running a longitudinal study as opposed to cross-sectional studies, which are more frequent in the literature. Thirdly, adding evidence from a continental European country, Spain, as opposed to previous studies carried out mainly in Anglo-Saxon countries as well as considering the work-life balances currently used by listed firms in the Spanish market. Finally, this relationship is analysed over a time-period that considers a health crisis such as COVID-19, which had a major impact on business and labour dynamics.

Keywords: Corporate work-life balance measures, Listed companies, Performance, Spain

Jel Codes: M1, M5

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1. Introduction

We live in a constantly evolving society in which we need to balance work and family life. Moreover, academic research has been focussing on the causes of work-family and family-work conflicts. These conflicts affect
companies, since events that take place in one sphere also have implications for the other (Rodriguez & Nouvilas, 2008). Work-family conflict is caused by mismatches between work and family pressures (Greenhaus & Beutell, 1985), due to reasons of time, tension or stress, and behaviour. Time-based conflict occurs when the time spent in one role makes it difficult to participate in the other role, e.g., changing work shifts, long hours, overtime, etc. Stress-based conflict occurs when the pressure that one role places on the individual makes involvement difficult in another role, e.g., physical or mental work demands, etc. That is, behavioural conflict occurs when the behaviour in one role is incompatible with the behaviour in the other role, for example, answering phone calls and emails outside working hours and weekends or not being able to sleep at night because of children, etc.

Some companies have taken an interest in the work-family conflict to a greater or lesser extent and, in order to reduce this, have implemented a range of family-based work-life balance measures. While some firms have implemented the ones that are strictly legal (minimum phase), others have extended these (enriched phase), and finally, there are companies that have implemented policies to support and improve quality of life at work (comprehensive phase) (Meil, García, de la Torre & Ayuso, 2008; Beauregard & Henry, 2009).

While most studies have focussed on analysing the influence of work-life balance measures on worker-related variables (motivation, retention, etc.) (e.g., Carr & Boyar, 2007; Aryee, Chu, Kim & Ryu, 2012; Bae & Skaggs, 2019; Wood, Daniels & Ogbonnaya, 2020; Purwanto, Hidayat & Ashari, 2021), previous evidence analysing the consequences of work-life balance at company level are scarce and inconclusive (e.g., Perry-Smith & Blum, 2000; Bloom & Van Reenen, 2006; Sands & Harper, 2007; Yamamoto & Matsura, 2014). Not many refer to the direct effect of work life balance measures on company performance (Berky, Morley, Tiernan, Purtill & Parry, 2017), and even fewer are focussed on a continental country like Spain (Martínez-Sánchez, Pérez-Pérez, de-Luis-Carnicer & Vela-Jiménez, 2007; Cegarra-Leiva, Sánchez-Vidal & Cegarra-Navarro, 2012; Ondrziola & Baraibar-Diez, 2018). Existing studies have overwhelmingly been carried out in the context of English-speaking countries, are cross-sectional in nature, and use surveys as a source of information.

In Spain, the reconciliation of work and family life has been a matter of enormous concern in recent decades (León-Llorente, 2016). The lack of reconciliation influences the reasons, attributable to companies, for a low birth rate in Spanish society, along with natural growth in the population (difference between births and deaths) that had been at historical lows: at -113.023 (2021, December), thus registering the fifth consecutive year with a natural drop. In turn, according to the data taken from the Active Population Survey (2018), it indicates that almost half of the workers (49.55%) in Spain could not alter their working hours in 2018 to be able to assume responsibilities related to the care of other people, thus describing an alarming panorama to which social agents must inescapably pay special attention.

Our research aims to study the effect of work-life balance practices (measured as an index of five items) on firm profitability. While many studies are multicountry, we focus on a single country, Spain and on Spanish listed companies (IBEX-35) in the 2015-2022 period. The selected companies are the most transparent ones in the Spanish market; they have hired more than 1.1 million workers; they have larger resources to invest; and, due to legitimacy, have a greater need to indicate commitment to their workers and be benchmarks for other companies. Thus, in line with Akter Ali and Chang (2021) who indicate how large Australian companies have resources to invest in work programmes to retain human resources, these companies could be a good example of human resources and corporate social responsibility policies in terms of reconciling work and family life. Moreover, we consider a time period characterised by a health crisis like the COVID which had a massive impact on business and labour dynamics.

Paper contributions are the following. Firstly, to focus on a single country like Spain offsets the cultural effect and differences in regulations found in multi-country studies (Opatrná & Prochazka, 2023). To that end, we have built a database of large companies listed on the IBEX-35 for the period 2015-2022. Thus, our research covers a longitudinal period of time, unlike most previous studies with an Anglo-Saxon scope. Moreover, the selected period covers company-based work-life balance measures before and after the COVID-19 pandemic, which enables us to test whether such practices have changed since crisis times and their effect on performance. In addition, a work-life balance index has been constructed from the literature review undertaken with secondary information, in contrast to most previous empirical evidence that resorts to surveys as a method of collecting
information, or studies that only focus on a specific work-life balance measure. Additionally, in our model, unlike previous studies (with the exception of Akter et al., 2021), we have attempted to take into account an endogeneity problem.

The rest of the paper is organised as follows: after this introduction, the second section presents the relationship between work-life balance measures and business performance on a theoretical level, and sets out the hypotheses to be tested out. The third section details the composition of the sample, the variables and the methodology used. The fourth section presents the results obtained, and finally, the main conclusions of the study are presented.

