



IBS

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Human Resources Management Practices in Micro-firms
in the Enterprise Resource Planning Selling and Consulting Sector

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Human Resources Management Practices in Micro-firms in the Enterprise Resource Planning Selling and Consulting Sector

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Abstract

Abstract

This thesis studies the association between human resources management (HRM) practices and performance of micro-firms in the Enterprise Resource Planning (ERP) Selling and Consulting sector. Study 1 includes owners' characteristics, and analyses two case studies. Findings show that the owner with a lower level of entrepreneurial skills and entrepreneurial orientation (EO), uses less relational HRM practices, hires already qualified people, and promotes an autonomous way of working, had better performance. The owner with a higher EO is associated with bigger investment in employee management. Study 2 analyses four micro-firms relating HRM practices to corporate culture (Competing Values Framework) and performance. Results suggest that: clan culture has a positive impact on performance regardless of the HRM practices; any kind of incentive pay has a positive impact on performance, as long as the associated culture types are not only on the control axis; and, employees' perception of market culture has a negative impact on job satisfaction. Study 3, based on a national sample, identifies two types of HRM practices patterns: transactional and developmental, and shows that transactional practices relate to firm performance. Three types of firms regarding HRM practices number and intensity were identified: low, intermediate and high-involvement work practices, which relate to performance the same way. Owners who use more HRM practices also have higher entrepreneurial skills, emotional link to their business, and promote clan culture. This thesis is a rare study of HRM practices in micro-firms, contributing to the literature, to knowing better the ERP sector, and to micro-firms business owners.

Keywords: Configurations, Human Resources Management Practices, Micro-firms, Organizational Performance

JEL Classification System: L2 - Firm Objectives, Organization, and Behaviour; M12 – Personnel Management

Resumo

Resumo

Esta tese estuda a associação entre as práticas de gestão de recursos humanos (GRH) e o desempenho de micro-empresas do setor das empresas que vende e faz consultoria em Enterprise Resource Planning (ERP). O estudo 1 inclui as características dos empresários e analisa dois estudos de caso. Os resultados mostram que o empresário com um nível mais baixo de competências empreendedoras e orientação empreendedora (EO), usa práticas de GRH menos relacionais, contrata pessoas já qualificadas e que promove uma forma de trabalhar mais autónoma, teve melhor desempenho. O empresário com maior EO investe mais na gestão dos colaboradores. O estudo 2 analisa quatro micro-empresas que relacionam as práticas de GRH com a cultura organizacional (Modelo dos Valores Contrastantes) e o desempenho. Os resultados sugerem que: a cultura de clã tem um impacto positivo no desempenho, independentemente das práticas de GRH; qualquer tipo de pagamento de incentivos tem um impacto positivo no desempenho, desde que os tipos de cultura associados não sejam apenas no eixo de controle; a percepção dos colaboradores sobre a cultura de mercado tem um impacto negativo na satisfação no trabalho. O Estudo 3, baseado numa amostra nacional, identifica 2 padrões de práticas de GRH: transacional e de desenvolvimental e mostra que as práticas transacionais estão associadas ao desempenho. Foram identificados três tipos de empresas relativamente ao uso de práticas de GRH: práticas de trabalho de baixo, intermédio e alto-envolvimento, que se relacionam com o desempenho da mesma maneira. Os empresários que usam mais práticas de GRH têm também mais competências empreendedoras, maior ligação emocional ao negócio e promovem a cultura de clã. Esta tese é um estudo raro de práticas de GRH em microempresas, contribuindo para a literatura, para o setor de ERP de forma mais direta e para os empresários de micro-empresas.

Palavras-chave: Configurações, Desempenho Organizacional, Práticas de Gestão de Recursos Humanos, Micro-empresas

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List of Abbreviations

AMO – Ability, Motivation and Opportunity

EO – Entrepreneurial Orientation

ERP – Enterprise Resource Planning

EU – European Union

HR – Human Resources

HRM – Human Resources Management

ICT - Information and Communication Technology

OECD – Organisation for Economic Co-operation and Development

SBO – Small Business Orientation

SME – Small and Medium Enterprises

GENERAL INTRODUCTION

General Introduction

Scholars have been arguing that people, specifically employees, can represent an exclusive source of competitive advantage for their firms, one that is difficult to imitate by competitors (e.g., Barney, 1991; Huselid, 1995). As a result, suitable management of these special resources can have a large impact on firm competitiveness and performance.

Most of the literature on human resources management (HRM) practices and their impact on firm performance were carried out in large firms. Heneman, Tansky, and Camp's (2000) paper on unanswered questions regarding HRM practices in small and medium-sized enterprises (SMEs), and Cardon and Stevens's (2004) reflection on HRM in small firms, confirm this. The authors of a recent meta-analysis regarding HRM practices in SME (Rauch & Hatak, 2016) also acknowledge that the majority of studies in the HRM field were carried out in large firms.

We witness in the literature an increasing body of research on SMEs regarding HRM practices, namely relating them to firm performance. The recent meta-analysis performed by Rauch and Hatak (2016) examined 56 studies since 2000 that relate HRM practices to performance in the SMEs context. Rauch and Hatak's (2016) literature review items' list is longer, compared to the 17 studies reviewed by Heneman et al. (2000). The larger number of studies in these reviews suggests an increasing interest in this field of research.

In the entrepreneurship literature, the relationship of human resources (HR) to growth has increasingly become a topic of interest. Here, both HRM practices (e.g., Mayson & Barrett, 2006), and human capital, namely that of the business owner (e.g., Rauch, Frese, & Utsch, 2005) have been considered. Small firms struggle with scarce resources, which include people, causing each employee and their intellectual capital to have a greater impact on the firm's performance than each employee has in larger firms. Previous empirical evidence makes us expect that HRM practices, which influence employees' human capital and performance, have a positive impact on the firm's results and the perceived success of the firm, even if those practices are informal (Hayton, 2006; Mayson & Barrett, 2006).

Some researchers state that small firms manage people in different ways than do larger firms in areas such as HRM policies and system development processes, the manner of introducing HRM practices, making employee management decisions, and formalisation levels (Cardon & Stevens, 2004; Veloso & Keating, 2008).

The growth of small and medium-sized firms is increasingly researched as a source of interest for both literature and economic policy. An interesting sub-group of this kind of firm

involves *micro-firms*, which employ fewer than 10 workers¹ (Saarakkala, Tornikoski, Varamäki, & Kohtamäki, 2007). Micro-firms are the category of business that represents the most abundant proportion of firms worldwide (90%), in the European Union (EU) (93.1%), as well as in Portugal (95.4%) (Organisation for Economic Co-operation and Development [OECD], 2017a). The average employment proportion is different: in the OECD countries it is 22%, in the EU countries it is 30%. Portugal is among the five countries in the EU² in which the proportion of employment in micro-firms is over 40% (OECD, 2017a). In Portugal, in 2015 micro-firms employed 46.4% of the active population and were responsible for 19.3% of turnover, about the same as small and medium-sized firms, which suggests that one-third of the turnover in SME is due to micro-firms (INE, 2017). While data show that most firms in the world are micro-firms, the countries that have bigger sized companies (i.e., fewer people employed in micro-firms) have better overall economic results. This means it is important to help micro-firms expand in terms of employment (thus enabling them to grow out of the micro-firm category).

Micro-firms are a very pertinent type of firm to study theoretically as well as empirically. Their examination can bring important knowledge both to the academic community and society, particularly with respect to business competitiveness and employment. The current project root is the resource-based view of the firm (Barney, 1991). Its main objective is to better understand the relationship between HRM practices and business performance and growth in micro-firms.

Researchers agree that firm growth and competitiveness is due to three main groups of factors: the country's macroeconomic setting, specific characteristics of the industry in which it operates, and the firm itself (characteristics of the entrepreneur, internal variables, management strategies) (Baum, Locke, & Smith, 2001; Dobbs & Hamilton, 2007; Wiklund, Patzelt, & Shepherd, 2009). There are many studies which try to categorise the importance of these factors, and several empirical studies point to the characteristics of the firm as the ones that better explain business performance and growth (Baum et al., 2001; Davidsson, Achtenhagen, & Naldi, 2005; Dobbs & Hamilton, 2007). There are two types of organisational characteristics: tangible and intangible (Zahra, 1991). In this thesis, we control the tangible

¹ The Portuguese Ministry of Economy and Employment applies the European Commission Recommendation 2003/361/CE, of 6 May 2003, regarding the definition of micro, small and medium enterprises, considering both number of employees and business sales (Ministério da Economia e do Emprego, 2007) – therefore, micro-firms have fewer than 10 workers and up to two million Euros in sales.

² Greece, Italy, Portugal, Slovak Republic and Spain.

and study the intangible organisational factors that relate HRM practices to performance: firm-owner characteristics, entrepreneurial and small business orientation, and culture.

Even though internal variables of the firm are considered the most determinant in differentiating firm performance, external variables such as macroeconomic conditions and industry also impact its role as facilitator or obstacle to progress. They therefore cannot be disregarded (Baum et al., 2001; Datta, Guthrie, & Wright, 2005; Davidsson et al., 2005).

Since the industry has a direct effect on firm performance (Wiklund et al., 2009), it is important to identify the differences between firms within the same sector, to analyse which are the firms' internal resources and capabilities that deliver the best performance (Rodríguez-Gutiérrez, Moreno, & Tejada, 2015). The manufactured goods sector is the most studied sector. It is therefore important to deepen knowledge on the services sector, considering their share of business in European countries' economies (Rodríguez-Gutiérrez et al., 2015). Following the literature's methodological recommendation (Short, Payne, & Ketchen Jr., 2008; Wiklund et al., 2009), we focus on one business field from the services sector: the Enterprise Resource Planning (ERP) selling and consulting sector, which is part of the larger Information and Communication Technologies sector.

The current thesis approaches the HRM practices-performance link initially with a broad, in-depth qualitative methodology, and then proceeds with general data collection. This enabled definition of the HRM bundles in micro-firms, as well as characterisation of the micro-firms and their firm owners regarding HRM practices and organisational performance.

Considering the limited knowledge about the micro-firm type of management, in the first study, we asked an overarching, exploratory question: *is there an association between HRM practices and performance in micro-firms?* We selected two firms that sold the same brand of ERP. To collect data from the owners and each of the employees we used semi-structured interviews, unstructured observation at the firm's facilities, a survey to define the owner profile, and secondary data regarding firm performance indicators. The information was collected in two different stages, two years apart. This allowed for wide and in-depth knowledge of the firms and their management dynamics. The results revealed two very different and even contradictory ways to manage people and the firm in general, yet both firms were evaluated as "TOP partners" by their software house brand. Our findings pointed to a contingency approach to the management styles (entrepreneurial and small business orientation), and led us to discriminate these constructs' dimensions when considering performance and crisis periods.

In the second study we wanted to understand the relation of HRM practices with the corporate culture and performance. We used the case study methodology with four micro-firms. Data were collected in two different phases. In the first phase we conducted semi-structured interviews with both owners and each of the employees, as well as observation at the firm's offices. In the second phase, we used the Competing Values Framework (CVF) model instrument to define the owner's and employees' culture perceptions. At this point we also used surveys to assess employees' satisfaction and affective commitment. To measure firm performance indicators we collected secondary data. The analysis of the broad and detailed information collected about these four micro-firms enabled the development of some propositions. The *feeling* of clan culture in both owners and employees seems to be related to good firm performance, regardless of which HRM practices were used or the amount thereof. Incentive pay may be considered a very important practice to be included in any HRM practices bundle. This HRM practice happens when a market type of culture is present. Yet sometimes this can even occur in an *ad hoc* way, with no structure. It still has good performance results. It seems that it is important to have a combination of culture types, maintaining the precaution to avoid focussing only on the control type of culture. Two features of micro-firms emerged in our findings. To measure HRM practices in micro-firms it appears to be better to do so in a qualitative (configurations), as opposed to a quantitative (intensity), manner. It is time in business, and not size, that seems to motivate micro-firms to try to standardise and control their processes.

In the third study, we collected data from a national sample of business owners of ERP selling and consulting micro-firms of several brands. We conducted structured interviews to firm owners using a questionnaire. Data gathering was completed with secondary information about the performance indicators. We found two bundles of HRM practices in these micro-firms: transactional and developmental practices. Only the transactional practices related to firm performance indicators growth from 2012 to 2015. There were three hybrid micro-firms clusters based on these two dimensions, with an increasing level of HRM practices utilisation and intensity sophistication: low-involvement work practices, intermediate-involvement work practices, and high-involvement work practices. There was a difference found between firm owners' characteristics associated with the HRM practices: the more entrepreneurial potential abilities they possess, the more HRM practices and in higher intensity they use them. Most firms are either characterised by low-involvement or high-involvement work practices. There were no significant differences regarding performance growth in any of the considered indicators, which reinforces the configurational approach assumption of equifinality.

Several innovation issues set the value of this thesis. There is a new path to follow regarding the HRM literature in a very important and understudied type of firm, the micro-firms. Even though there is increasing interest in smaller sized firms (e.g., Innes & Wiesner, 2012; Jaouen & Tessier, 2009), they are not necessarily micro-firms. Another valuable issue of this project is the use of empirical data to define HRM practices patterns, rather than a conceptual framework (e.g., Subramony, 2009). Our results enable entering the theoretical discussion of HRM bundles and the differences between micro-, small and medium-sized firms (e.g., Pearson, Stringer, Mills, & Summers, 2006). Studying HRM practices with other internal organisational variables such as owner's characteristics and management styles and corporate culture deepens the understanding of the HRM-performance link. The use of time-lagged performance indicators to understand better the effect of HRM practices can be a very useful strategy, rather than the cross-sectional approach (Saridakis, Lai, & Cooper, 2017). The results reliability of this thesis, in its basis, is due to a methodological decision to focus on just one business sector (leveraging all participants with the same macroeconomic and legal context). The project participants are competitors among themselves, which enabled comparison regarding the research variables.

This thesis begins with a general literature review that frames the conceptual basis of the project (Chapter 1). We then present the business sector in which we develop this research project (Chapter 2). The next three chapters (3, 4, and 5) present and discuss empirical studies relating HRM practices to performance of micro-firms involved in ERP selling and consulting sector. Finally, we report the final and general conclusions of this research.

In Table 1 there is a general outline of the entire research project, describing the main characteristics of the three empirical studies: the main research questions, the general theoretical topics covered, empirical approaches, samples, data collection dates, and periods studied.

Table 1- Summary of empirical studies

Empirical studies	Study 1 – The Human Resource Management Practices-Performance Link Incorporating the Firm Owner: Case-Studies in Micro-Firms	Study 2 – The Relation of Human Resources Management Practices, Culture and Micro-Firm Performance: A Multiple Case-study Approach	Study 3 – A Configurational Approach to Human Resource Management Practices in Micro-Firms
Main research questions	(1) How do HRM practices relate to performance in micro-firms? (2) How are firm-owners' characteristics and managerial styles associated with HRM practices and performance?	(1) How do the HRM practices relate to the culture types? (2) How do the HRM practices and culture types relate with firm performance?	(1) Which HRM practices patterns do micro-firms use? How do they relate to firm performance? (2) What types of micro-firms are there, regarding HRM practices usage? How do they relate to firm performance?
Main theoretical issues	HRM-performance link HRM practices Owner and employee characteristics Owner profile Owner management style Organisational performance	HRM-performance link HRM practices Organisational culture-performance link Competing Values Framework (CVF) culture types relation to performance Organisational performance	HRM-performance link Owner and employee characteristics Owner profile Owner management style CVF Organisational performance
Empirical approaches and research designs	Qualitative	Qualitative	Quantitative
Samples	Firm owners and their employees	Firm owners and their employees	Firm owners
Data collection	2010+2012	2010/11+2013	2014/15
Period studied	2008–2011	2008–2013	2012–2015

CHAPTER 1. Human Resources Management Practices and Other Organisational Factors Affecting Firm Performance

1.1. Human Resources Management Practices and Performance

There is a research domain that produced a solid body of knowledge regarding HRM practices' impact on firm performance, and which has been receiving much theoretical support throughout the years: the strategic human resources management field (e.g., Combs, Liu, Hall, & Ketchen, 2006; Huselid, 1995; Pfeffer, 2005; Wright, Gardner, Moynihan, & Allen, 2005). Literature regarding strategic HRM states that, in order to gain a competitive advantage through people, firms need to have an HR system (Delery & Doty, 1996). These HR systems, when implemented with the intention to help accomplish the firm's goals, are regarded as strategic (Wright & McMahan, 1992).

Wright and McMahan (1992) identified in the strategic HRM literature micro and macro approaches to HR systems. They considered as micro approaches policies and practices referred to by the study as "individual," while macro approaches emphasised a set of interconnected HRM practices. These authors found that HRM practices have a stronger effect when they take place together, in bundles, rather than individually, because the effects of the different practices are additive (e.g., Combs et al., 2006; Huselid, 1995). MacDuffie (1995) states that these HRM practices bundles are the best unit to study the HRM impact on firm performance because, as are coherent and firm specific, can act as a strategic competitive asset to firms, hard to imitate.

The sets of HRM practices that are designed to improve employee involvement and participation in the workplace, namely through communication between management and employees, and have a positive impact on organisational performance have been termed *high-performance management practices* (Gollan, 2005; Wiesner, McDonald, & Banham, 2007). Most literature, when explaining the relationship between HRM practices and organisational performance, adopts the behavioural perspective, stating that those *high-performance [HR] management practices* act on firm performance by developing higher levels of employee knowledge, skills and abilities (KSAs), and motivating workers to use these KSAs when participating in organisational processes that are beneficial (e.g., Combs et al., 2006; Huselid, 1995; MacDuffie, 1995).

On the same behavioural path, but with some nuances, we present some other authors' models (e.g., Delery & Shaw, 2001; Guest, 1997; Ostroff & Bowen, 2000). Delery and Shaw (2001) present a model in which they say that each HRM practice may affect several employee's characteristics, for example, training can affect both knowledge and skills, as well

as motivation. Practices can also combine in different ways to achieve the organisational goals. These complementary effect of the practices, make the equifinality of the HR system possible.

Guest (1997), relates the HRM practices with strategy, referring the importance of the coherent contingency. The HRM practices should be conceived intentionally to obtain three main HRM outcomes: commitment, quality and flexibility. Only after these HRM results are attained the rest of the outcomes are accomplished: the behavioural outcomes (motivation, cooperation, involvement, citizenship behaviours), organisational performance (high productivity, quality and innovation, and low absence, turnover, conflict, and customer complaints), and financial outcomes (profits and return on investment). Guest's (1997) analysis implies that more distant results (behavioural, performance and financial) won't be as strong as the HRM outcomes, due to other organisational factors that also intervene.

Ostroff & Bowen (2000) suggest a multilevel framework, integrating individual-level, organization-level, and multilevel approaches. They believe that HRM practices can influence directly the firm performance, unlike Guest (1997) that only previewed indirect influence. This direct influence occurs through operational processes and job design, and through human capital development. The indirect effect on the organisational various dimensions effectiveness is through the impact that HRM practices have on organisational climate and contracts, which shape collective attitudes (as satisfaction and involvement), and behaviours (as citizenship, and attendance).

The literature shows an evolution in the utilisation of the concept. Walton (1985) proposed the *high-commitment model*, stating that organisations consist of parties (management and employees) with shared interests, both of which benefit from their interdependence. Organisations leave their traditional focus on control and replace it with a commitment strategy, giving employees more responsibilities and stimulating them to add value to the organisation as well as obtain satisfaction from their work. Lawler (1992) advocated for the *high-involvement model*, which aims to give employees the opportunity to acquire competencies and knowledge necessary to assure they can work in an engaged manner. This model involves practices such as training to work as teams, functional flexibility and information sharing.

Scholars (e.g., Guthrie, 2001) have been using the labels *high-commitment* and *high-involvement* to refer to the HR strategies that aim to develop employees abilities, skills, motivation, and information regarding their work, enabling them to perform better, in an interchangeably way.

High-performance work practices is another label referring to studies of HRM in organisations, relating these practices to performance (Huselid, 1995). Combs et al. (2006) and Posthuma, Campion, Masimova, and Campion (2013), in both their meta-analyses, also refer to HRM practices that are positively related to organisational performance as *high-performance work practices*. Wood (1999) refers to the concept *high-performance management systems* as a way of extending the model to include operational practices that enhance performance by skills training and acquisition, work redesign and performance management (as opposed to solely focusing on involvement and commitment attitudes). Zacharatos, Barling, and Iverson (2005) regard the *high-performance work practices* as including the *high-commitment* and *high-involvement* systems features, and expanding them because *high-performance work practices* refer in a more specific way the enhancement of competitive advantage using these HR practices. Wood, De Menezes, and Lasaosa (2003) indicate that in the literature *high-commitment*, *high-involvement*, and *high-performance work practices* appear as corresponding concepts. Authors reviewing literature analysing the *high-performance work practices* concept acknowledge, as us, that scholars have been studying the HR systems relation to performance and continuously reporting a positive relation to firm performance, even though using different labels to refer them (Esteves & Caetano, 2010; Esteves, 2008; Veloso, 2008). There seem to be general agreement on the fact that the HRM practices that regard *high-performance work practices* have a strategic approach, include good practices, and aim to develop competencies and organisational commitment (Esteves & Caetano, 2010).

In this research project we use the HRM broad concept of Boxall & Purcell (2000, p. 184) “HRM includes anything and everything associated with the management of employment relations in the firm”. These authors do not associate HRM with only one model or management style (*high-performance*, *high-commitment*, or *high-involvement*). They suggest the HRM discipline should acknowledge the diversity of models and management styles to develop better conceptualisation and deliver superior practice. Following this concept, in this project, we use the term *HRM practices* as a synonym of the *high-performance management practices* and *work practices*, which in turn already include high-commitment and high-involvement, as well as quality practices.

In the strategic HRM literature, the HRM practices associated with performance comprise a group of recurring types of practice (Pfeffer, 2005). We present some examples. Huselid (1995) based his study on the 10 practices previously identified by Delaney, Lewin,

and Ichniowski (1989), complemented by three others.³ Datta, Guthrie, and Wright (2005), basing their work on that of Huselid (1995) and Guthrie (2001), studied 18 practices.⁴ Pfeffer (1998) presented a simplified version of the successful organisation's practices in a set of seven practices,⁵ and later proposed an augmented version of 13 practices (Pfeffer, 2005).⁶ Esteves (2008) based on an extensive literature review proposed seven high-performance HRM practices.⁷

Theoretical and methodological controversies characterise research and practice in the strategic HRM field (Esteves & Caetano, 2010). Initially, Delery and Doty (1996) and Martín-Alcázar, Romero-Fernández, and Sánchez-Gardey (2005) present and characterise the perspectives used to study strategic HRM: *universalistic*, *contingency*, *configurational* and *contextual*. The universalistic perspective argues for a “best practices” approach. This perspective proposes that some practices are better than others and thus should be adopted in all circumstances (Delery & Doty, 1996). The universalistic approach analyses the impact of best practices on performance from a cumulative perspective, not considering the synergies or interrelations between practices (Martín-Alcázar et al., 2005). According to these authors, the universalistic perspective is built upon empirical statistically proven relationships, not on strong theoretical grounds.

The researchers who support the *contingency* perspective suggest that HRM practices and policies should be consistent with other organisational dynamic aspects such as overall strategy and strategic options (Delery & Doty, 1996). That congruence is called the “vertical fit” (Huselid, 1995). Researchers look for causal linear relations between internal system characteristics and external contexts and situations to explain the results (Meyer, Tsui, & Hinings, 1993). Although this perspective has better theoretical grounds than the universalistic

³ These involved: incentive compensation; labour-management participation; performance appraisal; grievance procedures; information-sharing; personnel selection; attitude assessment and job design. He also included promotion based on seniority versus merit; recruiting efforts and training hours per employee.

⁴ These included: effort on recruiting; hire based on tests; internal promotions; much training in firm-specific and generic skills; cross-training; performance-based promotions; frequent performance-feedback; other performance-feedback; pay based on skills; group-based pay; employee participation programs; performance, financial, and strategic plans information sharing; attitude surveys; team organized work and grievance system.

⁵ These include: employment security; self-managed teams and decentralisation of decision making; selective hiring; high compensation and contingent on performance; training; symbolic egalitarianism; performance and other information sharing.

⁶ These include: employment security; recruitment selectivity; high compensation; incentive pay; employee ownership; information sharing; participation and empowerment; self-managed team, training and development; cross-utilisation and training; symbolic egalitarianism; wage compression; and promotions.

⁷ These include: employment security; performance evaluation; compensation practices; career; training; participation, and information.

approach, it does not show the same strong, statistical relationships as the latter (Martín-Alcázar et al., 2005).

The third strategic HRM perspective, *configurational*, pursues a more holistic view of organisational phenomena. Research projects that use this approach identify patterns of variables that are related to an effect, rather than the relation of single variables to each other (Delery & Doty, 1996). We can describe the relation between HRM practices and organisational outcomes as a link between interrelated sets of HRM practices, organised in patterns and organisational performance (as an outcome example), instead of a relation between independent HRM practices and performance (Clark & Lengnick-Hall, 2012). The configurational approach highlights that the impact on organisational outcomes results from complex interactions between practices, which cannot be accounted for by linear relations. The synergetic effect of HRM practices among themselves explains the organisational performance (Delery & Doty, 1996). This approach embodies a shift in strategic HRM studies since the “‘black box’ of the universalistic and contingency models is opened so that the HR function can be analysed as a complex and interactive system” (Martín-Alcázar et al., 2005, p. 637).

