Universitat Autònoma de Barcelona

Department of Business Economics

Doctorate in Economics, Management, and Organization

DOCTORAL DISSERTATION

Addressing Critical Business Issues through Strategic Management of Human Resources

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Barcelona, July 2013

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UAB Universitat Autònoma de Barcelona
UIB Universitat de les Illes Balears

ABSTRACT

In order to reach an organization's ultimate objectives as increasing company productivity and overall profitability, it is a well-known fact that employee needs should be met through various human resources (HR) policies and practices. The literature shows that an efficient strategy of human resource management (HRM), which focuses on generating and maintaining a well-motivated workforce, is a key factor for organizational success. Thus, the main purpose of the present doctoral dissertation is to better understand the impact of strategic management of HR and High-Performance Work Practices (HPWP) on several critical business issues such as gaining competitive advantage, tackling absenteeism in the workplace, and improving job satisfaction.

Firstly, developing and sustaining competitive advantage is one of the most significant factors to guarantee the survival of a company against its rivals. Many organizations attempt to generate a unique business strategy to get a competitive superiority. Some managers foresee the opportunity to gain competitive advantage through human capital, which depends on manager's talent to utilize HR practices. Therefore, the first empirical chapter of this dissertation considers the theoretical framework and the role of Strategic Human Resource Management (SHRM), which proposes a "*tight-fit*" between the management quality of human resources and business strategies. Analyzing a questionnaire from 2007 that covers the data for 401 Spanish manufacturing companies, our results provide evidence indicating that SHRM is a distinctive aspect of a firm to ensure gaining a sustainable competitive advantage. It is also significant to have the support of a higher intensity of industrial technology and a larger proportion of employees with higher education. Specifically, the large-sized firms with higher SHRM quality tend to have a better organizational performance trend.

Moreover, it is a major challenge to reduce the absence rate as it has been an emerging issue and its effects are directly proportional to decreased productivity and profitability. Although many researchers have sought solutions, there is still a lack of European research with concrete conclusions regarding the impact of the interaction between union settings and *high-performance work practices* (HPWP) on absence. Hence, the second empirical chapter of this dissertation identifies the determinants of absenteeism focusing on the interaction between labor unions and HPWP components, applying a *fractional logistic model* on the data from Spanish manufacturing companies. The results suggest that the performance-based incentives and use of job rotation/enrichment decrease the likelihood of high absence at high levels of union influence. Besides, training time and adoption of flextime practice are found

as significant workplace flexibilities to deal with absenteeism at medium and lower union-influence levels. Labor market competition also plays an important role in absenteeism. The probability of higher absence is positively related to the firm size, percentage of female workers, and percentage of part-time employees.

Finally, many studies suggest that organizations with low level of job satisfaction tend to face with absenteeism, tardiness, grievances, turnover, and strikes more frequently, which causes a large decrease in performance and profitability. Low job satisfaction has been an emerging issue in challenging business environment, especially during economic crisis. The literature suggests that participative management -as an instrument that can be influenced by a manager's talent and skills- improves job satisfaction. Therefore, the third empirical chapter of this dissertation investigates the indirect impact of participative management on job satisfaction, utilizing the European Working Conditions Survey 2010. It provides evidence that participative management style has a significant positive influence in employee job satisfaction through its intermediary determinants such as working environment and family-friendly company policies. In addition, we examine the differences in the marginal effects of participative management style, interacting with gender-effects, across nine Euro-Mediterranean countries.

ACKNOWLEDGEMENTS

The journey through earning a Ph.D. degree is a quite long and difficult one. Fortunately, I have met many friendly and nice people during my doctoral studies whose help and support made me achieve my objectives. First of all, I am grateful to my research advisor, Dr. Emilio Huerta-Arribas (*Universidad Pública de Navarra*), for his excellent guidance and suggestions on the development of this doctoral dissertation.

I am indebted to Dr. Carmen García-Olaverri (*Universidad Pública de Navarra*) for her many helpful and valuable comments on every chapter of my dissertation. I would also like to thank each member of my thesis committee, Dr. Maite Blázquez-Cuesta (*Universidad Autónoma de Madrid*), Dr. Alberto Bayo-Moriones (*Universidad Pública de Navarra*), and Dr. Ferran Mañé-Vernet (*Universitat Rovira i Virgili*) very much for their consideration and recommendations. I appreciate the time they took to evaluate my research.

Besides, I am very thankful to the director of our doctoral program, Dr. Emili Grifell-Tatjé (*Universitat Autònoma de Barcelona*), and all the professors who have collaborated in our graduate coursework from the Department of Business Economics at *Universitat Autònoma de Barcelona*, Department of Business Administration at *Universidad Pública de Navarra*, and Department of Business Economics at *Universitat de les Illes Balears*.

I would like to express my gratitude to Dr. Carlota Menéndez-Plans (*Universitat Autònoma de Barcelona*) for her kind and frank supervision and understanding during my teaching assistantship. In addition, I appreciate very much not only the distinguished administrative services of Mrs. Marta San José, Mrs. Mireia Cirera, and Mrs. María Cruz Salvatierra, but also their kindness and patience. Moreover, I want to thank Dr. Maite Blázquez-Cuesta (*Universidad Autónoma de Madrid*) one more time for her many helpful suggestions to enrich my academic articles during my research stay in Madrid.

And of course, my special thanks to my parents, Hatice and Gültekin; to my wife, Alicia Blázquez; to the rest of my family; and to my great friends and colleagues, Orsola Garofalo, Juan Carlos Valdivieso, Herberto Rodriguez, Jonathan Calleja, Sofia Peña, and many other friends for their continuous and big support, encouragement, patience, and belief in me during all these years on the way to earn this terminal degree. It would not be possible to accomplish this very valuable goal without them.

Finally, this doctoral dissertation has been developed with the financial support of *Universitat Autònoma de Barcelona*, Campus Bellaterra, 08193 Barcelona, Spain. Many thanks to this pre-doctoral research grant, I have earned my Ph.D. degree and a large amount of academic experience. I am also grateful to the Department of Business Administration at *Universidad Pública de Navarra* for the financial aid that has allowed me to attend a number of international conferences and workshops to present my research papers.

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CHAPTER 1

INTRODUCTION

Many academicians, managers, and policy-makers discuss the importance of generating and maintaining well-motivated workforces through human resources (HR) practices for organizational success. It is often suggested that strategic and efficient HR management is a key factor to achieve the ultimate organizational objectives. Therefore, the present doctoral dissertation takes into account the strategic management of HR and investigates its impact on a number of critical business issues. The first empirical chapter focuses on gaining competitive advantage through Strategic Human Resource Management (SHRM), followed by a complementing empirical chapter which examines the influence of High-Performance Work Practices (HPWP) in tackling absenteeism at the workplace under the interaction with labor unions. And the final empirical chapter explores the indirect impact of participative management style on job satisfaction through its intermediary determinants.

First of all, gaining a sustainable competitive position against rivals is crucial for any organization that operates in a competitive industry to earn the power to make sure its survival. According to Barney (2002), "a firm experiences competitive advantages when its actions in an industry or market create economic value and when few competing firms are engaging in similar actions" and links competitive advantage to performance, suggesting that "a firm obtains above-normal performance when it generates greater-than-expected value from the resources it employs". Inyang (2010) defines competitive advantage as "anything that gives an organization an edge over the competitors in its market".

Moreover, Porter (1985) advocates that competitive strategy captures the company's position in its environment, which should analyze well its industry, specializing in its surrounding forces, and watching out for an environmental change. In addition, managers need a strategy that cannot be copied or duplicated in order to accomplish a superior performance and to sustain a competitive advantage. It is necessary to apply some strategy too difficult to be simultaneously implemented by its current or potential competitors or to improve very fast than the competitors do. Although some companies can differentiate themselves in the industry based on financial sources or technological developments, it is well-known that budget size or production line supportive technologies are much easier to be imitated when they are compared to distinctive HR aspects as employee skills, attitudes, and competencies. Each worker's knowledge, commitment, participation, and motivation levels would bring a difference into the organization. Because of these reasons, it is more relevant to

focus on the quality and efficiency of SHRM activities to achieve a certain level of competitive position.

Some foresee that SHRM can be the most effective and distinguishable resource to develop this essential competitive superiority. Even though there has been a debate in the literature about the exact definition of SHRM, it is basically "a strategic approach to manage human resources of an organization. It concerns all organizational activities which affect the behavior of individuals in their effort to formulate and implement planned strategies that will help organization to achieve the business objectives" (Inyang, 2010). SHRM basically considers the influence of the compatibility or *tight-fit* between HRM and business strategies to the firm performance and its sustainability. This compatibility or fit refers to the alignment of HRM with a firm's strategic needs (Schuler and Jackson, 1999). Wright and McMahan (1992) define "fit" as "the pattern of planned HR deployment and activities to enable a firm to achieve its goal".

Finally, Inyang (2004) indicates that SHRM is an integration process of HRM principles and business strategies where strategy refers to the pattern of organizational moves and managerial approaches used to attain organization objectives and to pursue the organization's mission. Therefore, the objective of the second chapter of this thesis is to analyze the role of SHRM quality as a whole and in three specified practice bundles, showing that strategic HRM by aligning HR practices with company-specific business strategies (or a fit between HRM and business strategy) is a distinctive aspect of a company to capture a better competitive position. As a result, its major contribution is to provide empirical evidence that SHRM ensures gaining competitive advantage, using a data set from Spanish manufacturing firms.

In the third chapter of this dissertation we are addressing another globally challenging issue: Absenteeism at the workplace. According to Van der Merwe and Miller (1976), absenteeism is an unplanned incident and non-attendance when an employee is scheduled for work. Milkovich and Boudreau (1994) also define absenteeism as frequency or duration of work time lost when employees do not show up at scheduled work. Since the beginning of 1990s employers showed a larger concern on absenteeism problem as it kept on growing and causing large amount of loss in many countries. As the research summary of the European Foundation for the Improvement of Living and Working Conditions (1997) and to the studies of Gründemann and van Vuuren (1997, 1998) indicate, the 2000 largest Portuguese companies lost 7.731 million working days because of illness and 1.665 million working days as of accident in 1993.

Harrison and Martocchio (1998) indicate that the cost of absenteeism in the US in 1998 was estimated to be over $40 billion. As Glidden et al. (2009) states that the absenteeism costs large companies in the US close to $1 billion annually. The UK Labor Force Survey and the UK Office of National Statistics provide information that between 150 and 200 millions of days were lost due to sickness or injury each year between 2000 and 2008. On other hand, this number was decreased to 131 millions in 2011. Similarly, the absence rate fell below 2% right after the beginning of the economic recession. There is also a clear decreasing trend in the average number of days lost due to sickness per person during the current economic crisis period.

However, because of different labor market characteristics of Spain such as union settings and their influence in the labor market, the change in absence rate has not been the same in Spain as in the UK during crisis. This situation is demonstrated in the report about absenteeism, presented in 2012 by Adecco with the collaboration of IESE Business School, Universidad de Navarra, and Universidad Carlos III de Madrid. According to this report, absence rate in Spain did not experience a dramatic decline between 2007 and 2011, but it was slightly moderated. As a consequence, tackling absenteeism has become a primary purpose of managers and policy-makers, especially in Spain.

Regarding its determinants, Harrison and Martocchio (1998) and Johns (2001) conduct a comprehensive research by grouping the data used in the literature and state groups as the personality, demographic characteristics, job-related attitudes, decision-making mechanism, and social context. Nevertheless, Audas and Treble (2001) argue that there is no single list of predictors or theory to select the elements that might lead to absenteeism, because its origins are not the same for every individual, context, or time period.

The literature points out that the use of High-Performance Work Practices (HPWP) is a significant tool of dealing with absenteeism and improving the performance and motivation of employees, which includes employee selection and recruitment processes, compensation packages and other incentives, extensive employee involvement and training, and performance appraisal systems (Kleiner, 1990; Boudreau, 1991; Jones and Wright, 1992; Kling, 1995; Huselid, 1995). In addition, some authors suggest other predictors of absenteeism such as labor union settings and employment protection. Frick and Malo (2008) investigate the causes of sickness absenteeism partially focusing on the strictness of the employment protection legislation. They argue that employment protection does not influence the number of absence days. However, Garcia-Serrano and Malo (2009) also analyze the

Spanish case and empirically show a positive influence of union direct voice on involuntary absenteeism, consistent with a greater protection of employee rights.

Summarily, although many researchers attempted to find some solutions for absenteeism issue, there is still a lack of European research with concrete conclusions regarding the impact of the interaction between HPWP and union settings on absenteeism. As a consequence, this dissertation's third chapter identifies the determinants of absenteeism and focuses on the interaction between the labor union influence and specified HPWP components, applying a fractional logistic model on Spanish manufacturing industry.

The final empirical chapter of the present thesis examines the indirect impact of participative management on job satisfaction. A number of studies in the literature confirm that lower levels of job satisfaction causes absenteeism, tardiness, grievances, strikes, high turnover, and work-related accidents more frequently (Locke, 1976; Carsten and Spector, 1987; Farrell and Stamm, 1988; Pierce et al., 1991; Tett and Meyer, 1993; Visser et al., 1997; and Eby et al., 1999). In the end, this causes a large amount of loss and a decrease in profitability and efficiency.

According to Schneider and Snyder (1975) job satisfaction can be formally defined as a personal evaluation of the job conditions, implying that job satisfaction has a connection with one's perception and evaluation of his/her job, which is influenced by employee needs, values, and expectations. Regarding the determinants of job satisfaction, Lydon and Chevalier (2002) examine the UK higher education graduates from 1985 and 1990. Their results reveal that pay, status, and family size have a positive correlation with job satisfaction, but working hours, working in public sector, having a clerical job, being a male worker, workplace size, and age are negatively related to job satisfaction. Kaiser (2002) provides evidence that employees with fixed-term contracts seem to face with lower job satisfaction. According to Price and Mueller (1986), job satisfaction is influenced by routinization, centralization, instrumental communication, integration, pay, distributive justice, promotional opportunity, role overload, and professionalism.

There are, however, a number of critics against Price and Mueller's (1986) model. For example, it does not include role conflict, task significance, and supervisory support, which are indicated by House and Rizzo (1972), Hackman and Oldham (1975), and House (1981). As a consequence, the Revised Causal Model replaces instrumental communication, centralization, promotional opportunity, and professionalism with role ambiguity, autonomy, internal labor market, and work motivation, respectively, based on Price and Mueller's (1986) model and the critics it received although the revised model keeps the statistically significant

explanatory variables upon empirical support of Curry et al. (1985, 1986), Mottaz (1985, 1988), Tetrick and La Rocco (1987), and Blegen and Mueller (1987).

Based on its theoretical framework, there are some job satisfaction predictors that managers can affect to increase employee loyalty and happiness. For instance, a number of directors and employees of Pittsburg State University, USA, gathered in 2013 to celebrate the 40th and 45th anniversary of work in the same institution of four of their workers.[1] So, factors like recognizing valuable work and setting up some internal advancement opportunities or promotions can be considered as a part of participative management style, which can remarkably increase employee job satisfaction. Participation is defined as a process in which individuals or employees share the influence (Locke and Schweiger, 1979 and Wagner, 1994).

Therefore, the fourth chapter of this dissertation focuses on participative management style and examines only the specific job satisfaction predictors that are susceptible to be modified or influenced by management style or manager's quality and talents. Worker's personal characteristics (sex, age, and educational level) and many job characteristics are intrinsic to the person or his/her job, which cannot be influenced by management style. However, there are other characteristics as possible determinants of job satisfaction that can be influenced by a particular management style. We refer to such issues as the environment of safety and trust in the company, how an employee feels valued, working conditions that reduce work-life conflict, and organizational aspects as job rotation within the company.

Hence, the main contribution of the fourth chapter is to study the indirect impact of participative management style on job satisfaction. Beside this, participative management style does not necessarily have the same impact on job satisfaction level for every individual, economic activity, and country. Because of this reason, the fourth chapter also includes an inter-country comparison, analyzing the differences in the marginal effects of participative management style across nine Euro-Mediterranean countries.

[1] Retrieved on April 29, 2013, from Pittsburg State University Channel at Youtube.com *http://www.youtube.com/watch?v=7FkmqM9uPTk&list=UUTywpBMdTnu3eyllcOHVitg&index=2*

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CHAPTER 2

GAINING COMPETITIVE ADVANTAGE THROUGH STRATEGIC HRM

1. Introduction

Gaining a sustainable competitive advantage has become the key foundation in an organization to reach a superior business performance; because generating and sustaining it is one of the most significant factors to guarantee the survival of a company against its rivals. Inyang (2010) states that "competitive advantage is anything that gives an organization an edge over the competitors in its market". Finding out the most effective internal and/or external factors to develop and sustain a competitive position has been essential for any firm in order to have the power to compete with its rivals.

Many organizations attempt to create a unique business strategy to get a competitive superiority. Although managers or directors usually realize the importance of Strategic Human Resource Management (SHRM) to improve business performance, some of them still do not foresee this opportunity to gain competitive advantage through human capital. Moreover, Porter (1985) points out that employees can provide a critical ingredient to reach a competitive position with their unique ways such as flexibility, innovation, higher levels of productivity, superior performance, and personal customer service. Traditional approaches usually focus on the administrative concept of human resource management (HRM). They do not necessarily involve the business strategies in the HR functions. SHRM is basically "a strategic approach to manage human resources of an organization. It concerns all organizational activities which affect the behavior of individuals in their effort to formulate and implement planned strategies that will help organization to achieve the business objectives" (Inyang, 2010).

In the literature many authors as Barney and Wright (1998) and Jackson et al. (2003) agree that an organization's success highly depends on effective management of human capital. Thus, one of the main concerns of this study is to seek the strategic aspects of a company that concentrates on SHRM quality to improve the company's situation in a dynamic environment. More specifically, this work zooms into the link between the development of a sustainable competitive advantage and the business strategy-HRM fit. The reasoning is briefly that a company needs to have a series of distinguishable strategies from its rivals in the competitive market, which can deliver superior profits to gain sustainable competitive advantage.

Regarding the uniqueness of a strategic aspect, even though a company could differentiate itself in the industry based on its financial sources or technological developments, it is well-known that budget size or production line supportive technologies are much easier to be imitated when they are compared to the employee skills, attitudes, and competencies. Each worker's knowledge, commitment, participation, and motivation levels would bring a difference into the organization. Because of this, it is more relevant to focus on the quality and efficiency of SHRM to achieve a certain level of competitive advantage. Furthermore, Table 2.1 shows that viewing the employees as "talent investors" and putting the role of HR in the center of business strategy is the optimal implementation to build the HR as a core source to gain a sustainable competitive advantage.

Thus, this research seeks what a company needs in order to develop a competitive advantage and whether the SHRM quality is core sources of competitive advantage. In addition, although there is no agreement about if competitive advantage should be taken as winning the game or just having sufficient amount of distinctive resources to keep or to improve the company's position in the market, its reasonable measure would be resistant to recapitalization and not to be subject to the factor-price fallacy. So, it is determined upon if there is a significant difference between the strategies of a selected company and its rivals, if the company's strategic position causes superior profits, and if its strategy is defensible.

Most organizations frequently face with a number of challenges while building a competitive advantage such as recognizing and taking advantage of market opportunities; defining product and/or services that create value for customers; attracting, retaining and improving the best available resources for providing products and services; managing uncertainties in creating and realizing product and service opportunities; sharing the resulting benefits with company resources. Therefore, it is empirically examined to see if competitive advantage is developed as a consequence of that a company's HR practices fit with its business strategies. As a result, the present paper's primary contribution is to provide evidence showing that the better SHRM quality the higher competitive advantage.

The structure of the present paper is the following: The 2nd section covers the literature review regarding a) the comparison and contrast of traditional HRM approach and SHRM approach and b) developing a sustainable competitive advantage through the integration of HR practices with business strategy. The 3rd and 4th parts of the paper describe the data set utilized and provide the information about the model and methodology. Then, the results are illustrated in the 5th section. Finally, the discussion and conclusions are placed in the last section.

2. Literature Review & Hypotheses

Regarding the definition and determinants of competitive advantage, Barney (2002) states that "a firm experiences competitive advantages when its actions in an industry or market create economic value and when few competing firms are engaging in similar actions" and links competitive advantage to performance, suggesting that "a firm obtains above-normal performance when it generates greater-than-expected value from the resources it employs". Saloner et al. (2001) argues that "most forms of competitive advantage mean either that a firm can produce some service or product that its customers value than those produced by competitors or that it can produce its service or product at a lower cost than its competitors. In order to create and capture value the firm must have a sustainable competitive advantage". Besanko et al. (2000) states that "when a firm earns a higher rate of economic profit than the average rate of economic profit of other firms competing within the same market, the firm has a competitive advantage in that market".

Similarly, Kay (1993) looks at a distinctive capability as a potential competitive advantage when it is applied in an industry or brought to a market. The author measures the value of competitive advantage as valued added, with the costs of physical assets measured as the cost of capital applied to replacement costs. Dierickx and Cool (1989) argue that competitive advantage is not obtainable from freely tradable assets. According to their research, although market prices are considered to be useful to evaluate the opportunity cost of deploying such assets in product markets, the deployment of these assets does not entail a sustainable competitive advantage as they are freely tradable.

As Barney (1991) suggests, the main resource that adds value to the company to build a competitive advantage is supposed to be inimitable, rare, and non-substitutable. This idea received support by Coff (1994) and Wright et al. (1994), which conclude that the aspects of human capital such as unpredictability and systematic information make human assets become the key source for sustainable advantage and they can match the criteria of Barney (1991). Furthermore, Porter (1985) discusses the five competitive forces that determine industry profitability which influence prices, costs, and a company's required investment in the industry as it is demonstrated in Figure 2.1. These are the elements of an industry structure driving the competition; therefore it is necessary to understand all these factors in the industry to create a suitable competitive strategy for performing better than the other companies.

According to the argument of Porter (1985), competitive strategy captures a company's position in its environment and the structure or the attractiveness of the industry where the company performs. So, the company should concentrate on analyzing its industry,

specializing in its surrounding forces, and watching out for a change in its environment. In addition, the company needs a strategy or aspect that cannot be copied or duplicated in order to accomplish a superior performance. To sustain a competitive advantage it is necessary either to come up with some strategy too difficult to be simultaneously implemented by its current or potential competitors or to improve very fast that its competitors would not be able to catch up.

The relationship between broad generic business strategies, competitive scope, and competitive advantage can be observed in the Figure 2.2. Thus, gaining a competitive advantage is based on being distinguished from the rivals with the implementation of a low-cost strategy, a differentiation advantage, or a well-managed focus strategy. The study of Schuler and Jackson (1987) classifies the broad strategies as innovation, quality enhancement, and cost reduction as the most significant competitive advantage strategies based on Porter (1985). On the other hand, SHRM basically takes into account the influence of the compatibility of the HRM and business strategies to the firm performance and its sustainability. As Inyang (2004) mentions the SHRM is an integration process of HRM principles and business strategies where strategy refers to the pattern of organizational moves and managerial approaches used to attain organization objectives and to pursue the organization's mission.

Black and Boal (1994) and Teece et al. (1997) provide research evidence that integration results in enhanced competence, cost effectiveness, and congruence. This compatibility or fit refers to the alignment of HRM with a firm's strategic needs (Schuler and Jackson, 1999). Wright and McMahan (1992) define the "fit" as "the pattern of planned HR deployment and activities to enable a firm to achieve its goal". Barney (1991) points out the importance of building a theoretical model to figure out the sources of a sustained competitive advantage and the author indicates the assumption that the company resources could be heterogeneous and immobile. In addition, similar to the previously explained framework, the company's key resource should be rare in the market and needs to be valuable to increase the amount of opportunities while minimizing the existent or potential threats in the environment. So, there should not exist the equivalents of that specific resource. In order to get a competitive advantage, a firm should select and execute the diverse approaches.

SHRM, which is developed in the Research Based View (RBV) framework, lets the employees combined with the spectrum of HR practices linked to business strategies create an inimitable value for a firm as a source of sustainable competitive advantage (Ferris et al. 2004, Wright et al. 2001, Wright et al. 2005). One of the major issues that SHRM deals with

is to figure out how to get a sustainable competitive advantage by the HR's participation in the firm performance (Wright et al. 2001, 2005; Barney and Wright, 1998). As Boxall and Purcell (2003) states that the word "strategic" in this context "implies a concern with the ways in which the HRM function is critical to organizational effectiveness".