2. Review of the Literature and Hypotheses

Taking different theoretical approaches, academic research has studied the relationship between work-family and work-life balance schemes (Fan, Potocnik & Chaudhry, 2021; Rothbard, Beetz & Harari, 2021) and the performance of workers and companies (Opatrná & Prochazka, 2023). Over the years, work-family life balance schemes and measures have become institutionalised and have long since ceased to be a passing fashion (Osterman, 1995) to become a reality. These measures to improve the work-family balance for the workforce have, on the one hand, “hard” objectives, e.g., to improve productivity, which ultimately translates into greater business value, and, on the other hand, “soft” objectives, e.g., to reduce staff turnover and increase employees’ commitment to the company (Bloom, Kretschmer & Van Reenen, 2009).

In any case, the real extent of the potential benefits of work-life balance measures is unknown in the business world, and companies may therefore prefer to delay their introduction until they are more aware of them (Böckerman, Bryson & Ilmakunnas, 2012). In this sense, the interest of organisations in implementing socially responsible measures, such as those seeking work-family balance, does not contradict the search to optimise business value (Biedma & Garrido, 2014). Moreover, work-family life schemes become incentives for employees who demand them, as not all companies offer them (Goodstein, 1994; Ingram & Simons, 1995). The aim of this section is to review the main theoretical approaches that can justify the impact of work-life balance measures on business results, as well as the existing empirical evidence in this regard. Studies tend to focus on the context of Anglo-Saxon countries, are cross-sectional in nature, and use surveys as a source of information. Some recent systematic reviews of the literature linking work-life balance schemes to organisational outcomes can be found in Akter, Ali and Chang (2022) or Opatrná and Prochazka (2023). Among these, some studies consider different measures affecting organisational outcomes such as productivity (Berkery et al., 2017). However, only some focus on firm performance. Results indicate in general that there is a weak positive relationship between work-life balance policies and performance (Opatrná and Prochazka, 2023) although they differ in terms of the measures considered (individual policies or a bundle of these) and in the method of analysis. Based on literature review at a company level, we will first, present the studies in which work-life balance measures have a positive effect on performance, and secondly, those which suggest a negative effect. Table 1 shows a summary of the main arguments and theories to explain the relationship between work-life balance measures and firm performance as well as the previous empirical evidence.

Pfeffer (1992) and Perry-Smith and Blum (2000) suggest that focussing on the package of measures rather than on individual work-family policies makes more sense, as the package includes additional and related elements that help employees to manage their work and family environment holistically. Moreover, as these measures are not institutionalised in all companies, current and future employees may perceive them as a positive differential, compared to companies that do not offer them. These measures may affect their performance and also translate into better business results. Similarly, Bloom et al. (2009) suggest that work-family packages mitigate non-work worries, and their non-compulsory nature may be perceived by employees as receiving special treatment and are therefore likely to look on this favourably, contributing extra effort. Konrad and Mangel (2000) based their theoretical argumentation on Akerlof’s gift exchange model (1970), indicating that this model provides a possible reason why work-family schemes may produce extra effort on the part of employees. The model assumes that employees develop feelings towards the company and that these feelings lead them to giving the company a gift by exerting additional effort beyond reasonable patterns - and since gift-giving is governed by reciprocity - the company must replicate workers’ efforts, otherwise workers may reduce their own effort. Konrad and Mangel
(2000), on the basis of this theoretical approach, argue that work-family schemes can function as a present from
the company, producing higher employee productivity as a sign of gratitude towards it.