The configurational approach also inherits the characteristics of the Katz and Kahn systems theory “equifinality” (Katz & Kahn, 1978) postulating that different arrangements of internal organisational and contextual patterns can be equally effective (Doty, Glick, & Huber, 1993; Martín-Alcázar et al., 2005). That is to say, organisations should plan and implement HR policies and practices that lead to the defined organisational goals. Thus, besides the vertical fit with organisational goals, organisations should pursue a horizontal fit, which involves internal consistency within the HR system practices and policies (Delery & Doty, 1996). The statistical techniques used to define HRM practices configurations are cluster analysis, factor analysis and neural network techniques (Delery & Doty, 1996; Martín-Alcázar et al., 2005).

The contextual perspective of researching strategic HRM offers a major change: the level of analysis it comprises, exceeding the organisational level, considering that the HRM role goes beyond the organisational borders, influencing and being influenced by the social context within which it operates (Brewster, 1999; Martín-Alcázar et al., 2005). This perspective includes often non accounted influencing social actors such as unions, the influence of the State and other institutional stakeholders. Studies that use the contextual approach deal with the continental level, concentrate on European countries, often comparing them (e.g. Brewster, 1995; Claus, 2003; Nikandrou, Apospori, & Papalexandris, 2005).

The methodological approach in the contextual perspective is descriptive, performing mainly simple statistics analysis (means, standard derivations) (Martín-Alcázar et al., 2005). There are some longitudinal studies regarding the evolution of the HRM practices usage among the European countries, and their classification into similar groups (Nikandrou et al., 2005), but still scholars advocate for more sophisticated quantitative and qualitative analysis to understand better the HRM relation with it's context (Martín-Alcázar et al., 2005).⁸

1.1.1. The Pertinence of the Configurational Perspective on Studying HRM-Performance Link

Configurations research is said to have great potential and to contribute to an increased understanding of people, groups and organisational dynamics. However, it is still underused and should be explored further (Meyer & Allen, 1997; Short, Payne, & Ketchen Jr., 2008). Configurational research meets the objectives of research in organisations by describing, explaining and predicting organisational effects and dynamics (Short et al., 2008).

Studies on the contribution of HRM to a firm's performance and the gaining of competitive advantage has seen an increase since the 1990's (e.g., Becker & Huselid, 1999; Delaney & Huselid, 1996; Huselid, 1995). These HRM practices influence organisational performance, increasing employees' KSAs and motivation to apply them to benefit the organisation, bringing sustainable advantage and better organisational results (Combs et al., 2006). HRM practices are organised internally in a unique way, and the individual way employees apprehend and apply the KSAs, enabled by those HRM practices, makes them impossible to copy. This therefore constitutes a competitive advantage to firms. Thus, the resource-based view of the firm is the foundation for the strategic HRM literature development (Barney, 1991).

The combinations of several HRM practices performed in firms are frequently called bundles (e.g., Bello-Pintado, 2015; Gerhart, 2007; MacDuffie, 1995; Meuer, 2017). Different HRM perspectives value these sets of HRM practices in different ways. The universalist perspective claims that each of those HRM practices has a positive impact on performance. In the contingent perspective, the HRM practices bundles are effective if they are adequate to internal factors such as strategy, and/or external factors such as the industry. Both

⁸ For other literature reviews on the HRM practices relation to performance, see Esteves (2008) and Marques (2010).

perspectives, universalistic and contingency, regard HRM practices from an additive standpoint (Martín-Alcázar et al., 2005).

In the configurational perspective, the HR practices that constitute the bundles are complementary and interact in a complex and not linear way (Delery & Doty, 1996; Gerhart, 2007; Martín-Alcázar et al., 2005). From this perspective, employers should experiment with several complementary HRM practices: the result of the whole HRM practices bundle is more beneficial than the effect of each practice itself, or even the sum of the effects of each practice individually (Bello-Pintado, 2015; Combs et al., 2006; Huselid, 1995). As an illustration of how HRM practices configurations work if we want to enhance employees' skill levels, we can achieve a better result if we accumulate intentionally various practices in that way, for example, selection and training, instead of only one practice. A workforce's KSAs will improve if we define and use appropriate staffing techniques and provide training suitable for the KSAs intended. This means that HRM bundles, i.e., sets of HRM practices working together toward the same objective, will have a positive impact on workers' KSAs, and thus, on organisational performance (Subramony, 2009). Cesário (2015), who studied the employees' perceptions on HRM practices, concludes that from their point of view, the experience is a simultaneous and combined perception of the HR systems. Therefore, as the HRM practices are performed to have an impact on employees, it is probably more interesting to analyse the HRM practices together, because that is the way employees perceive them (Cesário, 2015). This perspective allows opening the "black box" of the universalistic and contingency models, in which there are only inputs and outputs, without revealing the processes of the phenomena involved (Martín-Alcázar et al., 2005).

With all the promising features of configurational research, it still is not much developed. One reason for this, as pointed by Short et al (2008), concerns an inconsistent use of terminology and labelling: typologies, gestalts, generic strategies, modes, archetypes, strategic groups, strategic scope groups, competitive groups and taxonomies have all been used to denote such practices. Based on a thorough literature review since 1993, using the same strategy that a previous literature review (Dess, Newport, & Rasheed, 1993) employed, Short et al (2008) make a terminology proposal. They suggest categorising the configurational studies based on the system of identifying organisational configurations (competitive strategies/organisational features) and their applicability (context specific/generalisable).⁹

⁹ *Strategic groups* are context-specific configurations that have an underlying competitive strategy, and *Generic strategies* are configurations that are identified based on the competitive strategy and are applicable to several contexts, but both relate to the way firms compete in the market. *Archetypes* and *Organizational*

Since these authors' proposal in 2008, and up to 2017 in the configurational literature we reviewed, we did not find those proposed terms or concepts applied.

There are two other important concepts related to the configurational research: typology and taxonomy. Short et al. (2008) state that these terms go beyond the configurational literature because they are commonly used in several contexts many times, describing basic and unsophisticated categories. There is already a consensual definition regarding typologies and taxonomies concepts, based on the source of information used to define them, even if not used correctly in all circumstances (e.g., Jaouen & Lasch, 2015). A *typology* derives from a conceptual organisation of ideas, that is, deductive thinking. A categorisation based on empirical data, the inductive way of generating knowledge, is called a *taxonomy* (Meyer & Allen, 1997; Short et al., 2008). Nevertheless, conceptual information used to conceive typologies is usually grounded in empirical research, and taxonomies also need to have conceptual logic and a theoretical basis to be acknowledged by academic peers. Researchers should therefore present the sequence of thought and the inductive and deductive reasoning that undergird the typologies and taxonomies they present (Short et al., 2008).

Despite the identified potential of the configurational approach, between 2007 and 2017, we found only 15 published papers in the HRM field using this perspective. We conducted a literature review on 22 top academic journals regarding HRM, strategy, management, entrepreneurship and small business.¹⁰ We used “typology”, “taxonomy” and “configuration” expressions to search in each of the mentioned journals, within the defined time period. We analysed a total of 340 papers to define inclusion in our analysis (title, abstract, and paper content when needed). The criteria for inclusion were: verifying the configurational approach, being in the HRM field, and being firm-level studies. Each paper was counted only once. A final number of 17 papers were deeply analysed. From those, 13 are empirical papers proposing taxonomies, and four are theoretical papers.

forms focus on the features of organizations, but the first are context-specific and the latest are groups of similar firms that can be found across industries (Short, et al., 2008).

¹⁰ HRM: Human Resource Management Review, Personnel Psychology, Journal of Human Resources, Human Relations, Human Resource Management, Industrial and Labour Relations Review, European Journal of Industrial Relations, Human Resource Management Journal, and International Journal of Human Resource Management.

STRATEGIC MANAGEMENT: Academy of Management Annals, Academy of Management Journal, Academy of Management Review, Strategic Management Journal, Journal of Management, Journal of Management Studies, Journal of International Business Studies.

ENTREPRENEURSHIP & SMALL FIRMS: Journal of Business Venturing, Entrepreneurship: Theory and Practice, Small Business Economics, International Small Business Journal, Journal of Small Business Management, Entrepreneurship and Regional Development.

There are some interesting general features to notice. The theoretical papers define HRM practices typologies for the different issues of their respective objectives.¹¹ Regarding empirical studies, they occur in large firms,¹² and all deal with different issues in the HRM practices relating to different performance outcomes. From those studies, only two Bello-Pintado (2015) and Meuer (2017) explore objectives similar to those of our project: start from a list of HRM practices to define HRM practices bundles and relate them to performance. Of those, only Bello-Pintado (2015) and Meuer (2017) studied SME.¹³ Another interesting feature of these two papers is that they not only depart from a list of HRM practices, they also organise those practices initially based on the AMO framework, which we will explore in the next few paragraphs.

Appelbaum, Bailey, and Berg (2000) analysed the large listing of HRM practices and categorised them into three bundles, whose first letters provide the acronym: abilities, motivation, and opportunity: the AMO framework. This model advocates that to engage employees in their work to the fullest, HR systems should: provide them with the abilities they need, motivate them to fulfill their needs, and enable them with the opportunity to do their job in engaging ways (e.g., Boselie, Dietz, & Boon, 2005).

The HRM practices associated with enhancing employee skills and knowledge (ability) are recruitment, selection, training and development. The practices associated with motivation are incentives, recognition, pay-for-performance, group bonuses and job security. Information-sharing, job participation, self-directed work teams and other employee involvement activities are opportunity-enhancing HR practices. The AMO framework enables a better understanding of HR systems, enlightening the way HRM practices “fit” with each other (Meuer, 2017). At the same time they help clarify HRM practices in organisations, categorising the long HRM practices list available in the literature.

The AMO framework seems to be the HRM practices configuration more used in the literature. Two recent meta-analyses of the HRM practices-performance link in large firms

¹¹ Topics studied in the theoretical papers were: (1) HRM practices transfer model in multinationals corporations for their subsidiaries (Clark & Lengnick-Hall, 2012); (2) model proposal that explains organisational politics in the HRM context and that takes in constructive, destructive, ineffective and virtual HRM practices (Drory & Vigoda-Gadot, 2010); (3) based on the exploration versus exploitation paradigm, they define an HR architecture configuration fostering organisational learning and value creation (Kang, Morris, & Snell, 2007) and (4) authors propose how HRM practices bundles relate to performance evaluation and compensation may induce more or less employee misconduct (Werbel & Balkin, 2010).

¹² Only one refers that the sample has firms with more than 20 employees, not mentioning the maximum or average number of employees (Bello-Pintado, 2015). Another refers to using 15 participants in each organisation, not mentioning the total number of employees in each organisation.

¹³ After this systematic literature review, we used a snowball technique to find other configurational studies that we could relate to the studies in our project. We present these in the following section.

and SMEs apply it not only to organise the HRM practices considered in the analysed studies, but also to present and discuss results (Jiang, Lepak, Jia, & Baer, 2012; Rauch & Hatak, 2016). The use of this formula, namely, when a large number of HRM practices are available in the literature and, knowing that firms use bundles of practices, reinforces the pertinence of the configurational approach to the study of the HRM practices-performance link.

The literature also provides another interesting argument that favours the configurational approach usage: the distinction between core and peripheral HRM practices concurring with organisational performance (Meuer, 2017; Posthuma et al., 2013). Opening the “black box” in the HRM practices-performance link means to understand the synergetic effects of the practices when applied together.

Posthuma et al. (2013) performed a literature review of empirical studies on HRM practices conducted in the past 20 years. They identified 61 practices and developed a nine-category taxonomy. They also analysed the frequency defining which are the core, the peripheral and the least-used practices. Their analyses also covered HRM practices usage over time, namely identifying the growing, the stable and the declining ones, as well as the regional usage of the practices.

Meuer (2017) performed an empirical study seeking to understand the complementarities within HRM practices bundles. He found that within all bundles there are combinations of core and peripheral HRM practices which, when overlapping, have a positive impact on performance. He also emphasises that some of the practices are not essential or may even have negative impacts. Therefore the virtuous overlaps of HRM practices bundles should embrace the fact that not all HRM practices should be implemented when aiming for the best organisational result. For example, in the bundle, Meuer (2017) named “low investment” it is clear the emphasis is on recruitment and selection and the absence of expensive training programmes. The firms that use these strategies compensate for the lack of internal training with concern in the staffing activities, so they do not have to fulfill that gap internally. Therefore, one of the challenges he identifies for firms is that they should try to distinguish and emphasise core and peripheral HRM practices differently, to enable firm’s the best performance.

There are several arguments that support the use of the configurational approach to study HRM: (a) it has a big potential to capture the complex dynamics of the organisational setting, (b) there are few studies in the literature, and scholars have called for more research using this approach; (c) intentionally defined HRM practices bundles have a higher impact on

employees' KSAs than the individual or random practices; and (d) the existence of core and peripheral practices define the importance of identifying the right ones to use.

1.1.2. Human Resources Management Practices in Small Firms

Micro-firms comprise a substantial portion of the business environment in Portugal (INE, 2017), as is the case in other European countries (Goswami, McMahan, & Wright, 2006; OECD, 2017a). Many of those small and micro-firms were created in an entrepreneurial process. There is no consensus among researchers about the “entrepreneurial firms” concept (Goswami et al., 2006, p. 17). There are several ways of defining them: high growth firm, firm managed by the owner, or business managed by its founder (Goswami et al., 2006; Stewart & Roth, 2001; Unger, Rauch, Frese, & Rosenbusch, 2011). Research in the HRM field is carried out relative to either entrepreneurial entities (Dabic, Ortiz-De-Urbina-Criado, & Romero-Martínez, 2011), SME or small firms (Pearson et al., 2006; Sheehan, 2013).

In this project, we focus on independent firms managed by their owners, which is also the minimum criterion accepted for the entrepreneur's definition (Stewart & Roth, 2001). We started by referring to the resource-based view of the firm perspective, which identifies employees as one of the most important firm resources because they are exclusive of the firm in which they work, and competitors cannot imitate them (Barney, 1991; Huselid, 1995). In small and micro-firms each employee has a higher influence on the firm's performance than in larger firms. Moreover, small firms with scarce and at times unstable resources and environmental conditions may be reinforced and maintained when using certain HRM practices (Vogus & Welbourne, 2003).

Although there are many conceptual and empirical studies on entrepreneurship processes and results (Goswami et al., 2006), according to literature reviews by Cardon and Stevens (2004) and Heneman et al. (2000), the HRM field has not attracted much attention. The interest in the human factor in the entrepreneurial and small firms drew the attention of researchers mostly in the first decade of this century (Unger et al., 2011). Goswami et al. (2006) tried to meet that conceptual gap by proposing a human resources strategic management model in entrepreneurial firms. This conceptual model attempts to clarify the mechanism through which management practices can develop critical behaviours in employees that, in turn, facilitate the emergence of a knowledge environment that is positive to a firm's performance. What it does, in fact, is replicate what occurs in larger companies,

adding the constructs of entrepreneurial sophistication and a knowledge environment. As far as we were able to verify, this model has never been tested.

Even though there is a traditional view “that smaller firms ‘do not need human resources’” (Sheehan, 2013, p. 546), that perspective is no longer appropriate. These firms manage people, their special resources, expecting to have a positive influence on the firm’s results, even if such HRM practices are informal (Hayton, 2006; Mayson & Barrett, 2006). In small-scale firms the adoption of such practices is not necessarily formal, since the costs in both money and time to create, implement and maintain it may not pay off (Patel & Cardon, 2010). In addition to the economic balance regarding cost-benefit, small firms may also lack the technical capability to implement such measures. Accordingly, small firms’ engagement in HRM practices, namely formal, are carefully considered (Patel & Cardon, 2010). Way (2002) presented empirical evidence that the use of HRM practices in the US small business sector may not enhance costs related to the execution of these practices. Sels et al. (2006), however, reported the contrary: increased labour costs came with HRM practise implementation. Other scholars (e.g., Innes & Wiesner, 2012; Melo & Machado, 2015) stress that HRM practices formalisation does not necessarily mean effective employment of those practices in organisations, because they should be performed on an as-needed basis. An incremental way of introducing HRM practices has a higher impact because it allows the progressive involvement of the employees in those practices, and it is also characterised by its unique structure, which isn’t possible to replicate, thus being a factor of competitive advantage (Veloso, 2008).

An escalating literature production in this field in SME occurred in recent years (e.g. Aït Razouk, 2011; Datta et al., 2005; Guest & Conway, 2011; Messersmith & Wales, 2013; Patel & Cardon, 2010; Sheehan, 2013; Way, 2002). This line of research identified HRM practices that occur in SME, relating them to firm performance. Authors study somewhat similar HRM practices lists (firms that have the same core practices). They mainly depart from HRM practices defined as *high performance work practices* of large firms (see Appendix A: Examples of studies of HRM practices in SME). They are different in the sense that they contemplate a different number of practices (from six to 18 HRM practices), but all report a positive effect of HRM practices on several measures of performance. Another common feature is that these studies use an additive means of measuring and analysing the HRM practices’ impact on firm performance, following the literature tradition of defining a single index (e.g., Becker & Huselid, 1999; Sels et al., 2006). This method is consistent with the

universalistic and contingency approaches to strategic HRM (Delery & Doty, 1996; Martín-Alcázar et al., 2005).

Rauch and Hatak (2016) organised the limited and scattered knowledge (when compared to large firms) on HR-enhancing practices in SME that impact these firms' performance. Specifically, they studied the effect of those practices on performance and what kind of contingencies they involve, to report on the relation between HRM practices and performance. They conducted a meta-analytic study (including 56 independent samples, representing 18.521 firms) that analyses the associations between HR-enhancing practices and SME performance. The samples they reviewed had fewer than 500 employees, following the framework of Subramony (2009), itself based on other models, namely the AMO framework initiated by Appelbaum et al. (2000). Rauch and Hatak (2016) classified the HR-enhancing practices into three groups: practices that aim to enhance skills, motivation, and empowerment.¹⁴ The meta-analysis performed found that HR-enhancing practices are important to SME performance. Their results point to empowerment-enhancing HR practices (e.g., employee participation and involvement in decision-making regarding several aspects, including work process and outcomes) being especially important in SME. They also identified several moderators that lead to considering a contingency approach as adequate for SME. As examples, these authors found that enhancing motivation practices, such as incentive and reward, are suitable for young firms (as a means of attracting employees). Firm size is also a moderator indicating that, in small firms, the skill-enhancing HRM practices have a larger impact than in medium-sized firms. They also mention that HRM practices are especially useful in countries with rigid retention legislation since, with these practices, they can develop their employees, if it is too hard to dismiss them.

Firm size in general is an important variable when it comes to studying HRM practices and performance. Size defines work settings that challenge SME (Cardon & Stevens, 2004). Due to time compression, smaller firms with fewer resources require a more intensive workload than do large firms (Jaouen & Tessier, 2009; Patel & Cardon, 2010). Employees need to be more polyvalent, dealing with different tasks and roles, as this kind of firm often has difficulty attracting and retaining talented employees (Rauch & Hatak, 2016), a problem that hinders productivity (Way, 2002).

¹⁴ The titles Subramony (2009) gave to the three groups and the HRM practices they represent are the same as the original, in which the acronym "AMO" in the framework stands for ability, motivation and opportunity (Appelbaum et al., 2000; Boxall & Purcell, 2000; Gerhart, 2007; Jiang et al., 2012). These are three bundles of HRM practices that enable employee to have their best performance (Meuer, 2017).

Wiesner, McDonald, and Banham (2007) studied 1435 firms (with 20 to 200 employees) in Australia, thus contributing to research relating HRM practices with performance in SME in that country. They found that there is a significant relationship between firm size and the adoption of HRM practices: the bigger the firm, more HRM practices are adopted. However and very important to notice, Rauch & Hatak (2016) found in their meta-analysis no statistical differences between SME and large firms regarding the overall impact of HRM practices on firm performance.

Despite the configurational approach to strategic HRM potential and pertinence (e.g., Short et al., 2008), configurational studies are rare and even rarer in SME. When we restricted our review to the study of HRM practices-performance link, it was hard to find empirical studies. After the systematic literature review in 22 top rated journals of the last 10 years, as described in the prior section, only Bello-Pintado's (2015) fulfilled those criteria. With the snowball method, we were able to find some interesting studies using the configurational approach on this topic in smaller sized firms. There are some main issues and interesting results to highlight.

The clusters found in configurational studies are all different from each other, unless they depart from a conceptual typology, such as the AMO framework, and test for statistical support of the same outcome clusters (Bello-Pintado, 2015; Rauch & Hatak, 2016).

In the meta-analyses, opportunity-enhancing practices (also called empowerment-enhancing practices; Rauch & Hatak, 2016) frequently seem valuable in SME. In the Uruguayan context, motivation-enhancing HRM practices bundles were the ones that had statistically significant results regarding performance. Enhancing skills and opportunity-enhancing practices only had a positive impact when motivation-enhancing practices were also present (Bello-Pintado, 2015). These results enable the notion of hierarchy among HRM practices bundles, on the one hand, and suggest they may be contingent on the context, on the other. Moreover, such relationships demonstrate the challenge of HRM practitioners as mentioned by Meuer (2017): the need for each firm to understand which are the HRM practices bundles most suitable to their particular needs.

In a Canadian sample of SMEs (Fabi, Raymond, & Lacoursière, 2007), five clusters emerged (information, integration, compensation (except bonuses), employee consultation and training) when investigating HRM practices' relation to performance. Each cluster relates to different outcomes: employee retention with information sharing and compensation; innovation with the consultation of employees; and growth with job descriptions, recruitment

and performance appraisal. None of the five clusters relates to the return on assets (net income/total assets).

In a German study (Hauff, Alewell, & Hansen, 2014), scholars sought to learn whether there are control and commitment HRM systems, and what might be their impact on performance. Based on seven types of HRM practices, they found four clusters: high-control system, long-term-oriented control system, high-commitment system and regulated-commitment system. Specific HRM bundles relate to firms with different features, which may be explained by their contexts (internal and external), and the choice of the most suitable HRM practices for each context. Each HRM bundle also connects to different performance indicators, but in general, high-commitment oriented systems have better results than the high-control oriented system in most salient dimensions. Empirical data did not show differences between the two “commitment systems” association clusters with HR outcomes nor with other performance measures. This result is coherent with the equifinality characteristic of configurations (e.g., Short et al., 2008). As Hauff et al. (2014) observe, “there is not only one best way of managing human resources” (p. 439).

Some of the literature using the configurational approach only relate HRM practices to contextual variables. One of the studies (Lacoursière, Fabi, & Raymond, 2008) aimed to research the connection of HRM practices configurations to environmental, technological and organisational contexts, while another (Innes & Wiesner, 2012) examined only organisational factors. Lacoursière et al. (2008) found three clusters (traditional low-commitment system, functional high-commitment system and strategic high-commitment system) among Canadian manufacturing industries. Their findings indicated that less sophisticated HRM systems happened in firms more commercially dependent on their customers and that used less sophisticated manufacturing technology. They also occurred when the owner was less qualified, and in smaller sized firms.

Innes and Wiesner (2012) analysed 110 HRM practices in firms from 10 to 100 employees, and from 101 to 200 employees. They found 14 clusters concerning the five HR functions: recruitment (2), selection (5), training and development (1), performance appraisal (3) and compensation (3). Contextual factors, again, were emphasised in the HRM practices clusters identified: each firm uses a different set of HRM practices. They are used as they are needed. The same happens with formalisation; it does not need to be formalised to exist. The authors concluded, regarding each HR function, that there is much variability. More HRM practices do not mean necessarily better performance for all firms. Small sized firms have more problems implementing HRM practices, as they generally lack HR professionals.

Within the SME type of firm, there are different sizes and characteristics. One of the factors contributing to fuzzy information on HRM practices in smaller firms and the difficulty in generalising research results are differences in the definitions of micro, small and medium-sized firms: they vary across countries, regions and studies in the OECD (Pearson et al., 2006).

Pursuing the idea of different sizes in SME, Torrès (2015) deepened the analysis of the law of proximity of Abraham Moles and E. Rohmer, applied to small and very small businesses, building upon the Boislandelle (1996) concept of “enlargement effect.” This effect is a phenomenon that happens in small firms: the smaller the organisation, the larger the problem looks and, as well, impact it has (Torrès, 2015). Jaouen and Tessier (2009) expand on this, noting that a decision with only operational impact in a bigger firm, in a smaller company, could become strategic.

Jaouen and Tessier (2009) studied five very small French firms (up to 20 workers) to try to find the main organisational variables that impact HRM practices, which may lead to a positive restructuring of firms. They addressed the HRM practices based on one of the five HRM configurations proposed by Pichault and Nizet (2000): the arbitrary model. Regarding HRM practices, they found that firms with skilled workers were more likely to adopt HRM practices because these workers were harder to replace; the presence of an HR specialist or owner’s superior awareness of HRM relates to more sophisticated HRM practices.

Literature focusing on personnel matters or HRM practices in particular in micro-firms is rare (Pearson et al., 2006). We cannot always find the reason for that. Some scholars studying SMEs, informed on the motive of their sample (higher than 10 or 20 employees) saying that there is not an organisational structure (e.g., Innes & Wiesner, 2012), or just selecting SMEs above ten employees without a justification (e.g., Messersmith & Wales, 2013). Pearson and colleagues’ (2006) study aimed to find differences between micro (1–9 employees) and small firms (10–250 employees). Their findings point to little difference between micro- and small firms regarding time devoted to personnel activities, experience and education of people in charge of HR activities. Another interesting result is that HR personnel operating in the field show higher technical sophistication and experience than expected. Scholars also refer to micro-firms as performing as young SMEs independently of their age (Rauch & Hatak, 2016).