The major assumption of RBV, based on Penrose (1959), is that different firms' resources are unlikely to be identical. Armstrong (2004) states the purpose of RBV as "improving resource capability, achieving strategic fit between resources and opportunities, and obtaining added-value from the effective deployment of resources". As it is mentioned before, four requirements have been set to develop a competitive advantage: Valuable, rare, inimitable, and non-substitutable. Among the resources of an organization, only HR can meet with these requirements (Snell, Youndt, and Wright, 1996; Barney, 1991; Boxall, 1998). So, aligned HR practices with appropriate business strategy might be the most important factor of a firm to develop a sustained competitive advantage (Wei, 2006). Guest (1989) advocates the requirement of the SHRM policy that line managers should get involved in the HR activities integrated into strategic planning as a part of everyday work.

Becker and Huselid (2006) point out two aspects of the difference between HRM and SHRM, stating that the focus of SHRM is on organizational performance rather than individual one and that the role of HRM systems can be considered as solutions to business problems rather than individual HRM practices in isolation. According to their study, the HR architecture, which includes practices, systems, employee performance behaviors and competencies, reflects the firm's human capital management. Moreover, traditional HRM mainly concerned with providing administrative support such as recruiting, staffing, compensation, and benefits (Wei, 2006; Rowden, 1999).

Cardon and Stevens (2004) provides a good summary of previous researches related with what is already found out about traditional HR practices such as staffing, compensation, training, performance management, organizational change, and labor relations, specifically about medium and small-sized companies. Furthermore, the work of Lengnick-Hall et al. (2009) provides an overview related with the necessary development of SHRM with these seven themes: i) Explaining contingency perspective and fit, ii) Taking the focus away from managing people and concentrating on creating strategic contributions, iii) Elaborating HR system components and structure, iv) Expanding the scope of SHRM, v) Achieving HR implementation and execution, vi) Measuring outcomes of SHRM, vii) Evaluating methodological issues. Clearly the core ingredients of SHRM are business strategies and HR practices.

According to SHRM theory, its basic function is to find out a way to make internally consistent HR policies and practices contribute into the achievement of an organization's specified business strategies (Schuler and Jackson, 1995; Schuler and MacMillan, 1984; Baird and Meshoulam, 1988). The study of Hiltrop (1996) describes the Best-Practice approach as "although there is 'no one best way' to manage people, organizations that adapt most successfully to the new social and economic environment tends to be characterized by a similar set of HR policies and practices. The major, individual items typically mentioned in these 'best-practice' models are:

- Relatively well-developed internal labor market arrangements (in matters of promotion, training and individual career development),
- Flexible work organization systems,
- Performance-based and/or skill-based compensation practices,
- High levels of teamwork and employee participation programs in a number of task-related decisions,
- Extensive internal communication arrangements".

Barney (1991) and Pfeffer (1994, 1998) confirm that paying attention on employees' skills as an intellectual asset of the organization provides the major competitive advantage against the rivalry in the market, because even an accomplished technological superiority will be most likely to quickly erode. Considering the management quality improvement of the utilization of human capital as the best factor to achieve a competitive advantage, Pfeffer (1994) introduces sixteen major HR practices to build a competitive advantage through people that are illustrated in Table 2.2.

Similarly, Fombrun et al. (1984) supports the matching model of SHRM (Boxall, 1992) and behavioral perspective of SHRM (Wright and McMaham, 1992), which indicates that a company's HR policies should meet the desired competitive position, so there must be a "tight-fit" between HR strategy and business strategy in order to maintain or improve the organization effectiveness. This idea is linked to Porter's (1985) product market-oriented view of strategy. For instance, if a company chooses the "differentiation" strategy to pursue by introducing higher levels of production innovation, then the HR practices could entail selecting high-skilled employees, giving them more discretion, making a larger amount of investment in human capital, utilizing minimum amount of control, allowing occasional failure, providing more resources for some experimental works, and assessing the performance level through its long-term implications (Schuler and Jackson, 1987 and Boxall, 1995).

However, if cost leadership strategy is chosen, then HR practices might include the repetitive job design, the least possible number of workers, minimum amount of training, rewarding observable high levels of output and predictable behavior. Also, many other studies consider HR practices and policies as business strategy tools such as Beer (1984), Dyer and Holders (1988), Guest (1987), Ulrich (1997), Boxall (1999), Truss and Gratton (1994), Brand and Bax (2002), Lengnick-Hall and Lengnick-Hall (1990), and Schuler, Dowling, and De Cieri (1993). Linking this theoretical background to our research questions, the following hypotheses are empirically analyzed in the present paper:

H1-a: The business strategy of high-quality production affects the overall HRM quality positively.

H1-b: The low-cost business strategy influences the overall HRM quality negatively.

Mello (2002) implies that the SHRM ensures the development of an aligned collection of consistent practices and policies to achieve the organization's strategic goals. Also, Beer et al. (1985) and Fombrun et al. (1984) studied on the strategic aspects of HRM in order to highlight the importance of the management quality of workforce as a source of competitive advantage. According to Boxall (1996) the theoretical framework of RBV emphasizes on the workforce skills' quality and provides a base to examine the role of SHRM in competitive success. The emphasis gets through a company's competitive advantage by planning the functions of high quality human capital consistent with its business strategies (Rowden, 1999).

To Becker and Gerhart (1996), the notion of best practices is more likely to be a set of guiding principles and the best HR architecture may exist, but for superior performance the policies should be aligned with the competitive strategies. Some other studies such as Hamel and Prahalad (1989), Barney (1986, 1991) and Wright and McMahan (1992) support the necessity of aligning HR practices and policies with the firm's strategy to achieve a sustainable competitive advantage. As a consequence, many agree that SHRM has a positive influence on the development of a competitive advantage. An organization may utilize SHRM to allocate its HR more effectively, improve overall operating efficiency, financial performance, organizational moral, innovation, and creativity (Martell and Carrol, 1995; Dyer, 1983; Walker, 1980; Huang, 1998; Andersen et al., 2007). In addition, an organization can challenge more effectively with the environmental change issues (Cook and Ferris, 1986; Tichy and Barnett, 1985).

SHRM also brings a change into the management style by making it more proactive and establishes more communication between employers and employees (Gomez-Mejia,

Balking, and Cardy, 1995). The level of customer satisfaction, return on equity, and firm's market value per employee may increase by the enrollment of SHRM (Pfeffer, 1994; Chew and Chong, 2001; Bowen et al, 2002; Wright and Kehoe, 2008; Becker and Huselid, 1998; Delery and Doty, 1996). So, we analyze the next hypotheses seeking for evidence to show the relationship between SHRM and gaining competitive advantage.

H2: The tight-fit between business strategy and overall HRM quality is positively correlated with gaining sustainable competitive advantage.

H2-a: The tight-fit between business strategy and "recruitment and training management quality", if there exists, is positively related with gaining sustainable competitive advantage.

H2-b: The tight-fit between business strategy and "performance appraisal and incentives management quality", if there exists, is positively related with gaining sustainable competitive advantage.

H2-c: The tight-fit between business strategy and "commitment and participation management quality", if there exists, is positively related with gaining sustainable competitive advantage.

3. Research Model and Methodology

The hypotheses were tested mainly by ordered logistic regressions with a specific survey setting, based on a Spanish data set that is described in the present paper's following section. Beside a measure of the overall SHRM quality we considered three bundles of the SHRM quality, similar to the study of Bloom and Van Reenen (2010), to examine their individual effect on gaining competitive advantage. We labeled these three bundles as *recruitment & training management quality, performance appraisal & incentives management quality,* and *participation & commitment management quality*.

Furthermore, regarding the collaboration between strategy and HRM, Wright et al. (2001) suggests that "stock of human capital consists of human (the knowledge skills, and abilities of people), social (the valuable relationships among people), and organizational (the processes and routines within the firm). It broadens the traditional HR focus beyond simply the people to explore the larger processes and systems that exist within the firm. The *behavior* concept within the SHRM literature can similarly be re-conceptualized as the flow of knowledge within the firm through its creation, transfer, and integration. This *knowledge management* behavior becomes increasingly important as information and knowledge play a greater role in firm competitive advantage. It is through the flow of knowledge that firms increase or maintain the stock of intellectual capital", the authors state.

According to their study, the creation of core competencies by a combination of knowledge stock and its flow in a way that is *valuable, rare, inimitable, and organized* (VRIO) provides "a framework for exploring the human component to core competencies, and a basis for exploring the linkage between people management systems and core competencies through the management of a firm's stock and flow of knowledge".

In addition to this, the work of Roberts (2008) captures a model of design perspective as in Figure 2.3, which considers a general manager's major job to craft a strategy and to create an organization under the exogenous environmental circumstances to maximize its performance. The author defines the *performance* as how well the firm does compared to its objectives. So, the performance level essentially depends on the organization's strategy and environment as in the contingency theory of strategy. To the contingency theory, there is no uniquely best business strategy. On the other hand, firms need to select the most appropriate strategy regarding how well it might be implemented in its competitive environment to create the maximum value in long-term, which takes into account the difference between the maximum amount that a customer would be willing to pay and the opportunity cost. An organizational design including HRM activities can make a firm achieve a higher performance when it fits quite well with the firm's particular business strategy.

As a result of this discussion including the theoretical and empirical researches mentioned in the literature review, we have set the model of the present research that takes into account firstly the impact of business strategies (specifically those focusing on low-cost production and high-quality production) on HR practices regarding the hypotheses H1a, H1b, and H1c. Then, the model considers whether this interaction or the tight-fit between business strategies and HR practices, as *the quality of SHRM*, has an influence on gaining sustainable competitive advantage, whose test is realized by the hypothesis H2. Finally, the specified model also considers the effect of SHRM sub-bundles on a firm's sustainable competitive advantage that forms the hypotheses H2a, H2b, and H2c.

4. Data Description

In order to carry out the empirical study based on the specified theoretical background, the data has been obtained from a questionnaire with series of personal interviews conducted with Spanish companies employing at least 50 workers, whose economic activities are from manufacturing industries. The design of this questionnaire allows the researcher to get information on HR practices, flexibility issues, and some other organizational aspects of the companies. The questionnaire was completed during 2007 by an opinion and marketing

research institute, CIES S.L. (*http://www.ciessl.com*). The questionnaire's style is very similar to the one utilized by the studies of Osterman (1994, 2000) that analyze different aspects of internal labor markets and work organization in American firms.

In addition, the questionnaire forms were filled up through approximately 45 minute-long personal interviews by the directors or operations managers or HR managers. The available information includes 322 small-sized companies (between 50 and 199 workers) which represent 31.384 workers in total, 59 medium-sized companies (between 200 and 499 employees) which capture 17.429 employees, and 20 large-sized companies (more than 500 workers) that include 32.024 workers. Moreover, the researcher can find out the information in the questionnaire about the human resources practices/strategies and work organization with a number of items that are concentrated on work-life balance and other flexibility policies.

Utilizing STATA software we followed the statistical tool, Cronbach's alpha, whose scores corresponding to each variable are provided in Table 2.3 in order to generate the necessary variables. To be more specific, the overall HRM variable consists of several items from the questionnaire, whose alpha score is 0.82. This score suggests that the selected overall HRM quality variable is internally consistent and highly reliable. The higher scores of this variable indicate better management quality of human capital (specifically, the blue-collar employees) in terms of utilizing these HR practices at higher levels to improve the employees' productivity and commitment levels. In order to analyze the individual effects of each HRM sub-bundle, we generated the "*Recruitment & Training Management Quality" variable*, whose alpha score is 0.68, the "*Performance Appraisal & Incentives Management Quality" variable,* whose alpha is 0.84 indicating that it is internally highly consistent, and finally the "*Commitment & Participation Management Quality" variable,* whose alpha is computed as 0.63. Higher categories of these variables point out a broader use of HR practices.

Besides these, we extracted two dummy variables to be plugged into the relevant regressions as independent "business strategy" variables. For instance, when a firm's most important factor is indicated as "low-cost", the cost variable takes the value 1, and it is 0 otherwise. If it is "high product-quality", then the quality variable takes the value 1, and 0 otherwise.

The next stage of the analysis focuses on the relationship between the overall HRM quality and gaining competitive advantage. At this stage we faced with the problem that the available data does not perfectly match with the necessary information. As a consequence, we

developed a proxy variable labeled as "*Organizational Performance Trend"*, representing the sustainable competitive advantage. This proxy variable, whose Cronbach's alpha is 0.80 suggesting that it is internally highly consistent, assumes that an improvement in the organizational performance makes a firm gain a competitive advantage. It takes the value 3 when the corresponding observation (a manufacturing firm) has improved its production performance and/or process from 2005 to 2007. It takes the value 2 when the firm's overall performance level remained similar in that three-year period. Also, it takes value 1 when its general production performance decreased during the same period of time.

Finally, we took into account a number of control variables that are the level of market competition, strength of the unions in the industry, influence of family ownership, firm size based on the number of employees, and technological intensity of the industry where the firms perform. Table 2.4 provides the descriptive statistics of each variable that is considered in this analysis.

5. Results

Considering the polychoric correlation matrixes of the categorical and continuous independent variables utilized in the analysis, which are provided in Table 2.5, let's see the results of the ordered logistic regressions. Firstly, regarding the relationship (or *tight-fit*) between the business strategies and the HRM practices, Table 2.6 illustrates the results of the regressions. The first and second ordered logistic results clearly point out that the ordered logit for a low-cost strategy being in a higher HRM quality category is 0.379 less than any other business strategy, while the remaining variables in the model are held constant. And the ordered logit for a high-quality production strategy being in a higher HRM quality category is 0.551 higher than another business strategy, while the remaining variables in the model are held constant.

Among the control variables, the % of the employees with a university degree and mid-high technological intensity (taking the low intensity as reference) are found statistically significant and both of them positively influence the overall HRM quality. Besides, the large-sized firms tend to have a larger probability to be at a higher overall HRM quality compared to the small ones. Also, high regulation on labor conditions has a negative and statistically significant impact on the overall HRM quality. As a consequence, our hypotheses H1a and H1b cannot be rejected. Therefore, it can be concluded that the overall HRM quality we discuss here is under the influence of business strategies. There is empirical evidence showing

integration or fit between business strategies and HRM. So, for the next stage to see its influence on gaining competitive advantage, it can be called "overall strategic HRM quality".

Regarding the impact of overall and sub-bundles of *strategic* HRM quality (as it is integrated with or affected by a specific business strategy) on gaining sustainable competitive advantage, Table 2.7 provides the regression results. According to the third ordered logit, *high* overall SHRM quality variable is statistically significant, and compared to *low* overall SHRM quality, it positively influences the organizational performance trend which is the proxy of sustainable competitive advantage. An increase in the overall SHRM quality may raise the likelihood of getting a better performance trend, which leads the firm to have a sustainable competitive advantage. Thus, it provides support for our hypothesis H2.

Furthermore, Figure 2.4 provides some easy-to-skim information illustrating the relative probabilities of the performance trend predictions based on the third ordered logit. The predicted probabilities for a firm being in the low performance trend tend to be less than 25%. The predicted ones for this variable's middle category fall mostly between 40% and 60%, while those for the high category are mostly located between 35% and 65%. In this model, mid-high technological intensity (considering low intensity as the reference), firm size category for 100 to 199 workers and that for at least 500 workers (taking the category for 50 to 99 workers as the reference), and high market competition compared to its very-high level are the statistically significant control variables and all have positive coefficients.

In other words, an organization with larger size and/or that performing in an industry with mid-high technological intensity rather than low intensity is most likely to reach a better performance trend level and to get a sustainable competitive advantage. Considering the *family ownership* variable, the ordered logit for a firm with 50% or less family ownership concentration (%10 or less for the listed firms) being in a better performance trend category is less than a firm with a larger family-control, when the remaining variables in the model are held constant. Therefore, although it is not found highly significant it suggests that the larger family-control, the higher probability to capture a better performance trend.

The last three ordered logit models consider the decomposition of overall SHRM quality with its three sub-bundles as it is previously explained. These results in Table 2.7 reveal that the qualities of *recruitment and training management* and *performance appraisal and incentives management* are statistically significant independent variables that have a positive impact on the likelihood of the high level of organizational performance trend, providing evidence for the hypotheses H2a and H2b. Additionally, even though the *commitment and participation management* is not found significant, its coefficient suggests a

positive influence on that probability. Therefore, this interpretation is the same as that of the relationship between the overall SHRM quality and the organizational performance trend. As a consequence, the hypothesis "H2c" is rejected.

6. Discussion and Conclusions

The present paper, based on theoretical background of the business strategies and HRM along with gaining competitive advantage, empirically investigates how to generate a competitive advantage through the management of human capital. The motivation of this paper is based on what Porter (1985) states: "Competitive advantage is at the heart of a firm's performance in competitive markets". One of the most significant factors to guarantee the survival of a company against its rivals in a competitive market is generating and sustaining a competitive advantage.

Some managers foresee the opportunity to gain sustainable competitive advantage through human capital, which depends on the manager's talent to utilize the human resources (HR). In this research, utilizing a questionnaire from 2007 that covers the related data with 401 Spanish manufacturing companies, we have considered the role of the "tight-fit" between business strategies and HRM quality besides its three sub-bundles. The results indicate that the aligning the HR practices with the business strategies, which generates the *strategic* HRM, is a distinctive aspect of a firm to ensure a competitive advantage.

Supporting the conclusions of Martin-Alcazar et al. (2008), our research forms a part of the debate regarding the need for the strategic use of human resources (HR) practices in order to provide some consequential explanations for the managerial problems. Therefore, addressing the analyses of Mabey and Thomson (2000) and Camps and Luna-Arocas (2012), our findings bring a new dimension by the enrollment of the *tight-fit* and SHRM in the empirical analysis to test the impact of the strategic HR development in organizational performance.

More specifically, according to empirical evidence of the present paper, the ordered logit for a low-cost strategy being in a higher HRM-quality category is less than any other business strategy. And the ordered logit for a high-quality production strategy being in a higher HRM-quality category is higher than another business strategy. It implies that the overall HRM quality variable is integrated with the business strategies. So, as it is considered to be a tight-fit between them, hereafter we could label the same variable as "overall *strategic* HRM quality" to see its effect on gaining competitive advantage.

Furthermore, it is found that an increase in the overall SHRM quality might make the manufacturing firm get a better performance trend that would lead the firm to have a sustainable competitive advantage. It may also need the support of a higher intensity of industrial technology and a larger proportion of employees with higher educational background to achieve this. Specifically, large-sized firms with higher quality of SHRM tend to have a better organizational performance trend. As its sub-bundles, the qualities of *recruitment and training management* and *performance appraisal and incentives management* are found significant that have a positive impact on organizational performance trend. Even though *commitment and participation management*'s coefficient suggests a positive influence on the performance trend, it is not found significant.

On the other hand, why do some firms with better HRM practices fail in gaining competitive advantage? To address this, we focused on some other factors such as firm size, strength of labor regulation, market competition level, family ownership status, industrial environment, and education level of employees. The influence of most of these factors on performance trend is shown in the results section. Therefore, the HRM quality should be supported by these factors to achieve a better performance trend category. For instance, it is illustrated that the education level of a firm's workers has a significant influence and there is a large correlation between SHRM quality and operational performance trend that can be reviewed by Table 2.8. Apparently the average of employee percentage increases while moving from low categories to high categories of both overall SHRM quality and performance trend variables.

Another key performance measure would be firm size. Better managed firms are relatively larger ones. "This is partly because the market will allocate these firms a greater share of sales, but also because larger firms have the resources and incentives to employ better management", Bloom and Van Reenen (2007) states. In addition, firms performing within relatively human capital intensive industries tend to have higher quality of incentives management than those in industries like textile that do not need many skilled employees. Table 2.9 summarizes these effects using our data set. It is clear that the averages of firm size and industry's technical intensity are the highest for the "best" category of performance trend and are the lowest for the "worst" category of performance trend. Also, Table 2.9 implies that there are more firms with higher family-control in the "best" category of performance trend than in its other two categories.

As a consequence, the practical results of the present research, which are free of unrealistic assumptions, may encourage policy-makers, directors, and HR managers to adopt a

number of employee-caring human resource practices interacting with the company's corresponding business strategy in order to maintain or improve the company's competitive position against its rivals. Also, the suggestions of this paper can be implemented easily during the decision-making processes regarding not only the management of human capital, but also the performance, efficiency, and productivity of the company in order to achieve one of the most important goals of a firm: To gain a competitive advantage in the market rivalry.

7. Bibliography

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8. Appendix A: Tables and Figures

Table 2.1: The Evolving Role of Human Resources

	Competition for Products and Markets	***Competition for Resources and Competencies***	***Competition for Talent and Dreams***
Perspective on Employees	*People viewed as factors of production*	*People viewed as valuable resources*	*People viewed as "talent investors"*
HR's Role in Strategy	*Implementation, support*	*Contributory*	*Central*
Key HR Activity	*Administering of recruitment, training, and benefits*	*Aligning resources and capabilities to achieve strategic intent*	*Building human capital as a core source of competitive advantage*

Source: Bartlett and Ghoshal (2002)

Table 2.2: Pfeffer's (1994) Sixteen HR Practices to Gain Competitive Advantage

Employment security	Participation & empowerment
Incentive pay	Employee ownership
Wage compression	Cross-utilization & cross-training
Information sharing	Promotion from within
Long-term perspective	Symbolic social equality
Selectivity in recruiting	Teams & job redesign
Measurement of practices	High wage
Training & skill development	Over-arching philosophy

Table 2.3: Variables and Their Corresponding Cronbach's Alpha Scores

Variables	**α Score**
Overall HRM Quality	**0.82**
Recruitment & Training Management Quality	**0.68**
Performance Appraisal & Incentives Management Quality	**0.84**
Commitment & Participation Management Quality	**0.63**
Performance Trend (Proxy of Competitive Advantage)	**0.80**

Table 2.4: Descriptive Statistics of the Variables

Variables / Descriptive Stats	N	Mean	σ	min	max
Overall HRM Quality	399	2.05	0.68	1	3
Recruitment & Training Management Quality	401	2.21	0.59	1	3
Performance Appraisal & Incentives Management Quality	399	2.19	0.83	1	3
Commitment & Participation Management Quality	401	2.10	0.71	1	3
Organizational Performance Trend	353	2.42	0.59	1	3
Market Competition Level	401	1.88	0.83	1	5
Effect of Regulators on Labor Conditions	400	0.59	0.49	0	1
% of Blue-Collar Workers with University Degree	401	9.83	13.18	0	95
Family Ownership	392	0.55	0.50	0	1
Firm Size	401	1.78	0.88	1	4
Industry's Technological Intensity	401	1.94	0.92	1	4

Table 2.5: Polychoric Correlation Matrix

	Low-Cost Strategy	High-Quality Strategy	Regulation on Labor Conditions	% of Workers with Univ. Degree	Family Ownership	Firm Size
Regulation on Labor Cond.	0.096	-0.119				
% of Workers with University Degree	-0.039	0.020	-0.166			
Family Ownership	-0.028	-0.041	0.046	-0.324		
Firm Size	-0.106	0.073	0.218	0.081	-0.128	
Industry's Tech. Intensity	0.152	-0.078	0.034	0.190	-0.184	0.003

Table 2.5 (*cont'd*)

	Overall HRM Quality	Recruit. & Training	Perform. App. & Incentives	Commit. & Participation	Market Comp.	Regulation on Labor	Family Ownership	Firm Size
Market Competition	0.115	-0.067	0.109	0.088				
Regulation on Labor	-0.204	0.185	-0.279	-0.259	-0.062			
Family Ownership	-0.191	-0.134	-0.117	-0.229	-0.018	0.060		
Firm Size	0.079	0.200	0.006	0.028	-0.100	0.218	-0.126	
Industry's Tech. Intensity	0.144	0.213	0.076	0.141	0.001	0.037	-0.181	0.016

Table 2.6: Results for the Overall HRM Quality

	Overall HRM Quality	
	Ordered Logit #1	**Ordered Logit #2**
Low-Cost Strategy	**-0.379***	
	(0.227)	
High-Quality Strategy		**0.551*****
		(0.210)
Effect of Regulator(s)	**-0.475****	**-0.450****
On Labor Conditions	(0.213)	(0.213)
Family Ownership	-0.258	-0.250
	(0.208)	(0.209)
% of Employees with	**0.043*****	**0.044*****
University Education	(0.009)	(0.009)
Firm Size		
50 to 99 workers	-	-
100 to 199 workers	-0.099	-0.099
	(0.223)	(0.224)
200 to 499 workers	0.008	-0.006
	(0.322)	(0.322)
500 and more workers	**0.908***	**0.910***
	(0.508)	(0.508)
Industry's Tech. Intensity		
Low	-	-
Mid-Low	-0.099	-0.072
	(0.241)	(0.241)
Mid-High	**0.562****	**0.572****
	(0.268)	(0.268)
High	0.366	0.328
	(0.487)	(0.485)
Cut-point #1	-1.494	-1.033
	(0.294)	(0.321)
Cut-point #2	1.228	1.714
	(0.290)	(0.330)
# of observations	389	389
Prob > chi2	**0.0000**	**0.0000**
Cragg-Uhler (Nagelkerke) R2	0.157	0.168