<table>
<thead>
<tr>
<th>Author</th>
<th>Theoretical approach</th>
<th>Arguments</th>
<th>Effect on firm performance</th>
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<tbody>
<tr>
<td>Ortiz-Bonin, Blahopoulou, García-Buades &amp; Montañez (2023)</td>
<td>Theory of organizational support (Lewin, Tax, Stavenhagen, Fals, Zamosc &amp; Kemmis, 1946)</td>
<td>Societies behave like fields of force in which individuals, companies and spaces interact in tension. This means that when one element of society is modified, the rest of the parts of the system perceive an alteration in their state.</td>
<td>Employees satisfied with the organization's responses (offering help and care to workers and family members affected by COVID-19) helped achieve goals in work and personal life.</td>
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<td>Akter et al. (2021)</td>
<td>Human resource management theory (Huselid, 1995)</td>
<td>Work-life programs can generate a higher level of motivation and commitment among company employees.</td>
<td>This study presents evidence of a high positive impact, between work-life programs and the financial performance of organizations (net profit).</td>
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<td>Whynmann, Baimbridge, Buraimoc &amp; Petrescu (2015)</td>
<td>Theory of Resources and Capabilities (Wernerfelt, 1984; Barney, Wright &amp; Ketchen Jr, 2001)</td>
<td>Given the diversity, availability and scarcity of companies' resources, we should consider the resources and capabilities that each one can capitalize upon in the short term to make efficient use of them. This efficient combination would enable specific actions to be undertaken with strategic purposes to achieve and maintain their competitive advantage.</td>
<td>The implementation of conciliation measures in business contexts of greater pressure on economy has significant positive effects on company performance (sales per employee).</td>
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<tr>
<td>Yamamoto &amp; Matsura (2014)</td>
<td>Microeconomic theory, marginal productivity (Clark, 1899)</td>
<td>It is the variation in the quantity of a good produced, motivated by the use of an additional unit of a productive factor, while the remaining factors remain constant.</td>
<td>Work life balance practices (reduction of overtime and childcare time) have positive effects on company productivity (assets and sales ratio).</td>
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<td>Cegarra-Leiva et al. (2012)</td>
<td>Social exchange theory (Blau, 1964)</td>
<td>Workers who feel that they are being treated positively by the company will develop a more positive work attitude, increasing their commitment and performance.</td>
<td>Non-significant effect of work life balance practices on firm performance [product quality, services and programs; development of new products and services; ability to retain essential employees; customer or customer satisfaction; and relations between employees in general].</td>
</tr>
<tr>
<td>Lee &amp; Kim (2010)</td>
<td>Psychological contract theory (Rousseau, 1995)</td>
<td>An employer's concern or special treatment for their employees, symbolised by family treatment when preventing and resolving conflicts between work and family, fosters organisational commitment, employee loyalty, and motivates employees to do their jobs better.</td>
<td>Dependent care assistance programs have a negative and significant effect on company performance in terms of cost increases.</td>
</tr>
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<td>Bloom et al. (2009)</td>
<td>Theory of Resources and Capabilities (Barney et al., 2001)</td>
<td>Given the diversity, availability and scarcity of companies’ resources, these resources, and the capabilities that each one can capitalize upon in the short term to make efficient use of them. This efficient combination would enable specific actions to be undertaken with strategic purposes to achieve and maintain their competitive advantage.</td>
<td>Work-family packages have a significant effect on fostering competitive advantages.</td>
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<td>Martínez-Sánchez et al. (2007, 2008)</td>
<td>Social exchange theory (Blau, 1964)</td>
<td>Employees feel more obligated and have a greater commitment to socially responsible companies. Teleworkers tend to reciprocate with greater organisational commitment in exchange for the flexibility to better meet individual and family needs.</td>
<td>As a result of the work life balance practices, teleworking has a positive and significant effect on business performance (ROA, ROS, total profitability and market share growth).</td>
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<tr>
<td>Sands &amp; Harper (2007)</td>
<td>Strategic Human Resource Management Theory (Cappelli &amp; Singh, 1992)</td>
<td></td>
<td>Teleworking has a positive and significant impact on company ROA and ROE.</td>
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<td>Bloom &amp; Van Reenen (2006)</td>
<td>Theory “X” and “Y” (McGregor, 1985)</td>
<td>The company must promote “X” (worker as a means of production that must be directed) and “Y” profiles (workers as groups that organise themselves). Company leaders, through the implementation of conciliation measures, aim to be more astute than their competitors to improve their performance.</td>
<td>Company work-family balance policies have no significant effect on any increase in sales.</td>
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<td>Michie &amp; Sheehan-Quinn (2001)</td>
<td>Akerlof’s gift exchange model (Akerlof, 1970, 1982)</td>
<td>The exchange of gifts generates feelings about the company and these feelings lead employees to give the company a gift, exerting additional efforts beyond reasonable standards. Since gift-giving is governed by the principle of reciprocity, the company must replicate the workers’ efforts, otherwise employees may reduce their own effort.</td>
<td>Work life programmes have a significant positive effect on productivity (sales per employee) in companies that employ a higher percentage of professionals and women, but not in those that employ less qualified and lower paid personnel, of both sexes.</td>
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<td>Perry-Smith &amp; Blum (2000)</td>
<td>Theory of Organisations, Symbolic action (Pfeffer, 1992)</td>
<td>Symbolic action manifests itself in different ways, including unconsciously within organisations, influencing the behaviour of individuals. Thanks to the principle of similarity, the behaviours of workers could be effectively structured, given that their collective behaviour and actions that symbolise organisational concern can provide intangible benefits to these enterprises.</td>
<td>Conciliation programs have significant positive effects on business results (ROE and Sales per employee).</td>
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<td>Edward, Clifton &amp; Kruse (1996)</td>
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<td>Flexible work schedules in the pharmaceutical industry have a positive and significant impact on organisational performance (net sales per employee).</td>
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Table 1. A review of theories explaining the performance of work life balance measures

Building on the foundations of Resource and Capability Theory (Barney, 1991), and indirectly on the concepts associated with Akerlof’s gift exchange model (1970), work-family policies can also be a source of sustainable competitive advantage, as human resources can help to create and maintain this (Bloom et al., 2009). In particular, these work-family packages are internal resources and a possible source of an advantage as they are not easy for competitors to imitate. This is due to the fact that the existence of synergies between the packages of measures used and corporate philosophy make it difficult to emulate them (Perry-Smith & Blum, 2000). Thus, if work-family balance schemes act as inimitable and valuable organisational resources (Huselid, 1995; Wright,
Dunford & Snell, 2001; Stavrou, Brewster & Charalambous, 2010), their creation and development may affect corporate resource allocation and therefore firm profitability. In this sense, Konrad and Mangel (2000) argued that work-life balance measures can safeguard and boost investments in human capital and these, in turn, can create a source of competitive advantage by providing flexibility to their workers, who can assist organisations in responding to volatilities in their business environment.

Likewise, taking as a basis McGregor's "X" and "Y" theories (1985)[2] and extending the theoretical framework of the Resource and Capability Theory, Whyman et al. (2015) studied the link between flexibility in the workplace and business performance in contexts of greater pressure on the economy (price competition, increased regulation, etc), where, by promoting the "X" profile (worker as a means of production that must be managed) or the "Y" profile (workers as groups that organise themselves), business leaders attempt to outsmart their competitors in order to improve their own performance by implementing work-life balance measures. The existence of work-life balance policies positively affects the motivation of human resources, so that they will better use their knowledge and skills to contribute to higher value creation in the organisation (Akter et al., 2021).

In line with the above theoretical arguments, empirical studies that support the positive effect of work-life balance measures on business results are as follows. Edward et al. (1996), for a sample of 36 American pharmaceutical companies, concluded that a policy of flexible working hours boosted productivity. Perry-Smith and Blum (2000), based on 527 surveys of American industrial companies between 1993 and 1994, suggested a significant link between organisations with a greater variety and introduction of work-family policies, as well as a higher market share and improved work motivation. Michie and Sheehan-Quinn (2001), using a sample of 360 companies with more than 50 employees in the UK services and manufacturing sectors, suggest that part-time employment policies aimed at increasing the "flexibility" of the workforce are positively correlated with short-term financial performance. Sands and Harper (2007) analysed household benefits in 13 large companies and found that teleworking was positively associated with economic and financial profitability. In the case of Australia, Akter et al. (2021) concluded that work-life balance measures were positively associated with business performance, the effect being greater in large and manufacturing companies. In the Spanish case, the study by Cegarra-Leiva et al. (2012) using surveys on SMEs in the metal sector highlighted the moderating role of culture in the relationship between the availability of work-life balance practices and organisational performance. Berkery et al. (2017), for a sample of firms in seven EU countries, show a significant association between twelve individual work-life balance measures and productivity. Some studies consider how work-life balance measures mediate between a set of variables and performance. As regards listed companies in Spain over the period 2008-2013, Odriozola and Baraibar (2018) found, a non-significant effect of this type of measure mediating in the relationship between female participation and company performance.