Based on the research presented, the general main findings on the HRM practices relation to firm performance in SME are: (a) in the last decade there was an increase in interest and publication of studies relating HRM practices to performance in smaller firms’, namely, SMEs; (b) HRM practices studied in SME is based on large firms lists of practices; (c) to

measure the HRM practices, scholars generally use an additive single index, as prescribed by the universalistic and contingency perspectives; (d) there are few configurational studies in SMEs; (e) among the few studies found, the clusters that result from the configurational approach are all different from each other, except when they originally depart from a known configuration (as the AMO framework); (f) the equifinality characteristic of the clusters, that is of the result of different sets of HRM practices, occurs as expected; (g) Rauch and Hatak's (2016) meta-analysis revealed that empowerment-enhancing practices (such as employee participation) are particularly important in SME, while in an Uruguayan study, Bello-Pintado (2015), found that motivation-enhancing practices are the most prevalent, which draws attention to the importance of the context; and (h) several contingencies were found regarding the HRM practices adoption: size of the firm, geographical region, economic sector, and qualification of the owner.

1.1.3. Human Resources Management Practices in the Portuguese context and in its SMEs

The contextual perspective in the HRM literature reminds that the HRM studies were developed based on the American management theories (Cabral-Cardoso, 2004). Brewster (1995) has been discussing the need to adjust the American model to the European context, namely referring to the cultural, legal and institutional differences. In the European environment employers have less autonomy, group seems to be more important than the individual, as well as employees comparing to managers, the institutional labour partners play a different role, and the national governments have more interference in the business arena, which also influences HRM and its practices (Cabral-Cardoso, 2004). Claus (2003) states that there are still high cultural differences among north/south and east/west countries. Which is not difficult to understand when looking at Ronen and Shenkar (1985) study. These authors reviewed eight empirical studies and clustered most of the non-communist countries in the world regarding attitudinal dimensions. The European countries studied were placed in five different clusters: Nordic, Germanic, Anglo, Latin European, and Near Eastern. Portugal is among the Latin European countries. Even though there are communalities among European countries, the European Union did not influence the confluence of labour laws (Claus, 2003). The opening of the national markets to the other European countries enabled the presence of more international firms, which will probably influence the assimilation and synchronisation of HRM practices at the European level (Claus, 2003). But still, the European firms and

countries are used to function in a polycentric way, and it is not easy to characterise the European HRM model due to the intra-region diversity (Claus, 2003).

There are some studies regarding the state of the art of HRM in Portugal (Cabral-Cardoso, 2004; Cunha, 2005; Melo & Machado, 2013; Neves, 2007).

Neves (2007) analysed the topics debated in the APG (Portuguese Association of Managing People)¹⁵ meetings from 1967 to 1999 and identified the changes in the Portuguese HRM in three main periods: the 1970s in which the topics discussed in these meeting were related to the social classes conflicts. In the 1980s the debate among HR professionals were related to modernization and competitiveness, which was due to the Portuguese entrance in the European Economic Community. The last reported period reflects the increasing competitiveness and globalisation, began in the final 1980s and went through the rest of the studied period (until 1999). It is being prepared another study that is wider in its scope that will comprehend not only the subjects of the APG meetings, that occurred during the last 50 years in Portugal, but also 30 years of research in the field, which will try to define the major land marks of the evolution and establishment of the HRM usages in Portugal (Neves & Gonçalves, 2017).

Cabral-Cardoso (2004) found that the Portuguese firms generally use the HRM title, referring to the HR function. The results of the study show that the HR function in Portugal seems to perform a specialist role, rather than the widespread function among the line managers. This may have been due to the necessity of declaring their presence and to gain credibility in the firm (Cabral-Cardoso, 2004). A following study in the field acknowledge that the academic training and graduation related to HRM that emerged in the 1990s helped to overcome this credibility issue, along with the more specific preparation to deal with the problems concerning the HR function (Melo & Machado, 2013).

In Portugal, there are several recent examples, in different settings and samples that HRM practices have an impact on different organisational outcomes. Chambel (2015) found that HRM practices have produced a positive effect on 953 temporary agency workers (in the industry sector and call centres) regarding affective commitment and involvement. Lopes, Sobral and Chambel (2012) studied permanent (N=730) and temporary workers (N=291) from three Portuguese companies (from the industrial sector, and call centre), and also, the HRM practices played a role in the affective commitment of the employees. This relation was mediated by the perception of the fulfilment of psychological contract, that is: HRM practices,

¹⁵ From the original *Associação Portuguesa de Gestão das Pessoas*.

namely the retribution and training practices contributed to the perception of the accomplishment of the psychological contract, which, in turn increased the affective involvement of employees, regardless of their type of contract.

Esteves (2008) performed several studies qualitative and quantitative in eight banks, getting data from employees' in several hierarchical positions (N=514). In this research project high performance work practices seem to influence employees' affective commitment, who in turn, present productive and extra-role behaviours, favouring the organisations results. The author also found some small, but significant differences between HRM practices among banks, leading to think that some of them may be improving their competitive advantage through their people management policies and practices.

Cesário and Chambel (2017) found that commitment and work engagement have a positive relation to firm performance, measured based on the performance appraisals rated by the supervisors, in a sample of 274 employees in Portuguese firms. The work engagement was the best predictor of employee performance. The authors point to the importance of providing suitable work conditions, and engaging in HR practices to enable employees to use their best efforts on their work.

The only study that we found using objective firm performance results in Portugal was performed by Pires and Nunes (2015). The authors studied a sample of 525 individuals from 22 stores with the objective of investigating the relationship of HRM practices perceptions, organisational internal context¹⁶, and performance (subjective and objective measures gathered at the store level). Most hypothesis were not met. The associations they found were between organizational integrity, and HRM results; and between organizational performance and market performance.

There are some studies which characterise the HRM practices in specific sectors, such as the banking sector (Esteves, 2008), the police organisations (Gonçalves & Neves, 2013), the hotel industry (Passos, Madureira, & Esteves, 2014), and the insurance sector (Mota & Cordeiro, 2015).

To search for studies regarding the Portuguese SMEs on the HRM practices usage we used the RCAAP (Scientific Repository of Open Access of Portugal)¹⁷. We searched with the expression *Gestão de Recursos Humanos*, and selected the PhD thesis published in the last 10

¹⁶ HRM results: service oriented organizational citizenship behaviours, organisational virtuosity, service climate, quality of products and services, capability to attract and retain key personnel to the activity, customer satisfaction and relations between management and the remaining employees.

¹⁷ From the original *Repositórios Científicos de Acesso Aberto de Portugal*.

years. From the initial 39, we disregarded the repetitions (n=1) and analysed only the ones that referred to Portuguese context, with the final number of 29. Many of the studies took place in SMEs, but also included larger firms, and/or didn't focus on the SMEs sector and their HRM practices characterisation, only three completed this criteria (Almeida, 2009; Melo, 2015; Veloso, 2008). Specifically, Almeida (2009) and Melo (2015) focused on the characterisation of the SMEs practices in several economic sectors, and Veloso (2008) besides the characterisation of the practices also studied its relation to performance.

Almeida (2009) performed a study which aimed to identify and characterise the HRM practices, and the factors that contributed to the choices of the studied organisations in this field. The author collected data from 35 HR managers of SME with 28 up to 217 employees, of two industry sectors: metalworking (17 firms) and textile (18 firms). With data from the structured interviews, findings indicated that the SME use recruitment, selection, training, performance evaluation, career progression, rewards and incentives as means of managing their employees (Almeida, 2009). These practices are performed mainly in an informal way, and is not centralized in a specific department, the HR function is scattered among different organisational actors. The qualification of the managers across the organisational, namely the middle managers increase the HRM practices usage and it's sophistication (Almeida, 2009). With the organisational growth the hierarchical levels increase, which also leads to an intensification of the HRM practices usage. The increase of the HRM practices usage also increases the probability of errors adopting/using those practices, therefore, better qualified managers helps to overcome this problems. Almeida (2009) also found that there are direct and indirect organisational factors that are associated and favour the level of sophistication of the HRM practices usage. The indirect organisational factors are the economic sector, the quality certification; and the qualification of the top managers. The factors that have a direct effect on the level of sophistication of the HRM practices usage are the qualification of the managers in the hierarchy and the number of hierarchical levels. The indirect factors act upon the second group of factors that, in turn have a direct impact on the level of sophistication of the HRM practices usage in the SMEs.

One of the studies performed by Melo (2015) in 185 SMEs show that there is a set of organisational dimensions that favour structured and formal HRM practices: organisational communication, career management, organisational flexibility, management style, organisational structure, planning and strategy and organisational culture. Other studies performed by the same authors (Melo & Machado, 2013, 2015) aimed to understand the type of organisation, strategy, and it's relation to the HRM practices used in the Portuguese SME.

When talking about the Portuguese business setting, we are mainly referring to SME, at the time of the study, there were 97.2% of SMEs (Melo & Machado, 2013). These authors' study aimed to identify HRM policies and practices in the Portuguese SMEs, to validate if there was a relationship between HRM and strategy, and to measure the usage level of HRM in SMEs. They gathered a sample of 50 firms, 72% (n=36) of which are SME, only one with fewer than 10 employees (Melo & Machado, 2013, 2015). The results show that the Portuguese HR managers say that people are not taken into account regarding the long-run planning, at least not as much as technology and capital. The HRM practices seem to be valued by the HR managers, but they are neither strategic, nor fully employed. The most used and sophisticated practices are recruitment, selection and training. The other practices seem to be performed informally. Despite the answer to the survey pointing towards the HRM practices being entangled with the general business strategy, the comprehensive data analysis reveals the contrary (Melo & Machado, 2013, 2015).

Veloso (2008) study aimed to research the relation between the HRM and organisational performance, and to understand which processes of the people management have an impact on organisational performance. The author performed a qualitative study in four technological SMEs (software production and consultancy, national and multinational origins). The main finding of the study is that the implementation process of the HRM practices is one of the critical factors that underpin the impact of HRM (Veloso, 2008). The author found that an incremental process of implementation of the HRM practices, that is as a response to the organisational need, is more effective than an imported program, implemented in an abrupt way, as for example happens in multinational branches. Veloso (2008) findings show that the sophistication of the HRM practices and its formalisation is due to the number of employees, however, that is not the main factor for the HRM practices impact on performance. The author refers that, time allows the organisation to have feedback on the impact its HRM practices and to assimilate the information that will help to build the HRM system. The impact comes both from the employees' perception on the practices consistency with the organisational strategy; and the practices consistency in-between them, reinforcing each other, or, on the contrary, giving contradictory messages, confusing them into what is the behaviour to adopt (Veloso, 2008). The impact of these inconsistencies may not be seen directly on the organisational performance (the organisations under study all increased sales in the last years) but it has a negative impact on the employees involvement, on work satisfaction; it also has a negative impact on the perception of their own organisational role, on conflict management, which, in the whole, makes a more or less involved labour force, and

that, in turn has an impact on the organisational productivity (Veloso & Keating, 2008; Veloso, 2008).

The empirical studies regarding the HRM practices effects on firm performance outcomes in the Portuguese context reveal that the findings are, in general, consistent with the international setting, and that they generally on focus on the affective commitment as performance outcomes. The economic activity sector seems to be an important issue, and has produced specific studies.

The studies on HRM practices characterisation and relation to performance on SMEs in the Portuguese context mainly revealed that (a) most practices are informal (e.g., Almeida, 2009; Melo & Machado, 2015), (b) different frequent practices are reported, using different samples (e.g., Almeida, 2009; Melo & Machado, 2013), (c) there are different organisational factors that favour the HRM practices usage, as the level of qualification of the managers in the organisational structure (Almeida, 2009), and the organisational structure (Almeida, 2009) and size (e.g., Veloso, 2008), and (d) HRM practices have a better impact if they are developed on a need basis, with employees involvement, and consistent among them (Veloso, 2008). These studies bring some structured and important information to the SME study, namely in the Portuguese context. However, being that micro-firms, are the most common type of SME, none of these studies focused or acknowledge them in the samples, results or discussion.

1.2. Organisational Factors and Resources

Among the three main types of features responsible for firms' market success (macroeconomic context, industry and organisational factors), the literature refers to the organisational as the best ones to describe business performance and growth (Baum et al., 2001; Davidsson et al., 2005; Dobbs & Hamilton, 2007). According to the resource-based view of the firm perspective, it is not the mere existence of diverse resources that enables good firm performance (Barney, 1991). A firm can achieve sustainable and competitive advantage if it manages those resources in a way that is value-creating and difficult to copy by competitors (Barney, 1991; Gupta & Basu, 2014).

Within a firm's resources, there are two categories: the tangible and the intangible (Zahra, 1991). Tangible resources relate to financial assets and formal organisational structure (firm age, number of employees). Intangible resources include organisational culture, know-how and human resources, among others (Zahra, 1991). Firms' intangible resources are becoming essential to firms' performance and growth, due to contemporary and evolving

economic setting characteristics: innovation-driven, value creation importance and global competition. Thus, in this context, firm performance and growth largely depend on the type of resources and capabilities that can generate specific and distinguished strategies that lead to business success. However, strategies that are successful in one business may not be adequate for another (Dobbs & Hamilton, 2007; Gupta & Basu, 2014).

In this project, we focus on the intangible organisational factors that affect micro-firms' performance in Portugal. The methodological design of the research project controls for the context: macroeconomic and sectoral characteristics mentioned in the literature that influence small business growth (Wiklund et al., 2009), and HRM practices (Almeida, 2009; Marques, 2010; Rauch & Hatak, 2016),¹⁸ as well as tangible features (Zahra, 1991) of the firms.¹⁹ The financial assets of the firms can be different, but not very different because they are in the same national context, in the same market and thus exposed to the same rules, taxation and labour market legislation (Davidsson et al., 2005). These firms, being very small (up to 10 workers), are very similar in structure. The question of providing enough capital for them to expand was found to be insufficient in explaining their small size. To grow it is of great importance to consider as well motivational issues (Davidsson et al., 2005).

There are other internal factors associated with HRM practices that contribute to firm performance: owner profile, entrepreneurial orientation, small business orientation and group culture. These are the organisational factors that we explore in this thesis to enlighten the HRM practices-performance link in micro-firms.

1.2.1. Firm Owner Characteristics

The entrepreneurship process is due to three main types of elements: (a) economical, technological and sociological (macro); (b) competitors, entrepreneurship team, relations with investors, clients and suppliers (meso); and (c) entrepreneur's characteristics, competencies, knowledge, motivations and experience (micro) (Caetano, Santos, & Costa, 2012). Therefore, researchers from different academic disciplines focus on different issues. Research from a psychological perspective concentrates on the individuals within the firms, namely the manager-related variables (traits, motivation), whereas research in economics focuses on the

¹⁸ The control of the context involves the restricted scope of the sample selection: the same business sector-services; and specific industry - firms that sell and do consultancy work implementing ERPs in other firms, they are competitors among themselves.

¹⁹ The control of the tangible features entail firm age and number of employees (up to 10).

firm and its structure (e.g., “firm age, size, industry sector/markets, legal form, location and ownership”; Andersson & Tell, 2009, p. 587). The result is miscellaneous literature referring to different factors’ importance to firm growth.

The individual can only manage the micro elements of the entrepreneurial process (him/her-self), and, to some extent, also the meso elements, because it is he/she who interacts with the social actors that enable the firm. Therefore, entrepreneurship is essentially a personal process since the individual is the decision-making agent and the performing actor in the following procedures to launch a venture (Baum, Frese, Baron, & Katz, 2007; Caetano et al., 2012). The importance of the individual in the entrepreneurial process is such that five meta-analyses (e.g., Rauch & Frese, 2007; Stewart & Roth, 2001) and a study reviewing those meta-analyses (Brandstätter, 2011) were performed on this topic.

Personality traits’ role in entrepreneurship has a very controversial history in the literature, rooted on the scepticism of the strength of their relation (Rauch & Frese, 2007). In their meta-analysis, Rauch and Frese (2007) highlighted the importance of the topic and put back entrepreneurs’ characteristics into their review of entrepreneurship-related studies. The relationships between entrepreneurs’ characteristics and firms’ performance found were, generally, moderate in size. Hence, the authors called for finding mediating and moderating variables to enhance the owners’ characteristics’ effect on business success (Rauch & Frese, 2007). A global analysis of five meta-analytic studies (Brandstätter, 2011) points towards the importance of entrepreneurs’ characteristics, namely when compared to managers, predicting entrepreneurial endeavour and performance.

Andersson and Tell (2009) reviewed the theoretical and empirical academic papers that explored the relationship between the manager and growth in small firms, published between 1980 and 2006. They classified the 113 articles into three main categories: managerial traits and characteristics, managerial intentions and managerial behaviour or roles. An owner’s human capital was one of the owner characteristics measured. The theory of human capital refers to it as “consisting of the education, experiences, and skills at a given point in time that help in the tasks of getting one’s work done” (Rauch et al., 2005, p. 683). Managerial intentions consist of “managerial motivation regarding growth, made explicit and put into action” (Andersson & Tell, 2009, p. 590). It is said to be of key importance to actual growth.

The third factor that Andersson and Tell (2009) found influencing small firm growth was managerial behaviour or roles. Studies that contributed to this category included: focus on planning and a view that the manager is good at administrative routines; the manager is

creative and innovative; the orientation of the companies (external orientation such as strategic alliances and relationships with suppliers, and internal orientation such as employee empowerment practices); personal networking; strategic management; the management of culture and vision and decision comprehensiveness.

Much of the research is related to defining the entrepreneur's characteristics, that is, what differentiates them from non-entrepreneurs. It is necessary to have a strong and directed entrepreneurial intention, autonomy and profit ambition, in other words *entrepreneurial motivation* to create/run a business, even a small business (Baum et al., 2001; Brandstätter, 2011; Caetano et al., 2012). Moreover, specific competencies such as psychological, social, management and risk-taking willingness are also required. *Psychological competencies* are the general abilities to manage emotions and relations with others, innovation capabilities, and resilience. *Social Competencies* refer to abilities in communication, persuasion and establishing social networks. *Management competencies* regard basic and transversal abilities for mobilising others and resources, as well as self-efficacy (Baum et al., 2001; Caetano et al., 2012). Risk-taking is also recognised as a characteristic that distinguishes entrepreneurs and small business owners from managers (Brandstätter, 2011; Stewart & Roth, 2001).

In simple organisational structures, due to the firm's scale, the firm owner is the central figure in the firm, and organisational life circles around him/her (e.g., Jaouen & Lasch, 2015; Mintzberg, 1980). Furthermore, HRM practices are different among firms due to the personality and leadership style of the owner (Lacoursière et al., 2008).

There is a conceptual overlap between the concepts of *entrepreneur* and *small business owner* that Carland, Hoy, Boulton, and Carland (1984) clarified in a restricted manner. The authors established the difference based on the individual purposes for the business (profit and growth *versus* personal goals) and managerial styles (innovative and strategic *versus* a personal style aiming to fulfill his/her family's needs/desires). A broader definition, which is largely acknowledged and used in entrepreneurship research, stands on two basic criteria: being independently owned and the owner being an active manager (Stewart & Roth, 2001).

Considering the role of the individual in venture development, namely, in micro-firms, we find it important to characterise the business owner's individual and entrepreneurial features.

1.2.2. Managerial Strategy: Entrepreneurial Orientation and Small Business Orientation

Strategy, being a resource management choice of the business owner, is considered by many in academia to be a primary factor in the business growth process (Baum et al., 2001; Davidsson et al., 2005; Wiklund et al., 2009; Zahra, 1991). Given their linkage to firm growth, strategy and resources management have been considered a backbone of small business expansion (Davidsson et al., 2005; Wiklund et al., 2009).

Entrepreneurial orientation (EO) is the operationalisation of strategy in the Wiklund et al. (2009) integrative model of small business growth. EO is the same as *entrepreneurial management* (Stevenson & Jarillo, 1990), and is at the core of entrepreneurial strategy-making (Lumpkin & Dess, 1996). EO is a construct first introduced by Miller (1983). It suggests that an entrepreneur's/firm owner's psychological traits and behaviours relate to their business performance, in such areas as decision-making styles, methods and practices. Someone with entrepreneurial orientation is described by the author as "one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with 'proactive' innovations, beating competitors to the punch" (Miller, 1983, p. 771).

There are three dimensions most commonly used in this connection. Rauch, Wiklund, Lumpkin, and Frese (2009), in a meta-analysis, did not find statistically significant differences between EO and business performances in studies across countries and continents. This suggests this model is a valid measure to use internationally (Rauch et al., 2009). There are some studies in Portugal using the same construct and measure (e.g., Monteiro da Silva et al., 2009; Rodrigues & Raposo, 2011), and results support their robustness. The three dimensions are innovation, risk-taking and proactiveness (Miller, 1983). *Innovation* reflects a firm's tendency to seek out and support new ideas with outcomes such as new products, services or technological processes. *Risk-taking* refers to venturesome activities such as attempting new, unproved projects/environments that may involve large commitments (i.e., debt, resources) or other actions that, if not successful, could have big and negative consequences. *Proactiveness* is action related to the initiative; namely, being the first in a market and seeking business opportunities others have not yet considered. Two other dimensions were added by Lumpkin and Dess (1996): competitive aggressiveness and autonomy. However, these are not as widely used, and rarely are mentioned in the literature.

EO has a positive influence on a firm's growth and performance, and has been considered as a key factor in many studies (e.g., Kraus, Rigtering, Hughes, & Hosman, 2012; Rauch et al., 2009; Wiklund et al., 2009; Wiklund & Shephard, 2005).

Given that most business owners are not entrepreneurs (Davidsson, Steffens, & Fitzsimmons, 2009), as referred earlier, there is a theoretical overlay between these concepts (Carland et al., 1984). According to Carland et al. (1984) and Runyan, Droge, and Swinney (2008), small business owners are focussed on short-term goals, are more emotionally attached to their business, run their businesses as an extension of their personality, and mostly pursue personal, as opposed to commercial or business-driven goals. A review of the literature (Stewart & Roth, 2001; Stewart, Watson, Carland, & Carland, 1998) shows that many small business owners are more small business-oriented (SBO) than entrepreneurship-oriented (EO).

Usually, EO and SBO are conceived and studied as a continuum of the same axis: an EO low score is regarded as a high SBO (e.g., Stewart et al., 1998). These constructs are not separated, so their effects on performance cannot be analysed independently. Following this research path, Runyan and colleagues (2008) created and validated an SBO scale, highlighting two dimensions: business purposes and goals and emotional link to the firm. *Business purposes and goals* bring up an owner's personal goals and their relation to their firms. *Emotional link to the firm* sheds light on the owner's attachment to the company.

The environment is a contextual factor which explains entrepreneurship, acknowledging that "environmental forces might moderate the effects of individuals and opportunities" (Shane & Venkataraman, 2001, p. 14). The "environmental effects on EO and the EO-performance relationship have long been considered" (Covin & Lumpkin, 2011, p. 865), and are the basis of EO research.

Covin and Slevin (1989b) found that EO has a positive impact on firm performance in more hostile environments, and that a more conservative strategic posture would have a better effect in a more benign environment. The same authors also said that there is no objective way to define the limit of more benign/hostile environments and that "it must be recognised that these results may have been influenced by this imprecise methodological decision" (Covin & Slevin, 1989b, p. 84). The characterisation of the environment as hostile/benign only explained 20% of variance in performance, which led Covin & Slevin (1989b) to suggest that other organisational context variables, such as organisational culture and industry may explain better the small firms performance results. Even not specifically measured, the environment has a big impact on performance.

There is a positive effect of EO on performance in turbulent environments, which was not found in stable contexts (Covin & Slevin, 1989a). Contrary to these findings, a recent meta-analysis revealed that there is a connection between EO and business performance “of similar magnitude in different cultural contexts” (Rauch et al., 2009, p. 779). Thus, it is necessary to analyse the context in which EO performs to better understand the behaviour of the construct.

In a recently published study regarding Dutch firms working in an economic crises context, Kraus and colleagues (2012) found that EO dimensions were related to firm performance in different ways: Innovation and proactiveness had a positive impact on firm performance, but risk-taking was negatively related to performance. In this line of results, another study on SMEs in India points to the fact that “individual dimensions of SO [Strategic Orientation] construct have a unique, distinct and independent relationship with SMEs growth” (Gupta & Basu, 2014, p. 472). These findings introduce the finer-grained analysis of strategy, shedding light on the importance of flexibility about which strategic option to take, more entrepreneurial or more conservative, that is to say, which specific dimensions are adequate to follow, considering the firm’s specific situation or stage of development (Gupta & Basu, 2014). The alignment between manager and his/her behaviour in the micro-firms context goes beyond personality-related characteristics’ and is also expressed through their management style (Lacoursière et al., 2008; Mills & Pawson, 2012).

Entrepreneurial orientation is considered an important HRM related construct, namely in the SME context (Rauch & Hatak, 2016). Entrepreneurial orientation is a set of strategic practices and managerial philosophies that guide firm behaviour, and is known to be a good predictor of firm performance (e.g., Unger et al., 2011).

In the conceptual and empirical work that explores the link between EO and firm performance, HRM practices have a moderator role (Dabic et al., 2011; Messersmith & Wales, 2013; Patel & Cardon, 2010; Unger et al., 2011). EO studies point to a positive association between a higher level of HRM practices usage with a more entrepreneurial attitude.