Table 2.7: Results for the Organizational Performance Trend

	Organizational Performance Trend			
	Ordered Logit #3	**Ordered Logit #4**	**Ordered Logit #5**	**Ordered Logit #6**
Overall HRM Quality				
Low	**-**			
Medium	0.393			
	(0.289)			
High	**0.744****			
	(0.341)			
Recruitment & Training				
Low		-		
Medium		0.368		
		(0.420)		
High		**1.164*****		
		(0.451)		
Performance App. & Incentives				
Low			-	
Medium			0.060	
			(0.299)	
High			**0.592****	
			(0.278)	
Commitment & Participation				
Low				-
Medium				0.164
				(0.298)
High				0.500
				(0.328)
Market Competition				
Very High	-	-	-	-
High	**0.577****	**0.678*****	**0.568****	**0.570****
	(0.250)	(0.253)	(0.250)	(0.249)
Medium	-0.046	0.099	-0.042	-0.041
	(0.323)	(0.326)	(0.324)	(0.320)
Low	0.522	0.684	0.527	0.540
	(0.641)	(0.639)	(0.638)	(0.639)
Very Low	0.373	0.390	0.315	0.419
	(1.407)	(1.449)	(1.402)	(1.413)
Effect of Regulator(s) on Labor Conditions	-0.204	-0.325	-0.175	-0.211
	(0.232)	(0.233)	(0.233)	(0.232)
Family Ownership	0.334	0.326	0.337	0.313
	(0.229)	(0.230)	(0.227)	(0.225)
Firm Size				
50 to 99 workers	-	-	-	-
100 to 199 workers	**0.724*****	**0.662*****	**0.711*****	**0.736*****
	(0.252)	(0.255)	(0.252)	(0.252)
200 to 499 workers	0.545	0.405	**0.595***	0.509
	(0.341)	(0.343)	(0.344)	(0.335)
500 or more workers	**1.154****	**0.908***	**1.201****	**1.103****
	(0.547)	(0.528)	(0.546)	(0.518)

Table 2.7 (cont'd)

Industry's Tech. Intensity				
Low	-	-	-	-
Mid-Low	0.201	0.215	0.213	0.205
	(0.262)	(0.265)	(0.262)	(0.261)
Mid-High	**0.597****	**0.541***	**0.627****	**0.627****
	(0.298)	(0.300)	(0.297)	(0.297)
High	0.247	0.296	0.239	0.291
	(0.511)	(0.513)	(0.512)	(0.508)
Cut-point #1	-1.426	-1.664	-1.835	-1.910
	(0.413)	(0.535)	(0.424)	(0.459)
Cut-point #2	1.74	1.551	1.340	;1.260
	(0.441)	(0.514)	(0.392)	(0.428)
# of Observations	342	344	342	344
Prob > Chi2	**0.0063**	**0.0007**	**0.0040**	**0.0139**
Cragg-Uhler (Nagelkerke) R2	0.104	0.124	0.109	0.095

Standard errors are provided between parentheses.
*** p<0.01, ** p<0.05, * p<0.1*

Table 2.8: Average % of Employees with a University Degree by SHRM Quality & Performance Trend

SHRM Quality / Performance Trend	**1**	**2**	**3**
1	1.40	2.11	5.00
2	4.95	8.00	15.06
3	5.15	8.47	17.85

Table 2.9: Descriptive Stats of Variables by the Performance Trend Categories

Categories of the Performance Trend		Market Competition	Regulator's Effect	Family Ownership	Firm Size	Industry's Tech. Intensity
1	mean	1.61	0.72	0.50	1.50	1.44
	σ	0.78	0.46	0.51	0.71	0.86
2	mean	1.90	0.58	0.54	1.67	1.90
	σ	0.87	0.50	0.50	0.87	0.89
3	mean	1.89	0.56	0.56	1.88	1.99
	σ	0.81	0.50	0.50	0.90	0.94

Figure 2.1: Porter's (1985) Five Competitive Forces That Determine Industry Profitability

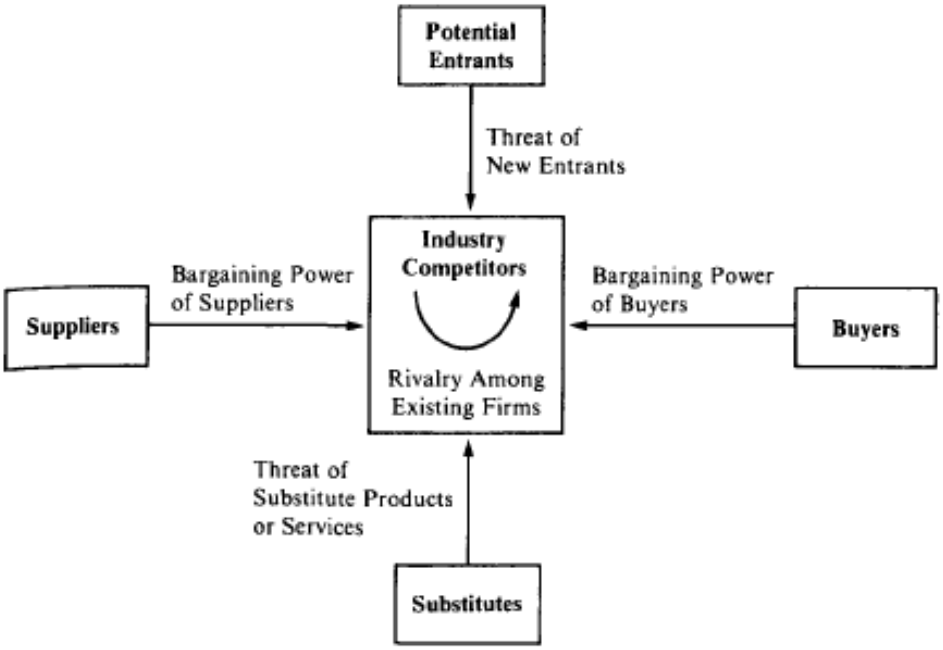


Figure 2.2: Porter's (1985) Broad Generic Business Strategies

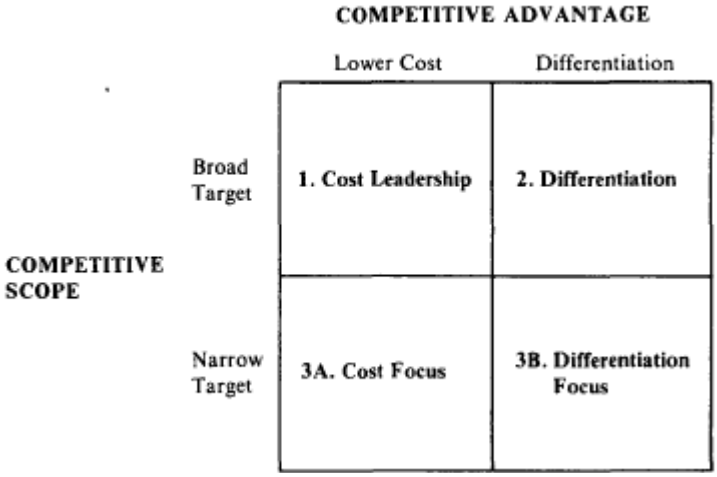
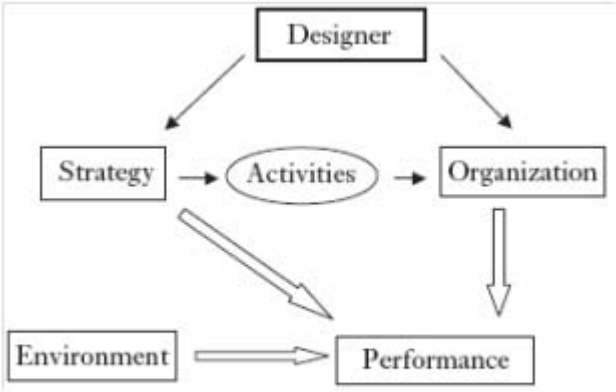
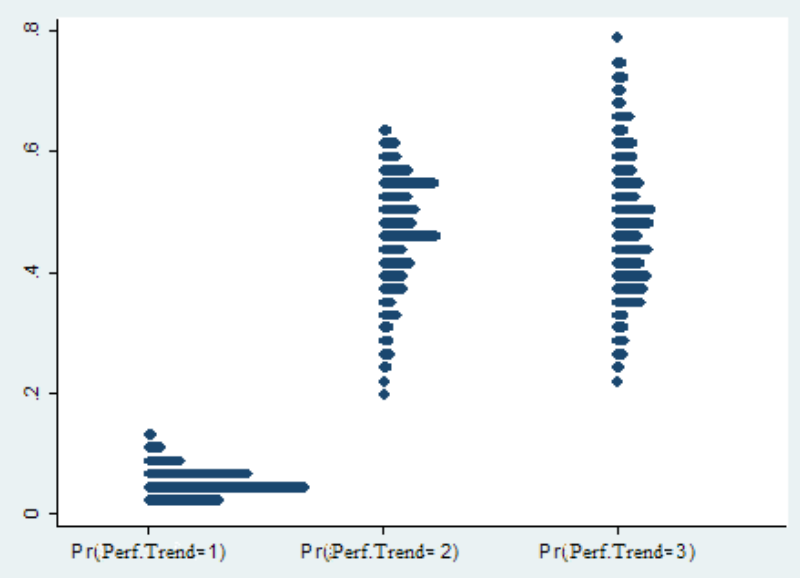


Figure 2.3: Setting the Strategy & Organization in a Modern Firm



Source: Roberts (2008)

Figure 2.4: Probability Chart of the Performance Trend Predictions by the Overall HRM Quality



Appendix B: The Questionnaire Items[2]

25. Por favor indique su grado de acuerdo con las siguientes afirmaciones (De 1: Total desacuerdo a 5: Total acuerdo).

Es difícil encontrar en el mercado personas con los conocimientos, cualidades y habilidades de ***nuestros operarios*** y por tanto es difícil reemplazarlos por otros operarios de similar valor.	1	2	3	4	5

28a. Comparado con nuestros competidores directos, los salarios pagados a los operarios en esta planta son:

1. Muy inferiores
2. Inferiores
3. Iguales
4. Superiores
5. Muy superiores

28b. Por favor indíquenos el grado de aplicación de las siguientes prácticas de gestión de Recursos Humanos entre sus ***operarios*** (1: Nula o muy baja; 5: Muy alta).

La variedad de herramientas empleadas durante su proceso de selección (entrevistas, tests de personalidad y habilidad, simulaciones, …) es……	1	2	3	4	5
La inversión en formación de operarios, tanto en horas como en dinero es……	1	2	3	4	5
La proporción de la retribución del operario que depende del resultado de la planta o empresa es……..	1	2	3	4	5
La autonomía del operario para decidir la ejecución (cuando, como y en que secuencia) de las tareas asignadas es……	1	2	3	4	5
El compromiso para mantener ***indefinidamente*** la relación de empleo con nuestros operarios es……	1	2	3	4	5

28c. Por favor indique su grado de acuerdo o desacuerdo con cada una de las siguientes afirmaciones sobre con las prácticas de gestión de Recursos Humanos que se aplican a los ***operarios*** de su planta (De 1: Total desacuerdo a 5: Total acuerdo).

El criterio de selección toma en cuenta la capacidad del operario para aprender, sus habilidades interpersonales, su ajuste cultural y sus actitudes o incluso su personalidad……	1	2	3	4	5
Compartimos regularmente con los operarios la información financiera y los resultados de la empresa……	1	2	3	4	5
Los operarios están involucrados en reuniones periódicas para identificar, seleccionar, analizar, discutir y proponer soluciones a problemas…	1	2	3	4	5

[2] This is the original version of the questionnaire items, presented in Spanish, utilized in order to generate the corresponding variables.

Evaluamos formalmente el rendimiento de los operarios de la planta……..	1	2	3	4	5
Los resultados de la evaluación del rendimiento se ligan a incentivos o se emplean para tomar decisiones sobre salarios……	1	2	3	4	5

29a. Aproximadamente, ¿cuánto tiempo le lleva a un operario de producción nuevo y con el nivel de estudios adecuado aprender a hacer su trabajo a un nivel similar al de un trabajador ya experimentado?

1. Una semana o menos
2. Entre una semana y un mes
3. Entre un mes y seis meses
4. Entre seis meses y un año
5. Más de un año
9. Ns/Nc

30. Por favor indique el porcentaje de operarios de su planta que posee cada uno de los estudios que se citan a continuación.

%
Sin estudios
Estudios primarios (EGB, Graduado Escolar, ESO)
Bachillerato o formación profesional
Estudios universitarios (diplomado, licenciado, etc…)

40. ¿ En promedio cuántas horas por operario se dedicaron en el pasado ejercicio (2005), a *formación del personal*? "El ratio de *horas de formación por operario* sería el resultado de dividir el total de horas destinadas a formación (es decir, la suma de las horas de duración de los distintos cursos ofrecidos multiplicado por el número de participantes en cada uno de ellos) sobre el total de operarios de la plantilla."

Nº de horas= Total Horas/nº Operarios:_____

998. Ninguna/no hubo formación ---> Pasar a P.41

41. ¿Considera usted que por término medio la formación recibida por los trabajadores les sería de utilidad en…?

	Ninguna Utilidad	Alguna Utilidad	Bastante Utilidad	Mucha Utilidad
Otro puesto de la empresa……	1	2	3	4
Cualquier otra empresa del mismo sector industrial…….	1	2	3	4
Cualquier otra empresa…….	1	2	3	4

43. ¿Los operarios de esta planta perciben algún tipo de incentivos?

1. Sí .
2. No ---> Pasar a P44. (Bloque C2)
9. Ns/Nc ---> Pasar a P44.(Bloque C2)

CHAPTER 3

TACKLING ABSENTEEISM UNDER THE INTERACTION BETWEEN HIGH-PERFORMANCE WORK PRACTICES AND LABOR UNIONS

1. Introduction

Every year many companies all over the world face with a large amount of direct and indirect costs of absenteeism, which has been one of the most important organizational issues to overcome. It is a big concern for the employers to control over the absenteeism in the workplace. According to the research summary of *the European Foundation for the Improvement of Living and Working Conditions* (1997) and to the studies of Gründemann and van Vuuren (1997, 1998), the 2000 largest Portuguese companies lost 7.731 million working days because of illness and 1.665 million working days as of accident in 1993.

In 1994, 177 million working days were lost causing a total loss of £11 billion (£525 per employee) in the UK. Similarly, the employers in Germany paid around DM 60 billion to cover their employee's payments of the social security insurance during absence of work in 1993. The companies in Belgium paid BFR 114 billion on sickness benefits, work accidents, and occupational diseases in 1995. Moreover, the study of Harrison and Martocchio (1998) indicates that the cost of absenteeism in the US in 1998 was estimated to be over $40 billion. As Glidden et al. (2009) states that the absenteeism costs large companies in the US close to $1 billion annually.

On the other hand, during the present global economic crisis it has been expected to reach to lower absence rates because of the high risk of losing the current job and the difficulties to find a new one. Based on the information obtained from the UK Labor Force Survey quarterly datasets and the report on sickness absence in the labor market, provided by the Office of National Statistics of the UK in April 2012, Figures 3.1 and 3.2 illustrate the total number of days lost due to sickness, average number of days lost due to sickness per employee, and sickness absence rate between 1993 and 2011. It can be observed in Figure 3.1 that between 150 and 200 millions of days were lost due to sickness or injury each year until 2008, but then this number was decreased to 131 millions in 2011. Similarly, Figure 3.2 reveals that the absence rate fell below 2% right after the beginning of the economic recession.[3] There is also a clear decreasing trend in the average number of days lost due to sickness per person during the crisis period.

[3] Absence rate is the percentage of usual working hours lost due to sickness or injury absences. Here a day is defined as 7 and ½ working hours.

However, because of the fact that Spain has different labor market characteristics such as the strength of union settings, the change in absence rate has not been the same in Spain during the crisis as in the UK, as it is demonstrated in the report about absenteeism presented in 2012 by Adecco with the collaboration of IESE Business School, Universidad de Navarra, and Universidad Carlos III de Madrid. According to the Adecco Report 2012, absence rate in Spain did not experience a dramatic decline between 2007 and 2011, but it was slightly moderated. For instance, when the absence rate in Spain increased from 3% in 2003 to 4.1% in 2009, only a 0.2%-decrease was observed from 2009 to 2011.

Even though a number of papers in the literature focus on the determinants of absenteeism from work and how to deal with this challenging issue, surprisingly there is still a lack of empirical work with concrete evidence in the European literature to figure out whether the high-performance work practices (HPWP) can let managers tackle absenteeism in the workplace under different levels of labor union settings. The major necessity is to specify a set of strategies to deal with it. So, what do managers have to do in order to tackle absenteeism? What path should the employers follow and what would be the most efficient strategy to reduce the absence rate?

In order to find out some realistic answers to these questions, the present paper studies the determinants of absenteeism, and empirically analyzes the impact of the interaction between HPWP and labor union influence on absenteeism in the workplace utilizing a questionnaire which consists of 401 Spanish manufacturing companies. Even though it is too difficult to reach zero-absence, understanding the reasons of employees' problems, looking after the employees, and utilizing some "caring" human resource management (HRM) practices can actually work well to remarkably reduce it. For instance, doing the same type of job during a long period of time may cause absenteeism as it may get monotonous for a worker. As a result, it becomes necessary to utilize some aspects of HPWP such as job rotation or job enrichment to deal with this problem. In addition to this, a number of company policies on flexible working hours, work-life balance (financial aid for employees' children to join kindergartens, setting up only day shifts, and so on) can also help to decrease absence rate.

Our findings reveal that several HPWP components such as performance-based incentives, job design, flexible working hours, work-life balance, and training can be utilized as distinctive aspects to deal with absenteeism problem at different levels of union influence. For example, when labor unions have a very-low influence in the industry, performance-based incentives (with a positive correlation coefficient) and flexible working hours (with a negative

coefficient) have a statistically significant impact on absence rate. Besides, we observed that the marginal effects of the other specified HPWP components on absence vary depending on the strength of labor unions.

The next section provides the corresponding literature review and the hypotheses to be tested. The third section describes the data utilized for the empirical analysis. It is followed by the section of methodology and model. In the fifth section our results are provided. Finally, the sixth section consists of the discussion and conclusions.

2. Literature Review and Hypotheses

Most of the research on absenteeism in the workplace has been developed by psychologists and social scientists with background in management studies. In order to set the most efficient model it is necessary to define absenteeism in the workplace accurately. According to Van der Merwe and Miller (1976) absenteeism is an unplanned incident that can be viewed as non-attendance when an employee is scheduled for work. Milkovich and Boudreau (1994) state that absenteeism is the frequency and/or duration of work time lost when employees do not show up at scheduled work. Similarly, Schappi (1988), Griffin et al. (1998), and Cascio (2003) define absenteeism as the failure to report for any kind of scheduled work.

According to Johns (2001), the psychological processes underlying absenteeism, lateness, and turnover have been dominated by the *withdrawal model*, which assumes that the absence behavior is a product of unfavorable job/work attitudes. Considering a static utility maximization approach, many empirical studies such as Kenyon and Dawkins (1989), Johansson and Palme (1996), Delgado and Kniesner (1997), Vistnes (1997), and Brown et al. (1999) rely on the withdrawal model as it is summarized in the study of Brown and Sessions (1996).

On the other hand, similar to the findings of the previous research about the determinants of *employee turnover* (Porter, 1973; Arnold and Feldman, 1982; Baysinger and Mobley, 1982; McEvoy and Cascio, 1985; Cotton and Tuttle, 1986; Sheridan, 1992), many different aspects of the social life and business environment can affect the absence rate such as the strength of the existent labor unions, job satisfaction level, total compensation packages, job design of a company, family issues, strength of the labor market competition, use of the HR policies and practices, religious beliefs, gender and so on. Harrison and Martocchio (1998) and Johns (2001) conducted a comprehensive research by grouping the data used in the literature to explain the determinants of absence. Their studies state the data

groups as the personality, demographic characteristics, job-related attitudes, decision-making mechanism, and social context.

Nevertheless, the results would be more complete when these groups are analyzed by taking into account the time variable as some variables depend on it. For instance, the demographic characteristics like gender do not vary in a short amount of time, while the job related attitudes might change in the short run. As a result of this, according to the argument of Audas and Treble (2001) there is no single variable list or no single theory to direct the researchers to select the elements that might lead to absenteeism, which is possibly an idiosyncratic phenomenon, because its origins are not the same for every individual, context, or time period. Many economists usually propose a number of highly specific hypotheses and include some measures of the absenteeism cost along with different demographic variables. They tend to dismiss other variables that management psychologists have listed (Jensen and McIntosh, 2007).

As a significant tool of tackling absenteeism and improving the performance and motivation of employees, the use of HPWP has been taken into account by a number of researches in the literature, which includes the employee selection and recruitment processes, compensation packages and other incentives, extensive employee involvement and training, and performance appraisal systems, using different approaches such as hierarchical OLS and zero-inflated regression (Kleiner, 1990; Boudreau, 1991; Jones and Wright, 1992; Kling, 1995; Huselid, 1995).

Regarding the incentives as wage rates and paid sick leave benefits in the compensation package, the study of Dunn and Youngblood (1986) indicates a positive relationship between absenteeism and the difference between a worker's wage rate and his/her marginal rate of substitution. However, Leigh (1991) states that there is no impact of wages and paid sick leave on absenteeism; but Drago and Wooden (1992) and Chaudhury and Ng (1992) find a negative correlation between absenteeism and wage rates. In order to explain the content of HPWP in detail, firstly we would like to point out the following three practice groups of Thompson (2000) as in Tamkin (2004):

a. High Involvement Practices: Autonomous or semi-autonomous problem-solving teams, responsibility for own work quality, job design (job rotation, job enhancement, job enrichment) within and/or between the teams, staff suggestion schemes, attitude surveys, continuous improvement teams, etc.

b. Human Resource Practices: Formal recruitment interviews, share ownership schemes, personal development plans, performance and competency tests, training, competence-based payments, bonus payments, team rewards etc.
c. Employee Relation Practices: Formal grievance procedures, salary reviews, social gatherings, no status distinction depending on the occupation level, and so on.

Furthermore, Pfeffer (1998) suggests seven key practices that an organization should employ to get the success that are selective hiring, extensive training, self-managed teams and decentralization of the authority, minimal status distinctions, employment security, better financial compensation, sharing the information about company's financial situation and overall performance. The work of Ashton and Sung (2002) classifies them into four bundles as employee involvement and higher autonomy in decision making process, support for employee performance (mentoring and appraisal systems), better individual and group-based reward settings for performance, and finally sharing company-specific information with all employees.

Also, Pil and MacDuffie (1996), investigating the car manufacturing companies, indicate a list of five practices as problem-solving groups, job design, procedures for the employee involvement in decision making, decentralization of quality efforts, and on line work teams. Kling (1995) and Bosworth (2005) investigate how to improve the labor productivity using HPWP like employee involvement practices, incentives linked to individual or team performance, and training. Many authors who focus on the use of HPWP consider the previous researches listed in Table 3.1. More recent papers such as Zatzick and Iverson (2011), Guthrie et al. (2009), and Richardson and Vandenberg (2005) emphasize the benefits of high-performance work systems. They advocate that an organization's high-performance work system is associated with absenteeism negatively, because employees within a working environment of involvement will be more motivated to attend work, and hence, tend to have lower absence.

Indeed, there are other factors that determine the absenteeism as it is mentioned previously. For instance, there is evidence in the literature that flexible working arrangements and work-life balance -as components of HPWP- are correlated with absenteeism (De Menezes and Kelliher, 2011; Wood and de Menezes, 2007; and Kauffeld et al. 2004). Another important determinant of absenteeism that took many researchers' attention is the labor unions and employment protection. Frick and Malo (2008) analyze the causes of sickness absenteeism partially focusing on the strictness of the employment protection legislation, which certainly affects the effort choices of employees, and their results reveal that

employment protection does not influence the number of absence days. Also, Jimeno and Toharia (1996), Engellandt and Riphahn (2005), and Ichino and Riphahn (2004, 2005) test the impact of the cost of firing an employee on absenteeism.

Moreover, Garcia-Serrano and Malo (2009) investigate the Spanish case using a panel data of large establishments, testing the reliability of the exit-voice theory to extract more information about the causes of absenteeism, and finds a positive influence of union direct voice on involuntary absenteeism, consistent with a greater protection of employee rights through that institution. The authors did not find a robust effect of direct voice on voluntary absenteeism. According to Rodriguez-Ruiz and Martinez-Lucio (2010), the North American HRM view may not exactly fit the Spanish businesses, because it assumes a weak labor union influence and the centrality of effectiveness as the main HRM objective (Brewster 2007b). With respect to the US, there is a higher involvement of government and labor unions in Spain. Thus, the marginal effects of HRM depend on these external factors. Melian and Verano (2006) also indicates the importance of considering labor union strength and governmental regulations on labor conditions with an impact on the use of HR practices.