The effect of teleworking as a work-life balance measure on business performance has also been analysed (Martínez-Sánchez et al., 2007, 2008), explaining how human resources commitment practices affect firm performance. Ortiz-Bonin et al. (2023) show how COVID-19 favours employees' work life balance which, in turn, affects their performance positively.

Konrad and Mangel (2000), through a 1990 survey of 658 Fortune 1000 companies, pointed out that the impact of work-life balance schemes on productivity depended on the type of workers employed. That is, companies that employed a higher percentage of professionals and women showed a more robust relationship between work-life schemes and productivity. Conversely, in companies that employ fewer skilled and lower-paid staff, the benefits of work-life schemes were insignificant in relation to productivity. Whyman et al. (2015), based on a 2004 survey in the UK, concluded that work-life balance measures had heterogeneous results, depending on the type of measures. Thus, some may be associated with an improvement in turnover (performance-related bonuses or shift work), while others may result in negative aspects.

Nonetheless, work-life balance practices can also be costly investments and the potential benefits are likely to be lower than the expected costs, which could justify a negative effect on business performance (Konrad & Mangel, 2000). Michie and Sheehan-Quinn (2001) highlighted, for British companies, that not adopting flexible practices could be detrimental to innovation. Lee and Kim (2010) for a sample of Korean companies found that flexibility
in working hours had a negative effect on productivity. Whyman et al. (2015), in their UK research on workplace flexibility measures and their relationship with business performance, indicated that there was a negative impact in the case of some specific measures, such as, autonomy at work, the use of part-time workers, and time spent on training. Their results suggest that the choice of workplace measures needs to be carefully assessed and appropriately targeted to the type of job.

Based on 1,320 medium-sized companies in the manufacturing sector in four countries (UK, France, Germany and the United States) between 2000 and 2003, Bloom and Van Reenen (2006), found that the correlation between productivity and work-family balance policies was essentially zero. They suggested that much of the literature on human resources has overestimated the potential of work-family balance policies to increase productivity and, therefore, their relationship with the “Win-Win” model is more than optimistic. In the same vein, Bloom et al. (2009) concluded that companies with more women in managerial positions, or with skilled workers, did not benefit more from work-family balance policies, and that work-family balance packages did not directly or indirectly significantly guarantee or affect the company’s financial performance. Yamamoto and Matsura (2014) initially found a positive correlation between work-family and work-life balance practices and total labour productivity but clarified that this correlation stems from reverse causality, where companies with higher productivity tend to implement these measures because they can afford to comply with aspects of social responsibility. Thus, once they have taken into account for unobservable heterogeneity, there is no relationship between work-life balance measures and productivity.

Thus, despite the existence of a majority of theoretical arguments supporting a positive effect of work-life balance practices on business performance, it is true that this scarce empirical evidence is not conclusive. Consequently, the following hypothesis is put forward:

**Hypothesis 1**: Work-life balance measures affect business profitability.

Figure 1 summarises the proposed model.

![Figure 1. Model proposed](image)

### 3. Sample, Variables and Methodology

#### 3.1. Sample

The database analysed corresponds to all the Spanish companies listed on the IBEX-35 over the period 2015-2022. Similar to the research by Joecks (2021), which analyzed the provision of conciliation services in companies listed on the stock exchanges of Germany, Italy, Sweden and the UK, we have focused our research on listed companies, which, unlike the rest of the companies, publish information on conciliation, since this is part of the negotiation agenda between human resources and unions (Meil et al., 2008). In addition, to focus on a single country like, in this case, Spain, allow us to avoid different regulations typical from cross-country studies. The initial database was an unbalanced panel composed of 49 companies (276 observations). As financial and insurance companies present specific characteristics from the accounting point of view required by international regulators (European Commission, ECB and the Basel Committee), they were excluded from this database (9 companies, 57 observations). After applying the above filter, a sample of 40 companies and 219 observations was available. However, it is necessary to mention that in the OLS estimation undertaken, due to the existence of
missing values in some of the variables together with the use of lags to control for any possible problem of endogeneity the final sample amounted to 163 observations.

The construction of the reconciliation index has been the following: First, an in-depth reading of the documentation of each of the companies in the sample was carried out, consulting various documents in each of the years under study (2015-2022), such as Corporate Social Responsibility Reports, Non-Financial Information Statements, Equality Plans and Sectoral and Company Collective Agreements. The result of this stage has been to have detailed conciliation measures at the company level, following the legal principle of “erga omnes” of collective bargaining (all company workers without distinction of sex and job title). Next, we proceeded to verify the level of coincidence of the existing measures in the Spanish companies of the IBEX-35 with the international investigations of Anglo-Saxon origin, which are the largest producers of investigations of this nature (Osterman, 1995; Konrad & Mangel, 2000; Perry-Smith & Blum, 2000; Michie & Sheehan-Quinn, 2001; Bloom et al., 2009; Whyman & Petrescu, 2011; Whyman et al., 2015; Akter et al., 2021; Joecks, 2021). Next, the economic-financial information has been extracted from the consolidated annual accounts presented to the CNMV (National Securities Market Commission), and the number of employees by category and sex from the Annual Accounts Report. In addition, the SABI (Sociedad de Análisis de Balances Ibéricos) database was used to collect information on the sector of activity of the companies and the year in which they were founded.