Considering that EO and SBO are management options of the limited resources of micro-firms, they are an important internal organisational factor that influences HRM practices; and considering the previous presented findings, it is important to include the study of the entrepreneurial and small business orientations in this thesis.

1.2.3. Corporate Culture

Corporate culture is another internal organisational factor associated with performance and HRM practices. There still is not a consensus on organisational culture theoretical definition, creation, development or on preservation (Hartnell, Ou, & Kinicki, 2011; Neves, 2000). Culture can be considered a set of assumptions, which were developed by a group of people, while coping with external adaptation and internal integration problems (Neves, 2000; Schein, 1990). This way of behaving and dealing with reality and issues that come along in organisational life is considered the valid way to understand, think, feel and act, and therefore is passed to new members as correct. A short way to define culture is *the way we do things around here* (Schein, 1999). Organisational cultures formation comes from the history of the group, which means that a culture needs sufficient time to elapse and for events to occur for a common history to emerge (Neves, 2000; Schein, 1990). Thus, a firm with high turnover levels or which is still young probably has not sufficient background to define its culture. Schein (1990, 1999) and Neves (2000) regard culture as a multilevel and complex concept that includes external and internal relations and which, to be understood, needs to be analysed at all levels: (a) artefacts, (b) values and (c) basic underlying assumptions. Culture is the structure and the control system that lead to certain behaviours, and that is also why culture is often mentioned as the key to success.

Culture is dynamically stable. The members of an organisation try to maintain it, as culture provides meaning, security and predictability to their lives. To modify culture means to interfere with one of the most stable domains of an organisation (Schein, 1999). Literature and practitioners recognise culture as an important organisational factor, which contributes to efficiency and performance (Lee & Yu, 2004; Neves, 2000; Neves, Caetano, & Ferreira, 2011). As organisational culture is a set of shared values, it influences the behaviour of its members, as it encourages them to act according to its values (Hartnell et al., 2011). This relationship between culture and behaviour is the theoretical basis for the claim that culture influences effectiveness.

There are quantitative and qualitative approaches to analysing corporate culture. Scholars whose interest is to describe and explain the organisational dynamics use qualitative approaches to culture (Neves, 2000). They use methods such as participant observation and interviews, enable the analysis of behaviours in detail and understanding of their meanings in light of underlying values and beliefs (Jung et al., 2009; Neves, 2000; Schein, 1990). When the aim is to control the organisational phenomena, and in the practical implications, it is better

to perform a quantitative approach to studying culture (Neves, 2000). Researchers often use self-report questionnaires. The quantitative approach is an effective means of data administration and analysis (Jung et al., 2009). It enables comparative studies among organisations, and the use of causal models in research (Neves, 2000), and allows statistical verification of the variables that influence culture and how they relate to organisational results, thus improving our knowledge of the phenomenon (Hartnell et al., 2011).

Several empirical studies of both qualitative and quantitative nature present different typologies of the content of the organisational culture. One of the problems with the diversity of typologies is that dimensions relate to their theoretical models, that is, they are not autonomously intelligible. Moreover, there is no way to know which or how many dimensions are appropriate to characterise the culture. To overcome this methodological issue, researchers should select their approach based on the objectives of the study they are performing. That is, the methodological approach used to study a culture is contingent on the objectives to be pursued (Neves et al., 2011). Since the use of quantitative methods validates the relationship between culture and organisational effectiveness, it reinforces the relevance of performing quantitative studies on culture as an important organisational variable (Hartnell et al., 2011).

From the various theories and typologies of culture analysis found in the literature (and as mentioned earlier), we used in this project the Competing Values Framework (CVF), conceptualised by Quinn and Rohrbaugh (1983). This model was pointed out as one of the 40 most important models in the history of management (Have et al., 2003). It has been widely used in organisational research, namely when researchers have endeavoured to relate organisational culture to performance (Gregory, Harris, Armenakis, & Shook, 2009).

The CVF seems to be an adequate method to apprehend the paradoxical and sometimes unreasonable nature of organisational dynamics, which includes thinking and acting in a contradictory, integrated and functionally effective way (Neves, 2000). The model has three dimensions of organisational effectiveness: structure, focus and means/ends (Quinn & Rohrbaugh, 1983). The structure, is the dimension with a continuum ranging from flexibility/change to stability/control. The focus dimension oscillates between the internal orientation/for people and processes, and external/market orientation. The means/ends dimension refers to the processes (e.g., cohesion, morale) and to the final outputs of organisational effectiveness (e.g., HR development). These three dimensions are represented as two orthogonal axes: vertical (structure), horizontal (focus), and transversal, non-visible means/ends (Cameron & Quinn, 2011; Quinn & Rohrbaugh, 1983).

The overlap of these two axes establishes a spatial model with four quadrants that represent the typology of organisational culture: *Clan*, *Adhocracy*, *Hierarchy*, and *Market*. There are several characterisation dimensions of each type of culture. The name of each of the quadrants emerged from an analysis of the literature that demonstrated that, over time, different values were associated with different organisational forms. That is what the third dimension, an invisible axis, stands for as the theoretical organisational models implicit in each quadrant: human relations model, open systems model, rational objectives model and internal process model (Cameron & Quinn, 2011; see Figure 1).

Clan culture, also known as *Group* culture (e.g., Gregory et al., 2009) is characterised by flexibility and inward orientation of the company to people. The values of openness, trust and the group are highly valued. Decision-making is shared, and there is cohesion and great support among colleagues. The management practices that reinforce these behaviours are the empowerment, mentoring and valorisation of group work. The Human Relations organisational model is the basis of clan culture typology; it emphasises cohesion (means) as well as the development of collaborators (ends) (Quinn & Rohrbaugh, 1983).

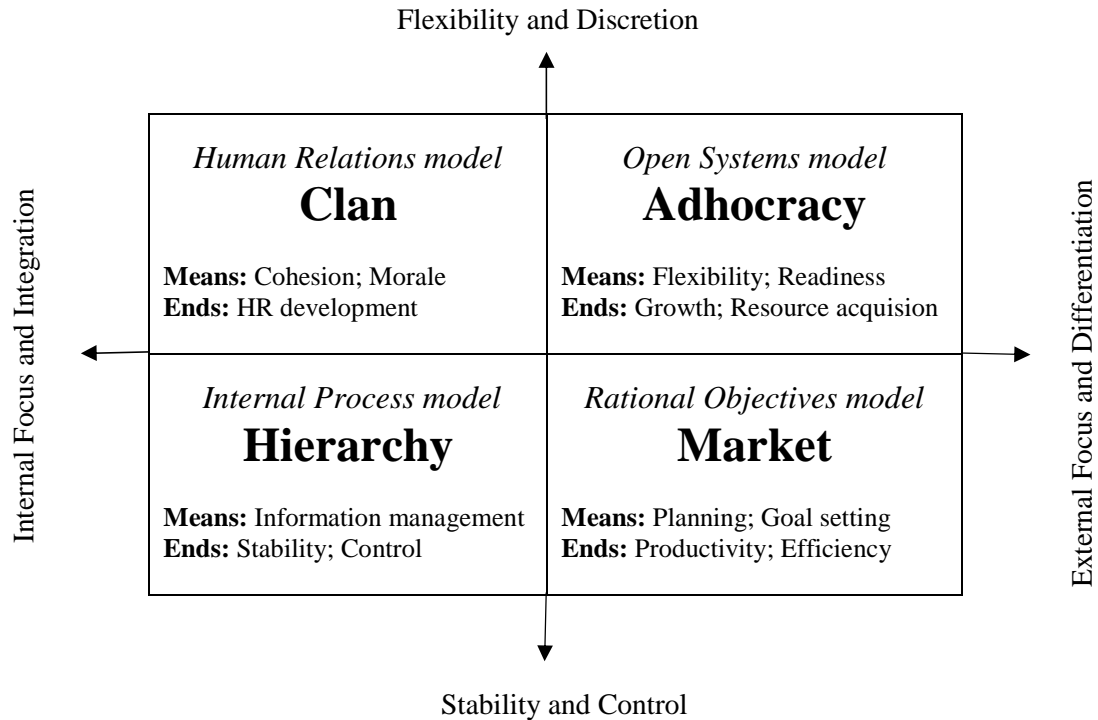
The culture of *Adhocracy*, also known as *Development* culture (e.g., Kwan & Walker, 2004) is characterised by an emphasis on flexibility and outward focus. Organisational culture representing this quadrant adapts to internal and external changes, innovative suggestions and competitiveness as a means of guaranteeing organisational competency. Management inspires creativity and supports entrepreneurship with the aim of acquiring new resources for the organisation. This quadrant reflects the Open Systems organisational model highlighting the adaptability and speed of response to the environment (means), to achieve growth and external support (ends) (Quinn & Rohrbaugh, 1983).

Market culture, also known as *Rational* culture (e.g., Quinn & Rohrbaugh, 1983), is in the stability/control and outward/market focus quadrant. In this context, the objectives allow controlling the employees, namely, directing their behaviours to the market. It emphasises productivity, performance and competition, in the sense of defined criteria. This type of culture is related to the Rational Objectives Model, valuing the definition of the criteria of effectiveness (means) and productivity (ends) (Quinn & Rohrbaugh, 1983).

Hierarchical or *Hierarchy* culture pertains to a focus on the stability/control dimension of the structure axis and the dimension of the interior orientation of the company (people and processes). The concern of this type of company is on internal standardisation and efficiency. There tend to be existing rules and procedures that define behaviour. The managers elaborate, coordinate and enforce the rules. The framework is related to the Internal Processes Model,

highlighting the importance of organisational information and communication (means) and the stability and control of processes and procedures (purposes) (Quinn & Rohrbaugh, 1983).

Figure 1 - Competing Values Framework (CVF; based on Cameron & Quinn, 2011)



The typologies presented emphasise certain aspects, and an organisation with a particular type of culture displays more characteristics of one type than others. There is, however, the possibility of a balanced culture that includes the four types in similar proportions.

The results of a meta-analysis of studies published between 1980 and 2008 that support the existence of the relationship between culture using the CVF model and organisational effectiveness (Hartnell et al., 2011) show that each type of organisational culture can be related to organisational effectiveness. The model advocates that each type of culture be connected to organisational success at different points of the company's evolution (Cameron & Quinn, 2011).²⁰ Although all types of culture are associated with organisational

²⁰ In the initial moments of creation, the company's culture tends to dominate the quadrant of adhocracy, still without formal structure, in which prevails the entrepreneurship attitude. As the company develops, clan culture sets in, where its members have a sense of family and belonging to the organisation. It is frequent that when the organisation grows there is a need for structuring, as well as a need for the standardisation of the processes to be able to assign responsibilities, define accountability and organise work. This moment is potentially a moment of an identity crisis, in which people feel they move from a family environment where everyone gets along, to a situation of a clearer definition of functions, and therefore individual responsibility and hierarchical control. This orientation to internal control and hierarchy will usually be replaced by a market focus and

effectiveness, the literature points to the presence of group culture as the strongest forecaster of organisational success (e.g., Gregory et al., 2009; Patel & Cardon, 2010). In the meta-analysis performed by Hartnell et al. (2011), clan-type culture appears as the consistently more predictive type of culture when it comes to organisational effectiveness. The results of this meta-analysis support the relationship between various types of culture and organisational effectiveness, but do not fully confirm the structure of the model. In particular, the results point to the fact that clan culture is more related to the quality and innovation of products and services than the market-oriented culture (as the model advocates). The quality of products and services seems to be more related to the development of internal processes and a good relationship among the employees than to an orientation to the market and the reaching of results in this domain.

Culture has two types of association with HRM practices: it influences its implementation, and this implementation also influences HRM practices (Chan, Shaffer, & Snape, 2004; Wei, Liu, Zhang, & Chiu, 2008). On one hand, culture is demonstrated in the managerial practices such as HRM practices; and, on the other hand, HRM practices help to create and to express the cultural valued organisational behaviors and meanings (Dawson, 1995; Neves, 2000). Therefore the result is the interaction between the two: “culture works as a reference regarding which certain HRM practice is evaluated as adequate, indifferent or unsuitable” (Neves, 2000, p. 244).

Although referring to large organisations (hospitals, insurance companies, and the manufacturing and public sectors), Neves (2000) acknowledges the consistency of the CVF model in the Portuguese context, to explain the contradictions of the organisational dynamics.

Patel and Cardon (2010), in their study investigating the association between product-market competition and labour productivity, looked at the role taking on HRM practices and group culture type (of the CVF culture model) might have. They studied SME in the United Kingdom and found that group culture had a fundamental role. They found that group culture had the highest effect in enhancing labour productivity and was also related to the adoption of HRM practices, as well as enhancing the association of the HRM practices with productivity.

In this project, initially we study the relation of corporate culture with HRM practices and firm performance; then we focus on group culture because it emphasises flexibility,

customer orientation. The focus therefore is on the exterior but keeping the goals controlled and on competition with the outside. The more mature and effective organisation tends to develop sub-units that represent each of the quadrants: R&D (research and development) units represent adhocracy, while sales units represent the market. Most businesses tend to have one or more types of culture that dominate the business, and no configuration is better than another (Cameron & Quinn, 2011).

openness, shared decision-making and trust, as well as employee development and building a family-like atmosphere (Cameron & Quinn, 2011; Patel & Cardon, 2010). These are typical characteristics of the small business context. Additionally, the relation between that culture type with performance is identified in the literature as the most significant.

1.3. Organisational Performance Measures

The concept to be studied, as the successful output of a firm, has many titles: growth when referring to small firms (e.g., Davidsson et al., 2005); performance when linked to determinants such as entrepreneurial orientation (e.g., Lumpkin & Dess, 1996); human resources management (Combs et al., 2006; Huselid, 1995) or effectiveness when linked to organisational culture (Hartnell et al., 2011). Organisational performance is a topic of interest in all management domains. In this section, we will approach using both small firm literature and strategic HRM literature.

Research on the factors that influence small firm performance and growth has been studied for some time, and there is a lot of scattered knowledge. Still, there is not a clear and consensual picture of the phenomenon (Davidsson et al., 2005). There is a large variety of features among firms, and that is the main factor that explains the diversity of measures and theoretical models that appear in the literature.

To measure the success of a firm, Davidsson et al. (2005) point to three alternatives: “a) create a multiple indicator index; b) use alternative measures separately, and c) find the one, best indicator” (p. 4). The multiple indicator index is adequate when using growth as a latent variable. The use of a standardised index is the best choice in this case. Choosing to study several indicators separately is being more favoured both theoretically and empirically, because some determinants of success can affect one indicator more than another, and that would be good to consider in research. One *best* indicator would be sales growth, followed by employment growth.

The most frequently mentioned measures are sales, employment, assets, market share and profits (Baum et al., 2001; Dobbs & Hamilton, 2007; Wiklund et al., 2009). Specific indicators to work within a certain industry are also very useful and acceptable (Davidsson et al., 2005).

Growth measures can be absolute or relative (Wiklund et al., 2009), and data can be objective or subjective. Subjective data refers to the perceptions of individuals when responding to financial and commercial issues (e.g., sales, revenue, profits). Several authors

(Runyan et al., 2008; Varadarajan & Ramanujam, 1990) have mentioned that subjective data has great advantages when compared to objective measures or institutional data. It is also much harder to obtain from individuals. There have been studies that compare the reliability of subjective data, and findings reveal there is not much bias, which points to firm owners and CEOs as very reliable sources of financial and other firm information (Baum et al., 2001). The two most used measures are sales and employee growth (Davidsson et al., 2005; Wiklund et al., 2009). They are methodologically widely accepted, and such data are generally easy to obtain (Dobbs & Hamilton, 2007). Organisational performance studies rely on objective approaches measures, “based on de-contextualised, objectivist approaches often treating the owner/manager and their context as mutually exclusive properties” (p.201) not considering that the business owner values the business role in his/her life (Thorpe & Clarke, 2008). Different firm owners have varying conceptions of what constitutes business achievements, namely, what they consider a good result regarding sales or assets. Deciding not to grow may be an intentional decision. So, studying firm performance as an idiosyncratic construct is a more rigorous approach to what is considered a satisfactory performance that is relying solely on objective measures (Lumpkin & Dess, 1996; Thorpe & Clarke, 2008). Among privately held firms, measures such as overall satisfaction should be considered (Lumpkin & Dess, 1996). Performance standards of success may vary over time, with the evolution of the firm, so it is important to take this into account when studying growth (Lumpkin & Dess, 1996).

Examining growth means studying a phenomenon that occurs over time and consequently should be analysed longitudinally, “in the sense that assessment of the predictors precedes assessment of the outcome” (Davidsson et al., 2005, p. 4). Growth also can have several expressions, for example, high increase in sales turnover with hardly any change in assets or employment, or moderate growth resulting in changes in assets or employment. Since growth can be a latent construct with common causes and different expressions, it should be assessed with multiple indicators (Davidsson et al., 2005).

In the HRM literature, several measures of organisational performance have been used when relating HRM practices to organisational results (Combs et al., 2006). The organisational performance measures used by Huselid (1995) are the most studied (Combs et al., 2006; Wright et al., 2005). Sales per employee is a calculation commonly applied to access a firm’s productivity. It is a single index that can be used to compare firms. Limitations of this formula led to the use of net income per employee (Huselid, 1995).

Turnover was considered a variable to be studied since, according to Huselid (1995), it was used in many previous studies in the field as an organisational outcome. As did Huselid

(1995), we controlled for voluntary turnover, since there is an adequate rate of turnover for each firm, which might not be exactly the lowest possible.

Various studies, as well, have been using firms' financial results as a variable (Huselid, 1995). Employment growth is also seen as an important organisational performance indicator (Rauch et al., 2005). Rauch and co-workers (2005) refer to the link between HRM practices and employment growth, since both relate to people in the firm: owners who are interested in employing more people will probably invest in the employees they already have. These authors also found that employment growth is associated with good firm performance and thus is an important variable to consider. Their last argument is that employment growth is a performance criterion that reflects firm performance over time, in a stable way. Moreover, "since human resource strategies do not pay off immediately, employment growth is an important variable for studying the long-term effects of human resources" (Rauch et al., 2005, p. 682).

Even if there is no consensus regarding performance and growth concepts (Rauch et al., 2005), the most frequently used are: perceived financial, perceived non-financial and archival financial parameters (Rauch et al., 2009).

1.4. Conclusions

At the core of HRM literature is the importance of people to the competitiveness of firms (e.g., Huselid, 1995). The first chapter of this thesis goes over the main theoretical issues that frame its central concern: managing people in micro-firms. Even though there are many studies relating HRM to performance, we were able to find some theoretical and methodological issues that have not yet been fully explained.

From a theoretical standpoint, much has been said on the HRM practices-performance link, mostly in the context of large firms, and already some major advancements in smaller firms, namely, SME. Even in the Portuguese context, there are some, few, studies in the SME sector. Interestingly, though micro-firms are the most prevalent type of firm worldwide and employ a significant proportion of the working population, studies in this context are very rare. Therefore, this thesis' major aim is to help to fill the gap of HRM literature in the study of micro-firms. It also tests the main organisational variables that relate HRM to performance: business owner characteristics, managerial style and corporate culture. Regarding the managerial style, EO and SBO are tested as separate constructs, following an underexplored topic in the literature.

Micro-business owners are the main source of primary data in this thesis. Methodologically, in the first two studies, we use case studies to examine the relations between these topics, trying to help to fill the void in the literature. Quantitative studies are the most frequent. They use a single HRM practices index to relate to performance, missing the nuances of the extension of the usage of each of the practices, as well as the combinations of the practices, that the configurational approach enables. Hence, after the initial study using the contingency perspective, and the second study where the pertinence of the configurational perspective emerges to study HRM practices in micro-firms, we complement the analysis on the HRM practices in micro-firms with a larger sample using the configurational approach, which is also one of the major contributions of this thesis.

We conducted three studies, mainly focusing on identifying the HRM practices used in micro-firms, as well as identifying patterns of HRM practices and relating them to firm performance. Before framing the studies in the literature gaps and introducing their objectives, there are some theoretical and methodological options to be presented.

As noted, there is scarcely available research on micro-firms. The few studies we found (e.g., Pearson et al., 2006) suggest that micro-firms are similar to bigger SMEs in terms of time dedicated to personnel matters, as well as experience and education of the people who deal with this processes. Also, the recent meta-analysis performed concerning the HRM practices-performance link (Rauch & Hatak, 2016) pointed toward the behaviour of micro-firms being considered similar to young SMEs, regardless of the micro-firm's age. Despite such findings, we believe there are not enough studies regarding micro-firms' dynamics in HRM to support such conclusions.

We begin this thesis with a study aiming to analyse HRM practices and relate them to firm performance, considering the owners' characteristics. It is a qualitative study, comparing two very similar case studies. In this project, we are going to use Pfeffer's list of thirteen HRM practices based on several arguments. We decided to use a known list, instead of building our own because even if the context is micro-firms and some differences might be expected, they still manage people, performing HRM practices with less formalised procedures (Hayton, 2006; Innes & Wiesner, 2012). The characteristics of Pfeffer's practices list also explains the choice. The HRM practices lists studied in the strategic HRM literature, even if there are different lists for each author (and sometimes, between each author's studies) emerge as an overall list of practices that frequently appear (Pfeffer, 2005). In his 2005 paper, Pfeffer enlarged the seven practices group necessary for successful organisations (Pfeffer, 1998), to a thirteen item list: employment security, recruitment selectivity, high compensation,

incentive pay, employee ownership, information sharing, participation and empowerment, self-managed teams, training and development, cross-utilisation and training, symbolic egalitarianism, wage compression and promotions from within.

There is a tradition of measuring the HRM practices in smaller firms using information derived from larger firms. For example, Messersmith and Wales (2013), who studied firms with more than 10 employees, and whose firms' sample had a median of 25 employees, used Datta et al.'s (2005) list of practices which, in turn, was based in Huselid's (1995) and Guthrie's (2001) lists. The Pfeffer (2005) list, being a little larger than the initial one (only had seven items), involves practices that characterise an informal management style as well as flexible work setting (e.g., information sharing, cross-utilisation and training). On the other hand, it does not include some practices used in larger firms that do not apply to micro-firms (e.g., performance appraisals, attitude surveys or grievance procedures). In Appendix B we present Pfeffer's thirteen HRM practices description.

In the first study, we initially *analyse the relation between HRM practices and firm performance*. We then include the owners' entrepreneurial characteristics and management styles and examine the three variables together. We know that the role of the owner-manager is very important in the process of both creating and managing a business (Baum et al., 2007). In micro-firms, due to the owner-centered nature of this kind of business (Jaouen & Lasch, 2015), that role is even more central. Consequently, studying the owner's profile is very pertinent.

The owner's characteristics are measured using an entrepreneurial potential scale. The entrepreneurial potential is defined as the promptness for engaging in entrepreneurial activities related to business venture creation/management (Correia-Santos, Caetano, Cural, & Spagnoli, 2010). This quality can be evaluated through a self-administered questionnaire. It is expected that the regular business owner does not have all the competencies in their maximum level. Therefore this scale reveals individual profiles, with different combinations of the competencies measured (Caetano et al., 2012). To be considered with entrepreneurial potential, the participants should display at least intermediate scores. Even at this level the owner's characteristics and their managerial style are worth noticing, since they are connected to strategic options (Rauch et al., 2009). EO literature has been studying HRM practices as a moderator factor of the relationship between the management style and performance (Messersmith & Wales, 2013). We believe HRM is a part of the management style and is coherent with it, as with the manager characteristics (which, in this case, is the owner).

As described in Table 1 (Summary of empirical studies), in our first study we use the presented perspective to research the literature gap: to know *how firm-owners' characteristics and managerial styles are related to HRM practices and performance*. This approach seems appropriate to explore further the additive intensity HRM single index, traditional in the contingency approach and common in the literature (Messersmith & Wales, 2013; Patel & Conklin, 2012). Another interesting aspect of this study, from both a theoretical and methodological standpoint, is the separate analysis of the EO and SBO managerial styles, which are largely researched in the literature as opposite positions of the same construct (EO) (Stewart et al., 1998).

In the second study we *aimed to investigate the association of HRM practices with corporate culture and performance*. We used a multiple case-study methodology to collect in-depth information from four micro-firms. We collected data in two phases. In the first phase we wanted to learn about the firms' organisational dynamics and the HRM practices performed. In the second phase we sought to obtain information on the organisational culture perspectives of both owners and employees, as well as employees' work satisfaction and affective commitment. Secondary data, consisting of the organisational performance indicators, span a six-year time period. The relation between HRM practices and performance and between organisational culture and performance have been widely studied in both large firms (e.g., Huselid, 1995) and SMEs (e.g., Rauch & Hatak, 2016). The association between HRM practices and corporate culture's impact on performance has also been studied in SMEs (e.g., Patel & Cardon, 2010); however, there has not been much interest in the literature on the topic, compared to other subjects. Findings point to interrelated effects of culture and HRM practices, with both factors reinforcing each other. Some types of culture are also considered more beneficial when related to HRM practices and performance. This second study has two main objectives: (a) *to know how HRM practices and corporate culture are related*; and (b) *how they, together, relate to organisational performance*.

The third study explores the configurational approach regarded by the literature as having great potential but still underused (e.g. Meyer & Allen, 1997; Short et al., 2008). It is a quantitative study and, to meet all the objectives, is divided in two sub-sections (related to the methodological process of data analysis). There are two strong arguments for using the configurational approach in this thesis. One of the most compelling arguments for applying this perspective is trying to *identify HRM practices and patterns* that are statistically close and to understand if there is a macro-group of practices, such as the three dimensions AMO framework (Appelbaum et al., 2000) or Huselid's (1995) bi-dimensional HR patterns. We

also wanted to know *how do they relate to performance* (have they all the same importance or is there a hierarchy of influence)?