As a result, we focus on the lack of empirical research in the European literature regarding the impact of the interaction between HPWP and labor unions on absence rate. In other words, we are interested in examining how HPWP may help to tackling absenteeism problem at different levels of union influence in workers. Therefore, we have set the following hypotheses, considering the HPWP-labor union interaction in each hypothesis:[4]

Hypothesis #1: Job design practices have an impact on absenteeism at one or more levels of union influence.

Hypothesis #2: Performance-based incentive payment affects the labor absenteeism at one or more union influence levels.

Hypothesis #3: Work-life balance affects absence rate at one or more union strength levels.

Hypothesis #4: The use of flextime practice is associated with absence rate at one or more union strength levels.

Hypothesis #5: Training time per employee has a significant impact on the absence rate at one or more levels of union influence.

In addition to these, we would like to explore the differences in the marginal effects of performance-based incentive pay on absence depending on firm size. Because of the fact that it is usually easier to observe and control over absenteeism in smaller firms, it is more

[4] All hypotheses assume separate two-way interaction terms between the specified HPWP components and labor union strength.

necessary for large-sized firms to provide performance-based incentives in order to deal with this problem. So, we expect the marginal effects of performance-based incentive pay to be larger when the firm size is larger, as it is stated in our last hypothesis:

Hypothesis #6: The larger the firm size, the higher the marginal effects of performance-based incentives on absence.

3. Data Description

Considering the theoretical framework explained in the previous section, we have tested our hypotheses using a data set that has been obtained from a questionnaire with series of personal interviews conducted with Spanish companies employing at least 50 workers, whose economic activities are from manufacturing industries. The design of this questionnaire let researchers get information about human resource practices, flexibility practices, and other organizational aspects of the companies. The questionnaire's style is very similar to the one utilized by the studies of Osterman (1994, 2000), which analyze different aspects of internal labor markets and work organization in American firms. The questionnaire was completed during 2007 by an opinion and marketing research institute, CIES[5].

In addition, the questionnaire forms were filled up through approximately 45-minute personal interviews by the directors or operations managers or HR managers. The available information includes 322 small-sized companies (189 of those with 50 to 99 workers and 133 of those with 100 to 199 workers) representing 31.384 workers in total, 59 medium-sized companies (between 200 and 499 employees) that refer to 17.429 employees, and 20 large-sized companies (more than 500 workers) that include 32.024 workers in total. Moreover, the questionnaire offers more information about the human resources practices / strategies and work organization with a number of questions concentrated on work-life balance.

Besides these, it is possible to extract such information about the general characteristics of the company as its foundation year, current size, and types of products, technology, production and quality systems that are installed at the center. Finally, the last two parts of the questionnaire provide the data regarding the characteristics of the organizational matrix and the companies' relationship with their suppliers and buyers. We have generated two variables through factor analysis and Cronbach's alpha, using the questionnaire to carry out the analysis. The first variable generated is the *work-life balance*,

[5] CIES, S.L., founded in 1981, is a member of The Research Alliance, an international chain of opinion and marketing research institutes. Address: García Castañón, 4, 31002 Pamplona, Spain. +(34) 948 228 877 email: *cies@ciessl.com* web: *http://www.ciessl.com*

which consists of nine items from the original data set.[6] This variable's alpha score is 0.66. Secondly, "*Level of Technological Intensity*" has been generated by gathering the corresponding questionnaire items related with the technological aspects of the observations.[7] Its alpha score is 0.84, suggesting a high internal consistency. Table 3.2 illustrates the Cronbach's alpha scores of these two variables.

The descriptive statistics of all the variables plugged into the model are summarized in Table 3.3. And their corresponding items from the original questionnaire are listed in the Appendix B. The absence rate is measured as instances when persons who work fewer hours than he or she should have worked during the reference period because of the illness or other medical problems, child-care problems, other family or personal obligations, and maternity or paternity leave. The situations in which work was missed due to labor dispute, vacation or personal days, and holidays are excluded from this calculation. The Kernel density estimation for the absence rate is provided in Figure 3.3.

The mean of absence from work of the employees in Spanish manufacturing industry in 2007 is 5.87% and its standard deviation is 5%. Averagely 23.93% of the employees in these companies of our data are female workers and also averagely 5.14% of all are part-time wage or salary employees. In addition, Table 3.4 provides the means and standard deviations of the absence rate by the union influence levels, firm size, and some HPWP components. It can be clearly observed from the table that the average absence rate increases while moving from the very-low to very-high level of union influence. The mean of absence is higher at "job simplification", implying that the average absence rate is lower for the companies using job rotation or job enrichment compared to the ones using job simplification.

Also, the mean absence is lower for use of the performance-based incentive payment and for the adoption of flexible working hours (flextime arrangements), which indicates that employees are allowed to choose their working hours among limited options. Finally, the average absence rate gets higher while moving from the small to the large-sized companies. It is also possible to observe these relationships at Figure 3.4, which illustrates the fractional-polynomial GLM predictions of absence rates by union influence levels, work-life balance, training time, and firm size within 95% of confidence intervals. It is observed that the predicted values decreases from very-high to very-low union influence level, while the curves of work-life balance and log training time meet the minimum absence rate close their means. On the other hand, increasing firm size shows a slight increase in absence rate. A more

[6] "Work-life balance" consists of the items of Q45 of the questionnaire, which is provided in the Appendix B.
[7] "Level of technological intensity" contains the items of Q15 of the questionnaire, provided in the Appendix B.

sophisticated interrelationship between these HPWP components and union settings has been discussed through fractional logistic regression in the results section. Eventually the polychoric correlations between the variables analyzed are provided in Table 3.5.

4. Methodology and Model

Although many previous papers analyze absenteeism based on ordinary least squares (OLS) regression, hierarchical OLS, zero-inflated negative binomial, and/or zero-inflated Poisson regression (Kenyon and Dawkins, 1989; Drago and Wooden, 1992; Dionne and Dostie, 2007; Frick and Malo, 2008), we insist on carrying out this research using fractional logistic regression, developed by Papke and Wooldridge (1996) addressing the inadequacies of OLS in estimating proportions within [0 1] range and explained more in detail in the work of Wooldridge (2002); because "absence rate" as the dependent variable of this research is given as proportion. According to the authors, "compared with log-odds type procedures, there is no difficulty in recovering the regression function for the fractional variable, and there is no need to use ad-hoc transformations to handle data at the extreme values of 0 and 1".

We ran this fractional logistic regression by using the generalized linear models (GLM) on Stata 12.1 software with a logistic link and binomial family, which does not require any previous modification in the dependent variable and all predictions fall between zero and one. Also, we include the robust option in the model in order to get the robust standard errors that could be beneficial in case that the distribution family does not perfectly match. As a result, our model consists of one proportional dependent variable (absence rate) and fourteen independent variables, including five two-way interaction terms between the union influence levels and HPWP components, namely: Job design, performance-based incentives, work-life balance, adoption of flextime practice, and training time.

As a consequence of the interaction terms, when these HR instruments are shown separately in the model, their correlation coefficients or odds-ratios no longer indicate their own simple effects. So, at that point the interpretation of the results gets a little bit trickier. On the other hand, analyzing the marginal effects allows us to obtain quite useful information to make the results more understandable. Hence, we obtained marginal effects of the independent variables out of the regression that we ran. Then, in order to get the necessary information to test our hypotheses, we also listed the marginal effects of HPWP components at different levels of labor union influence. In the following section these interaction terms and the interrelationships of these variables are discussed in detail.

5. Empirical Results

As we previously stated, a linear regression would not be adequate with our variable list. So, we ran a fractional logistic regression, whose results are provided in the first column of Table 3.6. And the second column illustrates the marginal effects of the independent variables. First of all, it can be observed from the first column of Table 3.6 that some variables and some categories are found significant. For instance, performance-based incentives, job design, and the interaction between union influence and work-life balance have statistically significant negative coefficients. In contrast, the interaction of union influence-incentives seems to be significant with negative coefficients. However, because this is a logistic-linked nonlinear regression it depends on whether or not a variable is significant on different levels of each covariate in the model. In other words, one variable may be statistically highly significant when the rest of the variables are held constant at their means, but it may not be significant at all at some other points of those variables.

Because of this reason, instead of mentioning if their coefficients are shown as significant in the fractional logit, in order to make the interpretation more straight forward, we need to take a look at the marginal effects, which is placed in the second column of Table 3.6. These effects are obtained through calculating the partial derivatives of the response with respect to each independent variable separately, holding the remaining ones constant at their means. One should keep in mind that the marginal effect of each component of HPWP is a composition of the main effect of the variable individually and the effect coming from its position in the interactions terms. Table 3.6 shows that only the marginal effects of some work flexibilities (the use of flextime and the total amount of training time) are found significant among the explanatory variables as a part of the specified interaction terms, where the adoption of flextime practice increases the likelihood of zero-absence by approximately 2% when all other variables are held constant at their means and one unit increase in the log training time causes an increase in that probability by 0.6% when the remaining ones are at means.

Furthermore, Table 3.7 provides the information needed to test our hypotheses: The marginal effects of the specified HPWP components at different union influence levels. It examines the impact of these components on absence depending on and interacting with the labor union strength. The statistically significant results in Table 3.7 reveal that at the very-high level of union influence, the use of job design practices considering "job simplification" as the reference boosts the probability of zero-absence by 14.1%, providing evidence for our 1st hypothesis. And the use of performance-based incentives increases that probability by

3.97%. Thus, the 2nd hypothesis cannot be rejected. Work-life balance and training have a positive relationship with absenteeism, supporting our 3rd and 5th hypotheses respectively.[8]

At the high level of union influence, job design (the use of job rotation or job enrichment) increases the likelihood of zero-absence by 6.46%, while one unit increase in the log training time increases that likelihood by approximately 1%. Moreover, both flextime and training have an impact on the probability of absenteeism with a negative direction at the medium and low levels of union influence, which supports our 4th hypothesis. Surprisingly the "incentives" influences the probability of having a higher absence rate positively when the union strength is very low and job rotation/enrichment is also positively correlated with absenteeism at the low level of union strength. The use of flextime has a negative 2.68%-marginal effect on absenteeism at the very-low union influence.

Moreover, Figure 3.5 shows another interesting nonlinear relation that the marginal effects of the union influence, which takes into account not only its main effect but also its interaction with the HPWP components in the fractional logistic regression, are found insignificant although the findings of García-Olaverri and Huerta-Arribas (2011) state a negative relationship. Besides, the results in Table 3.7 can be also observed in Figure 3.6, which illustrates the same marginal effects of the specified HPWP factors interrelated with the labor union influence on the absence rate.

Eventually, Figure 3.7 reflects the characteristics of our last hypothesis that is set to understand more about the impact of the incentive management on absenteeism. As our fractional logit contains the interaction of incentives with union influence, the marginal effects of incentives include its main effect and its partial effect from the interaction. According to Figure 3.5, considering the high, medium, and low levels of union influence, the performance-based incentive allowance is not found significant at any firm size while the remaining factors are constant at means. In contrast, in the extreme levels of union influence the "incentives" is significant at any firm size while the others are at means. Hence it provides evidence for our 6th hypothesis as it is expected, because it would be easier for supervisors to observe and control absence in small firms. However, the direction of its effects is negative at the very-high level of union influence, when it is positive at the very-low level. These effects in both union influence levels are higher for the larger firms compared to the smaller ones.

Getting back to Table 3.7, the model consists of some control variable, among which the percentage of part-time blue-collar employees and the dummy variable of termination of

[8] The marginal effects of each variable in Tables 3.6 and 3.7 are computed holding the rest of the independent variables / covariates constant at their means.

permanent contracts affect the likelihood of higher absence rates with significant positive correlations when the others are at means in either case. Consistent with the results of Barmby and Stephan (2000), who analyze a data set from Germany, our results provide the information that the probability of being at a higher absence rate is positively correlated with the firm size, whose marginal effect is 0.86%, holding the rest at means. Larger firms might face with higher absence rates. We also found a positive relationship between absenteeism at the workplace and the percentage of female employees in a company with a quite low marginal effect, which match with the discussion of Patton (2007), who analyzes the causes of absenteeism and the difference in absence rate for female employees versus male employees.

On the other hand, although their marginal effects are less than 1%, both the technological intensity of a company and the percentage of the workers who use computer at work have statistically significant negative effects on the likelihood of higher absence rates. Regarding the labor market competition, the low, medium, and high levels (considering the very low level as reference category) have significant, negative, and relatively higher (averagely 4%) marginal effects on absenteeism, as that is expected, when the remaining variables are at means. However, the marginal effects of the organizational hierarchy trend are not found significant in the model.

6. Discussion and Conclusions

Absenteeism has been a challenging problem for many organizations globally by reducing productivity and profitability of businesses, decreasing the quality of product and/or service, and creating an unfair environment for the employees who show up at work. High costs of absenteeism has been reported in many countries and shown as a challenge to deal with. The mean of absence from work of the employees in Spanish manufacturing industry in 2007 was 5.87%. To make a comparison, the US Department of Labor indicated that the absence rate of full-time workers in the US manufacturing industry in 2005 was 3.1%.[9] In 2011, this rate decreased to 2.9%.[10]

Therefore, many researches tried to find out its causes and a clear solution. According to the literature, absenteeism is higher in manufacturing industry and education environments compared to other industries and it is a bigger problem among blue-collar employees (Hazzard, 1990). Absence rate is higher for female workers who are most likely to be more

[9] US Department of Labor, Bureau of Labor Statistics, The Editor's Desk: "Absence from Work in 2005". Feb 14, 2006. *http://www.bls.gov/opub/ted/2006/feb/wk2/art02.htm*

[10] US Department of Labor, Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey. *http://www.bls.gov/cps/cpsaat47.pdf*

sensitive to family needs, and higher in union settings than in nonunion settings (Dunn and Youngblood, 1986; Buschak et al., 1996). The 2012 report of the UK Office of National Statistics on sickness absence in the labor market also points out the gender effects on absenteeism. It demonstrates that absence among female workers is higher than among their male colleagues both before and during the global recession. However, there is still a lack in the literature concerning this problem from the perspective of the interaction between HPWP and union settings in the European countries. Specifically in Spain, even the present economic crisis has not caused a remarkable reduction in the absence rate, as Adecco's 2012 statistical report on absenteeism indicates.

Because of these, we analyzed the determinants of absenteeism and concentrated on the HPWP-union interaction utilizing a questionnaire from Spanish manufacturing companies. We took into account five components of HPWP (namely job design, incentive management, work-life balance, flextime, and training) and the interactions between these components and the labor union influence in our model. Because of our proportional dependent variable, we ran a fractional logistic model. Some researchers prefer using OLS to make interpretations easier, but as a matter of the fact that a nonlinear model can handle proportions as dependent variable more adequately, it is more accurate to run a fractional logit.

The results of this analysis provide evidence that considering the interactions between HPWP and labor unions, the adoption of job rotation or job enrichment practice increases the chance to reduce the absence rate remarkably at very-high and high levels of the labor union influence. Beside this, we suggest that performance-based incentive payment at very-high union influence may also help to decrease the likelihood of high absence. This probability-decrease may be even greater for the large-sized companies. Moreover, it can be recommended that the use of flextime at medium, low, and very low levels of union influence tends to reduce the probability of higher absence rates. Finally, increasing total training time per employee can be utilized to decrease the probability of high-absence at any union influence level except the extreme ones.

Regarding the marginal effects of the control variables in the model, the gender proportion is a significant factor in the model consistent with the literature. An increase in the % of female workers may lead to an increase in the probability of high absence. There could be more reasons behind this fact than just being more sensitive to family needs. These factors are discussed further in the study of Patton (2007). The % of part-time employees has a similar effect on absenteeism. On the other hand, compared to very-low market competition,

the levels of low, medium, and high competition may decrease the probability of high absence by around 4%.

As a consequence, the present research could be a valuable asset and a guide for managers and directors to consider in decision making processes to build new company policies on management of human resources regarding the key factors to deal with absenteeism problem at the workplace and to reach the ultimate goal: Increasing productivity, efficiency, and profitability of the company.

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8. Appendix: Tables & Figures

Table 3.1: The Literature Summary of the High-Performance Work Practices

Author (date)	Type/ coverage	Work practice	Performance measure	Results
Bartel (1994)	All industries	Training	Net sale per employee	Productivity increased by 19% over 3 years in the firms with training
Holzer et al. (1993)	Michigan manufacturing	Training	Scrap rate	A doubling of training resulted in a 7% decrease in the scrap rate
Bishop (1994)	Literature review	Training	Wage	Wages of trainees rose between 0 and 12%
Kruse (1993)		Profit sharing	Various	Resulted in 3-5% increase in productivity
Kaufman (1992)	Manufacturing	Gain sharing	Relative labour productivity	15% increase in productivity over 3 years
Cooke (1994)	Michigan manufacturing	Profit/gain sharing teams	Value added per employee	5-25% increase in value added in establishments with incentive pay
Levine and Tyson (1990)	Literature review	Participation in decision making	Various	Majority of studies showed that participation was positively correlated with productivity
Macy and Izumi (1993)	Meta-analysis	Various: job design, team work, training, communication, *etc.*	Various	Changes in work practices were associated with productivity improvements of up to 40%
Kelly and Emison (1995)	Metalworking and machinery	De-centralised responsibility, problem-solving teams	Machining time per unit of output	Production time decreased with worker participation
Ichniowski et al. (1994)	Steel	Team incentives, training, communication, *etc.*	Up-time, prime yield	Changes in work practices associated with productivity gains of up to 40%
Arthur (1994)	Steel	Employee involvement, team working, others	Labour hours per ton	Lines with most progressive practices had 7% higher up-time
MacDuffie (1995)	Automobiles	System: teams, training, rotation, others	Standardised production time per vehicle	'Commitment' system had 12% higher productivity
Cutcher-Gershenfeld (1991)	Components manufacturing	System: problem solving, worker autonomy, others	Labour hours per standardised task	Non-traditional work groups had 17% higher productivity
Huselid (1995)	All industries	System: skills motivation, others	Sales per worker	System associated with 16% higher productivity
Ichniowski (1990)	Manufacturing	System: job design, training, others	Sales per worker	System associated with higher productivity
Hendricks and Singhai (1994)	All industries	Quality award recipient	Daily stock price	Quality award announcement coincided with 0.6% jump in share price
Easton and Jarrell (1994)	All industries	System: training, team work, organisational structure, others	Share price, accounting profit	Firms implementing the system had 20% higher share price after 6 years

Source: Kling (1995) and Bosworth (2005)

Table 3.2: Variables Generated and the Corresponding Cronbach's Alpha Scores

Variables Generated	Cronbach's Alpha
Work-Life Balance	0.66
Level of Technological Intensity	0.84

Table 3.3: Descriptive Statistics of the Variables Analyzed

Variables	**n**	**mean**	**sd**	**min**	**Max**
Absence Rate	329	0.06	0.05	0	0.31
Labor Union Influence	397	2.91	0.98	1	5
Job Design	394	0.91	0.28	0	1
Work-Life Balance	361	2.14	1.82	0	8
Performance-Based Incentives	400	0.14	0.35	0	1
The Use of Flextime	399	0.47	0.50	0	1
Log of Training Time per Employee	328	2.37	0.96	0	6.22
Organizational Hierarchy Trend	398	2.92	0.62	1	5
Labor Market Competition	401	3.55	1.16	1	5
Termination of Permanent Contracts 2005-2007	397	0.45	0.50	0	1
% of Female Employees	386	23.93	23.03	0	95
Log of Firm Size	401	4.79	0.78	3.91	8.98
Level of Technological Intensity	398	7.14	3.40	1	12
% of Part Time Employees	367	5.14	17.02	0	100
% of Workers Using Computer at Work	387	36.05	32.86	0	100

Table 3.4: Descriptive Statistics of Absence Rate by Union Influence, HPWP Components, and Firm Size

		Absence Rate	
		mean	**st. dev.**
Union Influence	Very High	7.61%	0.0588
	High	6.39%	0.0505
	Medium	5.93%	0.0462
	Low	4.82%	0.0364
	Very Low	4.24%	0.0350
Job Simplification	Yes	8.36%	0.0782
	No	5.65%	0.0421
Incentives	Yes	5.15%	0.0324
	No	5.98%	0.0485
The Use of Flextime	Yes	5.20%	0.0389
	No	6.47%	0.0518
Firm Size	Small	5.39%	0.0458
	Mid-Small	6.18%	0.0511
	Mid-Large	6.34%	0.0421
	Large	6.79%	0.0233

Table 3.5: Polychoric Correlation Matrix

	Polychoric Correlations	***1***	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***	***12***	***13***
1	Labor Union Influence	1												
2	Job Design	0.19	1											
3	Work-Life Balance	0.01	0.09	1										
4	Incentives Based on Performance	0.09	0.29	0.03	1									
5	The Use of Flextime	0.08	0.07	0.11	0.19	1								
6	Log of Training Time per Employee	0.03	0.12	0.25	0.05	-0.03	1							
7	Organizational Hierarchy Trend	-0.17	0.18	0.06	-0.47	0.09	-0.07	1						
8	Labor Market Competition	0.02	-0.06	0.01	0.09	0.00	0.00	-0.14	1					
9	Termination of Permanent Contracts 2005-2007	-0.01	-0.24	0.06	-0.19	0.09	0.03	0.06	-0.02	1				
10	% of Female Employees	0.12	-0.12	0.11	-0.15	0.05	0.06	-0.02	-0.13	0.05	1			
11	Log of Firm Size	-0.04	0.23	0.22	0.05	0.17	0.05	0.14	-0.14	-0.04	0.06	1		
12	Level of Technological Intensity	-0.06	0.09	0.06	0.27	0.12	-0.03	0.12	0.01	-0.03	-0.12	0.27	1	
13	% of Part Time Employees	0.07	0.04	-0.03	-0.04	-0.02	-0.06	0.00	-0.19	-0.10	0.07	-0.02	-0.01	1
14	% of Workers Using Computer at Work	-0.06	0.06	-0.07	-0.11	0.09	-0.02	0.12	0.03	-0.15	0.00	-0.02	0.03	-0.07

Table 3.6: Results of the Fractional Logistic Regression & Marginal Effects

	Absence Rate (%)	
	Fractional Logit	Marginal Effects
Labor Union Influence		
Very High (Reference)		
High	1.654**	0.0126
	(0.682)	(0.0106)
Medium	0.899	0.0048
	(0.685)	(0.0099)
Low	-0.004	0.0016
	(0.814)	(0.0108)
Very Low	1.192	-0.0169
	(0.873)	(0.0116)
Job Design	-1.635***	-0.0119
(Job Simplification=0, otherwise=1)	(0.340)	(0.0083)
Incentives Based on Performance	-1.239***	-0.0023
(Yes=1, No=0)	(0.443)	(0.0061)
The Level of Work-Life Balance	0.376***	0.0003
	(0.099)	(0.0014)
The Use of Flextime	-0.583	-0.0202***
(No Use=0, otherwise 1)	(0.441)	(0.0049)
Log of Total Training Time (TT)	0.517**	-0.0060***
per Blue-Collar Employee	(0.210)	(0.0022)
Union Influence x Job Design		
High x No Simplification	0.802*	
	(0.416)	
Medium x No Simplification	1.538***	
	(0.399)	
Low x No Simplification	2.685***	
	(0.594)	
Very Low x No Simplification	1.034*	
	(0.561)	
Union Influence x Incentives		
High x Incentives	1.276**	
	(0.569)	
Medium x Incentives	1.112**	
	(0.473)	
Low x Incentives	1.273***	
	(0.490)	
Very Low x Incentives	2.488***	
	(0.615)	
Union Influence x Work-Life Balance		
High x Work-Life Balance	-0.370***	
	(0.116)	
Medium x Work-Life Balance	-0.415***	
	(0.104)	
Low x Work-Life Balance	-0.351***	
	(0.115)	
Very Low x Work-Life Balance	-0.443**	
	(0.206)	
Union Influence x Use of Flextime		
High x Use of Flextime	0.274	
	(0.497)	
Medium x Use of Flextime	0.255	
	(0.445)	
Low x Use of Flextime	0.001	
	(0.488)	
Very Low x Use of Flextime	-0.308	
	(0.632)	

Table 3.6 (cont'd)