3.2. Measurement of Variables

*Dependent variable* (performance). Economic profitability (ROA), understood as the profit obtained by a company from running its business without taking into account its financial structure. This reflects whether or not the company is using its investments efficiently. This has been calculated as the ratio between net operating profit and total assets, in line with studies on the subject of work-life balance (Perry-Smith and Blum, 2000) and other previous literature (Mínguez-Vera & Martín-Ugedo, 2005; Rouf & Abdur, 2011; Almajali, Alamro & Al-Soub, 2012).

*Explanatory variable*. The explanatory variable considered is a work-life balance index. Work-life balance measures that have been individually agreed upon with managers or senior technicians, outside collective bargaining agreements, have not been considered. Thus, the work-life balance index in our study is made up of five items or work-life balance measures, which are the measures most frequently used in companies in Anglo-Saxon countries and which are applicable to the Spanish case. In contrast to previous studies that only considered specific work-life balance measures (Konrad & Mangel, 2000; Michie & Sheehan-Quinn, 2001; Bloom et al., 2009; Whyman & Petrescu, 2011; Whyman et al., 2015; Akter et al., 2021), we constructed an ad-hoc work-life balance index from secondary sources of information that allowed us, in the same way as other studies focused on the United States (Osterman, 1995; Perry-Smith & Blum, 2000), to take into account the number of work-life balance measures in the company. Specifically, the variables that make up the index are the following:

- **Flexitime** (e.g., Osterman, 1995; Konrad & Mangel, 2000; Perry-Smith & Blum, 2000; Michie & Sheehan-Quinn, 2001; Whyman & Petrescu, 2011; Whyman et al., 2015; Joecks, 2021): is an arrangement whereby employees are allowed to decide the time of day when they start and stop work, outside a key time band where all employees must be present (Baltes, Briggs, Huff, Wright & Neuman, 1999). Flexitime is a valuable organisational advantage offered to employees and is also a system that crosses the boundaries identified in the process of interrelation between the domains of work and private life (Voydanoff, 2004). In Spain, this is regulated by Royal Decree Law 6/2019 and Art. 34.8 of the Workers’ Statute.
- **Part-time work** (e.g., Osterman, 1995; Konrad & Mangel, 2000; Michie & Sheehan-Quinn, 2001; Bloom et al., 2009; Whyman & Petrescu, 2011; Whyman et al., 2015; Akter et al., 2021, 2022): as defined by the Spanish Ministry of Labour, employment contracts shall be understood as part-time when the services rendered by the employee have been agreed on the basis of a number of hours per day, week, month or year that is less than the working hours of a comparable full-time worker. In Spain, this is regulated by Royal Decree Law 6/2019.
• Extra days of leave, holidays and maternity/paternity leave (e.g., Konrad & Mangel, 2000; Joecks, 2021): additional days over and above those set down in the legal provisions that the company grants to its employees.

• Teleworking (e.g., Bloom et al., 2009; Whyman & Petrescu, 2011; Whyman et al., 2015; Atker et al., 2021, 2022): the International Labour Organisation defines telework as a form of work that is undertaken at a location away from a central office or production facility, thus separating the worker from personal contact with work colleagues in that office, with new technologies making this separation possible by facilitating communication.

• Childcare vouchers/financial aid (e.g., Osterman, 1995; Konrad & Mangel, 2000; Perry-Smith & Blum, 2000; Bloom et al., 2009; Joecks, 2021): is a benefit offered by companies to their employees whereby the company pays part or all of the costs of schooling for employees’ children, in the form of an allowance or voucher.

Similar to Osterman (1995) and Perry-Smith and Blum (2000), once the above items had been identified by us, each company and year was verified to establish whether or not it included any of the five measures mentioned above (using dummy variables which took a value of 1 if the company applied the work-life balance measure to its employees and 0 otherwise). Once these dummy variables had been accounted for by company and year, the index was calculated, as defined by the number of items that the company offered in each year, compared with the total number of items considered (WLBP_INDEX).

As can be seen in Figure 2, this conciliation index oscillated around 40% in the period 2015-2019, whereas from 2020 onwards there was a significant increase to around 60% as a result of the increase in conciliation measures to alleviate the effects of the pandemic. This variation is due to the fact that IBEX-35 companies, until 2019, went from offering an average of two of the five measures (40%), up to a higher average of three out of the five (60%) conciliation measures that make up our index.

**Figure 2. Evolution of work-life balance index**

**Control Variables**

With regard to company characteristics, four variables have been taken:

• Size (SIZE): in addition to its inclusion in the IBEX-35, and, consequently, size and job creation, among other characteristics (Ballesta & Lema, 2003), company size was associated with competitive advantage (Camisón, 1996), as larger companies can obtain greater profitability thanks to producing economies of scale. This is measured as the company’s total assets (in the form of a logarithm in regression analyses), in line with previous studies (Konrad & Mangel, 2000; López, Gómez & Sánchez, 2020).

• Leverage (LEV): the level of debt was measured by the ratio of third-party funds (short- and long-term) to total assets (Pérez-Pérez, Vela-Jiménez, Abella-Garcés & Martínez-Sánchez, 2017; Fernández, Marqués &
Rapela, 2019). Third-party financing may entail some kind of tax deduction of the interest associated with that debt, and this could have a positive impact on business performance.

- Company age (AGE): age is the result of the learning process and accumulation of experience (Jovanovic, 1982), which may mean that older companies have a lower probability of failure and higher profitability (Ballesta & Lema, 2003). In our case, this variable has been calculated as the difference between the year when the company was founded and each year of study.