Another fascinating opportunity for this approach is researching inside the “black-box” of HRM practices in micro-firms (Martín-Alcázar et al., 2005). In this third study, we want to know *which types of micro-firms regarding HRM practices usage are there?* Moreover, *how do they relate to performance?*

The next chapter describes the economic sector setting in which we develop this project: the ERP selling and consulting sector. The following chapters present the three studies, detailing the methodological options, showing the findings, and displaying their discussion.

CHAPTER 2. The context: The Enterprise Resource Planning Selling and Consulting Sector

2.1. Introduction

HRM practices literature contributed to choosing the business field for this project. According to Delery (1998), context is an issue that still has to be studied further in the strategic HRM field. Considering that specific variables of each industry (Delery, 1998) also affect organisational performance, in this project we control the business sector of the firms in the sample. The firms included in the study operate in the same business sector, thus being competitors between themselves. This fact will allow for the analysis of HRM practices and performance outcomes free from dummy variables regarding the business sector.

Still considering context, one of the suggestions for further studies that Combs's and colleagues empirical research meta-analysis made (Combs et al., 2006) was a more detailed study on the service sector, since most of the research on high-performance work practices occurred in the industrial sector. This study aims to contribute to the research in this field being carried out in the service sector: Enterprise Resource Planning (ERP) selling and consulting micro-firms.

Enterprise Resource Planning (ERP) selling and consulting sector is a subsector of the Information and Communication Technology (ICT) sector.

The initial definition of ICT by the OECD Working Party on Indicators for the Information Society (WPIIS) in 1998 incorporated industries that manufacture and provide services that capture, transmit or display data and information by electronic means (OECD, 2011). Since then, WPIIS delegates have agreed on the importance of periodically re-assessing the concepts, based on the lessons learned from prior concept implementation, as well as, from societal and economic changes that make it relevant. Several adjustments have been made to the last published definition: "The production (goods and services) of a candidate industry must primarily be intended to fulfil or enable the function of information processing and communication by electronic means, including transmission and display" (OECD, 2011, p. 59).

In more concrete terms, when talking about ICT investment, OECD indicates the purchase of equipment (information technology, such as computers and other hardware; and communications equipment), and purchase of software that is pre-packaged, customised and/or developed in-house and used for at least a period of a year (OECD, 2017d).

ERP are extensive software systems that include several, if not all business functions, providing an integrated solution for an organisation's information system needs (Shehab, Sharp, Supramaniam, & Spedding, 2004). These software systems comprise "a set of mature

business applications and tools for financial and cost accounting, sales and distribution, materials management, human resource, production planning and computer integrated manufacturing, supply chain, and customer information” (Shehab et al., 2004, p. 359). Therefore, they facilitate the information stream between the business chain of processes (internal and external) (Davenport, 1998; Shaul & Tauber, 2013). Thus, ERP businesses (producing, selling, implementing and, maintaining) are part of the ICT sector.

ERP systems can be used as instruments for improving a company’s performance by: reducing inventory and costs (production, shipping, labour, and even information technology) (Shaul & Tauber, 2013; Shehab, et al., 2004): automating and integrating business processes transversely in organizational functions and locations; enabling the implementation of best business practices in order to improve productivity; sharing common data and processes transversely to the entire organization, thereby reducing errors and time cycles; and, producing and giving access to information in real-time, thereby facilitating rapid and better decisions, and consequently, leading to improved effectiveness and a competitive edge both in strategic initiatives and processes as well as in ncreresponsiveness to customers.

As a result, ERP is often considered, initially, as “the price of entry for running a business” (Shehab et al., 2004, p. 359). Additionally, it is subsequently considered as a critical factor in current management practices and, more and more, in the support structure for managing organisations (Shaul & Tauber, 2013; Shehab et al., 2004). It was not only the big and multinational firms, especially in the beginning of 1990’s, that understood the importance of ERP, but SMEs also understood their importance for not only staying competitive but also for their survival (Shehab et al., 2004). Also in Portugal, SMEs recognise the importance of this type of systems to be able to manage better the firms and stay competitive in the market, explaining the trend in enhancing the investment in ERP (Caldeira & Ward, 2003; Martins, 2009). This explains why the ERP software market has grown into being the largest IT investment by the majority of firms worldwide (Shaul & Tauber, 2013; Shehab et al., 2004).

Shaul & Tauber’s (2013) literature review of the last decade shows that the perception of the role of ERP systems has changed. They divided the decade into four main periods. The first one referred to the late 1990s, the ERP system developed from a system that planned material supplies to one that covered all organisational activities (except business networks). The second period corresponds to the early 2000s, firms understood the need for collaborative commerce by electronically streamlining, so they moved from many unintegrated information systems to a single integrated software support structure. In the middle of the decade, we counted the thrid period, in which firms preferred to implement an ERP set from one only

seller/brand that combined all necessary software solutions; therefore ERP vendors began to acquire or develop the necessary extensions of their applications to meet their customer's needs. Finally, late in the decade, alternative approaches such as hosting, subscription-based pricing, and SaaS (Software as a Service) technology enabled other performances. Despite the change of the market needs and ERP development, the main objectives of ERP remained the same over the last decade; only the way of using the available technology is different (Shaul & Tauber, 2013).

Geographical regions and the advancements of the countries' economies influence the information systems usage. Santos, Pedro and Cordeiro (2010) in a study regarding HRM information systems utilisation in a Portuguese industrial region (Setúbal), found that there are different groups of firms that have three different levels of usage regarding sophistication, and cost. There are the larger and multinational firms that have more complex and expensive information systems, the intermediate dimension firms that use systems that already require some sophistication, with an intermediate price, and the smaller national firms operating in traditional sectors that usually don't need information systems and use technology in a very basic way (Santos et al., 2010).

In the last five years, according to the Portuguese ICT Directory of 2016 (Coimbra, 2016, p. 4), a rapid paradigm shift occurred: "the 3rd IT Innovation Platform supported by mobile technologies, social applications, big data solutions and business analytics, and cloud computing services have been, and continue to be, the growth and innovation driver of the IT industry, and is significantly changing how organizations in all sectors not only provide services but mainly how they relate to customers, partners, employees and how they develop products, services, and business models".

For the future, over the next five years, Gabriel Coimbra from IDC Portugal Country Manager (Coimbra, 2016) anticipates the emergence of a new wave of technologies - internet of things, virtual technologies / augmented reality, 3D printing, wearables, robotics and cognitive systems - developed on top of the 3rd Platform of IT. This new wave of technologies is named by IDC as accelerators of innovation, which will enable the expansion of information technologies' capacities and will be accountable for digital transformation opportunities in organisations across all sectors.

ERP systems are developed by software houses, and the vendors that distribute their products through a network of partners are spread across the geographical areas of their intervention. This means that specific legislation is required for specific markets, namely, different countries have specific laws, and several modules have to deliver those specificities

(e.g. accountability, personnel). Thus, the ERP business, even though the technology and principles of production are the same, requires specific development across different geographies.

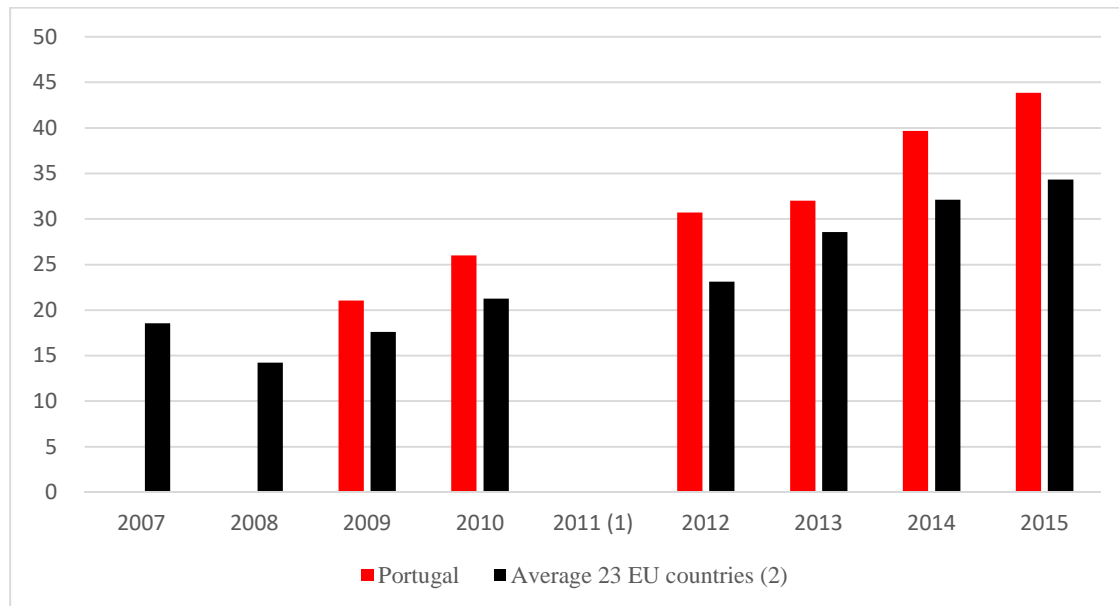
This thesis focuses on a subsector of the ICT sector: the firms that sell and do the consulting work for implementation and maintenance of ERP.

2.2. The position of Portugal in the international context

The ICT sector has much attention because it is so important for the economy of nations and, internationally; even OECD indicators track the development of its members throughout the years.

The OECD Stats website specifically tracks businesses that use ERP software as an indicator of ICT activity and the level of developmental ICT usage among its members. Portuguese firms that employ ten or more persons (according to available data) have been, on average, using more ERP software than its fellow EU members (see Figure 2).

Figure 2 - Businesses using ERP (Enterprise Resource Planning) software, with 10 persons employed or more (percent)



(1) Data not available.

(2) Average of the 23 EU countries available at OECD.Stat: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, United Kingdom.

Source: http://stats.oecd.org/Index.aspx?DataSetCode=ICT_BUS (extracted on the 18th Aug 2017)

More detailed data on the size of the firms and their ERP's usage evolution between 2010 and 2014, shows that Portugal is on sixth position of the OECD members (see Figure 3).

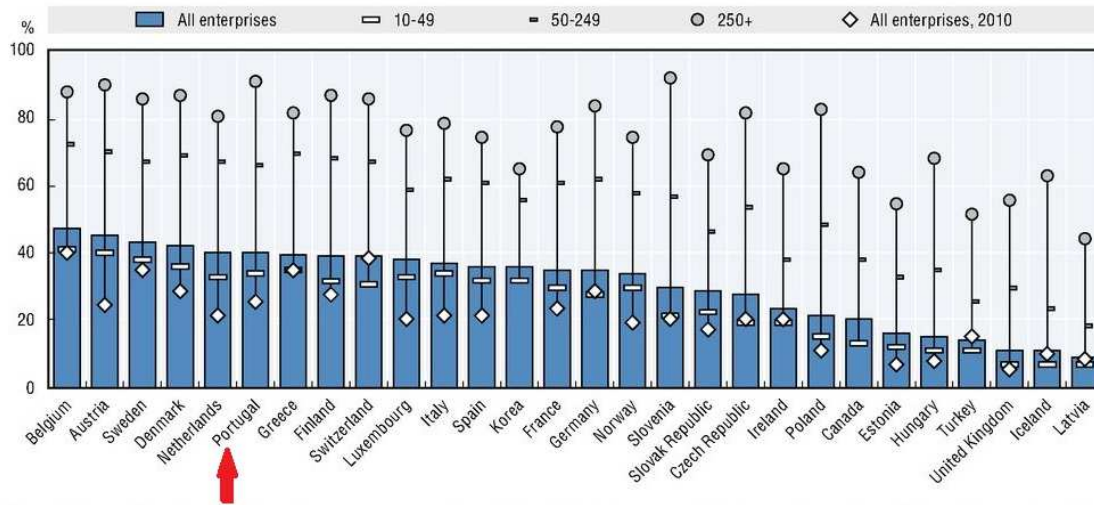
Portugal is among the countries that had one of the largest growth rates of increase in ERP usage between 2010 and 2014 (OECD, 2015). This might seem unlikely because of the financial and economic crises that hit many economies, including Portugal. Portugal, on top of that, between 2011 and 2014 had the intervention of International Monetary Fund (IMF) which established very tight rules of expenditure that had an impact not only on the State, but also on the population as a whole, and on private enterprises, as a consequence. ERP usage by firms still grew. Since 2007, in order to control parallel economy, the Ministry of Finance established legislation that set that all sells, of all types of firms, including micro, had to be registered in a certified software, and receipts had to be issued with the taxpayer number, and an electronic file has to be sent to the Finance Ministry every month²¹. During the intervention period of the IMF, legislation was continuously published which required changing many of the ERP modules already in use (e.g. personnel, accountability).

This innovation was very demanding especially for small, very old businesses, with old firm owners, and, as a consequence, new firms in the selling software business were created, as well as new services were introduced to the firms selling software, already in the market. It wasn't required (and still isn't) the use of an ERP, but as the services of software selling firms were required to meet legislation, it is possible that, with those software updates they sold other functionalities, to help firms go through such harsh economic period. As said before, having a good information system, nowadays electronically based, was probably seen as important not only to stay competitive but also to survive that period (Shehab et al., 2004).

According to OECD 2011 statistics' (OECD, 2017c), people working in the ICT sector in Portugal is roughly half (1,9) of the average of the OECD countries (3,7) (see Figure 4), which may be seen as contradictory to the previous data. But it actually isn't.

²¹ The first legislation is from 2007 (Ordinance N°.321-a/2007), which obliges the programs to produce the SAFT file ("List" of all invoices and credit notes that the company issued during the month, with the number of the buyer's taxpayer, several other details (this will feed the e-invoice registrations in the annual individual tax report). This legislation was being refined as real-life problems / situations arose: Ordinance N°. 1192/2009 changes the wording of Ordinance N°.321-a/2007; Ordinance N°.363/2010, requires billing programs to be previously certified; 22A/202 Ordinance of 2012 (republishes Ordinance No. 363/2010); Ordinance N°. 302/2016 amends Ordinance N°. 321-A / 2007 of 26 March, in particular with regard to the data structure of the SAF-T (PT) file relating to invoicing.

Figure 3 - Use of ERP software, by size, 2010 and 2014 (as a percentage of enterprises in each employment size class)



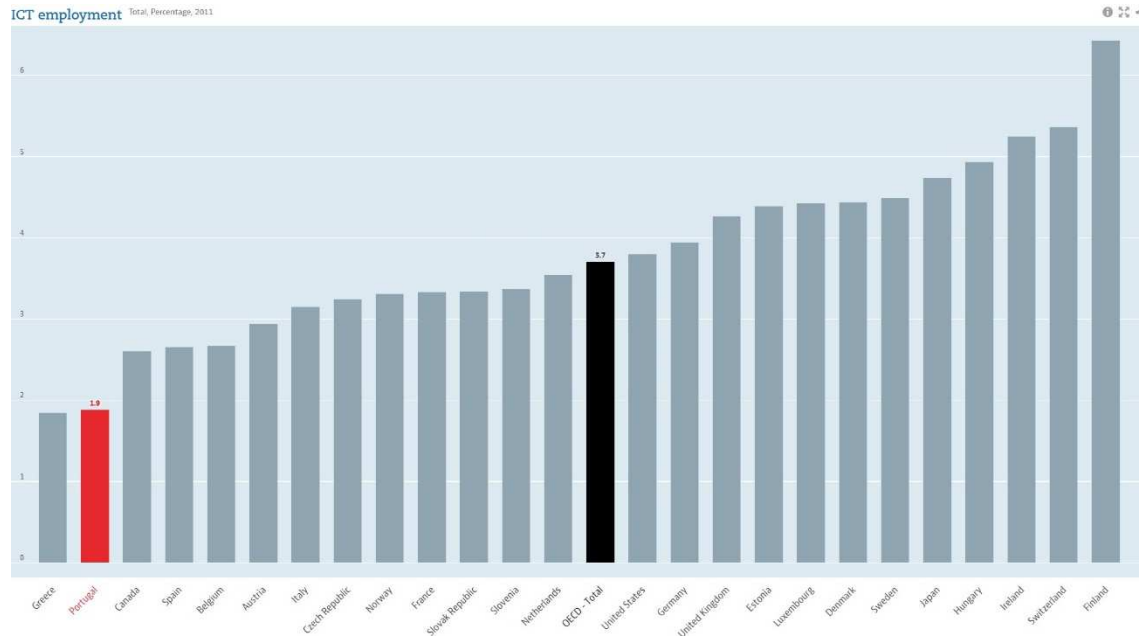
Notes: Unless otherwise stated, sector coverage consists of all activities in manufacturing and non-financial market services. Only enterprises with ten or more persons employed are considered. Size classes are defined as: small (from 10 to 49 persons employed), medium (50 to 249) and large (250 and above). For Canada, medium-sized enterprises have 50 to 299 employees. Large enterprises have 300 or more employees. For Korea, data refer to 2013. For Switzerland, data refer to 2011.

Sources: OECD, ICT Database; Eurostat, Information Society Statistics and national sources, March 2015.

StatLink <http://dx.doi.org/10.1787/888933224852>

Source: OECD, 2015 (p. 135)

Figure 4 - ICT employment (percentage of business sector employment)



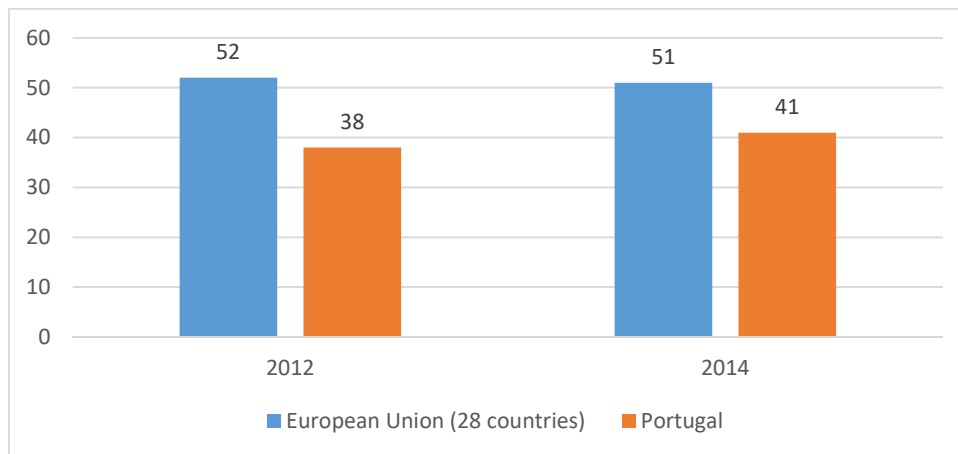
Source: OECD.Stat

This data refers to employment in all ICT sector, and not to the ERP usage by firms, as previous data. This means other fields of action in ICT are included as cloud services and, other software creation and usage. The Claranet Research Report 2016, dedicated to

“European IT Innovation” states that the medium size Portuguese enterprises regarding managing and storing applications are in the conservative IT group, namely cloud, DevOps (It.Insight, 2016). Hence, even though IT suppliers have been working the ERP products, it seems that they are either not advising their clients to pursuit more recent ICT approaches to business or their clients aren’t accepting their advice.

The employment sector in ICT seems to be consistent with the Eurostat indicator of enterprises of the ICT sector which recruited or tried to recruit personnel for jobs requiring ICT specialist skills (see Figure 5), Portugal firms also had lower recruitment efforts than the EU countries average.

Figure 5 - Enterprises of the ICT sector (10 persons employed or more) recruited/tried to recruit personnel for jobs requiring ICT specialist skills (percent)



Source: (Eurostat, 2017)

2.3. Characterisation of the ERP Selling and Consulting Sector in Portugal

Software houses, in order to increase their market share, distribute their software through channel partners. These partners sell and provide the necessary consultancy work (to implement, maintain and increment the software) to other firms, which are the final customer.

To have a more specific view of this subsector in Portugal, we used the Portuguese National Statistics Institute (INE) data.

In 2007 a new economic activities classification, designated CAE-Rev.3, was issued in which the activities of the firms subject of this project are placed in Section J (Activities of Information and Communication), division 62 - Consultancy, informatics programming, and related activities (Table 2).

Table 2- Economic activities codes, according to CAE-Rev.3 (2007) for the firms of this project

Division	Group	Class	Sub-class	Designation
62	620			Consultancy, informatics programming, and related activities
		6201	62010	Activities of informatics programming
		6202	62020	Activities of consultancy in informatics
		6203	62030	Management and exploiting of informatics equipment
		6209	61090	Other activities related to information technologies and informatics

Source: INE (2007, p. 66)

Even though the new version of the classification of the Portuguese economic activities was issued in 2007, the available data of this firms is, in many cases aggregated with data from other information and communication activities²², which are now in other groups, namely editing of computer games.

The type of services provided that are considered in the ‘Informatics’ table are: Editing of computer games; Other types of edition of software (software); Computer programming services, Informatics consulting services; Computer equipment management and exploitation services; Other services related to information technology and informatics; Data processing services, information domiciliation and related services; Web portal contents; Repair services of computers and peripheral equipment; and Other services.

Based on data from INE both from a document issued with information about enterprises which provide services to other firms with information from 2008 to 2013 (INE, 2014), and statistical data obtained from the statistical data available on the website (information about 2014 e 2015) (INE, 2016) we built Table 3.

Table 3 displays the allocation of services provided (1000€), per type of service, since 2008 to 2015, as well as their proportional weight per service, and the variation over the years. A final variation between 2008 and 2015 is provided.

Between 2008 and 2015 there is a 21.6% increase in the amount of money related to the informatics services provided to other firms. The types of services that had the bigger increase were “Other services related to information technology” (8.7%) and “Informatics consulting services” (7.3%). These are also two of the major services of expenditure in this sector services to other firms (Informatics consulting services, 38.2%; and Other services related to information technology, 19.0%), along with “computer programming activities” (15.1%).

²² As they were in the previous version of the classification of economic activities (CAE-Rev.2.1.).

Table 4 displays the main economic indicators, according to the legal business type (corporations or individual firms), from 2008 to 2013²³. The activity that is probably of specific firms that don't relate to this study are the ones that perform "Editing of computer games", but as the proportion they represent is a residual value (see Table 3 – 0,0%), the aggregated data in Table 4 is a good reference for the characterization of this sub-sector.

One of the most relevant information that arises from data is that entrepreneurs in the informatics field are more and more, doing their business in registered corporations (which have a different and more complex accountability framing, as well as more than one employee), and less as individual firms. Although the number of firms, in total didn't grow much, the number of people employed is accompanying the growing number of firms registered as corporations.

Another information worth noticing is the value earned in provided services per employee has been decreasing both in corporations and in individual firms.

2.4. Major software houses operating in Portugal with micro firms' partners

There isn't a list of the major management software vendors in Portugal, nevertheless there are several very well-known brands in the market. Among them PHC, Primavera, and SAGE, that we present below in order to give an idea of who three main software vendors are and how they operate. Their main distribution channel is the business partners, and these partners are the ones who deal with the final customer. The recent introduction of cloud computing is making the software houses dealing directly with the final consumer, selling licenses, and supporting, but software vendors' main distribution channel is still their business partners, which are the participants of this project. Each business partner is a competitor of the other and can sell more than one ERP and software, even if those are similar products, and their respective software houses compete.

These three bigger software vendors are the main base of the participants on this project.

²³ It wasn't available more recent data about number of firms, nor personnel.