	Absence Rate (%)	
(cont'd)	Fractional Logit	Marginal Effects
Union Influence x Log Training Time		
High x Log Training Time	-0.676***	
	(0.237)	
Medium x Log Training Time	-0.648***	
	(0.222)	
Low x Log Training Time	-0.759***	
	(0.248)	
Very Low x Log Training Time	-0.757***	
	(0.277)	
Labor Market Competition		
Very Low (Reference Category)		
Low	-0.744***	-0.0432***
	(0.227)	(0.0163)
Medium	-0.537**	-0.0339**
	(0.230)	(0.0167)
High	-0.581***	-0.0361**
	(0.213)	(0.0162)
Very High	-0.429*	-0.0283
	(0.238)	(0.0175)
Organizational Hierarchy Trend		
Large Increase (Reference)		
Small Increase	0.126	0.0071
	(0.230)	(0.0127)
Maintaining the Same Level	-0.146	-0.0073
	(0.205)	(0.0109)
Small Decrease	-0.116	-0.0059
	(0.225)	(0.0117)
Large Decrease	0.593	0.0413
	(0.375)	(0.0291)
Termination of Permanent Contracts **during 2005 - 2007**	0.297***	0.0149***
	(0.089)	(0.0046)
% of Women among the Total Blue-Collar Employees	0.007***	0.0003***
	(0.002)	(0.0001)
Firm Size	0.176***	0.0086***
	(0.059)	(0.0029)
The Level of Technological Intensity	-0.031**	-0.0015**
	(0.013)	(0.0006)
% of the Part-Time Blue-Collar Employees	0.005**	0.0002**
	(0.002)	(0.0001)
% of Workers Using Computer at Work	-0.003*	-0.0001*
	(0.002)	(0.0001)
Constant	-3.332***	
	(0.773)	
# of Observations	233	233

Robust standard errors in parentheses.
**** p<0.01, ** p<0.05, * p<0.1*

Table 3.7: Marginal Effects of HPWP Components at Labor Union Influence Levels

	Job Design	***Incentives***	***Work-Life Balance***	***The Use of Flextime***	***Training Time***
Labor Union Influence					
Very High	-0.141***	-0.0397***	0.0171***	-0.0264	0.0235***
	(0.0404)	(0.0104)	(0.0032)	(0.0188)	(0.0075)
High	-0.0646***	0.0021	0.0003	-0.0175	-0.009*
	(0.0212)	(0.0197)	(0.0032)	(0.0114)	(0.0047)
Medium	-0.005	-0.0061	-0.0019	-0.0163**	-0.0065*
	(0.0115)	(0.0073)	(0.0018)	(0.0065)	(0.0034)
Low	0.0340***	0.0016	0.0012	-0.0272***	-0.0114*
	(0.0104)	(0.0114)	(0.0028)	(0.0104)	(0.006)
Very Low	-0.0229	0.0584**	-0.002	-0.0268**	-0.0072
	(0.0178)	(0.0247)	(0.0053)	(0.0116)	(0.0053)

Figure 3.1: Number of Days Lost Due to Sickness in the UK

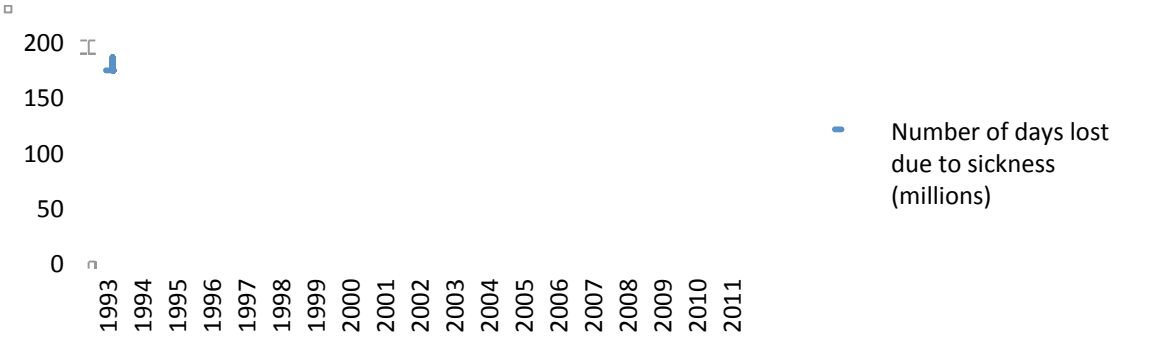


Figure 3.2: Sickness Absence in the UK

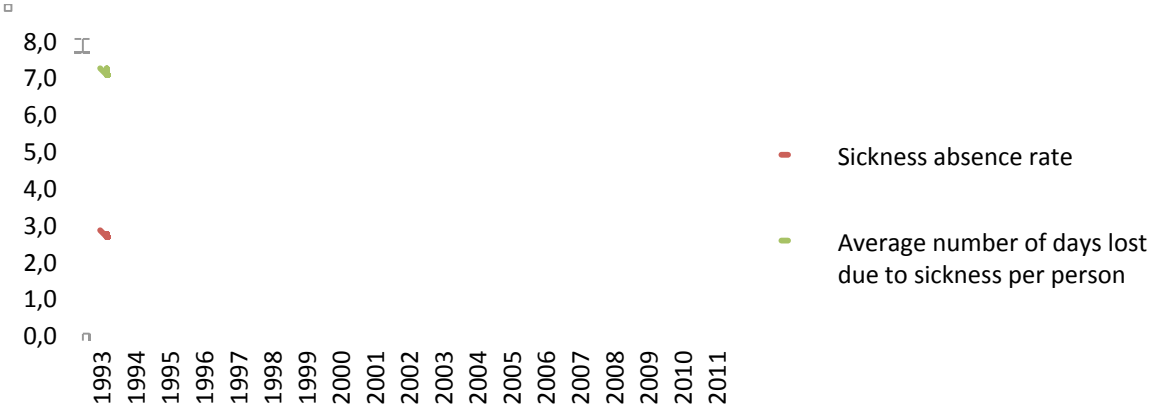


Figure 3.3: Kernel Density Estimate of "Absence Rate %"

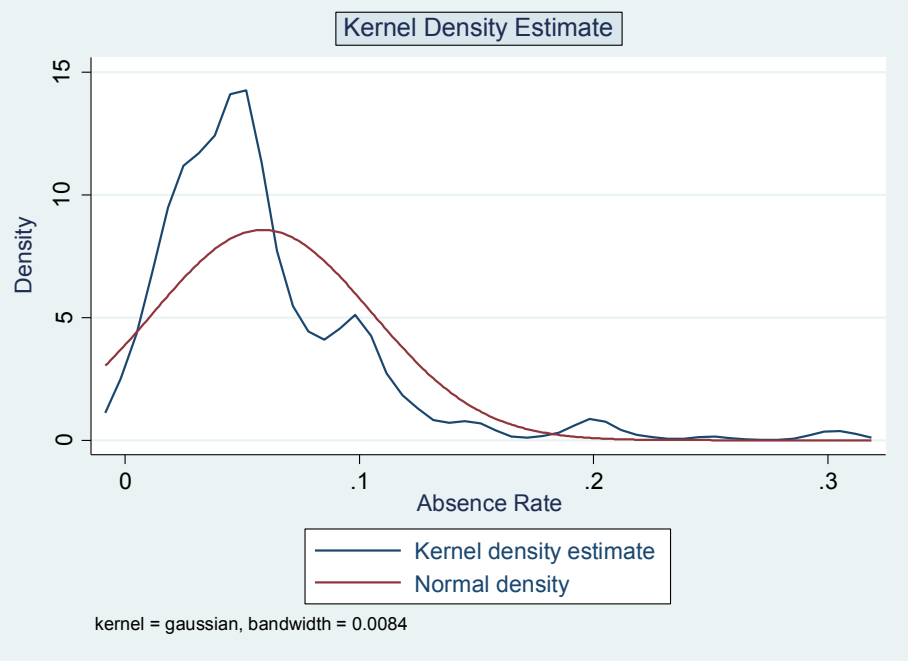


Figure 3.4: Absence Rate Predictions by Union Influence, Work-Life Balance, Training, and Firm Size

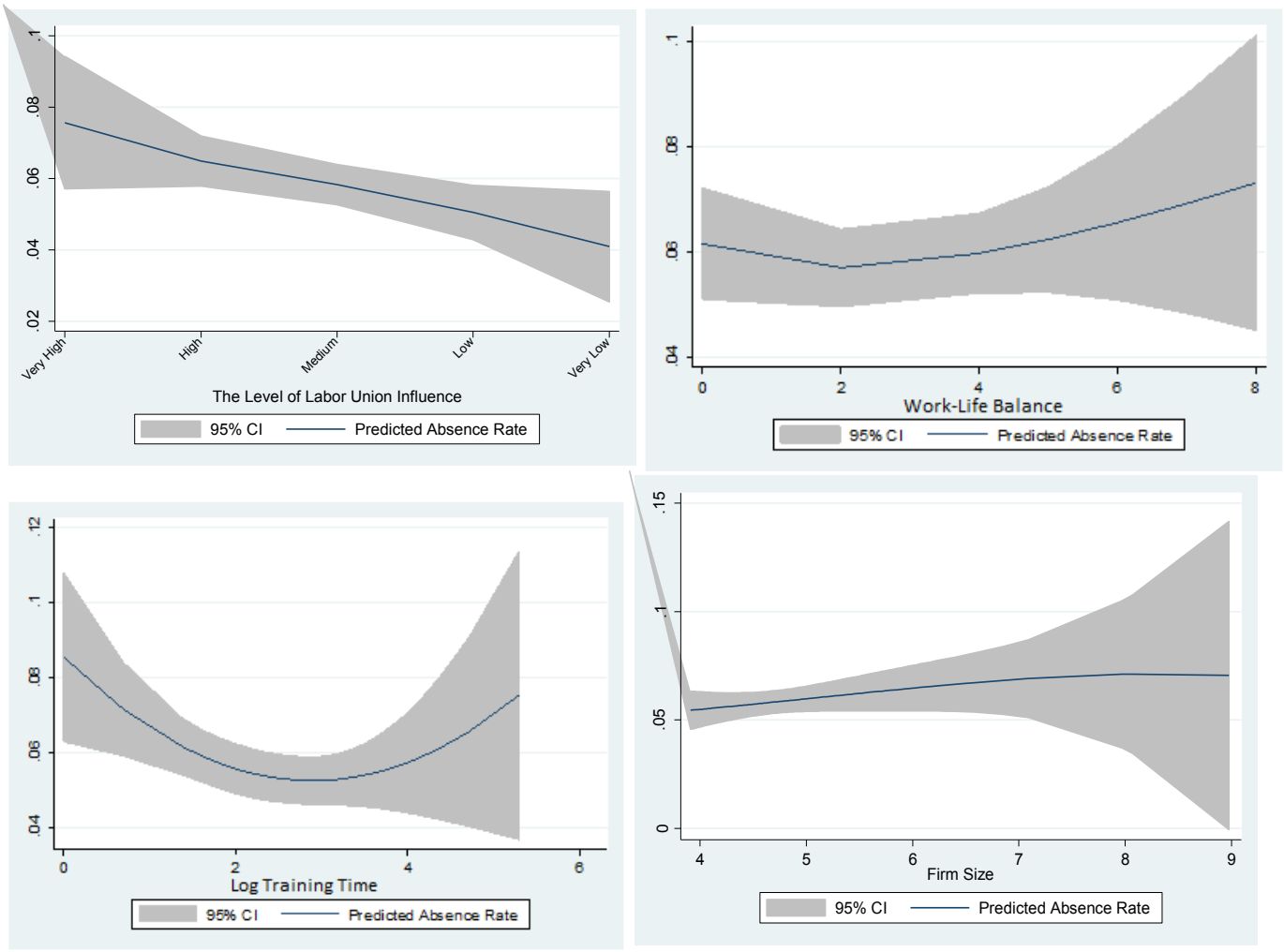


Figure 3.5: Marginal Effects of Labor Unions on Absence Rate

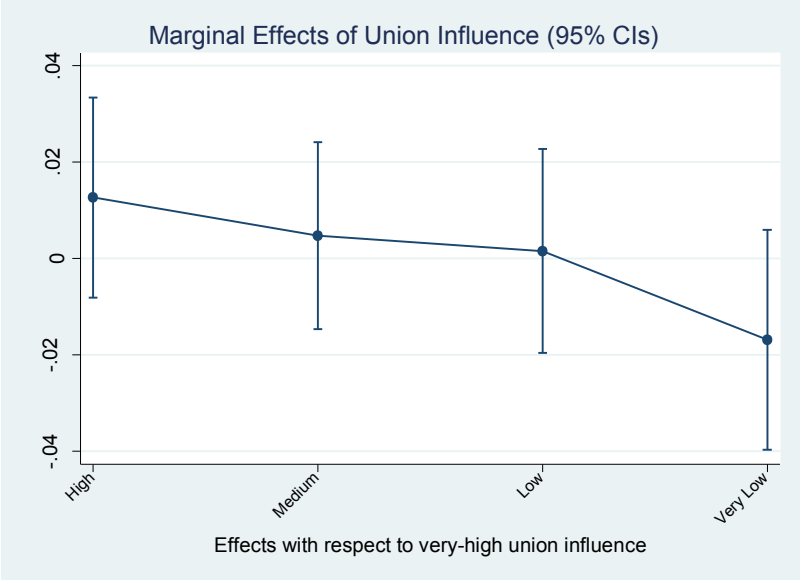
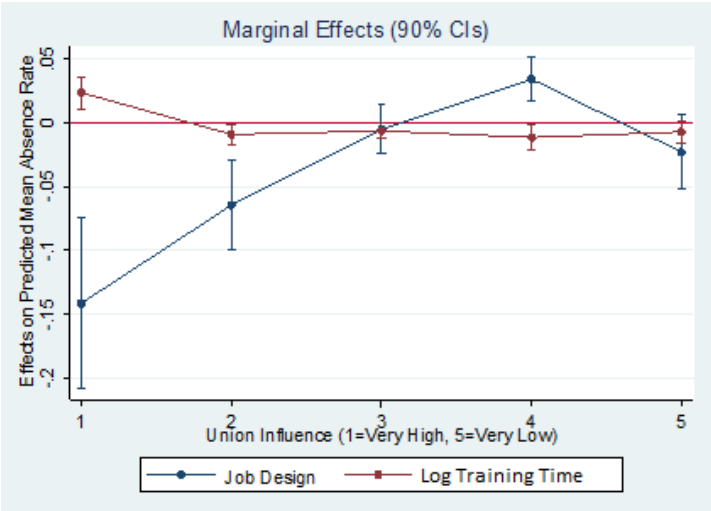
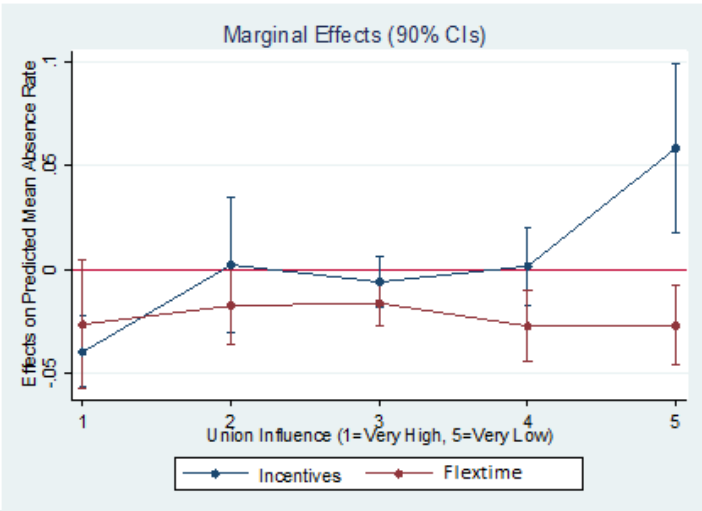


Figure 3.6: Marginal Effects of HPWP Components by Union Influence





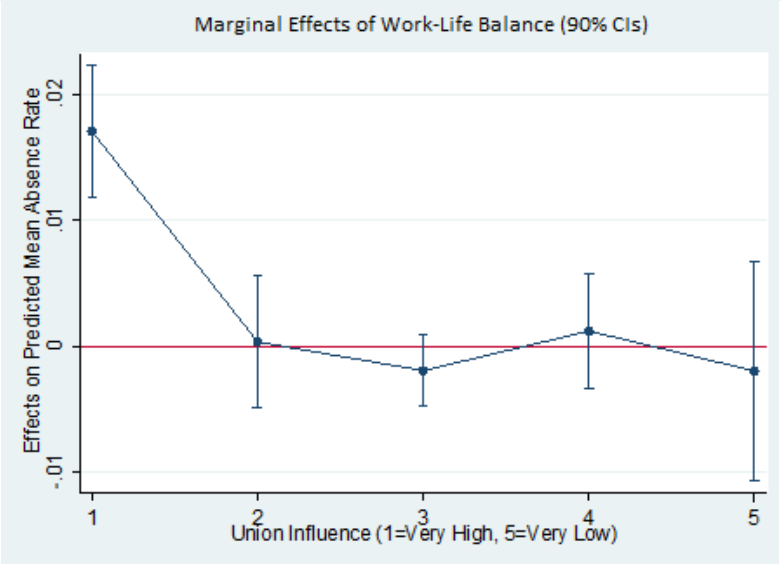
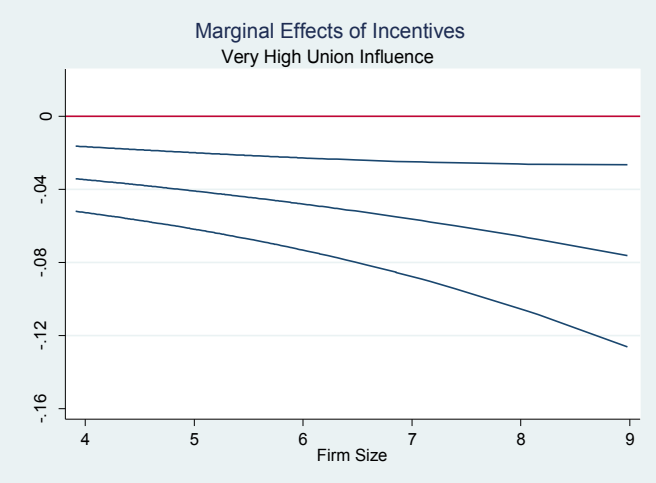
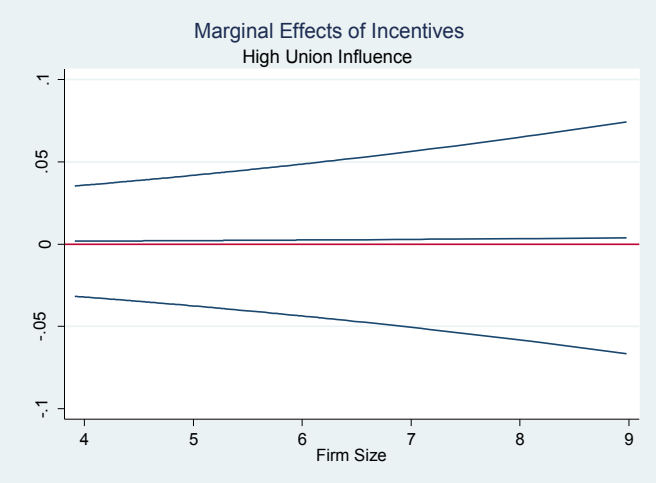
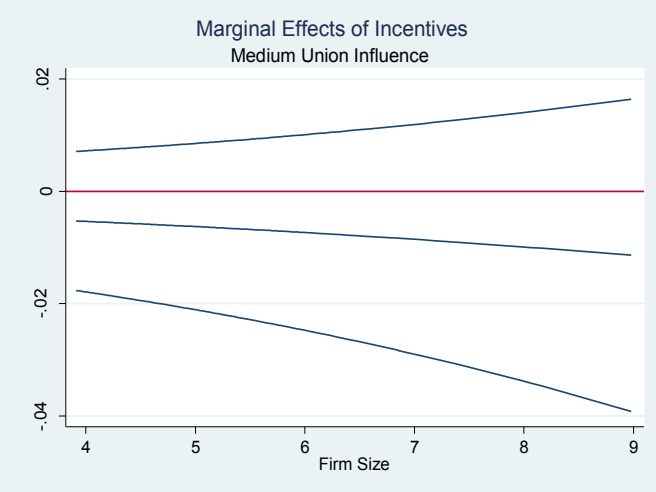
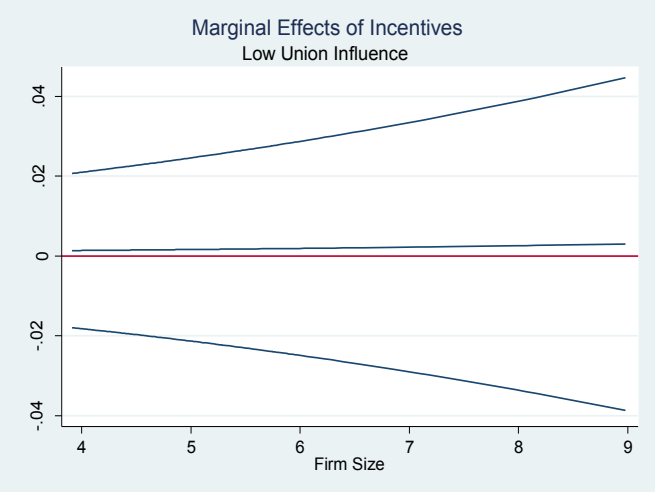


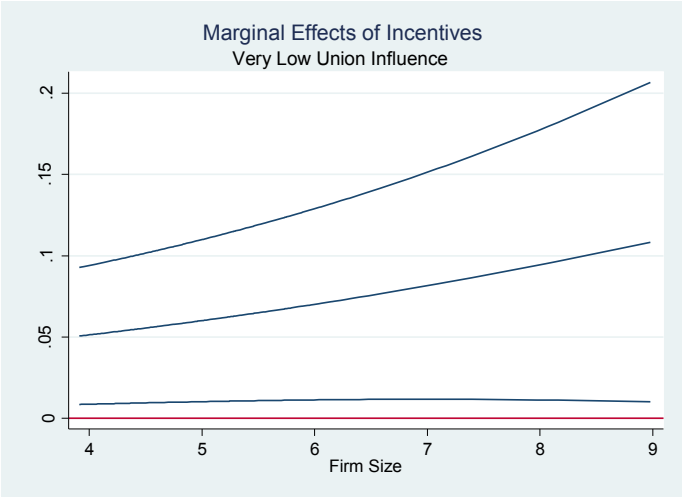
Figure 3.7: Marginal Effects of Incentives on Absence Rate at Firm Size by Union Influence [11]











[11] The rest of the independent variables are held constant at their means. Upper and lower curves are the %95 confidence intervals.

Appendix B: The Questionnaire Items for the Empirical Analysis[12]

Q3. What was the approximate number of employees in your plant in 2005?

Q12. How would you value the influence that labor unions have in workers?
"Very high"=1, "High"=2, "Medium"=3, "Low"=4, "Very Low"=5, n/a=9.

Q15. What is the utilization grade of the following technologies in this establishment? Please firstly indicate if aforementioned technology is technically applicable. Then please state a degree of use of that technology within the scale from 0 to 10, where 0 indicates that it is not used at all, and 10 indicates that it is used the most possible.

Techniques	Proceeds? Yes or No	Level (0-10)	n/a
CAD/CAM.....	1		99
Numeric control machines……	2		99
Robots……	3		99
Flexible fabrication cells……..	4		99
Laser technologies……	5		99
Artificial vision……	7		99
Automatic storage systems……	8		99
Automatic movement systems ……	9		99
Data network about production…….	10		99
ERP (Integrated management systems, SAP)	11		99
Bar codes ……	12		99
Computer prevented maintenance …….	13		99

Q25_1. Please indicate how much you agree with the following statement (from "strongly disagree"=1 to "strongly agree"=5):
In the labor market it is difficult to find people who have knowledge, qualities, attributes, and skills as much as our blue-collar workers do. Therefore, it is difficult to replace them with other workers with similar value.

Q28b_2. Please indicate the degree of application of the following Human Resource Management practices among your blue-collar workers:
The investment in training of the blue-collar workers in terms of hours as well as financial terms is "null or very low"=1 to "very high"=5.

Q32_2. Among the blue-collar workers in your company, what is the percentage of the part-time workers, including discontinuous permanent contracts?

Q33. What was the average absence rate among the blue-collar workers in your company during last year? (Do not include authorized absences such as weddings, holidays, participation in training courses, or union conflicts. Include absences caused by sicknesses).

[12] The items listed here are translated from the originally Spanish text.

Q34b. During the last three years, has the following situation ever happened? What was the percentage of the blue-collar workers affected? Cancellation of permanent contracts (final lay-off)
Si=1, No=0.