- Type of industry (SECTOR): a dummy variable that takes the value of 1 if the company belongs to a regulated sector (energy, oil, gas and electricity, telecommunications and transport), or 0 otherwise. For our research, we consider the importance of differentiating by sector to observe whether there are any differences between profit-making companies, where the business was run under conditions of free competition, and, on the other hand, sectors where these circumstances are otherwise and were considered to be regulated markets (Martínez-Martín, Sánchez-Galindo, Pérez-López & Santero-Sánchez, 2019; Acolt, Flores & Franco, 2021).

In addition to the company characteristics itself, the percentage of women (WOMEN) and the percentage of qualified employees (QUALIFIED) were taken as control variables linked to the particular conditions of the workforce. The first of these was calculated taking the ratio between the number of women in the company and the total workforce (Prottas, 2013; Boscha, Las-Heras, Russoc, Rufcanind & Grau, 2017). The percentage of qualified employees was calculated by taking the ratio of the total number of qualified employees in the company, against the total number of employees, in line with previous studies (Rothbard, Phillips & Dumas, 2005; Boswell & Olson-Buchanan, 2007). Finally, a dummy variable related to the period of time analysed was considered. Specifically, this takes the value of 1 for the years of the pandemic crisis (2020-2022) (COVID) and 0 otherwise (that is, for years before the health crisis).

3.3. Methodology

To test the above hypothesis, a linear regression model (OLS, Ordinary Least Square) clustered at company level was estimated using the cluster option and STATA15 software. This option has been used because we have information about the companies in more than one year, and, in this way, we can control for unobservable heterogeneity. In addition, the endogenous explanatory and control variables were lagged by one year to monitor for any possible endogeneity problem in the proposed model (Akter et al., 2021). Estimations have also been corrected for a problem of heteroscedasticity using the robust option of the STATA software. Initially, a panel data methodology, such as the Generalised Method of Moments (GMM), proposed by Arellano and Bond (1991), was considered. However, that methodology was finally discarded, given our sample size and due to the fact that the results would not be fully reliable, since the number of instruments or lags would be larger than the number of companies.

Specifically, the model used was OLS linear regression, which is shown below:

\[
ROA_i = \alpha_0 + \beta_1 WLBP\_INDEX_{i,t-1} + \beta_2 SIZE_{i,t-1} + \beta_3 LEV_{i,t-1} + \beta_4 AGE_i + \beta_5 SECTOR_i + \\
\beta_6 WOMEN_{i,t-1} + \beta_7 QUALIFIED_{i,t-1} + \beta_8 COVID_i + \epsilon_i
\]

Where: X are the explanatory and control variables, and \(\epsilon_i\) is the error term.

4. Results

Table 2 shows the main descriptive statistics of the variables. The mean value of the main explanatory variable (WLBP_INDEX) was 0.453. Although it is not shown, it should be mentioned that there is a significant increase in this index if we compare its value between the pre-pandemic period (mean value, 0.315) and from 2020 onwards (mean value, 0.480) according to the U Mann Whitney test (U: -2,999, p-value = 0.003).

It was also observed that the mean value of profitability (ROA) was 0.058, with a maximum of 0.291 and a minimum of -0.246, which indicates that there were more companies with ROA above the mean, as the median was lower than the mean and the minimum value was negative. Regarding company size (SIZE), the difference between the maximum and minimum value denotes the dispersion of companies in the sample. These sample companies showed a mean level of debt to assets (LEV) of 0.659. The average age of the companies was over...
39 years (AGE). The percentage of women in relation to the total workforce (WOMEN) stood at 0.358, which indicates that men outnumbered women in a higher number of companies, while the companies in the sample had an average of 0.317 qualified staff as a proportion of the total workforce (QUALIFIED). A total of 79.75% of the companies belonged to regulated sectors (SECTOR).

### Table 2. Descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Median</th>
<th>Maximum</th>
<th>Minimum</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.058</td>
<td>0.055</td>
<td>0.291</td>
<td>-0.246</td>
<td>0.066</td>
</tr>
<tr>
<td>WLBP_INDEX</td>
<td>0.453</td>
<td>0.400</td>
<td>1</td>
<td>0.000</td>
<td>0.227</td>
</tr>
<tr>
<td>SIZE</td>
<td>2.38e+07</td>
<td>1.33e+07</td>
<td>1.24e+08</td>
<td>368,386</td>
<td>2.93e+07</td>
</tr>
<tr>
<td>LEV</td>
<td>0.659</td>
<td>0.673</td>
<td>1.063</td>
<td>0.243</td>
<td>0.170</td>
</tr>
<tr>
<td>AGE</td>
<td>39.656</td>
<td>33</td>
<td>98</td>
<td>2</td>
<td>24.692</td>
</tr>
<tr>
<td>WOMEN</td>
<td>0.358</td>
<td>0.347</td>
<td>0.762</td>
<td>0.078</td>
<td>0.143</td>
</tr>
<tr>
<td>QUALIFIED</td>
<td>0.317</td>
<td>0.264</td>
<td>0.987</td>
<td>0.044</td>
<td>0.222</td>
</tr>
</tbody>
</table>

Other control variables | Percentage / (number of observations = 1)
---|---
SECTOR | 79.75% (130)
COVID | 38.65% (63)

Before estimating the linear regression model, a comparison was made between subsamples to see if there were any statistically significant differences in business performance, depending on company practices to achieve work-life balance and those organisational characteristics considered as control variables. In order to divide the total sample into two subsamples, the median value of ROA was calculated: on the one hand, the companies whose performance was above the median, and, on the other, those whose performance was below the median. The non-normality of the dependent variable justified the fact that the median was a more representative indicator of central tendency than the mean when constructing the groups.

As Table 4 indicates, in companies whose ROA was above the median (i.e., they were more profitable), their size (SIZE) and level of leverage (LEV) was lower. To confirm whether the detected differences were statistically significant, the non-parametric Mann-Whitney U test was applied for two independent samples. The results...
enabled us to conclude that the differences observed were statistically relevant and, consequently, not attributable to chance in the case of size or level of leverage. For the rest of the variables considered, there were no significant differences.