Table 3 - Allocation of the provided services, by type of service - Informatics

Time and variation	Type of Service Provided										
	Total of Service Provided	Editing of computer games	Other types of edition of software (software)	Computer programming services	Informatics consulting services	Computer equipment management and exploitation services	Other services related to information technology and informatics	Data processing services, information domiciliation and related services	Web portal contents	Repair services of computers and peripheral equipment	Other services
	10 ³ Euros	%									
2015	3 324 068	0,0%	8,3%	15,1%	38,2%	7,1%	19,0%	8,3%	1,4%	1,3%	1,3%
2014	3 238 270	0,0%	8,0%	15,9%	37,4%	9,4%	18,5%	7,1%	1,2%	1,1%	1,4%
2013	3 031 214	0,0%	6,2%	20,2%	36,2%	9,8%	9,8%	12,7%	1,9%	1,2%	2,1%
2012	2 958 542	0,1%	7,0%	19,9%	34,4%	10,8%	8,5%	12,3%	2,2%	1,8%	3,0%
2011	2 992 779	0,1%	7,0%	19,3%	33,6%	10,4%	9,7%	12,7%	2,1%	2,2%	2,9%
2010	2 875 745	0,1%	6,9%	18,2%	36,4%	9,7%	9,5%	11,8%	2,2%	2,2%	3,1%
2009	2 831 484	0,1%	6,5%	20,0%	33,3%	10,1%	10,6%	11,3%	1,5%	2,3%	4,3%
2008	2 733 961	0,1%	6,5%	20,6%	30,8%	12,4%	10,3%	11,9%	1,5%	2,1%	3,7%
Variation Ratio											
2013/12	2,5%	-0,1%	-0,8%	0,2%	1,8%	-1,1%	1,3%	0,4%	-0,3%	-0,6%	-0,9%
2012/11	-1,1%	0,0%	0,0%	0,7%	0,7%	0,5%	-1,2%	-0,4%	0,1%	-0,4%	0,1%
2011/10	4,1%	0,0%	0,2%	1,1%	-2,7%	0,6%	0,2%	0,8%	0,0%	0,0%	-0,2%
2010/09	1,6%	0,0%	0,4%	-1,8%	3,1%	-0,4%	-1,1%	0,5%	0,7%	-0,1%	-1,2%
2009/08	3,6%	0,0%	-0,1%	-0,6%	2,5%	-2,3%	0,3%	-0,6%	0,0%	0,2%	0,6%
2015/08	21,6%	0,0%	1,8%	-5,5%	7,3%	-5,3%	8,7%	-3,7%	-0,1%	-0,8%	-2,4%

Source: Built based in INE (2014, 2016)

Table 4 - Main economic indicators, according to the legal business type

Informatics	Firms			Personnel			Provided services			Provided services per employee		
	Total	Corporation	Individual firms	Total	Corporation	Individual firms	Total	Corporation	Individual firms	Total	Corporation	Individual firms
	N°			N°			10 ³ Euros			10 ³ Euros		
2013	10 023	5 597	4 426	50 545	46 105	4 440	3 031 214	2 983 915	47 299	60	65	11
2012	9 411	5 262	4 149	47 655	43 492	4 163	2 958 542	2 911 690	46 852	62	67	11
2011	9 413	4 958	4 455	46 835	42 352	4 483	2 992 780	2 939 945	52 835	64	69	12
2010	9 258	4 518	4 740	43 601	38 835	4 766	2 875 744	2 807 715	68 029	66	72	14
2009	9 570	4 395	5 175	42 276	37 066	5 210	2 831 484	2 757 788	73 696	67	74	14
2008	10 008	4 263	5 745	40 823	35 039	5 784	2 733 960	2 651 821	82 139	67	76	14
Variation ratio 15/08	0,1%	31,3%	-23,0%	23,8%	31,6%	-23,2%	10,9%	12,5%	-42,4%	-10,5%	-14,5%	-25,0%

Source: Built based in (INE, 2014, p. 30))

2.4.1. PHC

PHC was founded in 1989 in Portugal, and is now present in 5 countries (Portugal, Spain, Mozambique, Angola and Peru), counting on more than 175 employees, and 400 partners (distributors) to provide service for more than 30.000 firms and 140.000 users (PHC Software, 2017c).

Their vision is “we believe that freedom for change in organizations is only possible through great software”. They drive their work based in values as: “passion for the client, innovation, trust, cohesion, audacity, and excellence in performance”, trying to accomplish their mission: “We create intelligent, appealing and complete solutions that provide flexibility, speed and success for our customers' business” (PHC Software, 2017c).

In their website, they present their software solutions in different ways: transversal solutions, in which they present the functional area of the firm; sectoral solutions, showing some specific software; firm profile, depending on their size; and software solution name (PHC Software, 2017d).

If you need further information you can either ask for a free demonstration (PHC Software, 2017b), or select a partner, from the national partners list, organized location, level of specialization (market or sector), dimension of firm in which it can intervene, name, and experience in the business field (more detailed than sector) (PHC Software, 2017a).

2.4.2. Primavera

Primavera software was created in 1993, and its current headquarters is still in the birth city of Braga, Portugal. It was the first software company to develop management solutions for Windows. Nowadays has about 300 employees, more than 40 000 clients, spread over 20 countries, in five of which has branches (Portugal: Lisbon, Spain: Madrid, Angola: Luanda, Mozambique: Maputo and Cape Verde: Cidade da Praia). To help accomplish this amplitude of business has 600 business partners spread throughout these geographies (Primavera, 2017a). The company’s mission is to “Simplify life in organizations by increasing value creation” (Primavera, 2017b), and “Innovation, Commitment and Quality” are mentioned as being in their “DNA” (Primavera, 2017a, p. 6).

They offer many software solutions, organized in Billing software, Management software according to the firm size, specialized solutions, sectoral solutions and business accelerators. One of the interesting commercial approaches is offering some Billing software

for free (Primavera, 2017b). They also offer support, some of which is for free, training through the Primavera Academy, and consultancy presenting a Primavera Consulting service.

You can also find Primavera partners, filtering by name, location, specialization, and level of accreditation (partner statute). A contact option pops-up when you are browsing this menu (Primavera, 2017c). You can also find information to become a Primavera partner on the same menu (Primavera, 2017c).

2.4.3. SAGE

SAGE was founded in 1981, in Newcastle upon Tyne (known as Newcastle) and is now present in 23 countries around the world, counting on 13.000 employees, and 20.500 partners to provide service to 3 million costumers (SAGE, 2017a). The main business values they foster are costumers' first, velocity, do the right thing, innovate and make a difference. In order to implement the vision "to be recognized as the most valuable supporter of small and medium sized companies by creating greater freedom for them to succeed" (SAGE, 2017a).

They entered the Portuguese market in 1999, and until now they have acquired 4 firms, and have now 200 employees, 1500 business partners selling, implementing and supporting their software to 100.000 customers (SAGE, 2017a).

They provide software for Invoicing, Accounting and treasure management, Human Resources, Customer Relationship Management (CRM) and ERP for large companies. They also inform on their website about the price of several software solutions. About the most complex / complete of each type of software is asked to contact the software house (SAGE, 2017b).

Their partner's list isn't on line, deliberately. The Commercial Director said it was withdrawn from the website because other software houses used it to contact and to entice them to sell their own software. When you explore the website, a pop-up window shows with a chat, enabling immediate contact with the potential customer.

2.5. Conclusions

Selling and consulting for implementation and maintenance ERP sector is part of the ICT sector (OECD, 2011).

ERP systems are information facilitators systems to firms because they intervene in the information flow across all enterprise functions, and have been having large improvements since de the 1990s improving their own outputs and following firms' needs to deal with evolving competitive global market (Shaul & Tauber, 2013).

ERP's systems are among the indicators that OECD tracks in order to follow and define ICT activity and development level of its members. Portuguese firms have been, on average, using more ERP software than other EU countries. In 2014, up to 40% of the firms with more than 10 employees, use ERP systems (OECD, 2015, p. 135).

Analysing the specific case of Portuguese firms that provide services in the informatics sector to other firms, there are records of 21.6% increase in the amount of money spent/earned in this economic activity, between 2008 and 2015. Consulting and programming are among the most relevant services provided (53% of the total amount) (INE, 2014, 2016, see Table 3).

Indicators regarding the nature and number of firms between 2008 and 2013 reveal that more registered corporations are replacing the individual firms (31% increase, and 23% decrease, respectively), and thus hiring more people to work in this field (INE, 2014). Nevertheless, the value earned in provided services by each employee has been decreasing both in corporations and in individual firms, over these years (see Table 4).

The presentation of three of the major management software vendors in Portugal - PHC, Primavera, and SAGE, allows understanding that they are very similar, in which and how they offer their products and services. The obvious difference is the dimension, SAGE as an older multinational, has much more business partners, including in Portugal, about 700.

However, there are some slight differences: SAGE seems to focus on a more transparent price policy displaying them on their website, PHC seems to have a more flexible/adaptable software, and Primavera seems to have an attraction strategy to smaller firms based on offering some free products and services, and also seems to value / stress training, having its own academy. PHC and Primavera display their business partners, and SAGE does not, the contact is made directly to the software house.

In any case, their presence in the market is organized in the same way: they sell their software through business partners, spread in different geographical locations. The software houses develop and support their business partners in offering the software to the market, which is the final customer. The business partners of these software vendors, which are competitors among themselves, are the subjects of this project.

**CHAPTER 3. The Human Resource Management Practices-Performance Link
Incorporating the Firm Owner: Case-studies in Micro-firms (study 1)**

3.1. Introduction

HR's relationship with performance and growth has increasingly become a topic of interest in SMEs considering both HRM practices (e.g. Mayson & Barrett, 2006) and human capital, namely that of the business owner (e.g. Rauch et al., 2005).

Micro-firms, being the firm category that represents the biggest proportion of firms in the Portuguese and European business arena (OECD, 2017; Stenkula, 2006), are a very pertinent topic to study that can bring important data both to the academic community and to society, especially insofar as business competitiveness and employment are concerned.

Small firms have several challenges, among them limited resources, including people. Consequently, each employee and their intellectual capital have a big influence on the firm's outcomes. One of the arguments regarding the pertinence of studying HRM practices in these kinds of firms is that they aim to influence employees' human capital and, therefore, performance, even if those practices are informal (Hayton, 2006; Mayson & Barrett, 2006).

In small business contexts, the firm owner has a large influence on the firm's development and results (Brunninge, Nordqvist, & Wiklund, 2007).

In the study reported in this chapter, we examine the HRM practices and the business owners' managerial styles, aiming (1) to improve the understanding of the relationship between these kinds of practices and business growth in micro-firms and (2) to understand the association of the micro-firm owners' characteristics and managerial styles to HRM practices and firms' performance.

Many of the studies on firm growth use quantitative approaches which do not allow for understanding of the underlying processes (Saarakkala et al., 2007). This study is the first part of a larger research project. We have designed the general project following the methodological steps provided in the literature stepping from an exploratory approach of the

²⁴ Based on data from this study two papers here:

(1) presented and published on a peer reviewed Conference Proceedings, with the following reference: Rodrigues, A. C., & Caetano, A. (2011). Two Divergent Ways to Manage HR and to Get to the Top – An Exploratory Study in Micro Firms. In Proceedings of XXV RENT CONFERENCE – Research in Entrepreneurship and Small Business, 25th Anniversary Conference. Bodo, Norway: EIASM, ECSB, University of Nordland, Nordland Research Institute. (<http://2011.rent-research.org/hosted-by/>);

(2) published, as a chapter, on a peer reviewed book, with the following reference: Rodrigues, A. C., & Caetano, A. (2012). Entrepreneurial Orientation, Small Business Orientation and Firm Performance: Case studies in Micro Firms (from 2008 to 2011). In *Management, Governance, and Entrepreneurship – New Perspectives and Challenges* (Darko Tipurić and Marina Dabić, pp. 606–626). Darwen, UK: CIRU - Governance Research and Development Centre & Access Press UK.

problem we are addressing, focusing in each study on the objectives we are trying to meet, developing the process accordingly (Gomes & Cesário, 2014; Leedy & Ormrod, 2005). At this moment in the research project, we performed an exploratory, qualitative case study methodology, which adopts a broad approach using many variables, to compare two micro-firms regarding their HRM practices, managerial styles of the firms' owners, firms' results, and their contexts.

This project will contribute to the literature with an in-depth study of HRM practices in micro firms and performance growth, as well as drawing some insights for further studies on these topics. The study process includes the analysis of firm owners' narratives and their employees', ethnographic observation, entrepreneurial profiles of the owners, assessment of managerial styles through a survey and evaluation, and organisational and institutional data gathering.

EO is considered an adequate approach to relate the psychological traits and behaviours of the owner to firm performance. In parallel to Miles, Covin, & Heeley's (2000) perception of EO as a strategic option, Runyan and colleagues (2008) conceptualise SBO as a strategic choice. As an extension of the EO study, this chapter explores SBO as a new perspective to consider in future micro firm and small firm research.

EO/SBO literature refers to the effect of these construct dimensions, individually and bundled, on business performance.

Following a traditional EO approach to contingency theory (Covin & Lumpkin, 2011), in an turbulent economic environment characterized by uncertainty, our aim is to understand how EO and SBO are related to HRM practices and firm performance in micro firms based on observations during a four-year period.

The variables used were considering inputs from HRM practices (e.g. Huselid, 1995), as well as entrepreneurship fields of study on the human element of the firm (e.g. Andersson & Tell, 2009). The HRM practices used were Pfeffer's (2005) thirteen best practices, Huselid's (1995) operational and financial performance variables, and Rauch and colleagues' (2005) considerations on employment growth. EO and SBO constructs were measured considering literature on these topics (e.g., Covin & Lumpkin, 2011; Runyan et al., 2008). Some variables were isolated (size, business type, external award evaluation), and most of the other contextual and internal variables considered in the literature relating HRM to growth were controlled. These included owner/manager's human capital and characteristics, employees' human capital and commitment, and willingness to grow. Thorpe and Clarke (2008) highlight the subjective evaluation of "organisational success." These authors argue

that being a small business owner might be an individual's goal, and thus, managerial behaviours might only reflect that. We analyse both objective and subjective measures.

With in-depth analysis of the complexity of the relations among HRM practices, managerial styles, and micro-firms' performance, we push micro-firm management research further.

3.2. Method

3.2.1. Case study: the methodological approach

Case studies are found in many disciplines, and all have the study of complex social events in common, in such a way that researchers can analyse “the holistic and meaningful characteristics of real-life events” (Yin, 2009, p.4).

Case studies are frequently categorized as qualitative research approaches (e.g. Denzin & Lincoln, 2011). However, according to Yin (2009), case study research may use a combination of quantitative and qualitative data.

Several authors have suggested the case study as an appropriate methodology to analyse the relationship between HRM and organisational performance (Guest, 2011; Wright & Gardner, 2000), and, in some cases, case studies have already been conducted (e.g. Rohmetra & Bhasin, 2010; Veloso & Keating, 2008; Young-Thelin & Boluk, 2012).

In this specific case, that methodology will contribute to the comprehension of how the HRM practice process operates, and associates with organisational performance. Wright & Gardner (2000) argue that case studies allow for the confirmation of the use of HRM practices, namely, collecting information from several sources.

Most empirical studies only relate HRM practices to organisational performance; there are not many studies in the literature that show the processes used to manage people successfully (Becker & Huselid, 1999; Wright & Gardner, 2000).

Davidsson (2005) suggests that a qualitative approach is appropriate in entrepreneurship studies, since entrepreneurship is heterogeneous, both capturing the individuality of each case and allowing the process to be understood. Miller (2011) refers also to the existence of “too many remote questionnaire studies with single respondents, too few qualitative studies” (Miller, 2011: 877) as a weakness in EO research, and encourages the use of this kind of methodology to deepen understanding of the effect of factors that influence the

complex process related to entrepreneurship. Furthermore, there is also a need to improve the quality of qualitative studies, particularly in longitudinal research (Miller, 2011).

Case-study selection should consider either the possibility of predicting similar results (literal replication) or the possibility of producing contrasting results for predictable reasons (theoretical replication) (Yin, 2009).

In this study, the option was using the possibility of predicting similar results based on similar specific conditions (literal replication). Therefore, some factors were considered when choosing organisations: the number of workers, the location, the type of business, products/services sold/provided, organisation's age and being evaluated as "TOP partners" by the same source (main software house supplier).

To select the cases some other features were considered (Rodríguez-Gómez, Gil-Flores, & García-Jiménez, 1996): the access to the firms, and an easy relationship with the participants, the authorization to develop the study with all its features, and therefore make sure of the quality and validity of the data, and of the study itself.

3.2.2. The case studies

The present study was conducted in Oporto, Portugal, in two micro firms selling the same ERP (Enterprise Resource Planning) software and providing related services to their clients. These micro firms were selected according to three basic criteria: having fewer than 10 workers (which categorize them as micro firms), selling and providing services in the (exact) same business, and being located in the same geographical area, therefore facing the same market as their business competitors. These cases were selected based on the researcher's convenience.

One of the companies has been selling this ERP software solution since 1995, a year after its start-up, and the other since 2004. They both had male owners, aged between 42 and 45 years old, as of 2012. Table 5 (below) shows the comparison of the case studies' characteristics.

The analysis of each of the case studies revealed the unique characteristics of each firm and enabled a better analysis between cases. The analysis between cases allowed for the identification of similar dimensions and characterisation of the different management practices.

Table 5 - Characteristics of the case studies

	Firm A	Firm B
Location	South Porto	North Porto
Number of workers		
2010	8 (plus a software trainee)	4 (plus an administrative trainee)
2011	6	4 (plus an administrative trainee)
Year of firm establishment	1997	1994
Start-up year in this ERP business	2004	1995
Owner demographic characteristics	42 years old University degree in Applied Mathematics	45 years old One year to graduation (IT for Management)
Workers characteristics	<ul style="list-style-type: none"> - Average age below 30 - High level of educational qualification - Medium level of educational qualification working with hardware - High-level educational qualification working with finance and commercial area - Medium level of educational qualification of administrative worker - 50% male, 50% female - Some turnover 	<ul style="list-style-type: none"> - Average age over 30 - Medium-high level of professional qualification working with software - Medium level of educational qualification working with hardware - High-level educational qualification working with finance - No specific worker dealing with commercial area - Only the administrative trainee, who is there for 4 months is female - No turnover

3.2.3. Data collection

The first part of this study was conducted in November and December of 2010.

Following literature on case study methodology (e.g., Yin, 2009), and on qualitative studies already performed in this field (e.g., Veloso, 2008) it is important to get information on HRM practices from more than one key-informant (Esteves, 2008). The techniques used to gather data were semi-structured interviews with the owner (two); semi-structured interviews with all the employees (one each), unstructured observation at the firms' facilities (for two days), entrepreneur profile definition (survey answers by both owners), and documental data gathering (on demographic characteristics and financial and other performance results).

The same questionnaire was used for both owners. A second interview, done three months later, aimed to collect missing information from the first interview.

All employees were interviewed in both firms with the same broad topics, aiming to have their perspective on HRM practices and management, as well as "getting the feeling" of their posture towards the firm, its performance and prospects for the future.

After the data collection in late 2010, additional qualitative data were collected in June 2012, the main focus being on the last four years (2008-2011).

In June 2012, data collection consisted of semi-structured interviews with the owners (one each) and with the Software House representative of their geographical area. Data were analysed through content analysis methodology, and the categories used for research derived from the protocols of the interviews and literature.

At both moments, we collected the demographic characteristics of the firm, as well as financial and other performance results. In 2012, HRM practices were again revisited, verifying continuities and changes. The researcher rated them based on data gathered. The owners completed the EO and SBO measures directly, and the researcher also rated them.

3.2.4. Measures

In the first part of this study, four dimensions were measured: owner characteristics, organisational structure and work dynamics, HRM practices, and organisational indicators. Appendix C shows the dimensions, sub-dimensions, question/items used and the data collection technique used for each one, which mirrors the interview and observation scripts and the analysis structure, in general.

The selected dimensions and interview questions were chosen based on several sources.

a) Organizational structure and work dynamics

The sub-dimensions measuring organisational structure and work dynamics were: organisational characteristics (firm age, location, number of employees, firm history's main moments), work schedule (formal and informal), work facilities and conditions, clients (number, type), certifications, and employees' characteristics.

b) Owner's characteristics

This dimension considers two of the topics of the relationship between the manager and growth in small firms found by Andersson and Tell (2009): managerial traits and characteristics, and managerial intentions.

Managerial traits and characteristics measures are personal demographic data (year of birth, marital status, personal attitude/posture in general) and attitudes toward and interaction with employees. The interview with the owner and observation allowed for collecting these data.

The interviews with the owners also enabled us to collect personal and professional data relevant to assessing human capital similar to that used by Rauch et al. (2005): academic qualifications, prior experience in management, and previous experience in the business field.

Managerial intentions (Andersson & Tell, 2009) are broadly analysed in the dimension we called entrepreneurial data (previous experience with self-employment, attitude/posture towards business, and entrepreneur's profile). Owners' intentions were assessed in the interviews with them. The entrepreneurs were profiled using the Entrepreneur's Potential and Experience© scale²⁵ (Correia-Santos et al., 2010). This self-administered survey presents sub-scale results beyond the general score (entrepreneurial potential) and sub-scale scores—psychological competencies, social competencies, management competencies, and entrepreneurial motivation.

c) EO and SBO

EO was measured using the traditional three dimension scale developed by Miller (1983). The dimensions include innovation, risk taking, and proactiveness, measured by three statements each. Respondents have to rate their agreement between pairs of opposing statements using a seven point scale. This is the most used EO measure (Miller, 2011).

SBO was assessed using Runyan et al.'s (2008) scale, which has two dimensions: purpose and goals (five items) and emotional link to the business (four items). Responses were given on a seven point Likert scale, from 1 (“strongly disagree”) to 7 (“strongly agree”). Another general item was added to balance dimension items, ending with five items each. The managerial orientation assessment was filled both by the owners (2012), and by the researcher (based on the interviews and observation in 2010, and revised in 2012).

²⁵ Available in several languages at <http://www.entrepreneurialpotential.com/>.

d) Human resources practices

Thirteen HRM practices (Pfeffer, 2005) were analysed: employment security, selectivity in recruitment, high wages, incentive pay, employee ownership, information sharing, participation and empowerment, self-managed teams, training and skill development, cross-utilisation and cross-training, symbolic egalitarianism, wage compression, and promotion from within. We also considered another item: owner's general ideas on employees' importance to firm's performance.

To understand better how HRM practices operate in organisational performance, we include employees' perspective, following Guest's suggestion, namely their perception of HRM practices, with specific attention to knowledge sharing habits, formal and informal training, competence development and intellectual capital (D. Guest, 1999). These practices were assessed through interviews both with owners and their employees.

These practices were assessed through interviews both with owners (2010 and 2012) and their employees (2010), and classified from 1 (missing) to 5 (totally used) (2012).

e) Organizational performance indicators

The organisational performance and financial data gathered were defined based on the literature that relates HRM practices to performance and growth (e.g. Huselid, 1995; Rauch et al., 2005; Thorpe & Clarke, 2008).

Operational performance includes turnover and productivity (Huselid, 1995) and employment growth (Rauch et al., 2005).

Turnover refers to admissions and dismissals, both voluntary and compulsory. We controlled for compensation, and voluntary turnover, following Huselid's procedure (Huselid, 1995). The data were obtained via entrepreneurs' interviews and organisational data supplied by them.

Firms' productivity, employment growth and financial data were obtained from the Portuguese Ministry of Finance. It is possible to obtain this information from the Ministry website using the tax number of the firm and paying a fee.

To access productivity, we opted for the frequently-used ratio "sales per employee" (Huselid, 1995).

Employment growth was defined based on the number of employees at the end of each fiscal year.

Firms' financial results have also been broadly used in the literature (Huselid, 1995). The data that can be obtained in Portugal for micro firms led us to consider firms' net results obtained through the data they declared to the Ministry of Finance. In these case studies, we also decided to consider two contextual performance indicators: owner's subjective success evaluation and main supplier's success evaluation.

Thorpe and Clarke's (2008) owner's subjective success evaluation was addressed in the owner's interview script.

Another subjective evaluation is the one made by the firms' software supplier. Every year, the software supplier gives "TOP partner" awards to the 10% of firms deemed its best partners among the 320 software firm supplier partners. This distinction includes a symbolic statue, engraved with the year it refers to, delivered at the software house yearly event. The awarded partners use this distinction for marketing purposes. This award was another performance indicator taken into consideration. The data were obtained through the interviews with the owners and observation of the awards on display at the firms' offices.

3.3. Results

The data analysis revealed that both firms have similar characteristics: they sell the same products from the same software house, in a similar geographic area (suburbs of the same city); they have about the same size (up to 10 employees); they have about the same firm age (3 years difference); the owners have similar demographic characteristics (both male, married, 42 and 45 years old, similar area of education – technology). They differ profoundly in their firms' histories, their characteristics, EO and SBO, as well as HRM practices and their performance results (operational, financial and growth).

Owners' histories and profiles

There are some differences between owners' and firms' histories.

Owner A worked for a year in a company whose main business was IT training, and he participated in the expansion of the firm into a new business, namely a training academy, store and assistance in the IT field. Before that, he had experience in management activities in student organisations with vast political and practical influence within his university, as well as in the city's university organisation with representation in the country's university committee. His business started in a somewhat slow manner, but in a few years, he got a good

deal, obtaining the Portuguese representation of a specific computer for a games enterprise until this company began to collapse. Then, he had to find another product to sell, and found this enterprise software, transforming a firm that was mainly selling hardware into a software house partner, selling its products and assisting the final client. He has been doing this since 2004.

Owner B worked for 4 or 5 years in a company whose business was selling their software, without ever finishing his university degree. He initially began as a programmer and moved on to assisting the final customers. When the company began to have financial problems, he left and began to work as an independent consultant for the same clients of the software solution. Two years later, one of his clients proposed to formalise a firm. He began his firm with another partner from the same company and the client who offered partnership. In 1996, his firm began to work with the software business solution he operates now.

The main differences between the two case studies are in the owners' entrepreneurial potential scores (Entrepreneurial Potential and Experience Inventory©), their motivation to grow, the HRM practices used and organisational performance and growth.

On all four dimensions of the Entrepreneurial Potential construct (entrepreneurial motivations, psychological competencies, social competencies and management competencies) (Santos, Caetano, & Cural, 2010), firm B's owner scored lower than firm A's owner. Firm B's owner was always below average; Firm A's did not have very high scores, either. He was average regarding entrepreneurial motivations and management competencies, and below average on psychological competencies and social competencies dimensions (see Figure 6).