Q37_2. When necessities for production exist in your plant, how frequently do you use the following practice?[13]
Flexible working hours (Flextime): Working hours and days that the company can provide when it is needed to adjust the labor force for productivity reasons. ("never"=1, "very few times"=2, "occasionally"=3, "often"=4, "very frequently"=5).

Q40. In average, how many hours of training per blue-collar worker were offered during the last year?
The ratio of training hours per employee is calculated through dividing the total number of training time (in other words, the sum of training time offered for distinctive courses multiplied by the number of participants in each of them) by the total number of blue-collar employees in your plant.

Q44. What is percentage of female workers among the blue-collar workers in your plant?

Q45. In your organization, are there any practices employed to establish work-life balance for the blue-collar workers? (In these items, "No=2" is recoded as "No=0")

	Si	No
Flexible hours to start and finish work	1	2
Only day shifts	1	2
Shifts without working hours in holidays	1	2
More maternity/paternity leave permits than what law establishes	1	2
More unpaid leave permits for childcare or family-care than what law establishes	1	2
More reduction of working hours for childcare or family-care than what law establishes	1	2
Financial aids for kindergartens	1	2
Kindergartens in the company	1	2
Others	1	2

Q46. What is the trend in the number of existent hierarchical levels in your establishment?
"Growing a lot"=1, "Growing a little"=2, "Continuing the same"=3, "Diminishing a little"=4, "Diminishing a lot"=5, n/a=9.

[13] This item has been recoded to a dummy variable, where "0" indicates no use of flextime and "1" indicates that flextime practice is used in the organization.

Q47. Which one of these phrases would fit better to the situation regarding the tasks and jobs of the blue-collar workers in this plant?
1 = Each worker is trained for one concrete task, and they do not change the job.
2 = The workers are trained to carry out different tasks in the plant, but they usually do not change the job.
3 = The workers change tasks with a certain frequency, but always in the same section.
4 = The workers change sections with a certain frequency.
9 = n/a.

Q49. Please indicate approximately the percentage of the blue-collar workers in this establishment that usually use computer or access local nets, intranet, or internet to receive or offer information for their work.

CHAPTER 4

THE IMPACT OF PARTICIPATIVE MANAGEMENT ON JOB SATISFACTION: AN EMPIRICAL STUDY AMONG EURO-MEDITERRANEAN COUNTRIES

1. Introduction

The causes and effects of job satisfaction have been studied widely in the literature. Regarding its impact on work environment and business aspects, despite the dispute about the relationship between employee job satisfaction and job performance (Petty et al., 1984 and Iaffaldano and Muchinsky, 1985), many studies provide evidence that organizations with low employee job satisfaction tends to face with absenteeism problem, tardiness, grievances, strikes, high turnover, work-related accidents, and so on more frequently (Locke, 1976; Carsten and Spector, 1987; Kemery et al. 1987; Farrell and Stamm, 1988; Barling et al., 1990; Pierce et al., 1991; Coster, 1992; Tett and Meyer, 1993; Visser et al., 1997; and Eby et al., 1999), causing a large amount of loss and a decrease in profitability, efficiency, employee loyalty, and quality of human resources (HR).

Some financial incentives and/or in-company promotions may help organizations or institutions tackle this problem. Although some authors claim that pay is a major determinant of job satisfaction (Clarke and Oswald, 1996; Bilgic, 1998; Sokoya, 2000), there are a number of comprehensive studies in the literature that suggest low correlation or no relation between pay and job satisfaction. For instance, Judge et al. (2010) argue in their meta-analysis that pay level is correlated only 0.15 with job satisfaction. The authors imply that workers who earn larger amounts are just a little more satisfied with their jobs than those who earn considerably less. Beside this, during the period of an economic crisis, which is currently the major issue to deal with in many Euro-Mediterranean countries as Greece, Portugal, Italy, and Spain, it becomes harder to offer a "good" or convincing pay and the expectations about compensation packages including benefits get lower due to many budget cuts. In addition to this, lack of promotions may exist while working hours can be more challenging and/or the amount of vacations might be reduced to improve the cost efficiency for a firm's survival.

Therefore low employee morale has been an emerging issue in the globally challenging business environment. In addition to many academicians who concentrate their research on this topic, the media also recognizes its importance. For example, several recent articles in Forbes, CNN Money, The New York Times, USA Today, Fortune, and Money Magazine (Pofeldt, 2012; Adams, 2012; Rich, 2012; Petrecca, 2011; Pepitone, 2010; Fisher, 2010; and Dickler, 2009) point out the low level of employee morale and loyalty and also

claim that job satisfaction among employees has decreased remarkably during the last few years as a consequence of the recession and discuss how to deal with this problem as a respond to various reader opinions and comments.

So, how can managers improve employee morale and job satisfaction in order to maintain or increase the organizational performance? As it is discussed further in the literature review section, many authors sought solutions for this challenging problem, indicating that job satisfaction is determined not only by the components like financial incentives, but also by addressing manager's role, quality, and talent. The theoretical framework of HRM suggests that participative management style can capture the necessary managerial aspects. However, it does not necessarily have the same impact on job satisfaction level in every individual, economic activity, and country. Hence, the main contribution of our analysis is to study the impact of participative management style on job satisfaction and to analyze the differences across countries.

We utilize the data set of the European Working Conditions Survey (EWCS) from 2010, conducted by the European Foundation for the Improvement of Living and Working Conditions. The statistical evidence we found reveals that participative management style has an indirect positive influence in job satisfaction through its intermediary determinants such as psychological and physical work environment together with workplace flexibilities including HR policies on work-life balance. The marginal effects of participative management on these predictors, hence in job satisfaction, differ across countries. Specifically, this inter-country analysis consists of nine Euro-Mediterranean countries: Spain, France, Italy, Turkey, Cyprus, Malta, Portugal, Greece, and Croatia.

The following section of the present chapter examines the previous studies in the literature and links them to our hypotheses to be tested. The third section illustrates the model and methodology in order to analyze the EWCS 2010 data, which is described in detail along with the variables generated in the fourth section. Finally, the results of the empirical analysis are shown and explained in the fifth section, which is followed by the conclusions.

2. Literature Review and Hypotheses

Schneider and Snyder (1975) define job satisfaction as a personal evaluation of the job conditions, implying that job satisfaction has a connection with one's perception and evaluation of his/her job, which is influenced by employee needs, values, and expectations. Thus, employees evaluate their jobs based on the factors, which they regard as being important to them (Sempane et al., 2002). Locke (1976) defines job satisfaction as a positive

or pleasurable state which results from the assessment of one's job-related experiences and its dimensions are wage, benefits, promotions, recognition, working conditions, supervision, co-worker attitudes, and managers.

The topic of job satisfaction and its determinants has been extensively studied in the literature, not only in the field of Human Resources but from in other research fields as industrial sociology or psychology. From very different approaches, it has been tried to provide answers to the question: What are the factors that explain job satisfaction? Here we present some of the most important contributions. According to the model of Price and Mueller (1986), job satisfaction is influenced by several factors such as routinization, centralization, communication, integration, pay, justice, promotion, role overload, and professionalism. There are some critics against Price and Mueller's (1986) model. For instance, it does not include role conflict, task significance, and supervisory support, which are indicated in House and Rizzo (1972), Hackman and Oldham (1975), and House (1981). It also excludes various environmental predictors of job satisfaction that Lawrence and Lorsch (1969), Lorsch and Lawrence (1972), Pfeffer and Salancik (1978), Miller et al. (1979), Aldrich (1979), Hulin et al. (1985), and Pond and Geyer (1987) indicate in their researches.

Furthermore, the Revised Causal Model, proposed by Agho et al. (1993), is based on Price and Mueller's (1986) model and the critics, keeping the statistically significant explanatory variables with empirical support of Curry et al. (1986), Mottaz (1985, 1988), Eichar and Thompson (1986), Tetrick and La Rocco (1987), and Blegen and Mueller (1987). The revised model considers the following determinants of job satisfaction:

i. *Environmental Influence*: alternative job opportunities,
ii. *Job Characteristics*: autonomy, role ambiguity, role conflict, role overload, justice, supervisory support, internal labor market, task significance, integration, pay, and routinization,
iii. *Personality Variables*: work motivation and affectivity.

Although they are omitted in the model of Price and Mueller (1986), the literature suggests that job satisfaction has a significant association with demographic factors such as *age* (Rhodes, 1983; Bilgic, 1998; Mesh'al, 2001; Gazioglu and Tansel, 2006; and Lee and Wilbur, 1985), *gender* (Mesh'al, 2001; Bilgic, 1998; Hulin and Smith, 1964; Sibbald et al., 2000; Oshagbemi, 2000; Gazioglu and Tansel, 2006), and *education* (Etuk, 1980; Martin and Sheehan, 1989; Falcone, 1991; Rogers, 1991; Clarke and Oswald, 1996; Bilgic, 1998; Zhang et al., 1999; Al-Ajmi, 2001; and Lura et al., 2010). Blanchflower and Oswald (1998) argue that job satisfaction is influenced by marital status as well as gender. Freeman (1978)

emphasizes on the fact that job satisfaction reflects not only the objective factors, but also the subjective ones, because it reflects various workplace aspects that cannot be captured by many other objective variables.

Furthermore, D'Addio et al. (2007) suggest a distinction between extrinsic and intrinsic job characteristics; where the extrinsic ones concern with financial compensation, business hours, work-life balance, job security, and promotions, while the intrinsic ones consider job content, work intensity, injury risk, and the relationships with supervisors and co-workers. According to a research on academician's satisfaction carried out by Jeans and Murphy (2009) and to the *two factor theory of work motivation* proposed by Herzberg et al. (1957, 1993) and Herzberg (1987), the factors contributing to growth (motivators) are intrinsic to the job, which include achievement, opportunities for advancement, recognition, responsibility, and the work itself. The factors contributing to dissatisfaction (hygiene factors) are extrinsic to the job such as company policy, administration, salary, work conditions, supervision, job status, security, and relationships with supervisors, peers, and subordinates.

However, the theory of Herzberg is not free of criticism. Many studies argue that both intrinsic and extrinsic factors can lead to satisfaction or to dissatisfaction (Judge and Church, 2000; Oshagbemi, 1997, 1999, 2000, 2003; and Shipley and Kiely, 1988). Jeans and Murphy (2009) also suggest that motivation is primarily achieved by the intrinsic factors, but both intrinsic (job related) and extrinsic (work environment) factors may cause de-motivation. Many investigations provide evidence that working conditions (Tovey and Adams, 1999; Adams and Bond, 2000; and Tzeng, 2002a), relationships with co-workers and managers (Nolan et al., 1995 and Price, 2002), salary and promotion (Adamson et al., 1995; Aiken et al., 2001; and Tzeng, 2002b), employee involvement in decision-making, recognition, and autonomy (Nolan et al., 1998; Lundh, 1999; and Wang, 2002), and leadership styles (Fung-kam, 1998) have a significant impact on job satisfaction.

Regarding the way in which these factors influence the job satisfaction there is also controversy in the academic literature. Lydon and Chevalier (2002) examine the UK higher education graduates from 1985 and 1990. They found that pay, status, and family size are positively associated with employee job satisfaction, but the number of working hours, working in public sector, having a clerical job, being a male worker, workplace size, and age have a negative connection with job satisfaction. However, they found education level and employment period statistically insignificant. Hulin et al. (1985) and Quarles' (1994) highlight that promotion opportunities are significantly correlated with job satisfaction. To

Herzberg et al. (2009), Chen (2008), and Ozyurt et al. (2006), job satisfaction is positively correlated with personal accomplishment.

Such studies as Sweeney et al. (1990), Clarke and Oswald (1996), Oshagbemi (2000), Sokoya (2000), Bender and Heywood (2006), Jones and Sloane (2007), and Howard and Frink (1996) indicate that salary have an influence in job satisfaction. Brown et al. (2008) imply that influence of salary is too small, and the effects of salary are limited under unsatisfactory work quality. Bender and Heywood (2006) advocate that university professors with high income may experience lower job satisfaction, with respect to those working in industry. The reason would be the thought that PhD holders who work in industry earn more.

In order to examine the impact of motivation on job satisfaction and productivity, many authors carry out analyses on employee empowerment and participative management (Likert, 1967; Drucker, 1974; Ouchi, 1981; Pascale and Athos, 1981; and Spreitzer et al. 1997). Bowen and Lawler (1992) define empowerment as "sharing with front-line employees the information about an organization's performance, information about rewards based on this performance, knowledge that enables employees to understand and contribute to organizational performance, and giving employees the power to make decisions that influence organizational direction and performance". Ugboro and Obeng (2000) and Johnson and McIntye (1998) suggest that the strongest determinants of job satisfaction are empowerment and involvement.

Moreover, Packard and Motowidlo (1987), Blegen (1993), Knoop (1995), Adams and Bond (2000), Fang (2001), Chu et al. (2003), and Seo et al. (2004) show a moderate relationship between job satisfaction and support from co-workers and managers, employee participation in company's decision making processes, autonomy, and communication with supervisors. Brewer et al. (2000) also suggest in their study that policy makers and public managers should consider employees in some decision-making processes as a strategy to improve motivation; because employees with decision-making power can affect their entire working environment positively.

The findings of Oldham and Cummings (1996) reveal that employees who work on complex and challenging jobs and who get support from colleagues and less-controlling supervisors can be the most productive and creative. Supportive supervisors encourage subordinates to speak up and show their concerns, provide positive and mainly informational *feedback*, and urge employees to develop more skills (London and Larsen, 1999). Also, Sibbald et al. (2000) underline that instead of adding more work, simply letting employees

have some degree of freedom to handle their tasks and providing them more responsibilities over a number of challenging tasks may motivate them to be more productive.

These previous studies clearly suggest that a more participative management generate a higher level of employee job satisfaction. However, we would like to examine the impact of participative management style on the other determinants of job satisfaction. Figure 4.1 shows what the literature indicates as well as what we analyze in this field. Many authors study the non-financial determinants of job satisfaction (working environment, workplace, flexibilities, and job design), and also the direct relationship between participative management and job satisfaction. What we explore is the indirect impact of participative management style on job satisfaction through its intermediary determinants, as it is illustrated in Figure 4.1. In other words, we examine the path that participative management style follows to improve employee job satisfaction.

The reason that we analyze only these specified job satisfaction predictors is to focus on the predictors that are susceptible to be modified or influenced by management style or manager's quality and talents. In other words, worker's personal characteristics (sex, age, and educational level) and many job characteristics are intrinsic to the person or his/her job, which cannot be influenced by management style. However, there are other characteristics as possible determinants of job satisfaction that can be influenced by a particular management style. We refer to such issues as the environment of safety and trust in the company, how an employee feels valued, working conditions that reduce work-life conflict, and organizational aspects as job rotation within the company.

Therefore, we set out our analysis in two stages: In the first stage the goal is to illustrate that five of the determinants described in the literature influence in job satisfaction for the data from European Working Conditions Survey (which we describe in the 4th section of the present chapter). The second stage analyzes whether more participative management style has an impact on these five determinants. Regarding the first stage (the determinants of job satisfaction), we analyze five fundamental aspects: Work environment in terms of involvement, autonomy, and support from supervisors and co-workers; psychological work environment in terms of discrimination, harassment, and mobbing at the workplace; physical work environment; work-life balance; and job design.

The literature reveals that relationships with co-workers and supervisors may influence in job satisfaction (Brass, 1981; Daley, 1986; and Emmert and Taher, 1992). In other words, there is a relationship between supervisor characteristics and job satisfaction level (Daley, 1986; Harrick et al. 1986; Emmert and Taher, 1992; and London and Larsen, 1999). D'Addio

et al. (2007) also indicates that it is possible to characterize jobs by interpersonal relationships in an organization. Herzberg et al. (2009) argue that a failure to receive recognition can be a source for job dissatisfaction. However, this factor is not hypothesized in our present analysis, because recognition forms a part of participative management style and it is already considered within the "management quality" concept, assuming that a good manager is supposed to recognize the successes of his or her subordinates. Our first two hypotheses concern both of these working environment types in which employees perceive their jobs:

H1a: A better psychological working environment in terms of higher employee involvement, autonomy, and support from co-workers and managers has a positive impact on job satisfaction.

H1b: A better psychological working environment in terms of less discrimination, harassment, and/or mobbing at the workplace increases the likelihood to get a higher job satisfaction.

In addition, job satisfaction is also linked to other specific workplace aspects as physical working conditions (Locke, 1976 and Vroom, 1974). Sibbald et al. (2000) provide evidence that job satisfaction is significantly influenced by physical working environment. So, our third hypothesis concentrates on this association:

H1c: Physical working environment or the level of workplace cleanliness is positively correlated to job satisfaction.

In a cross-organizational research, Scandura and Lankau (1997) discuss the effects of family responsibility and flexible hours to job satisfaction. Their study indicates that organizations applying flexible hours can make the employees who have family responsibilities reach higher levels of job satisfaction. A good work-life balance may include flexible working hours, regular or less working hours, and having access to leave at short notice in case of an emergency. The review and meta-analytic results of Ernst Kossek and Ozeki (1998) show that there is a negative correlation between work-family conflict and job satisfaction, which is stronger for female workers than their male colleagues. Similarly, Bruck et al. (2002) advocate that work and family conflict has a significant association with job satisfaction. Thus, our fourth hypothesis tested in our empirical analysis is:

H1d: The better the work-life balance, the higher the job satisfaction level.

In order to prevent boredom caused by repetitive and monotonous tasks and to improve job satisfaction, some managers apply *job design* practices such as job rotation, enhancement, or enrichment, when the position is suitable. Heckman et al. (1975), Kanter

(1979), Oldham (1976), and Strauss (1977) argue that job enrichment or other job design practices other than job simplification can be used as instruments to increase satisfaction level, because they may provide employees some control, task identity, and task meaningfulness. As a consequence, we set our fifth hypothesis as follows:

H1e: Job rotation has a positive influence in job satisfaction.

Regarding the second stage of our analysis, where we examine how participative management style affects the five specified job satisfaction determinants that are mentioned before, we can take into account the following previous studies. In order to increase job satisfaction, setting objectives through the interrelation between employee empowerment and participative management clarifies company goals and makes employees understand better its strategic plans. This also helps to eliminate role ambiguity or role conflict. Owens and Hekman (2012) state that "the servant leadership (Greenleaf and Spears, 2002), level 5 leadership (Collins, 2001a), and participative leadership (Kim, 2002) perspectives specifically pinpoint the virtue of humility as being critical for leader effectiveness (Weick, 2001)".

Some scholars define *participation* as a process in which individuals or employees share the influence (Locke and Schweiger, 1979 and Wagner, 1994). Many studies link participative management to job satisfaction (Cotton et al. 1988 and Macy et al. 1989). Evidence shows that participative decision-making is beneficial to job satisfaction and employees' mental health (Spector, 1986; Miller and Monge, 1986; and Fisher, 1989). Spreitzer et al. (1997) state that empowerment is derived from participative management and employee involvement theories. According to their study, sharing decision-making power with employees will enhance their performance and job satisfaction.

Most labor union leaders, economists, academicians, and managers in both private and public sector have a consensus on that participative management style affects job satisfaction and employee performance positively (Wagner, 1994; Jackson, 1983; Hoerr, 1989; Peterson and Hillkirk, 1991; Bluestone and Bluestone, 1992; and Bernstein, 1993). Based on the effects of strategic decision-making on work environments, employee participation in a certain context of decisions, in which strategies are developed concerning the working environment, could be considered as one of the most significant factors to moderate the relationship between participative decision-making and job satisfaction (Daniels and Bailey, 1999 and Hickson et al., 1986).

Finally, Kim (2002) underlines that organizations which employ participative management by enforcing employees in decision-making and strategic planning processes will most likely increase their motivation, performance, and job satisfaction. As a result, a

second set of hypotheses forms the major contribution of our research, examining the indirect influence of participative management style in job satisfaction across countries. In other words, they test the impact of participative management on the intermediary predictors of job satisfaction to understand better this indirect relationship, and also to find out why participative management has different effects across countries.

H2a: Psychological working environment in terms of employee involvement, autonomy, and support is positively associated with participative management style (PMS).

H2b: Discrimination, harassment, and mobbing as a part of psychological working environment are decreased by PMS.

H2c: PMS has a positive relationship with physical working environment.

H2d: Work-life balance is better-off by the employment of PMS.

H2e: There is a correlation between job design and PMS.

These five hypotheses are tested for the whole sample. Subsequently, the possible differences in the marginal effects of participative management style across nine countries in the Euro-Mediterranean area are discussed.

3. Research Model and Methodology

As it is indicated in the literature review, many previous studies advocate that job satisfaction is positively linked to participative management style. In this paper, we firstly analyze the direct relationship between management quality (MQ) as a proxy of participative management and job satisfaction. The MQ variable is generated using information from the European Working Conditions Survey (2010), which takes into account if the immediate managers are good at resolving conflicts and at planning and organizing the work, provide employees feedback, respect their employees as a person, and encourage them to take part in important decisions. In default setting, higher MQ implies more supportive managers who encourage employees to get to know company's vision and to engage in decision-making processes.

We empirically examine the intermediary determinants of job satisfaction, namely psychological working environment (PWE), physical working environment (FWE), work-life balance, and job rotation. PWE is analyzed in two sub-categories: The first one includes employee involvement, support, and autonomy (PWE1) and the second category includes discrimination, harassment, and mobbing at the workplace (PWE2). In order to study the validity of all the generated indicators we carry out factor analysis as well as reliability

analysis through Cronbach's alpha. Then, we test the first set of hypotheses (H1a through H1e) related with the impact of these specific determinants on job satisfaction. We run an ordered logistic regression to estimate job satisfaction by the specified intermediary variables, because *job satisfaction* is a categorical variable.

For the second set of hypotheses, we use ordinary least squares regressions to predict PWE1, PWE2, and FWE, because these working-environment variables are continuous. Subsequently we run an ordered-logistic regression to test the impact of MQ on work-life balance, which is a categorical variable. And finally we use logistic regression for the estimation of *job design* as it is a dummy variable.

Following this, we address the differences in the marginal effects of participative management style on the intermediary determinants of job satisfaction across nine Euro-Mediterranean countries: Spain, France, Italy, Turkey, Cyprus, Malta, Portugal, Greece, and Croatia. In the model, we also consider a three-way interaction between MQ, manager's gender, and worker's gender to examine the role of gender-effects within this concept. As a result, the independent variables of our model consist of a three-way interaction term between MQ, worker's gender, and manager's gender, along with the control variables as worker's age, a categorical variable related with job sector, and a dummy variable showing if the worker is an immigrant or has immigrant parents.

4. Data Description

The hypotheses of the present chapter have been analyzed utilizing the data set of the European Working Conditions Survey (EWCS) from 2010, which is conducted at individual (micro) level by the European Foundation for the Improvement of Living and Working Conditions. EWCS 2010 consists of 34 countries: 27 EU Member States, Norway, Turkey, Croatia, FYR Macedonia, Albania, Montenegro, and Kosovo. The 5th EWCS overview report states that the aims of the EWCS series are to measure working conditions across European countries, to analyze relationships between different aspects of working conditions, to identify groups at risks and issues of concern as well as the areas of progress, to monitor trends over time, and to contribute to the European policy development on quality of work and employment issues.

The method of data collection is face-to-face interviews with persons in employment who are 15 and over (16 and over in Spain, Norway, and the U.K.) and one is considered as being in employment if he/she worked for pay or profit during the reference week for at least

one hour. The interviewers with at least one year experience in survey research (among the other Eurofound requirements) conducted those interviews in various languages depending on the country. According to the technical report of the 5th EWCS, the average length of an interview in the EU 27 was 41 minutes, which ranges from 33 minutes in Spain to 50 minutes in Estonia and Slovakia.

The fieldwork of EWCS 2010 was launched between January 25, 2010 and February 7, 2010 in EU 27 and Norway, also started in Croatia, Macedonia, Turkey, Albania, Kosovo, and Montenegro in March 2010. Interviews were finished in June 2010. The data was released on February 21, 2012 and is accessible at the Economic and Social Data Service (ESDS) International, UK Data Archive. The total number of observations is 43816, among which 35372 observations (80.73% of the total) belong to the EU 27. The descriptive statistics of our variables are illustrated in Table 4.1 and the polychoric correlations between these variables can be found in Table 4.2.

In other to carry out our analysis, we have generated four variables, whose factor means are shown in Table 4.3 by manager's gender, worker's gender, and job sector:[14] Firstly, the management quality variable (MQ) as a proxy of participative management style includes five questionnaire items as manager's ability to resolve conflicts, to plan the work, to provide employees with feedback, to get employees involved in important company decisions, and the way he or she treats employees. The Cronbach's alpha score of this variable is 0.6749. Secondly, the variable FWE consists of ten items related with cleanliness of the workplace or how comfortable it is to work, whose alpha score is 0.8055, showing that it is an internally highly consistent variable.