<table>
<thead>
<tr>
<th>Variable</th>
<th>ROA above median (N = 109)</th>
<th>ROA below median (N = 110)</th>
<th>Mann Whitney's U</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
<td>AR*</td>
</tr>
<tr>
<td>WLBP_INDEX</td>
<td>0.462</td>
<td>0.400</td>
<td>104.25</td>
</tr>
<tr>
<td>SIZE</td>
<td>1.69e+07</td>
<td>1.06e+07</td>
<td>94.46</td>
</tr>
<tr>
<td>LEV</td>
<td>0.671</td>
<td>0.672</td>
<td>100.00</td>
</tr>
<tr>
<td>AGE</td>
<td>38.651</td>
<td>34.000</td>
<td>109.68</td>
</tr>
<tr>
<td>WOMEN</td>
<td>0.379</td>
<td>0.352</td>
<td>113.99</td>
</tr>
<tr>
<td>QUALIFIED</td>
<td>0.309</td>
<td>0.273</td>
<td>111.83</td>
</tr>
<tr>
<td>SECTOR</td>
<td>75.230</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COVID</td>
<td>33.03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[a\] AR refers to the average range of the data.

* Statistically significant at 10% ** Statistically significant at 5% *** Statistically significant at 1%

Table 4. Performance differences depending on business characteristics

Table 5 presents the results for the possible influence of adopting work-life balance practices, and other business characteristics, on firm profitability. Model 1 incorporated only the control variables, while model 2 also includes the work-life balance index. With regard to the main explanatory variable, and in line, for example, with Michie and Sheeham-Quinn (2001) and Sands and Harper (2007), there is a statistically positive and significant influence of the work-life balance index (WLBP_INDEX) on economic profitability at the 5% level. As regards the control variables, company size (SIZE) had a negative and significant coefficient (p-value < 0.05). Thus, larger size appeared to be associated with a lower level of profitability, in line with the findings of Ocaña, Salas and Vallés (1994) in their research on 670 Spanish SMEs in 17 business sectors. The results of Bernabé-Pérez and Sánchez-Ballesta (2002), comparing more than 7,000 companies from all sectors of Spanish business, were similar. This negative relation supports the argument that larger firms are likely to face more acute problems of agency and asymmetric-information (De Miguel, Pindado & de la Torre, 2004) or problems arising from the effects of life cycle and scale (Leech & Leahy, 1991). Firm leverage (LEV) showed a negative correlation with profitability (p-value < 0.01). According to Gordon and Shapiro (1956), the cost of debt could have a negative impact on profitability because the effects of external financing (financial costs) are included in net income for the year.

In addition, the results obtained suggest that the total percentage of women in companies (WOMEN) has a positive impact on performance. This confirms a gender effect, showing how women have a managerial capability that affects firms’ performance. Gender diversity brings a different point of views when adopting decisions, a fact which may favour decision making, thus affecting firm performance (Solakoglu & Demir, 2016). Along the same lines, previous studies such as, for example, Erhardt, Werbel and Schrader (2003) suggest a positive and significant relationship between the percentage of women on the board of directors of the 127 largest US companies (1997-1998 period) and financial and economic profitability. Adler (2001), based on 215 Fortune 500 companies (1980-1998), found that companies with a higher number of women managers achieved better performance (profit to revenue ratio, profit to assets ratio, and market capitalisation) than the average for their sector. As expected, the COVID variable presents a negative and significant coefficient (p-value < 0.05), suggesting that, over the years of the pandemic crisis, companies recorded low levels of profitability in Spanish enterprises (Blanco, Mayordomo, Menéndez & Mulino, 2021).

Finally, the sector which the firm belongs to (whether regulated or not), the age of the company, and the percentage of qualified employees (QUALIFIED) did not significantly influence their performance.
## Table 5. Impact of WLBP on firm performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.358***</td>
<td>0.351***</td>
</tr>
<tr>
<td></td>
<td>(4.17)</td>
<td>(4.58)</td>
</tr>
<tr>
<td>WLBP_INDEX</td>
<td>0.074**</td>
<td>0.074**</td>
</tr>
<tr>
<td></td>
<td>(2.67)</td>
<td>(2.85)</td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.018***</td>
<td>-0.017**</td>
</tr>
<tr>
<td></td>
<td>(-2.92)</td>
<td>(-2.85)</td>
</tr>
<tr>
<td>LEV</td>
<td>-0.100***</td>
<td>-0.123***</td>
</tr>
<tr>
<td></td>
<td>(-2.76)</td>
<td>(-3.61)</td>
</tr>
<tr>
<td>AGE</td>
<td>0.003</td>
<td>-0.001</td>
</tr>
<tr>
<td></td>
<td>(0.47)</td>
<td>(-0.18)</td>
</tr>
<tr>
<td>SECTOR</td>
<td>0.023</td>
<td>0.018</td>
</tr>
<tr>
<td></td>
<td>(0.88)</td>
<td>(0.77)</td>
</tr>
<tr>
<td>WOMEN</td>
<td>0.096</td>
<td>0.121**</td>
</tr>
<tr>
<td></td>
<td>(1.69)</td>
<td>(2.21)</td>
</tr>
<tr>
<td>QUALIFIED</td>
<td>-0.007</td>
<td>-0.015</td>
</tr>
<tr>
<td></td>
<td>(-0.27)</td>
<td>(-0.60)</td>
</tr>
<tr>
<td>COVID</td>
<td>-0.024*</td>
<td>-0.035**</td>
</tr>
<tr>
<td></td>
<td>(-1.88)</td>
<td>(-2.49)</td>
</tr>
<tr>
<td>F</td>
<td>4.07***</td>
<td>5.75***</td>
</tr>
<tr>
<td>R²</td>
<td>0.2629</td>
<td>0.307</td>
</tr>
<tr>
<td>No. of Companies</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>No. of Observations</td>
<td>163</td>
<td>163</td>
</tr>
</tbody>
</table>