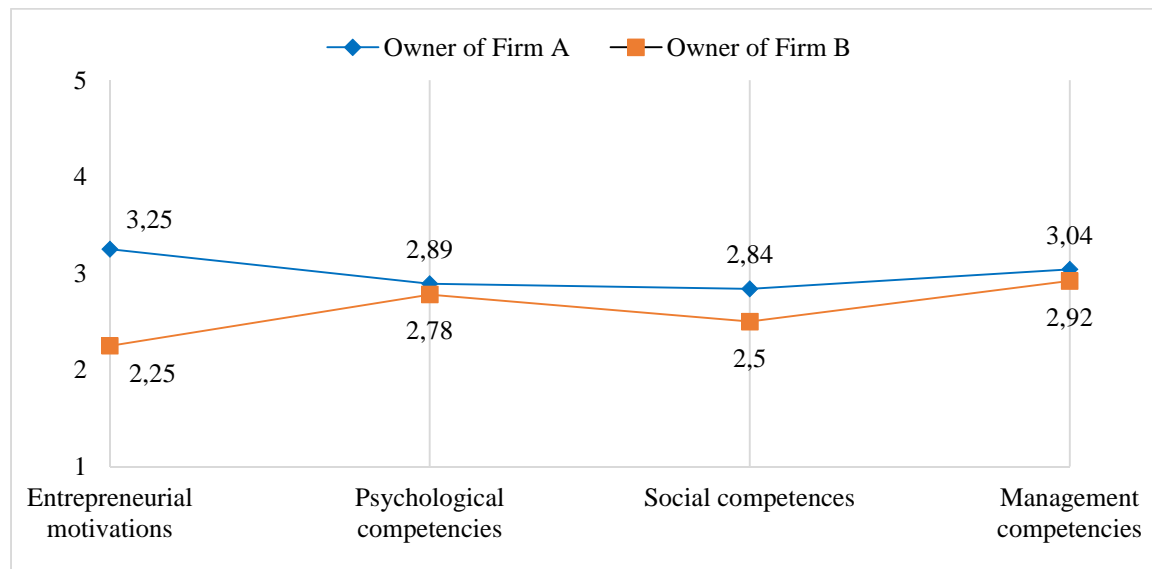
The survey's findings point to different entrepreneurial attitudes. Nevertheless, qualitative analyses indicate that the differences between owner postures seem to be bigger than the survey scores on entrepreneurial potential and experience suggested.

Business owner A referred to himself as "someone ambitious, who wants his company to grow." He is affirmative, self-confident and thinks ahead. He works hard every day, being the first to get to the company and the last to leave, and works after dinner until midnight or 1 a.m. very frequently. He wants to grow, he thinks about the future strategically and says he is preparing the current organisational structure for the future. The data confirm that his company is growing the number of employees (from 6 in 2008 to 8, plus a trainee in the software assistance area in 2010).

Owner B's attitude towards business is what may be called conservative: he refers to himself as being "not daring," and admits that he did not take the opportunities to grow

provided by the change of the millennium and the change of currency in Portugal in 2002. He does not think about growing; he says that he is waiting for what future events will bring. He expects that the employee who is going to get a share of the business will “do something” to energise the firm, and he is also waiting for the software house partners’ restructuring.

Figure 6 - Owners Entrepreneurial Potential Profile



He expects that some partners will be cut off and he will benefit from their customers. His company has the same number of employees and the same people since 2008: four workers and a trainee (the latter changes every year and helps in the administrative area during the school year, in an internship that is part of a secondary school degree).

Owners' EO and SBO

A classic EO study refers to SBO as a low level of EO, as if these two orientations were opposite ends of the same construct. Runyan et al. (2008) created a separate scale to measure SBO, improving the traditional approach.

Based on self and other’s evaluations, Firm A’s owner has higher EO than Firm B’s (Figure 7). The researchers’ evaluation tends to differentiate between them more than the self-ratings of the firm owners do. The bigger differences relate to the introduction of new lines of services and products. These differences are demonstrated by Firm A’s owner’s actions throughout the years: (a) he completely changed the business’ direction in 2004, from a hardware to a software selling firm; (b) he made great efforts in the market, and succeeded in persuading the ERP software house to give him the license to sell a new, more demanding line

of software in 2009; and (c) he introduced a new commercial strategy when he thought it was needed, in 2011.

Both owners have about the same SBO scores. The researchers' evaluation tends to differentiate a little more than the self-raters' (Figure 8).

EO and SBO results show that the owner of Firm A has about the same score on the EO scale as on the SBO scale, while Firm B's owner has a higher score in SBO's scale than in EO's. The owner of Firm B runs his business with the only goal being to provide for his family, and has old-fashioned and conservative management practices, as the SBO results show, while Firm A's, in addition to that, wants to grow.

Figure 7 - Entrepreneurial Orientation Assessment Results

INNOVATION

I1 – Favours a strong emphasis on the marketing of tried and true products or services	1.2.3.4.5.6.7	A strong emphasis on R&D, technological leadership and innovation
I2 – Has introduced no new lines of products or services	1.2.3.4.5.6.7	Very many new lines of products or services
I3 – Changes in product or service lines have been mostly of a minor nature	1.2.3.4.5.6.7	Changes in product or service lines have been quite dramatic

PROACTIVENESS

P4 – Typically responds to actions which competitors initiate	1.2.3.4.5.6.7	Typically initiates actions which competitors then respond to
P5 – Is seldom the first business to introduce new products/services, administrative techniques, operating technologies, etc	1.2.3.4.5.6.7	Is very often the first to introduce new products/services, administrative techniques, operating, technologies, etc.
P6 – Typically seeks to avoid competitive clashes, preferring a “live and let live” posture	1.2.3.4.5.6.7	Typically adopts a very competitive, “undo-the-competitors” posture

RISK TAKING

R7 – Strongly favours low risk projects (with normal and certain rates of return)	1.2.3.4.5.6.7	Strongly favours high risk projects (with chances of very high return)
R8 – Believes that owing to the nature of environment, it is best to explore gradually via timid, incremental behaviour	1.2.3.4.5.6.7	Believes that owing to the nature of environment, bold, wide ranging acts are necessary to achieve my firm's objectives
R9 – Typically adopts a cautious, “wait-and-see” posture in order to minimize the probability of making costly decisions	1.2.3.4.5.6.7	Typically adopts a bold, aggressive posture in order to the maximize the probability of exploiting potential opportunities

Final scores²⁶:

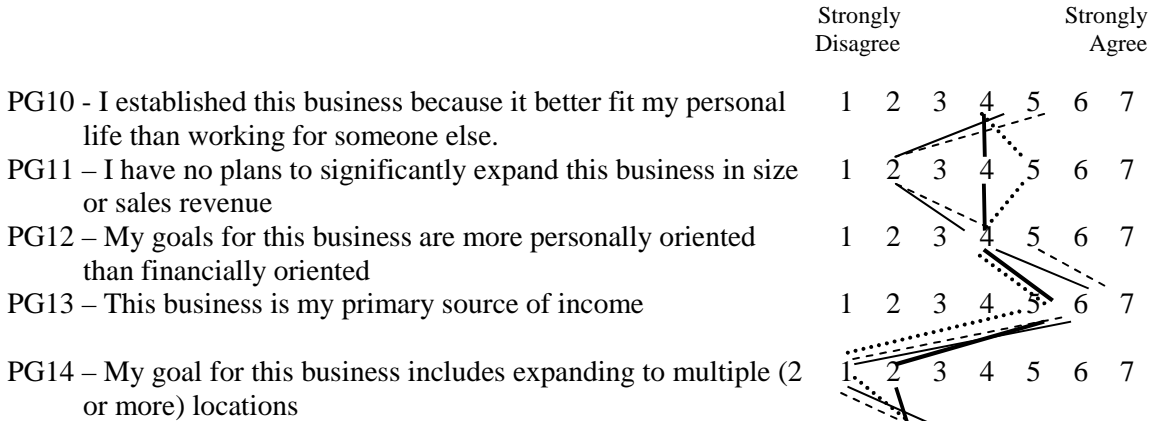
Firm A's Owner EO score – 24/42 = 57,14%
 Firm A Owner EO Researcher's perception score – 39/63=61,90%
 Firm B's Owner EO score – 25/63 = 39,68%
 Firm B Owner EO Researcher's perception score – 19/63=30,16%

Key:

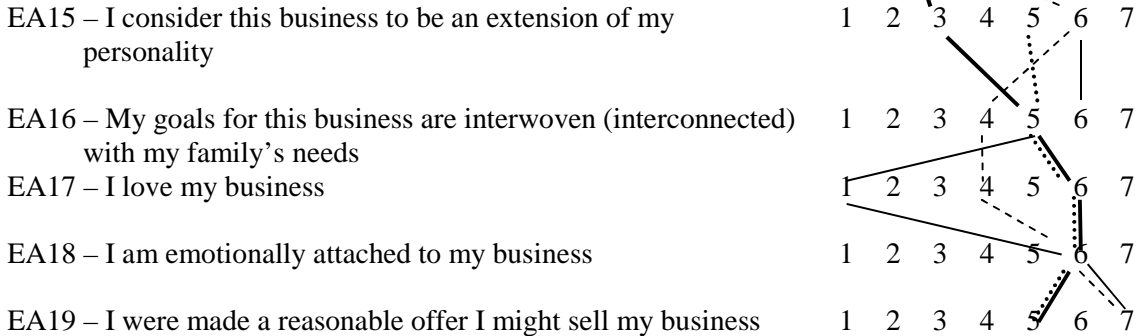
———— Firm A owner's EO/SBO scales response 2012
 - - - - - Researcher's evaluation of Firm A's Owner EO/SBO (2011/12)
 ——— Firm B owner's EO/SBO scales response 2012
 ••••• Researcher's evaluation of Firm B's Owner EO/SBO (2011/12)

Figure 8 - Small Business Orientation Assessment Results

PURPOSE AND GOALS



EMOTIONAL ATTACHMENT



Final scores:

Firm A's Owner SBO – 46/70 = 65,71%
 Firm A Owner SBO Researcher's perception – 49/63 = 70,00%
 Firm B's Owner SBO – 45/70 = 64,29%
 Firm B Owner SBO Researcher's perception – 47/70 = 67,14%

Key:

———— Firm A owner's EO/SBO scales response 2012
 - - - - - Researcher's evaluation of Firm A's Owner EO/SBO (2011/12)
 ——— Firm B owner's EO/SBO scales response 2012
 ••••• Researcher's evaluation of Firm B's Owner EO/SBO (2011/12)

²⁶ The difference on the basis of the calculation of the score between owners is due to the fact that Firm A owner did not find applicable the variables I3, P4 and P5.

HRM practices

Since 2010, there has been some evolution, but still there are some major differences between firms regarding HRM practices. However, they also have some practices in common (Table 6): attitude valuing employees' job security (even though firm A has shown more flexibility in hiring / not renewing contracts); informal communication processes; flat salary plans, with a history of no incentive pay; some sorts of hierarchy symbols (fringe benefits for some employees, e.g. company car). Neither admit to having self-managed teams; they say they have small organisational structures. Nevertheless, it appears that the independent way employees work at firm B may frame the type of *self-management* possible in this kind of small structure.

Firm A recruits college students and tests their abilities/behaviour in an internship period before hiring. It emphasizes internal training (cross-training) and sharing technical knowledge. Promotions are from within the firm, and wages do not differentiate employees, although there are signs of status such as fringe benefits. In this firm, only the commercial director is given incentive pay, although the owner considered defining goals for the technical director as well in 2010. However, in 2012, it had not yet happened. According to the owner, it is difficult to measure technical staff performance and, in his opinion, technical staff is not required to sell, and therefore they should not get such incentives. However, in the interviews, it became clear that when technical staff members are doing/discussing their work with clients, they sometimes do sell technical services. However, it is the commercial manager who gets the bonuses, and this has been causing some issues between technical and commercial directors.

Firm B's HRM practices are characterized by distance: the staff mainly works autonomously and individually, and scarcely asks for each other's help. But when they do, they help each other in an atmosphere of good will. The sharing of technical information and meetings are rare. Each employee has their own clients and works with other colleagues' clients, although not often. There are no bonuses, and internal promotions do not make sense. However, the most valuable employee, along with the owner, had a car as a fringe benefit in 2010. In 2011, the other software technician was also given a car. The senior, most valuable employee is going to be given partnership in the firm's ownership, and this has been envisaged since at least 2010. But since the executive owner of the firm does not precipitate events, it still had not happened at the time of the last data collection (in June 2012).

Based on data gathered through interviews, the author evaluated the HRM practices of both firms. Firm A has a slightly higher HRM practices score than firm B. But the finding that stands out is that firm A has more relational and Firm B more independence promoting practices.

Table 6 - HRM practices' comparison between cases: Owners (2010, 2012), Employees perspectives (2010), and researcher evaluation

<i>HRM practices</i>	<i>Firm A</i>	<i>Firm B</i>
1. Employment Security	<p>O – It is a priority to keep employees' jobs, even though there were some rough times. In 2011 decided to not renew 2 employees' contracts, and for a short period of time reduced time and wages of the administrative employee, and is thinking about letting the person in charge of the commercial sector go, for bad results and poisoning the firm atmosphere.</p> <p>E 2,3,5 - Never saw anyone being fired. The people who left did so due to personal issues.</p> <p>Score – 4</p>	<p>O - It is a priority to keep employees' jobs. Does not like to change staff. Hires and endures with that staff meeting the hard times, and dealing with personal specificities.</p> <p>E1,2,3 - Never saw anyone being fired. Employees are the same for a long time.</p> <p>Score - 5</p>
2. Selectivity in recruitment	<p>O - The university he attended has students available for internships. For the ERP department recruits from that source; Employees for the technical area are hired after an internship. Focus on learning ability and motivation, on posture and on manners in dealing with customers and colleagues</p> <p>E 2,3, 6 – Recruits employees for the ERP department</p> <p>Score – 4</p>	<p>O – Recruits from the software house's training academy, or based on personal and clients' references.</p> <p>E 1,2 – Information /candidates recommended by the software house</p> <p>Score – 4</p>
3. High wages	<p>O – On the average</p> <p>Score – 3</p>	<p>O - A little below average.</p> <p>Score – 2</p>

<i>HRM practices</i>	<i>Firm A</i>	<i>Firm B</i>
4. Incentive pay	<p>O - Non-existent for employees in general, only for the employee in charge of commercial affairs; In 2010, owner was considering implementing goals for the technical sector, but decided not to because of financial problems, and because he did not want to pay for what they sell.</p> <p>E2,7 – Only for the employee in charge of commercial affairs</p> <p>Score – 2</p>	<p>O – Non-existent.</p> <p>Score – 1</p>
5. Employee Ownership	<p>O - In 2010, thinking about giving partnership to the people in charge of commercial and technical sector. In 2012, thinking about giving it to the technical sector person, but not did not made his mind yet.</p> <p>Score – 2</p>	<p>O - In 2010, thinking about giving partnership to one of the employees. In 2012 still not implemented.</p> <p>Score – 2</p>
6. Information sharing	<p>Mostly interpersonal information exchange, especially with technical staff, not many formal meetings or memos in 2010. During some months in 2011 there were top managers meetings (owner, financial, commercial, and technical directors) but they were stopped because they caused more entropy and lack of accountability (explicitly from the commercial sector), than benefits in information sharing.</p> <p>Score – 4</p>	<p>Mostly interpersonal; in 2010 there used to be meetings every 2 weeks, mostly about technical issues, but these were stopped not much later and did not restart.</p> <p>E2 – there were meetings, not anymore “it is hard to stop all 4 at the same time...”</p> <p>E3 – “email is the means most used”</p> <p>Score – 2</p>
7. Participation and Empowerment	<p>O - There is much participation, especially regarding the technical issues. There is empowerment, but limited, employees have to check the most important decisions, and they have programming rules they have to meet, which were defined by the owner.</p> <p>There were meetings among the technical staff and between top managers, but these stopped during 2011.</p> <p>There is not much participation on financial issues, only with the financial manager, and commercial issues are analysed with the commercial director. Frequently owner/manager’s opinions prevail, despite different opinions from others, although he does say he really takes them into consideration.</p>	<p>O - There is much participation, the owner asks for the staff’s opinion on technical and commercial issues. Only financial matters are not debated. The technical staff does not have to follow any programming rules; they have their own way of doing it.</p>

<i>HRM practices</i>	<i>Firm A</i>	<i>Firm B</i>
7. Participation and Empowerment <i>(continues)</i>	E 1-8- All feel there is much participation. E3,4 – Employees like the programming rules, and feel it is important Score – 3	E 1,2,3 - They feel autonomous, and responsible for their work Score – 4
8. Self-managed teams	O - The owner admits to no self-managed teams. Score – 1	O - The owner admits to no self-managed teams. R - The employees in this firm work independently from each other. Rarely ask for support from the others. There are not exactly <i>self-managed teams</i> , they are very few employees, but there are <i>self-managed employees</i> . E1,2,3 – They feel autonomous E1 and 2 – Each has his own clients, there are no situations of one client dealing with both software technicians Score – 2
9. Training and skill development	O - Emphasizes training on the job and given by the software house. E 2-6 – All of them attend the mandatory training and certifications defined by the software house brand Score – 3	O - Emphasizes previous qualification and self-development, self-training. E 1, 2 – All of them attend the mandatory training and certifications defined by the software house brand Score – 3
10. Cross-Utilization and Cross-Training	O - Yes, since they learn on the job and with each other (the newest members learn with the older members). Most complex problems are discussed both among the technical team and with the owner. E 2-6 – there is much cross-training and learning Score – 5	O - Yes, but not in an organised way and it happens seldom E2 – “it could be more frequent, but the issue is time..” Score – 2
11. Symbolic Egalitarianism	O - Not much. The top managers each has a car, the others share a car. E1,7 – These employees have individual cars paid by the firm. Score – 3	O - To some extent. They all have company cars. The most senior employee had the company car in the 1st place. R - Informally there is an awareness of who the senior, most valuable employee is; E1 – This employee has a car paid for by the firm (2010) Score – 4

<i>HRM practices</i>	<i>Firm A</i>	<i>Firm B</i>
12. Wage compression	O - Yes (the highest salary is twice as much as the lowest) Score – 5	O - Yes (the highest salary is twice as much as the lowest) Score – 5
13. Promotion from Within	O - Yes, there is one case: the technical department director was a former technician and apparently led to a former, senior worker in the firm in the company to resign E3 – This employee acknowledged she was promoted, since she began her career at firm A Score – 3	O - The practice does not make sense since they are only 4 employees. Score – 1
Total Score	42 points –64,6%*	37 points – 56,9%**

Legend: O – Owner; E [number] – employees; R – researcher comment; Score – Defined by the researcher

* Calculation: 42 points/(13 practices x 5 points)= 64,6%

** Calculation: 37/(13 practices x 5 points)= 56,9%

Firm performance indicators

Organisational performance indicators also differ between firms. The organisational indicators considered in this study were: operational, financial and contextual. Findings are displayed in Table 7.

Firm A grew in number of employees until 2010, and expected to grow more (it hired the 2010 software trainee and had a new software trainee from the university in 2011). However, since there was not enough work, the owner did not renew the contracts of two junior employees, and hired the university trainee from 2011 the following year. The owner of Firm B does not consider increasing numbers. He believes that a business should be run with some caution, so as not to overstep their capacities to respond to future events. The owner of Firm B only replaced a worker who asked for retirement in 2011.

Performance indicators are much more favorable to Firm B. Firm B has better productivity ratios (sales/number of employees), 40% more than Firm A, both in 2008 and 2009, and increased their net results by 70%, which contrasts with a decrease in Firm A of 13%, between 2008 and 2009. When comparing net results between the two firms, we found that, in 2008, Firm B made twice as much as Firm A and that, in 2009, Firm B made four times more money than Firm A, with roughly half the employees.

According to the owner of Firm B, 2010 “was an exceptional year”. He explained that they have always had a “large number” of clients, and when there have been legal/mandatory

changes in the software, it has brought a good work and profit opportunity. That is what had been happening since 2009, being more important and generalised in 2010 and 2011. Even though Firm A had the same legal environment, in 2010 it increased their sales. However, as they hired one more employee, their productivity ratio was not as good, and therefore their operational results declined.

In 2011, Firm A, objectively, grew 77%, even though they were 83% behind Firm B. Both firms are considered to have had good results, particularly in comparison with the fact that those of most competitors decreased. This evaluation is especially that of the Commercial Support Person from the Software Supplier. According to Firm A's owner, his results were due to a commercial strategy of selling three years of software changes for the price of two and receiving the money in advance in the year that it was sold. He had never used this strategy before because it is not profitable in the medium run, but he needed an immediate return at a given point in 2011, and resorted to this strategy to solve the problem. Also, it probably ensured him the "TOP partner" award in 2011. Firm B did not get the award in 2011, but was only three positions from getting it, which is a very good ranking position, especially in a recession situation.

Growth often depends on motivation and willingness to risk for the future. Firm B's owner was presented with two very good market circumstances for growth (the new millennium in 2000, and the change in Portuguese currency in 2002) and did not use them. The owner of Firm B is reasonably satisfied with the firm's results, although he admits to some frustration at not being "adventurous". The owner of Firm A, on the contrary, began this software business in 2004 and, even though he is satisfied with the results, considering the circumstances, is not completely pleased with the results: he is still fighting for better outcomes and wants to "reverse the situation and grow, at a faster rate than he has had until now" in the future.

Firm A was invited by the software house's commercial department to join the group of partners that sell the software solutions to large firms—that is, to rise to the level where a deal can be much more profitable. Firm B, which has been "TOP partner" since 2007, was not given that chance. This exploratory study suggests that motivation to grow, showing strategic thinking and hiring new employees (and probably personal posture as well) have a better impact on the confidence of other people in a company's potential than a high volume of sales and income.

Table 7 - Organizational performance indicators of Firm A and B 2008-2011

Organisational Performance Indicators	Firm A	Firm B
1. Operational indicators		
Number of employees		
2008	6	4 (+1 administrative trainee)
2009	7 (+1 software trainee)	4 (+1 administrative trainee)
2010	8 (+1 software trainee)	4 (+1 administrative trainee)
2011	6	4 (+1 administrative trainee)
Employment variation between 2008-2011 (%)	0%	0%
Turnover	Some turnover	Mandatory turnover
Productivity comparison between firms (productivity = sales/employee, trainees were not considered)		
2008	Firm A < Firm B	+47%
2009	Firm A < Firm B	+49%
2010	Firm A < Firm B	+58%
1. Operational indicators (cont.)		
Productivity variation within firm		
2008-2009 [1-(2008/2009)]	-13%	-10%
2009-2010 [1-(2009/2010)]	+1%	+19%
Productivity variation 2008-2010 [1-(2008/2010)]		
	-12%	+11%
Operational result comparison: Sales - Costs (ratio Firm A / Firm B)		
2008	0.75	1.00
2009	0.88	1.00
2010	0.57	1.00
Operational result variation between 2008-2010 [1-(2008/2010)]		
	-4%	22%
2. Financial indicators		
Net result comparison (ratio Firm A / Firm B)		
2008	0.49	1.00
2009	0.25	1.00
2010	0.03	1.00
Net result growth between 2008-2010 [1-(2008/2010)]		
	-593%	57%
2011 – owners' subjective evaluation comparing results with 2010		
	Slight increase	About 30% decrease
3. Contextual indicators		
Software supplier evaluation (TOP partner award)	2009, 2011	2007, 2008, 2009, 2010 (2011 – was only 3 positions away from getting the award)
Commercial support person from software supplier	2011 – slight increase of software purchase when 70% of partners decreased	2011 – 20-25% decrease in software purchase
Owner firm's success evaluation	“satisfied [...] considering the circumstances, but is still fighting for better results”	“reasonably satisfied”, “admits to some frustration”

3.4. Discussion

This study had two goals: first, to improve understanding of the relationship between HRM practices and business growth, and second, to explore managers characteristics and EO and SBO features relating to HRM practices and micro firms' performance.

Qualitative and longitudinal approaches such as this have long been asked for, both in the entrepreneurial research field (Davidsson, 2005) and in the human resources management arena (e.g. Guest, 2011).

As recommended by the literature, firm performance was assessed through multiple indicators (e.g. Davidsson et al., 2005), and using human-related data, such as employment growth, since we are investigating the firms' human capital investment through HRM practices (Rauch et al., 2005).

Even though we isolated some contextual variables (business size, business type, geographical location, and external award evaluation) that make the firms comparable, and the owners have similar demographic characteristics and are similar regarding SBO, results showed substantial differences in the owners' entrepreneurial potential, EO, motivation to grow, and HRM practices, and their firms have significantly different organisational performance and growth results.

Objective performance indicators are higher for Firm B than for Firm A in productivity (sales per employee), operational results (Sales-Costs) and net results. Software firm objective evaluation is superior for Firm B, in particular as far as sales are concerned. In 2011, Firm A received the best overall external evaluation, as well as the "top partner" award. Self-evaluation is also higher for Firm B than Firm A. The owner of Firm A, although "not doing badly under the circumstances," is not happy with the overall result, specifically because the firm did not grow as he wanted and in proportion to his effort. The owner of Firm B admitted perceiving "some frustration [for not having taken the opportunities to grow]" in late 2010. However, even though 2011 was not as good as 2010, he relied on the fact that 2010 was an exceptional year and that 2011 was a regular year, thus seeming contented with the results from 2011. Employment growth was null in both firms between 2008 and 2011: intentional in Firm B's case, but yet another unaccomplished goal for Firm A's owner.

Results point to the fact that these small firms' sophisticated HRM practices, considered to be "the best practices," do not seem to work quite in the same way as they do in larger firms, at least as far as productivity and financial indicators are concerned (Combs et al., 2006; Huselid, 1995).

Firm A's owner invests more in people, and uses some of Pfeffer's (2005) HRM best practices: concerns about recruitment, internal training and cross-training, and an atmosphere of frequent information and knowledge sharing, but Firm A has much worse results, both operational (productivity and turnover) and financial (net income), than firm B.