Thirdly, PWE1 is constructed by twenty items from the questionnaire regarding employee involvement, autonomy level, and support, whose alpha is 0.8484 as an indicator of high internal consistency. The final variable, PWE2 with an alpha score of 0.6353, includes sixteen items regarding the level of discrimination, harassment, and mobbing at the workplace. As of the variables' design, a higher level of MQ implies a better management quality. Larger PWE1 value indicates higher involvement, autonomy, and support. Lower PWE2 value indicates larger discrimination, harassment, and mobbing. And finally, a higher value of FWE indicates a cleaner workplace. The corresponding Cronbach's alpha scores and

[14] The questionnaire items are provided in Appendix B. The variable MQ includes all items of Q58. The variable PWE1 consists of Q49c, Q77d, Q77e, Q77g, and all items of Q50, Q51, and Q64 (except Q51g, Q51l, Q51n, and Q51p). The variable PWE2 includes Q51l, Q51n, Q51p, and all items of Q65, Q70, and Q71. FWE includes all items of Q23 and Q66.

the factor analysis results for the variables generated are provided in Tables 4.4 and 4.5, respectively.

As a consequence, Table 4.3 shows that the mean MQ score is higher for female managers than male, where it is lower for female employees compared to male. This implies the workers perceive that female managers tend to be more participative than male managers, while female employees have less participative managers than male employees do. The highest mean MQ belongs to the public sector. In contrast, private sector seems to have less management quality than joint private-public sector and non-for-profit sector (non-governmental organizations, NGOs). Besides these, employees with female managers tend to get a higher level of involvement, autonomy, and support; which female employees experience more, compared to male employees. On the other hand, the largest PWE1 score is obtained by NGOs, while the public sector has a higher PWE1 than the joint private-public and private sectors do.

It is also interesting that, according to Table 4.3, employees who work under supervision of male managers may face with discrimination, harassment, and mobbing (PWE2) less than those having female managers. On the other hand, female workers suffer from that issue more frequently compared to male workers. This problem shows up the least in NGOs and the most in public and joint private-public sectors. As it is also expected, workers with female managers are more likely to have a cleaner working ambiance. NGOs seem to have the cleanest working environment on average, while the private sector has the lowest FWE among others.

5. Results of the Empirical Analysis

In order to figure out how participative management style is linked to job satisfaction, we analyzed the indirect relationship between them utilizing intermediary variables. For the first stage of our analysis, the ordered-logistic regression results illustrated in Table 4.6 identify the significant determinants of job satisfaction as both types of psychological working environment, physical working environment, and work-life balance along with other control variables as demographic factors. Consistent with the literature, the probability of being very satisfied with work increases by a higher level of involvement, autonomy, and support, by less discrimination, harassment, and mobbing, by cleaner working environment, and by a higher level of work-life balance, which support the H1a, H1b, H1c, and H1d, respectively. However, H1e can be rejected as of the insignificant coefficient of job design.

In the next stage of our analysis, we explore the impact of participative management on these job satisfaction determinants. A statistically highly significant relationship is also found between MQ and specified intermediary variables of job satisfaction. Specifically, the first OLS-regression column in Table 4.7 provides evidence that the higher MQ, the larger employee involvement, support, and autonomy as it is expected; and therefore the higher the job satisfaction. As a consequence, the H2a cannot be rejected. The second column in Table 4.7 shows that an increase in MQ causes a significant decrease in discrimination, harassment, and mobbing. Therefore, H2b also cannot be rejected.

To the final column of the OLS regressions, MQ has a significant positive influence in physical working environment. Thus, the workplace is cleaner when MQ is higher, which supports the H2c. Furthermore, the ordered-logistic regression results in the 4th column of Table 4.7 indicate that MQ has a positive influence in work-life balance. This confirms our hypothesis H2d. As the last column of Table 4.7 points out, an increase in MQ causes an increase in the probability of having job rotation with respect to job simplification, implying that participative managers are most likely to set job rotation instead of job simplification. This provides support for H2e.

Besides these, the control variables in our analysis have some important effects. There is more employee involvement, autonomy, and support when manager is female. In addition, the level of discrimination, harassment, and mobbing tends to increase when employee is female, while female managers and employees increase workplace cleanliness and the likelihood of the highest work-life balance. The significant coefficients of these job satisfaction determinants –except physical environment– tend to move through the desired levels when worker age is larger. Perhaps the reason is that older workers may demand more respect and are most likely to be "more valuable" for companies as of larger work experience. Compared to the private sector, the probability of higher levels of employee participation, autonomy, support, workplace cleanliness, and family-friendly policies is higher in the public sector and NGOs. However, mobbing problem seems to be worsened in the public and joint private-public sectors.

Consequently, the expected directions of the independent variable's coefficients match with the ones found in our analysis for all main variables. In addition, the Prob>F & Prob>Chi values in Table 4.7 imply that all models are statistically significant and highly consistent. Our results provide evidence that participative leadership style significantly improves psychological and physical working environments along with work-life balance and job

design. According to the previous literature discussed and to our findings, improvements in these specific determinants eventually increase employee job satisfaction level.

Subsequently, we concentrate on the differences in the marginal effects of participative management style (PMS) across Euro-Mediterranean countries. Figure 4.2, which shows the country-specific quadratic relationships between job satisfaction and MQ, indicates that job satisfaction across these countries do not have a unique response to a change in MQ. For instance, there is a more linear relationship in Germany, when an increase in MQ causes a decrease in job satisfaction within a certain range in Malta and Montenegro.

We firstly observe in Figure 4.3 that MQ has different marginal effects on PWE1 across these countries. MQ-influence in PWE1 is the largest in Greece for both male and female managers. PMS employed by male managers has a larger impact on PWE1 in Spain than that in Cyprus, although PMS by female managers has a larger impact in Cyprus compared to Spain. Another interesting result is that marginal effects of MQ on PWE1 in France are the same for both male and female managers.

Regarding the marginal effects of MQ on PWE2, Figure 4.3 reveals that MQ of female managers has a relatively higher influence in Croatia than in Spain, France, and Portugal. On the other hand, in Croatia, the marginal effect of MQ of male managers on PWE2 is almost one sixth of that of female managers. In Spain, the same type of gender effects within the association between MQ and PWE2, although the difference is not as large as that in Croatia. In France, PMS by male managers is slightly more influential on PWE2. Similarly, MQ of male managers is more influential on FWE in Croatia and Spain. MQ of female managers has the largest marginal effect in Malta, followed by France, Portugal, and Italy. Furthermore, the impact of PMS, applied by female managers, on work-life balance is the largest in Spain, followed by Portugal and France. PMS by male managers has slightly different influence in work-life balance in Spain, Croatia, and Portugal.

Finally, it is curious to observe in Figure 4.3 that considering only female managers, the direction of the association between MQ and job design is positive in France, but negative in Greece. Similarly, considering only male managers, the direction of the MQ-job design relation is positive in France and Turkey, but negative in Greece. All this information can be also observed in Table 4.8. The marginal effects in this table are derived from the corresponding regression results for the Euro-Mediterranean countries (OLS for PWE1, PWE2, and FWE, ordered-logit for work-life balance, and logit for job design).

The findings on how worker's gender influence in PWE1 reveal that in France, Cyprus, and Croatia, the probability to obtain higher *involvement in decision-making,*

autonomy, and support (PWE1) is higher for male workers under supervision of female managers, compared to female workers with female managers. However, in Italy there is an opposite gender effect within this relationship. In contrast, the marginal effect of worker's gender on PWE1 for those with male managers is found significant only in Spain, suggesting that male workers reach a higher level of PWE1 if the manager is a man.

Similarly, it is shown in Table 4.8 that in Portugal it is more likely that male workers have *discrimination, harassment, and mobbing (PWE2)* problem than female workers do if the manager is a woman. Moreover, our findings in Table 4.8 demonstrate that there exists a large gender-effect on FWE. Only for those who work under supervision of female managers, male workers in France, Italy, and Malta decrease the level of FWE in comparison with female workers. It is observed that when the manager is a man, the average marginal effects of worker's gender almost triples up, and male workers decrease FWE level in all of these Euro-Mediterranean countries.

In Croatia male workers increase the likelihood of *very-high level of work-life balance* when the manager is a woman. In contrast, when the manager is a man, female workers increase this probability in Italy and Turkey. Finally, male workers -under supervision of female managers- cause an increase in the application probability of *job rotation* in Spain, but a decrease in Italy, Portugal, and Greece. Nevertheless, this probability increases by male workers -under supervision of male managers- in Spain, France, and Greece.

As a consequence, based on the previous literature and our findings shown in Table 4.6 combined with Figure 4.2 and Table 4.8, it can be concluded that PMS does not have the same impact on job satisfaction in each Euro-Mediterranean country; because the marginal effects of PMS, interacting with manager's and worker's gender, on the intermediary predictors of job satisfaction (PWE1, PWE2, FWE, work-life balance, and job design) vary across these countries. Hence, this variation eventually causes an inter-country difference in the job satisfaction level.

6. Conclusions

Job satisfaction has been an emerging issue all over the world, especially during the current global economic crisis. It is a hot topic not only in a number of prestigious academic journals, but also in some recent articles of Forbes, CNN Money, The New York Times, USA Today, Fortune, and Money Magazine, emphasizing that job satisfaction has decreased remarkably during the last few years. Figure 4.4, obtained from Eurofound, shows the change in job satisfaction in the EU countries. It is clearly observed that its level gradually

experienced a decrease from 1995 to 2010. For instance, in the EU-15, on average 31.9% of the employees were very satisfied with their work in 1995. This ratio decreased to 29.1% in 2000, 27.8% in 2005, and 27.2% in 2010.

Regarding the impact of job satisfaction on business environments, most scholars advocate that low job satisfaction generate several labor issues as absenteeism, tardiness, grievances, turnover, and strikes. As of these significant problems, organizations in both public and private sectors may face with a large amount of loss and a decrease in company performance and profitability. Many authors in the literature suggest that job satisfaction is determined by not only the financial and demographic factors, but also non-financial factors such as psychological and physical working environment, along with the application of various HR policies such as work-life balance and other workplace flexibilities.

Our research considers the previously mentioned non-financial predictors of job satisfaction that can be influenced by managers in order to address the importance of manager's role, quality, and talent. More specifically, the analysis carried out in this chapter focuses on the indirect association between participative management and job satisfaction. We have generated two types of psychological work environment through factor analysis (PWE1 and PWE2). The former includes involvement, autonomy, and support from co-workers and supervisors; and the latter takes into account discrimination, harassment, and mobbing. Using the EWCS 2010 data, obtained from the European Foundation for the Improvement of Living and Working Conditions, our study provides concrete evidence that participative management style has a statistically significant influence in all five specified intermediary determinants of job satisfaction.

This chapter also carries out an inter-country comparison, which consists of nine Euro-Mediterranean countries. It analyzes the differences in the marginal effects of participative management style across Euro-Mediterranean countries. It shows that the impact of participative management, interacting with gender-effects, on these intermediary predictors varies, and therefore, its indirect impact on job satisfaction differs across countries. Finally, our results reveal that gender effects interacting with participative management also play a statistically significant role in this indirect relationship with job satisfaction. For instance, worker's gender has a large influence in physical working environment. Female workers tend to make working environment cleaner than male workers do. This effect is observed to be much larger when the manager is a woman. This increases the likelihood of higher levels of job satisfaction among female workers under supervision of female managers who employ participative management. However, our findings show that the magnitude of this effect

differs across Euro-Mediterranean countries. Hence, worker's and manager's gender also cause a difference in the indirect impact of participative management style on job satisfaction between countries.

Consequently, this research may be useful for policy-makers, directors, and HR managers in both public and private sectors or NGOs, including a conjuncture of economic crisis, in order to reach an ultimate business objective: Increasing organizational efficiency and profitability through advanced job satisfaction.

7. Bibliography

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8. Appendix A: Tables and Figures

Table 4.1: Descriptive Statistics

Variable	N	mean	sd	min	max
MQ	29421	0.83	0.25	0	1
PWE1	27649	3.57	0.68	1.1	5
PWE2	41290	1.94	0.09	1	2
FEW	42156	6.13	0.98	1	7
Work-Life Balance	43488	3.06	0.79	1	4
Job Design	43184	0.43	0.50	0	1
Job Satisfaction	43268	2.99	0.74	1	4
Manager's Gender	34485	0.69	0.46	0	1
Worker's Gender	43816	0.52	0.50	0	1
Worker's Age	43625	41.68	12.16	15	91
Job Sector	43487	1.45	0.80	1	5
Immigrant or not	40300	0.87	0.34	0	1

Table 4.2: Polychoric Correlations

	Variables	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
1	MQ	1									
2	PWE1	0.428	1								
3	PWE2	0.206	0.085	1							
4	FWE	0.138	0.188	0.173	1						
5	Work-Life Balance	0.156	0.254	0.197	0.206	1					
6	Job Design	0.069	0.111	-0.074	-0.171	-0.049	1				
7	Manager's Gender	-0.034	-0.084	0.037	-0.212	-0.064	-0.067	1			
8	Worker's Gender	0.026	-0.021	0.074	-0.324	-0.081	0.005	0.636	1		
9	Worker's Age	-0.001	0.096	0.043	0.014	0.080	-0.053	-0.037	-0.026	1	
10	Job Sector	0.062	0.196	-0.059	0.093	0.111	0.086	-0.285	-0.196	0.192	1
11	Immigrant or not	0.067	0.033	0.086	0.073	0.021	-0.029	0.003	-0.036	0.055	0.079

Table 4.3: Factor Means of MQ, PWE1, PWE2 & FWE by Gender and Job Sector

	Factor Means			
	MQ	**PWE1**	**PWE2**	**FWE**
Manager's Gender				
Female	0.831	3.618	1.934	6.355
Male	0.826	3.546	1.939	6.048
Employee's Gender				
Female	0.820	3.575	1.935	6.383
Male	0.831	3.558	1.940	5.891
Job Sector				
Private sector	0.817	3.478	1.941	6.073
Public sector	0.844	3.718	1.930	6.255
Joint private-public	0.831	3.676	1.931	6.083
Non-for-profit sector	0.841	3.838	1.945	6.443
Other	0.776	3.563	1.947	6.208

Table 4.4: Cronbach's Alpha Scores of the Variables Generated

Variable	**Alpha**
MQ	0.6749
PWE1	0.8484
PWE2	0.6353
FWE	0.8055

Table 4.5a: Factor Analysis for the Variable: Management Quality

Varimax Rotated Factor Loadings	
Items	**MQ**
q58a	0.277
q58b	0.494
q58c	0.689
q58d	0.641
q58e	0.388
Eigenvalue	1.605

Table 4.5b: Factor Analysis for the Variables: PWE1, PWE2 & FWE

Varimax Rotated Factor Loadings			
Items	**PWE1**	**PWE2**	**FWE**
q49c	0.321		
q77d	0.500	0.291	
q77e	0.333	0.238	
q77g	0.477	0.247	
q64	0.348		
q50a	0.482		0.189
q50b	0.486		
q50c	0.414		
q51a	0.403	0.193	
q51b	0.474	0.251	
q51c	0.609		
q51d	0.677		
q51e	0.490		
q51f	0.379		
q51h	0.488	0.243	
q51i	0.673		
q51j	0.522	0.168	
q51k	0.289	0.160	
q51l		0.286	
q51m	0.308		
q51n		0.357	
q51o	0.647		
q51p		0.317	
q23a			0.677
q23b			0.672
q23c			0.599
q23d			0.554
q23e			0.706
q23f			0.644
q23g			0.572
q23h			0.387
q23i		0.161	0.343
q66		0.203	0.397
q70a		0.505	
q70b		0.332	
q70c		0.537	
q71a		0.318	
q71b		0.469	
q71c		0.308	
q65a		0.277	
q65b		0.338	
q65c		0.337	
q65d		0.320	
q65e		0.293	
q65f		0.160	
q65g		0.195	
Eigenvalue	5.274	2.306	3.044

Table 4.6: Empirical Results for Job Satisfaction

	Job Satisfaction *Marginal Effects*
Psychological Working Env.#1	0.1615***
(Involvement, autonomy, support)	(0.0032)
Psychological Working Env.#2	0.5553***
(Discrimination, harassment, mobbing)	(0.023)
Physical Working Environment	0.0532***
	(0.0022)
Work-Life Balance	
Not at all well (Reference)	
Not very well	0.0284***
	(0.0051)
Well	0.0826***
	(0.0049)
Very well	0.2204***
	(0.0068)
Job Design	0.0007
(0=job simplification, 1=other)	(0.004)
Manager's Gender	0.008*
(1=male)	(0.0044)
Worker's Gender	0.02***
(1=male)	(0.0042)
Worker's Age	-0.0009***
	(0.0002)
Job Sector	
Private sector (reference category)	
Public sector	0.007
	(0.0043)
Joint private-public	-0.0002
	(0.009)
Not-for-profit	-0.01
	(0.0147)
Other	0.002
	(0.0235)
Immigrant	-0.005
(1=no)	(0.0056)
# of Observations	23826
Prob > chi2	0.0000
Nagelkerke R-squared	0.317

**** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. Marginal effects are based on "very-high job satisfaction".*

Table 4.7: Empirical Results for Participative Management Style[15]

Variables	OLS Regressions			Marginal Effects	
	PWE1	**PWE2**	**FWE**	**Work-Life Balance**	**Job Design**
Management Quality	1.043***	0.0728***	0.498***	0.2009***	0.0846***
	(0.0166)	(0.0021)	(0.0231)	(0.0102)	(0.0126)
Manager's Gender	-0.0387***	-0.0002	-0.0869***	-0.0122**	-0.0404***
(1=male)	(0.0099)	(0.0012)	(0.0136)	(0.0059)	(0.0074)
Worker's Gender	0.0109	0.0064***	-0.443***	-0.0367***	0.0341***
(1=male)	(0.009)	(0.0011)	(0.0124)	(0.0054)	(0.0068)
Worker's Age	0.0045***	0.0004***	0.0000	0.0019***	-0.0024***
	(0.0004)	(0.0000)	(0.0005)	(0.0002)	(0.0003)
Job Sector					
Private (Reference)					
Public sector	0.184***	-0.0142***	0.0717***	0.0584***	0.0592***
	(0.0093)	(0.0012)	(0.0129)	(0.0058)	(0.007)
Joint private-public	0.17***	-0.0109***	-0.0042	0.0332***	0.11***
	(0.0202)	(0.0026)	(0.0282)	(0.0125)	(0.0151)
Not-for-profit	0.284***	-0.0027	0.157***	0.0694***	0.0677***
	(0.0347)	(0.0044)	(0.0484)	(0.0222)	(0.026)
Other	0.0717	-0.0003	0.0134	0.0213	-0.0097
	(0.0531)	(0.0061)	(0.0672)	(0.0288)	(0.0365)
Immigrant	0.0023	0.0138***	0.0935***	0.003	-0.0068
(1=no)	(0.0121)	(0.0015)	(0.0167)	(0.0072)	(0.0091)
Constant	2.510***	1.851***	5.922***		
	(0.0236)	(0.003)	(0.0324)		
# of Observations	22,370	25,863	26,099	26,697	26,639
Prob > F	0.0000	0.0000	0.0000		
Adjusted R-squared	0.1789	0.0553	0.0850		
Prob > chi2				0.0000	0.0000

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

[15] PWE1: Psychological Working Environment #1. Lower PWE1 value indicates lower involvement, autonomy, and support. PWE2: Psychological Working Environment #2. Lower PWE2 indicates larger discrimination, harassment, and mobbing. FWE: Physical Working Environment. Lower FWE indicates less clean workplace. Work-life balance: (4=very well,…, 1=not at all well), whose marginal effects are based on "4". Job Design: "job rotation"=1 & "job simplification"=0, whose marginal effects are based on "job rotation".

Table 4.8: Differences in the Marginal Effects of MQ and Gender Effects across Euro-Mediterranean Countries[16]

		PWE1			PWE2			FWE			Work-Life Balance			Job Design		
		Manager's Gender			Manager's Gender			Manager's Gender			Manager's Gender			Manager's Gender		
		Female	*Male*	*n*	*Female*	*Male*	*N*	*Female*	*Male*	*n*	*Female*	*Male*	*N*	*Female*	*Male*	*n*
Spain	MQ	1.160***	1.337***	587	0.143***	0.0685***	711	0.679	0.691***	723	0.356**	0.268***	727	-0.0491	-0.0355	719
		(0.322)	(0.142)		(0.0340)	(0.0151)		(0.452)	(0.202)		(0.151)	(0.0746)		(0.227)	(0.0969)	
	Worker's Gender	0.204	0.102*	587	-0.0186	-0.00388	711	-0.244	-0.648***	723	0.00707	0.0208	727	0.214**	0.149***	719
	(1=Male)	(0.146)	(0.0606)		(0.0155)	(0.00645)		(0.204)	(0.0862)		(0.0725)	(0.0320)		(0.103)	(0.0418)	
France	MQ	1.196***	1.199***	1,623	0.0841***	0.0895***	1,969	0.771***	0.445***	1,992	0.269***	0.210***	2,024	0.205**	0.153***	2,019
		(0.147)	(0.0774)		(0.0222)	(0.0117)		(0.203)	(0.110)		(0.0759)	(0.0429)		(0.0996)	(0.0540)	
	Worker's Gender	0.152**	0.00131	1,623	0.00158	0.0147**	1,969	-0.236**	-0.607***	1,992	0.0617	-0.0253	2,024	-0.00886	0.0733***	2,019
	(1=Male)	(0.0746)	(0.0390)		(0.0112)	(0.00574)		(0.104)	(0.0545)		(0.0401)	(0.0210)		(0.0511)	(0.0264)	
Italy	MQ	1.049***	1.073***	732	0.0135	0.0362***	845	0.495*	0.552***	850	-0.0595	0.140***	866	0.104	0.110	866
		(0.228)	(0.108)		(0.0239)	(0.0112)		(0.269)	(0.129)		(0.102)	(0.0507)		(0.143)	(0.0785)	
	Worker's Gender	-0.253**	0.0435	732	0.00759	0.00782	845	-0.287**	-0.542***	850	-0.0760	-0.0942***	866	-0.154**	0.00942	866
	(1=Male)	(0.116)	(0.0526)		(0.0119)	(0.00545)		(0.135)	(0.0623)		(0.0508)	(0.0249)		(0.0694)	(0.0377)	
Turkey	MQ	1.054***	0.791***	1,001	-0.0150	0.0274***	1,108	0.183	0.229**	1,167	0.106	0.053***	1,183	-0.0206	0.0886*	1,178
		(0.336)	(0.0743)		(0.0328)	(0.00841)		(0.475)	(0.106)		(0.103)	(0.0187)		(0.195)	(0.0475)	
	Worker's Gender	0.138	-0.0153	1,001	-0.0184	0.00396	1,108	-0.253	-0.455***	1,167	0.0562	-0.0275*	1,183	0.0943	0.0496	1,178
	(1=Male)	(0.143)	(0.0541)		(0.0155)	(0.00605)		(0.200)	(0.0764)		(0.0463)	(0.0144)		(0.0893)	(0.0326)	
Cyprus	MQ	1.401***	1.059***	618	-0.00425	0.0942***	708	1.033	0.186	714	0.378	0.0636	721	-0.137	0.0140	718
		(0.480)	(0.162)		(0.0548)	(0.0189)		(0.707)	(0.247)		(0.326)	(0.122)		(0.370)	(0.128)	
	Worker's Gender	0.231*	0.0638	618	-0.00233	0.00881	708	-0.0192	-0.660***	714	0.118	0.0308	721	0.0585	-0.0277	718
	(1=Male)	(0.133)	(0.0558)		(0.0142)	(0.00638)		(0.183)	(0.0821)		(0.0877)	(0.0396)		(0.0944)	(0.0429)	
Malta	MQ	1.183***	0.880***	629	0.0583	0.0619***	730	1.144*	0.602***	733	-0.0658	0.116	751	-0.196	-0.0117	748
		(0.304)	(0.107)		(0.0463)	(0.0148)		(0.593)	(0.189)		(0.287)	(0.0835)		(0.248)	(0.0981)	
	Worker's Gender	-0.0433	-0.0747	629	0.0150	0.00399	730	-0.431**	-0.770***	733	0.0644	-0.0596	751	-0.0824	0.0472	748
	(1=Male)	(0.107)	(0.0504)		(0.0160)	(0.00712)		(0.203)	(0.0912)		(0.0979)	(0.0393)		(0.0927)	(0.0463)	

*** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. "n" shows the number of observations.

[16] PWE1: Psychological Working Environment #1. Lower PWE1 value indicates lower involvement, autonomy, and support. PWE2: Psychological Working Environment #2. Lower PWE2 indicates larger discrimination, harassment, and mobbing. FWE: Physical Working Environment. Lower FWE indicates less clean workplace. Work-Life Balance (4=very well,…, 1=not at all well), whose marginal effects are based on "very well". Job Design: "job rotation"=1 & "job simplification"=0, whose marginal effects are based on "job rotation".