(t-value). *Statistically significant at 10%, **Statistically significant at 5% ***Statistically significant at 1%

Additional and Robustness-Related Results

The following robustness tests have been run. The estimates of the initial models were repeated by considering instead of the current work-life balance index (five items) another index which additionally considers five other indicators used in other countries: hours bank, days; hours for personal matters; work/digital disconnection; health insurance; meal vouchers / company canteen. In addition, total sales or number of employees was considered as an indicator of company size instead of total assets. We have also considered the percentage of women in the managerial team or the board of directors, instead of the total number of women in the company. A dummy variable that takes the value of 1 if the firm belongs to the manufacturing sector, and 0 otherwise, was also taken into account. Annual dummy variables were considered alternatively to the COVID variable. In all cases, the results shown in Table 5 did not vary significantly. Additionally, if the Market to Book Value ratio of a company, calculated as the quotient between the company’s market capitalisation and the book value of its equity, is considered as a performance indicator, there does not appear to be a significant effect on the work-life balance index. Finally, as additional results, we should mention that the COVID variable not only appears to negatively affect firm profitability but also positively moderate the impact of WLBP_INDEX on ROA, i.e. the positive effect of this type of practice on company performance appears to be greater in the years of health crisis.

5. Conclusions

The aim of this study was to analyse the effect of work-life balance measures implemented by Spanish companies listed in the IBEX-35 on company performance for the period 2015-2022. In this sense, we have attempted to contribute to academic community and to the current situation of large, listed companies with regard to their human resources strategies and, in particular, the ones that serve to balance work and family life in their CSR strategies, given that the scarce previous empirical evidence is not entirely conclusive.

In relation to our research, the work-life balance index has increased in Spain, especially since the COVID period. The most noteworthy conclusion is that the main explanatory variable (work-life balance index) has a
statistically significant influence on economic profitability (ROA) using a sample of the largest companies listed on the IBEX-35. Among the arguments that could explain these results, we highlight the fact that improvements in a company’s human capital (increased motivation) resulted in higher financial performance by enabling the company to improve its competitive advantage. In addition, more work-life balance measures increased employee engagement with the company, ultimately contributing to higher performance in line with results from other countries (Akter et al., 2021). As regards the behaviour of the control variables, we can conclude that larger company size is related to a lower level of profitability. In turn, the level of leverage also has a negative effect on the company profitability. Additionally, the presence of women in these companies was seen to be positively related to profitability.

The results of this research aim to contribute to increasing academic knowledge, both at a theoretical and empirical level, of practices to achieve a work-life balance and, specifically, their effect on business performance. Our findings, on the one hand, help to strengthen the conceptual arguments surrounding this concept and to contribute new evidence to the scarce data available, examining longitudinally data at company level, while taking the Spanish case -a different context- as opposed to the dominant context of the Anglo-Saxon countries. Results are in line with the Akerlof’s (1970) model that assumes that reconciliation programs can generate additional effort on the part of workers, beyond reasonable patterns. At the same time, work-family policies can also be a source of sustainable competitive advantage as human resources can help create and maintain them (Bloom et al., 2009).

In addition, our research shows that work-family balance occupies a prominent place in Human Resource Management of large Spanish listed companies, stimulated by the need to meet the social demands made by one of the key internal stakeholders: their employees. Thus, work-family balance programs implemented by Human Resources act as inimitable and valuable organizational resources (Huselid, 1995; Wright et al., 2001; Stavrou et al., 2010). In this sense, our findings should encourage Human Resources managers to promote measures that enhance work-family balance, as these do not contradict the search for optimizing business results and value (Biedma & Garrido, 2014), but on the contrary, it appears to be profitable to invest in work-family balance measures for their contribution to improving business results. In addition, a work-family balance policy can contribute to attracting and retaining talent, so it should be used together with other economic incentives to improve the employer branding, since the success of the company is implicitly linked to the performance and satisfaction of its employees.

Academic implications are linked to the positive effect of work-life measures on firm performance so like the implications regarding the mimetic effect adopting the same reconciliation practices (Haveman, 1993) of these practices among IBEX-35 firms. From a more practical perspective, at a managerial or managerial level, our results point to the need to reinforce the number of work-life balance practices, as this would not only help to improve companies’ commitment in this area but could also perhaps have a more significant effect on their performance. In this direction, policy makers could attempt to provide some kind of incentives for companies to reconcile time devoted to work and family.

This study has several limitations that, in any case, present opportunities for future research. Firstly, our results are limited to a particular group of companies characterised by their large size and membership of the IBEX-35. Although they are the best companies in terms of transparency, it should be recommendable to include other type of sample firms. Nevertheless, the availability of non-financial data is scarce in the selected period (before the change in the European regulation for non-financial information). These results should be considered with caution as there could be several variables omitted in this relation that also affect performance (e.g., some human resource-effective policies such as advising employees; the role of leaders in clarifying what are expected behaviours; promoting healthy and safe workplaces and the use of technology, etc.). For future studies, it would be interesting to compare our results with samples of companies of other sizes or listed companies in other European countries, in order to explore existing differences from an institutional point of view. In turn, with more data and information and a longer timescale, it would be possible to apply a panel data methodology and study in depth the gradual impact on business performance as a result of the implementation of work-life balance measures. Finally, it would be interesting in the future to focus on analysing the work-life balance needs of company employees and how companies themselves adapt to these needs over time, as well as the effect of these changes on the performance of the company.
Declaration of Conflicting Interests
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