Table 4.8 (cont'd):

		PWE1			PWE2			FWE			Work-Life Balance			Job Design		
		Manager's Gender			Manager's Gender			Manager's Gender			Manager's Gender			Manager's Gender		
		Female	*Male*	*N*	*Female*	*Male*	*N*	*Female*	*Male*	*n*	*Female*	*Male*	*n*	*Female*	*Male*	*n*
Portugal	MQ	0.896***	0.968***	544	0.0812**	0.0296	648	0.712*	0.541**	637	0.316**	0.252***	662	-0.216	0.0436	660
		(0.293)	(0.193)		(0.0316)	(0.0200)		(0.407)	(0.236)		(0.148)	(0.0657)		(0.132)	(0.134)	
	Worker's Gender	0.175	0.00796	544	-0.0229*	0.00722	648	0.0704	-0.518***	637	0.0453	-0.00361	662	-0.234***	0.0339	660
	(1=Male)	(0.132)	(0.0724)		(0.0136)	(0.00726)		(0.168)	(0.0877)		(0.0531)	(0.0227)		(0.0699)	(0.0478)	
Greece	MQ	2.176***	1.405***	464	0.0548	0.0965***	588	0.181	0.275	594	0.297	0.185**	596	-0.331*	-0.238**	591
		(0.379)	(0.174)		(0.0442)	(0.0198)		(0.625)	(0.279)		(0.203)	(0.0769)		(0.200)	(0.119)	
	Worker's Gender	0.241	0.0195	464	0.0259	0.00367	588	0.125	-0.943***	594	0.124	0.00279	596	-0.228**	0.117**	591
	(1=Male)	(0.170)	(0.0682)		(0.0206)	(0.00791)		(0.292)	(0.111)		(0.0932)	(0.0309)		(0.106)	(0.0458)	
Croatia	MQ	0.968***	1.159***	435	0.299***	0.0599***	566	0.792	1.237***	567	0.210	0.260***	585	-0.248	-0.0779	581
		(0.353)	(0.155)		(0.0396)	(0.0170)		(0.511)	(0.214)		(0.240)	(0.0859)		(0.270)	(0.112)	
	Worker's Gender	0.291*	0.0280	435	-0.0182	0.00861	566	-0.0299	-0.665***	567	0.193*	-0.0302	585	-0.0507	0.0112	581
	(1=Male)	(0.150)	(0.0690)		(0.0162)	(0.00712)		(0.221)	(0.0924)		(0.0999)	(0.0369)		(0.112)	(0.0488)	

*** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. "n" shows the number of observations.

Figure 4.1: The Relationship between Participative Management Style and Job Satisfaction

Figure 4.2: Job Satisfaction Estimates for European Countries

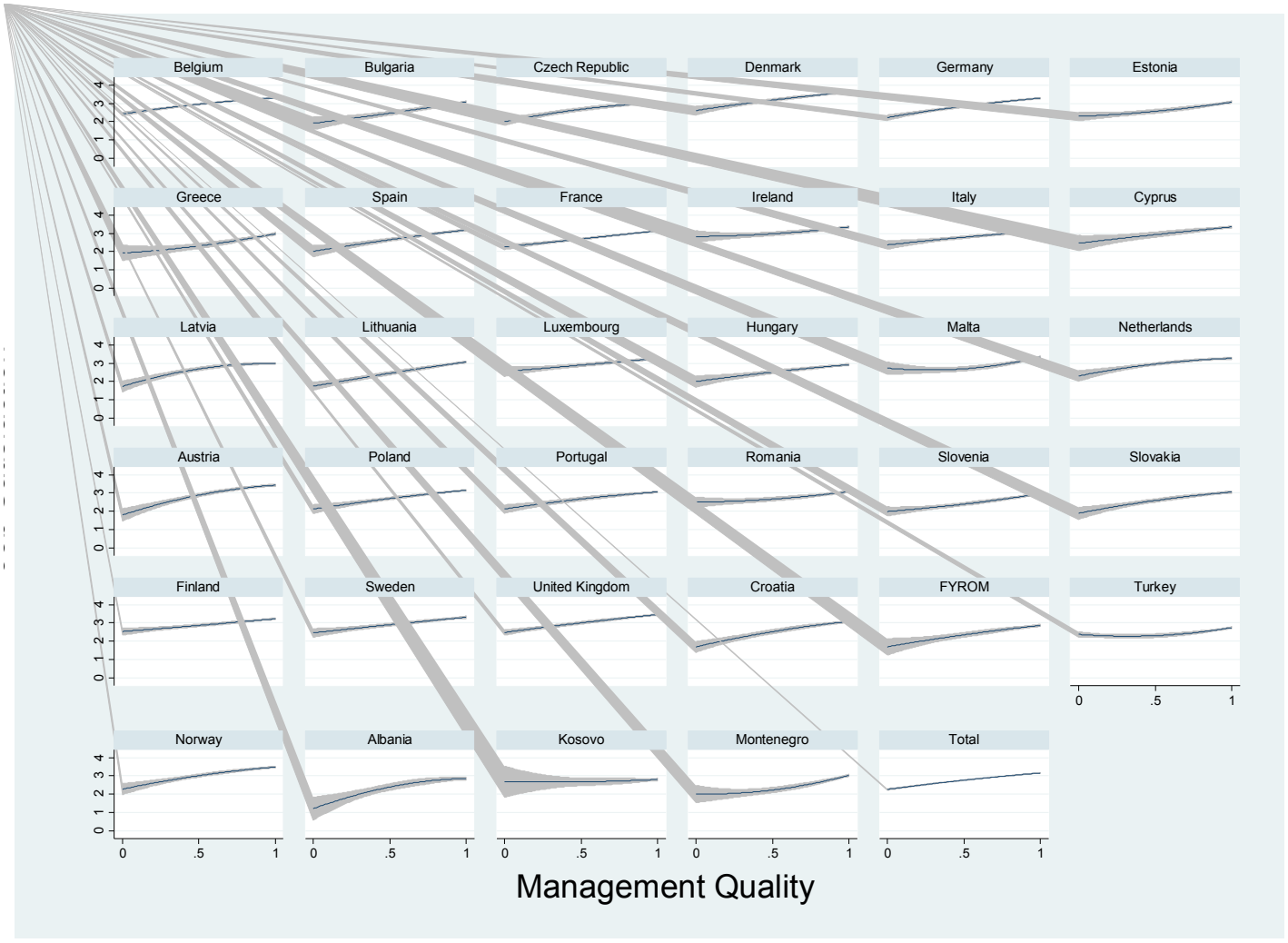


Figure 4.3: Marginal Effects of Participative Management on the Intermediary Predictors of Job Satisfaction by Manager's Gender[17]

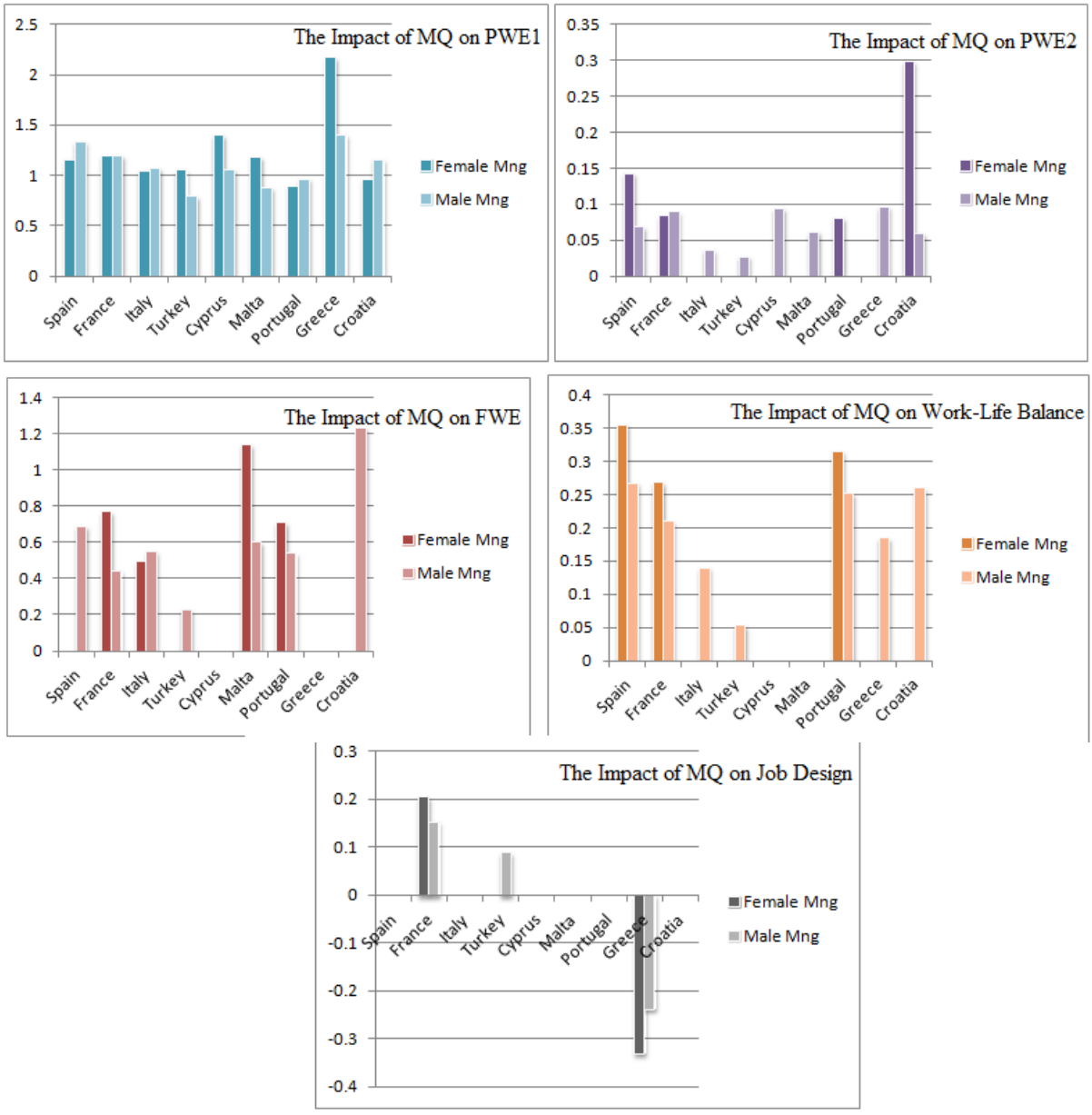
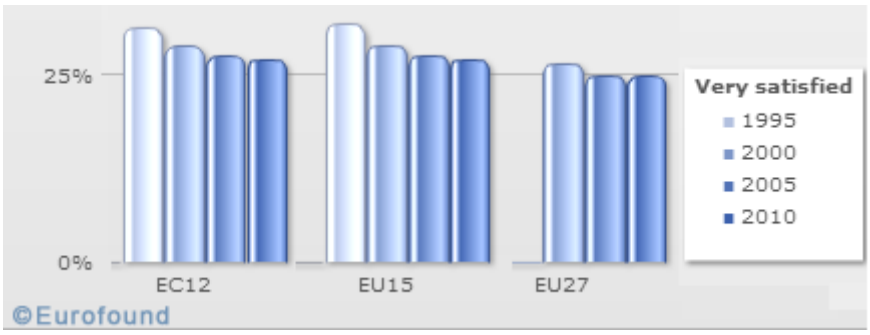


Figure 4.4: Change in Job Satisfaction Level in the European Union



[17] The figure includes only the marginal effects that are found statistically significant.

Appendix B: The Questionnaire Items[18]

Q23 Please tell me, using the following scale, are you exposed at work to ...?

R	READ OUT –ROTATE – MARK IN COLUMN "R" WHERE YOU START ASKING WITH AN "X" MARK	All of the time	Almost all of the time	Around ¾ of the time	Around half of the time	Around ¼ of the time	Almost never	Never	DK	Refusal
	A - Vibrations from hand tools, machinery, etc. (TREND)	1	2	3	4	5	6	7	8	9
	B - Noise so loud that you would have to raise your voice to talk to people (TREND)	1	2	3	4	5	6	7	8	9
	C - High temperatures which make you perspire even when not working (TREND)	1	2	3	4	5	6	7	8	9
	D - Low temperatures whether indoors or outdoors (TREND)	1	2	3	4	5	6	7	8	9
	E - Breathing in smoke, fumes (such as welding or exhaust fumes), powder or dust (such as wood dust or mineral dust) etc. (TREND 2005)	1	2	3	4	5	6	7	8	9
	F - Breathing in vapours such as solvents and thinners (TREND 2005)	1	2	3	4	5	6	7	8	9
	G - Handling or being in skin contact with chemical products or substances (TREND 2005)	1	2	3	4	5	6	7	8	9
	H - Tobacco smoke from other people (TREND 2005)	1	2	3	4	5	6	7	8	9
	I - Handling or being in direct contact with materials which can be infectious, such as waste, bodily fluids, laboratory	1	2	3	4	5	6	7	8	9

Q49 Generally, does your main paid job involve ... ?

C – solving unforeseen problems on your own	1	2	8	9	

Q50 Are you able to choose or change ... ?

	Yes	No	DK	Refusal
A – your order of tasks	1	2	8	9
B – your methods of work	1	2	8	9
C – your speed or rate of work	1	2	8	9

[18] This list only includes the items that are utilized to generate the necessary variables.

Q51 For each of the following statements, please select the response which best describes your work situation.

	Always	Most of the time	Some-times	Rarely	Never	DK	Refusal	Not Applicable
A –Your colleagues help and support you (MODIFIED TREND)	1	2	3	4	5	8	9	7
B – [ASK EMPLOYEE ONLY, Q6=3] Your manager helps and supports you (MODIFIED TREND)	1	2	3	4	5	8	9	7
C – You are consulted before targets for your work are set (NEW)	1	2	3	4	5	8	9	7
D- You are involved in improving the work organisation or work processes of your department or organisation (NEW)	1	2	3	4	5	8	9	7
E - You have a say in the choice of your working partners (MODIFIED TREND)	1	2	3	4	5	8	9	7
F – You can take a break when you wish (MODIFIED TREND)	1	2	3	4	5	8	9	
H – Your job gives you the feeling of work well done (TREND 2005)	1	2	3	4	5	8	9	
I - You are able to apply your own ideas in your work (TREND 2005)	1	2	3	4	5	8	9	
J – You have the feeling of doing useful work (TREND 2005)	1	2	3	4	5	8	9	
K – You know what is expected of you at work (NEW)	1	2	3	4	5	8	9	
L – Your job involves tasks that are in conflict with your personal values (NEW)	1	2	3	4	5	8	9	
M – You get emotionally involved in your work (NEW)	1	2	3	4	5	8	9	
O – You can influence decisions that are important for your work (NEW)	1	2	3	4	5	8	9	
P – Your job requires that you hide your feelings (NEW)	1	2	3	4	5	8	9	

Q58 In general, your immediate manager / supervisor ….

	Yes	No	DK	Refusal
A - Provides you with feedback on your work	1	2	8	9
B - Respects you as a person	1	2	8	9
C –Is good at resolving conflicts	1	2	8	9
D - Is good at planning and organising the work	1	2	8	9
E - Encourages you to participate in important decisions	1	2	8	9

Q64. At your workplace, does management hold meetings in which you can express your views about what is happening in the organisation ?

1 - Yes
2 - No

Q65 Over the past 12 months, have you been subjected at work to …

	Yes	No	DK	Refusal
A - age discrimination	1	2	8	9
B - discrimination linked to race, ethnic background or colour (MODIFIED TREND)	1	2	8	9
C - discrimination linked to nationality	1	2	8	9
D - discrimination on the basis of your sex (MODIFIED TREND)	1	2	8	9
E - discrimination linked to religion	1	2	8	9
F - discrimination linked to disability	1	2	8	9
G - discrimination linked to sexual orientation	1	2	8	9

Q66 Do you think your health or safety is at risk because of your work?

1 - Yes
2 – No
8 - DK/no opinion (spontaneous)
9 - Refusal (spontaneous)

Q70 [formerly Q65] Over the last month, during the course of your work have you been subjected to

	Yes	No	DK	Refusal
A - verbal abuse?	1	2	8	9
B – unwanted sexual attention?	1	2	8	9
C - threats and humiliating behaviour?	1	2	8	9

Q71 [formerly Q65] And over the past 12 months, during the course of your work have you been subjected to

	Yes	No	DK	Refusal
A – physical violence (MODIFIED TREND)	1	2	8	9
B – bullying /harassment	1	2	8	9
C – sexual harassment	1	2	8	9

Q77 How much do you agree or disagree with the following statements describing some aspects of your job?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Not applicable (spontaneous)	DK (spontaneous)	Refusal (spontaneous)
D - I feel 'at home' in this organisation	5	4	3	2	1	7	8	9
E - I have very good friends at work	5	4	3	2	1	7	8	9
G – The organisation I work for motivates me to give my best job performance (NEW)	5	4	3	2	1	7	8	9

CHAPTER 5

CONCLUSIONS

Everyone from the top management to blue-collar workers forms the human resources of an organization. Some make decisions, set business strategies, and control over financial situation; some develop technological instruments; some other work in an assembly-line and produce. Basically human beings shape the future of a company, institution, and even government. So, it is necessary to stress the natural importance of human resources for organizational success. Although many scholars have researched on this topic, the essentiality of caring workforce and human capital probably needs to be better understood all over the world, especially in the underdeveloped and developing countries. Therefore, this dissertation concentrates on three critical business issues and provides empirical analyses with concrete statistical evidence emphasizing the necessity and importance of strategic and efficient management of human resources to gain competitive advantage, to deal with absenteeism at the workplace, and to improve job satisfaction.

More specifically, the first empirical chapter focuses on the theoretical framework of SHRM by aligning HRM practices with business strategies. The motivation of that chapter is based on the fact that "competitive advantage is at the heart of a firm's performance in competitive markets", as Porter (1985) states. So, developing and sustaining a competitive superiority is a key factor to ensure a company's survival in a rivalry. Furthermore, the literature indicates that in order to gain a competitive position, managers or policy-makers need to set a strategy or focus on a business aspect that cannot be imitated by the rivals easily and immediately. As it is previously explained in detail, SHRM is considered to be a source to deal with this issue. Because of this, we analyze this relationship using a data set from Spain, collected during 2007.

Consistent with the literature, our results reveal that there is a tight-fit between business strategies and HRM practices in the Spanish manufacturing companies. More concretely, the significant correlation coefficient of low-cost strategy indicates a negative relationship with overall HRM quality. Also, high-quality production strategy has a significant positive association with overall HRM quality. The results also support that a statistically significantly positive association exists between overall SHRM quality and organizational performance that leads a firm to achieve a competitive superiority. As the components SHRM, the quality of recruitment and training management and that of

performance appraisal and incentives management are found significant that have a positive impact on organizational performance trend.

Addressing the analyses of Mabey and Thomson (2000) and Camps and Luna-Arocas (2012), our findings bring a new dimension by the enrollment of the tight-fit and SHRM in the empirical analysis to test the impact of the strategic HR development in organizational performance. Therefore, our research contributes to the SHRM framework by providing evidence from a Southern European country, indicating that SHRM is a distinctive aspect of a firm to ensure a competitive advantage.

Furthermore, the second empirical chapter of this dissertation concerns another critical business issue: Absenteeism at the workplace, which reduces productivity and profitability, decreases the quality of product and/or service, and creates an unfair environment for the employees who show up at work. The cost of absence problem is reported in many countries, so many researches sought a clear solution. The literature indicates that absenteeism is a bigger problem in manufacturing industry and education environments, and also among blue-collar employees (Hazzard, 1990). Additionally, higher levels of absence rate are observed in union settings and for female workers because of their higher sensitivity to family needs (Dunn and Youngblood, 1986; Buschak et al., 1996). Patton and Jones (2007) discuss other possible reasons behind this situation.

Our research highlights the lack in the literature concerning this problem from the perspective of the interaction between HPWP and union settings in the European countries. Developing a nonlinear model to analyze a questionnaire from Spanish manufacturing companies, our research firstly determines what causes absenteeism, and then focuses on the interaction between HPWP-labor unions. The model we proposed considers five HPWP components and their interactions with labor unions. Although some authors use OLS to make interpretations easier, it is more accurate to run a fractional logistic, cause it can handle proportions as dependent variable more adequately.

Our results suggest that considering an interaction between HPWP and union settings, the adoption of a job design practice with respect to job simplification increase the chance to reduce the absence rate remarkably at very-high and high levels of the labor union influence. Performance-based incentive payment decreases the likelihood of high absence at very-high union influence. This effect is observed to be greater for larger companies. As a part of workplace flexibilities, employment of flextime practice at medium, low, and very low levels of union influence tends to reduce the probability of higher absence rates. Finally, increasing the total training time per employee decreases the probability of high absence at any union

influence level except the extreme ones. On the other hand, it is observed that gender is a significant factor in the model consistent with the literature. An increase in the percentage of female and/or part-time workers may lead to an increase in the probability of high absence.

Job satisfaction as another critical business issue forms the final empirical chapter of this dissertation. The need for research on improving job satisfaction has gained even more importance especially during the current economic crisis. In addition to many authors who focus on this topic in the literature, some recent articles of Forbes, CNN Money, The New York Times, USA Today, Fortune, and Money Magazine emphasize that job satisfaction among employees has decreased remarkably during the last few years as a consequence of the global recession.

Scholars advocate that low job satisfaction triggers more problems as absenteeism, tardiness, grievances, turnover, and strikes. In the end, organizations in both public and private sectors where low job satisfaction is observed may face with a large amount of loss and a decrease in performance and profitability. Therefore many authors suggest both financial and nonfinancial instruments to improve job satisfaction. The main objective of our analysis is to examine the indirect impact of participative management style on job satisfaction and to provide a comparison regarding the differences in this impact among countries.

The analysis carried out addresses the manager's role by focusing on participative management style and its influence in the specific job satisfaction predictors (psychological and physical working environment along with such flexibility practices as work-life balance and job design) that can be affected by management style or manager's quality and talents, unlike the personal and demographic factors. Hence, the main contribution of the fourth chapter is to study the indirect impact of participative management style on job satisfaction. Using data from European Working Conditions Survey (EWCS) 2010, conducted by the European Foundation for the Improvement of Living and Working Conditions, our results reveal that participative management has a significant positive influence in the intermediary predictors of employee job satisfaction. Therefore, we conclude that participative management style is a distinctive aspect to improve job satisfaction through its intermediary determinants.

Nevertheless, this impact varies across countries. Participative management does not necessarily have the same level of influence in employee job satisfaction for every worker in every industry or country. Depending on the cultural infrastructure and country characteristics, employees from different countries may respond to participative management

style in different job satisfaction levels. Thus, some countries with higher implementation of participative leadership may still experience a lower job satisfaction, compared to those with less-participative managers. So, the fourth chapter also provides a cross-country analysis to show the differences in the marginal effects of participative management style among Euro-Mediterranean countries.

As a consequence, the suggestions of the present dissertation that are free-of-unrealistic assumptions may encourage policy-makers, directors, and managers in both public and private sectors to adopt a number of employee-caring HR practices aligned with company-specific business strategies. And this may result in maintaining or improving company's competitive position against its rivals. Also, this research could be a valuable asset for decision-making processes to be implemented easily to build new policies on strategic management of human resources in order to achieve essential organizational goals such as increased productivity, efficiency, and profitability.

Regarding the limitations of this dissertation and possible further research, gaining a sustainable competitive position through SHRM may be investigated by inter-country comparisons in case of obtaining a larger and more recent data set. As a consequence of globalization it is necessary to see if there is any change in the strength of SHRM during the recession across countries and cultures. In addition, it can be hypothesized that SHRM has a higher positive influence in a company's competitive superiority during an economic recession period. On the other hand, although it is not included in this dissertation due to data limitations, it would be an interesting further research to compare the effects of HPWP interacting with labor unions on absenteeism problem before and during/after the global economic crisis.

It is well-known that employees feel less secure about keeping their jobs during crisis, so some decline in absence rate may be observed. However, there is a pending question mark regarding the existence of the impact of HPWP under union settings on absenteeism problem during a period of recession. Finally, upon data availability some further analyses should be carried out in Latin American and Asian emerging economies regarding how to improve job satisfaction in crisis. As it is shown in this dissertation, job satisfaction varies across countries. Therefore, there is a need for supplementary empirical research and concrete evidence to know if participative management style works out well to improve job satisfaction in these developing countries as a comparison to Europe and the US.

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