On the other hand, Firm A has good employment growth, supporting Andersson & Tell's (2009) findings on managerial intentions, aspirations or motivation of business owners as essential to business growth. Also, the results are aligned with Rauch et al.'s findings (2005), since these authors found support for their hypothesis on HR development and utilisation affecting employment growth. They defined HR development and utilization as training/development of employees, involvement in decision-making, goal communication, and support for personal initiative activities, which relates to our results for firm A. Also, as pointed out by Rauch et al. (2005), the owner interested in making the firm grow will invest more in people.

Firm B, which had better operational and financial results, presents a more individualistic work dynamic, and the staff works more autonomously. Even though there is not knowledge sharing behaviour between firm members, in firm B there is good technical support (according to the owner's and employees' evaluations) provided by the software supplier: forum, FAQ and Problem-solving database, as well as direct phone support. The technical support provided by the software house can diminish the importance of knowledge sharing in this particular context.

Business owners' human capital pointed to the importance of experience and specialisation of the business owner in the industry to achieving better firm results. We measured human capital using the following indicators: academic qualifications, previous experience in management, and previous experience in the business field. Firm A's owner reported a greater amount of human capital when referring to leadership experiences in his life than firm B's. However, firm B's owner reported greater specific experience, not only on the ERP business but also specifically in the ERP they are selling and implementing (fifteen years *versus* seven years). We would say that specific experience has better financial results, and management experience is more related to employment growth. These results highlight how important it is to discriminate better and analyse what is being measured as human capital.

Rauch et al. (2005) mentioned the importance of assessing employees' human capital more thoroughly rather than just asking the owner, in two items on a scale, whether or not employees were well trained and qualified for the work they did. We followed that suggestion,

and not only did we ask the owner, but we also confirmed the information about academic qualifications and years of experience in the field with the employees themselves. Results showed that the firm with more qualified staff in the field (since before they were hired) and years of experience in the software they are selling and implementing has the best operational and financial results, no turnover, and no employment growth. We could say that these findings do not support Rauch et al. (2005) results in small firms. These authors refer to employees' human capital as a moderator of HR development and utilisation and business growth; we question whether, in micro firms, hiring qualified and experienced staff is more important than HRM practices.

A firm's number of years in business is an important topic to consider, as it regards owner's and staff's experience in the field, enhancing their human capital, as well as the number of clients. The number of clients could partially explain the operational and financial results, but even though Firm B has more clients (140 *versus* 110), the difference is not large enough to account for the differences in financial results. We could not get the clients' firms' size, which could be an important factor, but subjectively they both said that their clients were not big. Firm A's owner wanted to get bigger clients, as a personal objective, commercially speaking. Firm B's does not want very big client firms because his firm cannot deal with that amount of work.

Considering that the software supplier knows about firms' sales, and they are the ones who award partners such as the ones that we are studying, an unexpected topic came up in the interviews. Firm A was invited by the software house's commercial department to join the group of partners that sell the software solutions to large firms - that is, to rise to the level where a deal can be much more profitable. Firm B, which has been "TOP partner" since 2007, was not given that chance. This exploratory study suggests that motivation to grow, showing strategic thinking and hiring new employees, and probably personal posture as well, have a larger impact on confidence building towards other people than effective sales and profit.

Focusing on EO/SBO, the first salient point is that both owners have similar scores on SBO and different scores on EO. These findings seem to support Runyan et al.'s (2008) theory on differentiating EO and SBO constructs.

Another interesting issue is the EO scale items. In order for the EO scale to accurately reflect the perspective of the owners of the firms, the researcher had to make an effort to adapt the survey to their reality to be able to respond. Both owners completed the scales in the presence of the researcher. The owner of Firm B did not mention any effort or adaptation to answer the scales. The owner of Firm A said that some items were not applicable to his case

and did not want to be flexible, saying he could not see how to adapt it to his case. We partially understand his position, but we think that it might be because it does not cross his mind to take such actions (mentioned in the scale statements), although he could. It is our opinion that he sometimes takes actions that could be classified as such, but he is not aware of that or does not classify them in that way. Nevertheless, Miller (2011) argued that to move forward in EO research, it would be useful to review the items of the scale built in 1983, and having an independent rater could shed some light on the subject.

Since the emergence of EO research (e.g. Rauch et al., 2009), a higher score has been related to better organisational performance, at least until the latest studies in an economic crisis situation (Kraus et al., 2012). In this case, higher EO did not lead to greater organisational performance. In fact, every year, Firm A had lower productivity and net results when compared to Firm B. It is only in 2011 that it has shown superior sales, operational results, and good external evaluation. Despite all this, we could say that these firms have been showing reasonable results, namely being considered “TOP Partners,” which may be partly explained by Runyan et al.'s (2008) findings: firms that have good results are those with less than 11 years in business whose owners have higher EO, and those who are more than 11 years old and whose owner has a higher SBO than EO. We say “partly” because the higher EO evidenced by the owner of Firm A did not result in superior performance by his firm over time, and the owner of Firm B did not have higher SBO but merely lower EO.

In these micro firms, in an economic crisis climate, a stronger organisational performance and a more accurate reaction to the crisis happens in firms where the owner shows a higher EO and has a strategy of investment in people. Such results seem to support the relation between EO approach and contingency theory: there is a positive relationship between the EO of the owner and firm performance in turbulent environments (Covin & Slevin, 1989a; Kraus et al., 2012). A lower level of EO was associated with superior productivity and financial indicator results in a more stable economic environment.

The owner of Firm A wanted to grow and said he was preparing the organisational structure for the future in 2012, namely creating departments and defining managers (technical and commercial) and increasing the number of employees. A higher EO and willingness to grow tends to occur when there is a bigger investment in and support of people, while a low EO occurs when there is a more individualistic and autonomous style of working.

Researchers and entrepreneurs alike frequently look at growth as a sign of success and profitability (Davidsson et al., 2009). Evidence by Davidsson et al. (2009) may explain the results of the case studies of the present research: firms that show high profitability at low

growth are more likely to subsequently reach a state of high growth and high profitability than firms that first show high growth with low profitability. We should analyse and question the universal growth ideology. No matter what situation, with or without a crisis, it is “advantageous in most situations to let profitability (and the competitive advantage it reflects) be the horse that pulls the growth cart, rather than the other way around” (Davidsson et al., 2009, p. 389).

3.5. Limitations and Future Research Directions

HRM in micro-firms is an unexplored topic, so there is not a specific literature which supports this study. We conceptualised this study based on the HRM and entrepreneurship literature, introducing the owner in the organisational dynamics, and we considered a broad spectrum of variables and information from several sources. This study only provides limited information because it is grounded in a scattered rather than focused corpus of past research, and examined a very small sample of micro-firms. Moreover, since they present such different results, some other firms should be studied to provide a better picture of the influence of the association between firm owner characteristics, managerial styles, HRM practices, and organisational performance indicators.

However, this study sheds light on some new perspectives and challenges on management and entrepreneurship topics, both theoretical and empirical.

The first challenge is the fact that most of the literature has been focused on studying rapid growth firms, as well as EO, and have not paid enough attention to SBO and the *business as usual* posture. Research has found that most firms start and die small; additionally, unemployed people who start businesses as a means of survival have bigger failure rates than those who are driven for other reasons (Davidsson et al., 2005). Future research should pursue a better understanding of micro and small firms, as well as SBO as a strategic option for the improvement of these firms' success rates.

This idea is reinforced by the recommendation to entrepreneurs found in the literature: not to grow until they have a sustained competitive advantage that guarantees a reasonable amount of profit (Davidsson et al., 2009). Following this course of reasoning, EO might not always be the best strategic option. This evidence shapes a second future challenge.

The contingency approach seems to be supported by these results, since the use of the same strategy in different economic environments results in different organisational performances. Research on EO and organisational performance should thus continue to

examine the merits of a contingency approach, not only because it has been requested by the entrepreneurship (Gartner, 2008) and EO (Covin & Lumpkin, 2011) literature, but because the results of the present study suggest that it is a useful approach.

There is not enough evidence either on the mechanism by which EO and a strategy of investing in people succeed or on their effect on firms' outcomes. The effect of HRM practices, namely on employee human capital, cannot be evaluated due to the turnover. We do know that the owner who uses more HRM practices is also the one who is more flexible, with more experience in adverse situations, and who has a higher EO. The human capital theory states that firms whose employees have higher human capital tend to be more successful (e.g. Unger et al., 2011). These findings show that in a crisis, the element that might have a bigger impact on results seems to be the owner's strategic attitude and his human capital (namely former experience in adverse situations). Future research should examine contingency theory since it seems to also apply to the human capital/performance relation.

The contingency approach is the most used when studying HRM practices in relation to performance both in large firms (e.g. Huselid, 1995) and SMEs (e.g. Messersmith & Wales, 2013; Patel & Conklin, 2012). To study the HRM practices' impact on performance, these authors calculate a single HRM index that they then relate to the performance indicators. In reflecting on the results of our study, it is noteworthy that even though the owners' final scores on HRM are not very different, nonetheless each owner emphasises different types of practices. Firm A's owner's HRM practices score is a little higher than Firm B's owner's, but what is really different is the mixture of practices they use. In Firm A, HRM practices are more relational, and in Firm B, HRM practices are more distant and promote individualistic ways of working. Therefore, the configurational approach is also a good theoretical and empirical option to study HRM practices in relation to performance, once the internal and external contingencies have been controlled for (Delery & Doty, 1996).

Longitudinal and qualitative approaches may shed light on these issues and help shed light on how the results are influenced by the courses of action taken. Such is the methodological challenge to future research on the relationship of entrepreneurship, EO and HRM practices, and human capital to performance.

Subsequent studies on this topic should consider the same variables to test these findings, and pay special attention to owner willingness to grow, to firms' years of experience in business, to staff's years of experience in their field of work, and to turnover. HRM practices in this particular type of smaller firms should be better defined and characterised. The employees' perspective can be of value to shed light on the effect of HRM practices on

them. EO and SBO constructs should be further studied separately, and related both to HRM practices and firm performance and growth.

3.6. Conclusions

This research on HRM practices, owners' managerial styles and their impact on performance and growth contributes to the literature in several ways. The study object, micro-firms, are a very numerous and understudied special type of small firm. The best features of the study are: the choice of the case studies, namely the fact that they are business competitors; the wide spectrum of contextual variables covered; and the different sources for data collection, since we were able to triangulate most of the information, and were thus able to support the analysed data.

The in-depth methodology used, and the broad scope of variables considered both in the HRM field and in the entrepreneurial tradition of studying people's role in firm growth - HRM best practices, owner's characteristics, human capital, willingness to grow, EO and SBO - are of great value for better understanding organisational dynamics. The dimensions of employees' human capital and firm characteristics, structure and work dynamics are also considered. The firm growth concept is measured in a broad manner, through assessment of employment growth (Rauch et al., 2005), operational and financial performance growth (Huselid, 1995), and subjective performance (Thorpe & Clarke, 2008).

Practical implications of this line of research can be of great importance since about 90% of firms in the European Union have fewer than ten workers and represent about 30% of the employment in these countries (Stenkula, 2006).

Data from this study suggest that:

- Relational HRM practices (such as interpersonal communication, information sharing and cross-training, which common sense would say characterise small firms) have not been proven better by these firms' results. On the contrary, more individualistic and autonomous ways of working showed better productivity and financial indicator results;
- Previous technical experience, autonomy and scarce cross-training seem to work better for productivity and, ultimately, on financial growth than internal training, and competence development;
- A relational way of managing people is associated with higher entrepreneurial profile characteristics and higher EO; on the contrary, lower entrepreneurial competencies are

consistent with lower EO and with not taking risks by hiring untrained people. A lower EO is associated with hiring already trained staff, and promoting an autonomous way of working;

- A higher SBO than EO, over time, has better financial results than the opposite;
- Employees' human capital as an important factor in a stable economic environment, and to owner's human capital, namely on adapting to change, as being very important in an economic crisis environment.
- Experience in the field seems to be a very important asset in productivity, so the firm's number of years in business and hiring already qualified staff in the specific field are critical factors for the firm's success;
- Trying to grow before having a sustained competitive advantage might not be a good strategy to pursue.

To be successful in the long run, business owners should be aware of the importance of getting a sustainable advantage before growing. As far as the case studies researched in this case are concerned, we suggest that if Firm A's owner wants to grow, he will have to seek this outcome in a sustainable way, supported by higher productivity. We suggest that he should maintain or increase his EO behaviours, supported by HRM practices that will increase his specific human capital, as well as that of his employees. If the owner of Firm B wants to maintain his profitability, he needs to assume a more entrepreneurial attitude towards the business, specifically in this time of crisis, and should probably develop HRM practices into more relational practices, to obtain and share knowledge with his staff.

**CHAPTER 4. The Relation of Human Resources Management Practices, Culture and
Micro-firm Performance: a Multi Case-study Approach (Study 2)**

4.1. Introduction

Both HRM practices and culture are recognised as important elements of efficiency and good organisational performance (e.g. Combs et al., 2006; Lee & Yu, 2004).

The HRM practices-performance link has been much studied in large firms (e.g. Huselid, 1995) and SMEs (e.g. Rauch & Hatak, 2016). Organisational culture-performance link studies mainly examined large firms (Gregory et al., 2009; Hartnell et al., 2011). Among the studies regarding the association between HRM practices and culture and performance, there are some studies of SMEs (e.g. Patel and Cardon, 2010). Despite promising findings connecting HRM practices with corporate culture and performance, namely the mutually reinforcing interaction between HRM practices and culture (Chan et al., 2004; Neves, 2000), there is not much recent literature on this topic. Given that micro-firms are the most common type of firm worldwide (OECD, 2017a), and the enhanced importance and direct impact of the owner in such firms due to their small size, the study of these variables is very relevant (Jaouen & Tessier, 2009; Torrès, 2015).

Adopting a resource-based view of the firm (Barney, 1991), this study aims to understand HRM practices and corporate culture relations, and their relation to firm performance, specifically to understand, (a) *how do HRM practices and culture relate*, and (b) *how these organisational variables relate to micro-firm performance*.

To accomplish these goals, we analyse and compare four micro-firms, competitors among themselves, regarding their HRM practices (Pfeffer's, 2005, thirteen practices) and compare each individual organisational culture, using CVF model developed by Quinn and Rohrbaugh (1983) to a three-dimensional model of organisational performance (Venkatraman and Ramanujam, 1986). The data we examined were gathered between 2008 and 2013.

This study makes several contributions to the literature concerning methodology and theory building. Methodologically, we can identify several issues that are based on careful research design (e.g., Gomes & Cesário, 2014; Yin, 2009). First, as firms are competitors

²⁷ Based on data from this study one paper has already been presented and published:

Rodrigues, A. C., & Caetano, A. (2015). An Organizational Culture Approach to Performance in Information Technology Micro-firms. In *Innovation Management and Sustainable Economic Competitive Advantage: From Regional Development to Global Growth* (pp. 2628–2641). Madrid, Spain

among themselves, they have the same macro-economic and industry benefits and constraints, making the results more focused on the variables that we are analysing. Second, most studies are quantitative (e.g. Chan et al., 2004; Patel & Conklin, 2012; Wei et al., 2008), and we present in-depth analyses which enable us to understand the individual context of firms, and capture the organisational dynamics. Third, we have gathered information from the perspective of both owners and their employees, which is an advantage in understanding management practice effects when compared to intentions. The last methodological advantage is the time-lagged analyses of performance indicators, which is always called for in the literature (Davidsson, 2005; Wright & Gardner, 2000). Theoretically, it improves knowledge of the influence of people management on performance in the micro-firms context (focusing especially on the ERP selling and consulting sector), and more specifically the joint influence of HRM practices and corporate culture on performance. We present some practical propositions that may help in managing people to achieve better performance in micro-firms.

In the next section, we present the study's methodology, and details on the data collection and measures of the variables analysed. We then present the main results, and finally the propositions that have emerged are discussed.

4.2. Methodology

4.2.1. Case Study: The Methodological Approach

Case studies are found in many disciplines, and arise from “the desire to study complex social phenomena” (Yin, 2009:4), such as organisational and managerial processes; and “focuses on understanding the dynamics” (Eisenhardt, 1989, p. 534) such as the relation and inter-relations among organisational variables. The focus of this research strategy (Eisenhardt, 1989) is therefore, adequate for the objectives of this study, which aims to comprehend the relation between several organizational variables (HRM practices, corporate culture and firm performance) among them, in pairs, and in the inter-relation simultaneously, as well as the consideration of many contextual variables (Yin, 2009).

Also, the literature supports the adoption of a qualitative approach to study small entrepreneurial firms (Davidsson, 2005; Jaouen & Tessier, 2009), the HRM practices-performance link (D. Guest, 2011), and the role of corporate culture (Schein, 1990). There are some examples of studies in the Portuguese context regarding the HRM practices in SMEs (e.g. Almeida, 2009), and in SMEs in the technological field (e.g. Veloso, 2008). Considering

that the phenomenon we are studying is heterogeneous, case studies both help to capture the individuality of each case and allow the process to be understood Davidsson (2005), as well as to understand patterns among cases (Eisenhardt, 1989).

Case studies are frequently thought of as strictly qualitative research approaches (e.g., Denzin & Lincoln, 2011). However, according to Yin (2009), any case study may use a combination of quantitative and qualitative data. There are also cases of studies in Portugal relating HRM practices to organisational performance (e.g. Esteves, 2008).

In this study we gathered data using both qualitative and quantitative instruments, and from several sources aiming to do the triangulation of information, as good-practice methodology advise (e.g., Gomes & Cesário, 2014), We followed the evidence already obtained regarding the relationship between HRM practices, the CVF model and organisational efficiency (e.g. Hartnell et al., 2011; Patel & Cardon, 2010), and expanded understanding of the relationship between HRM practices, culture and the variables of performance and organisational growth, based on detailed and in-depth interviews.

4.2.2. Case studies selection and data collection

We compared, across six years (2008-2013), four micro-firms which sell ERP software and provide related services to their clients. We selected these micro-firms based on the prospect of predicting similar outcomes based on similar particular conditions (literal replication) (Yin, 2009). They were, therefore alike in several categories, such as having fewer than 10 workers (which labels them as micro-firms), selling and providing services in the same business sector, selling one or two of the same brands of ERP software, and being located around the same geographical area, dealing with the same market, thus being direct business competitors.

This was a theoretical sampling, rather than statistical (Eisenhardt, 1989), identified by the two biggest ERP software brands operating in Portugal. They produce and sell their software (identical) through other firms. The Commercial Managers provided information on their best performing firms in the same geographical area. Researchers contacted them and the ones that agreed engage in the necessary data collection (Rodríguez-Gómez et al., 1996) were enrolled in the study.

Isolated variables in the case studies are the size of the firms and their business type. Most of the contextual and internal variables considered in the literature that relate HRM to

growth are controlled for: owner/manager's human capital and characteristics, employees' human capital and commitment, and owner's willingness to grow.

Through interviews with owners and employees and through participant observation, we collected the following qualitative data, referred to in the literature as affecting culture creation: entrepreneurial firm histories, managers' characteristics and employees' human capital. Data collection occurred in two time periods: the first between November 2010 and December 2011 and the second between February and April 2013. The main focus of this study was the last six years (2008-2013). We collected the first data using semi-structured interviews with the owner and with all the employees (one each), and documental data collection (on demographic characterization and performance results). In 2013, data collection consisted of one semi-structured interview with each of the owners, corporate culture survey answers (owners and employees), and job satisfaction and commitment surveys completed by the employees. We also collected quantitative data (net income and number of employees) regarding the six years' time lapse of the study (Table 8).

We analysed each case individually (within cases), and then across cases (between cases). The replication approach began with the definition of the research questions, followed by the selection of cases and the design data collection protocol; the conduct of each case study; the written reports analysing *within* each case study, and *between* case studies, finally allowing for the definition of propositions.

4.2.3. Measures

We measured three dimensions to study these four micro-firms: HRM practices, organisational culture and several performance indicators.

HRM practices are the thirteen practices (Pfeffer, 2005) that we have been measuring: employment security, selectivity in recruitment, high wages, incentive pay, employee ownership, information sharing, participation and empowerment, self-managed teams, training and skill development, cross-utilisation and cross-training, symbolic egalitarianism, wage compression, and promotion from within.

We interviewed both owners and employees. The interviewer rated the owners regarding the intensity of the HRM practices usage between 1 (not present) and 5 (fully used). This evaluation was subsequently reanalysed by a senior researcher.

Organisational culture was measured using an Organisational Culture Assessment Instrument (OCAI), the Competing Values Framework survey (Cameron & Quinn, 2011),

which was translated into Portuguese by the author and supervisor. Both firm owners and their employees responded to the 24 item scale, which contains six dimensions: dominant characteristics, organisational leadership, management of employees, organisational glue, strategic emphasis and success criteria. Data were analysed following Cameron & Quinn's (2011) guidelines.

Organisational performance and growth were measured based on the literature that relates organisational culture and firm performance (e.g. Hartnell et al., 2011; Venkatraman & Ramanujam, 1986). Variables measured included financial effectiveness, operational effectiveness/business performance and employee attitudes/organisational effectiveness. Financial effectiveness indicators are income and growth in number of employees. Operational effectiveness/business performance was measured by the productivity ratio and its evolution over the time period under study (sales/number of employees). Firms' net income, productivity and employment growth were obtained from the government's website (using the firm's tax number and by paying a fee).

Employees' attitudes regarding organisational effectiveness include affective commitment and job satisfaction. For job satisfaction we used the Job Satisfaction Survey©, already translated to Portuguese and validated by João Malheiro (Spector, 1994). Six of the original nine subscales were used: supervision, operation conditions, co-workers, nature of work, communication and contingent rewards. The 24 items were rated on a six-point scale: disagree completely, disagree moderately, disagree slightly, agree slightly, agree moderately or agree completely. For the affective dimension of commitment, participants rated the seven items proposed by Meyer and Allen (1997) on a seven-point Likert scale with options ranging from strongly agree to strongly disagree.

Table 8 shows the data collection structure: periods, sources, techniques and measures. The interviews were analysed through content analysis methodology, and categories were derived from the specific interview protocols and the literature.

Table 8 - Data collection structure

November 2010 to December 2011 (4 micro firms)			February to April 2013 (4 micro firms)			February to April 2013 (4 micro firms)		
Data source	Data collection technique	Measures	Data source	Data collection technique	Measures	Data source	Data collection technique	Measures
Owner	Interviews (n=2)	-Firm characteristics and history -Organisational structure -Owner/ Ownership characteristics: human capital (Rauch et al., 2005); -Owner's willingness to grow (Rauch et al., 2005), - HRM practices (Pfeffer, 2005) - Subjective firm performance indicators: Idiosyncratic perspective of the owner/manager (Runyan et al, 2008; (Thorpe & Clarke, 2008)	Owner	Interview (n=1)	(data actualization) -Firm characteristics and history -Organisational structure -Owner/ Ownership characteristics - Subjective firm performance indicators - HRM practices (Pfeffer, 2005)			
				Survey	-Corporate culture, Competing Values Framework (Quinn & Rohrbaugh, 1983)			
Employees	Interview (n=1)	-Firm working atmosphere -Own Human capital	Employees	Surveys	-Corporate culture, Competing Values Framework (Quinn & Rohrbaugh, 1983) -Affective Commitment (Meyer & Allen, 1997) - Job Satisfaction Survey			
	Survey	-Affective Commitment (Meyer & Allen, 1987)						
Ministry of Finance	Documental analysis (2008-2010)	- number of employees: Growth (Rauch et al., 2005) - Firm performance indicators: Financial and business performance (net income and productivity) Hartnell et al., 2011	Ministry of Finance	Documental analysis (2011, and some indicators 2012)	- number of employees: Growth (Rauch et al., 2005) - Firm performance indicators: Financial and business performance (net income and productivity) Hartnell et al., 2011	Ministry of Finance	Documental analysis (2011-2012)	- number of employees: Growth (Rauch et al., 2005) - Firm performance indicators: Financial and business performance (net income and productivity) Hartnell et al., 2011

4.3. Results

Pursuing the paper's objective of analysing the relation between HRM practices, culture type(s) and performance and growth, in this sub-section we present the findings in the four case-studies regarding each studied dimension.

We report the HRM practices and their classification, and analyse the organisational culture of the four firms according to the Competing Values Framework survey authors' instructions (Cameron & Quinn, 2011). Then, we report performance and growth data regarding the three dimensions (financial and business performance, and organisational effectiveness) which the literature relating HRM practices and organisational culture to firm performance advises and, finally, we compare the firms' HRM practices, culture, performance and growth. Detailed information collected on the firms are presented in Appendix D.

These data provide empirical material that enables us to develop propositions for suitable HRM practices, and organisational culture in the best performing micro-firms, as well as the growth and sustainability of these firms.

Human Resources Management Practices

We report the description and classification of the HRM practices of the four firms in Table 9. Analysis of the HRM practices intensity scores (e.g. Patel & Cardon, 2010; Sels et al., 2006) indicates the presence of two groups: the medium (around 60%) and the almost-high (around 75%) intensity HRM practices groups. These groups correspond to the intermediate (around 5 employees) and larger (around 10 employees) firms.

These apparently similar groups of HRM practices hide different profiles: the same practices are not higher (or lower) within the same pair of firms. When analysing their specific profiles, all the firms are different and what stands out in each is unlike all the others.

The most distinctive feature of firm A, the smallest one, is the fact that it mostly promotes an autonomous way of working, hires already trained people, and does not invest much in training, not even cross-training. All the others hire staff who lack experience in the ERP business, and invest in their on-boarding training. But also among the others there are nuances.

Table 9 - HRM practices comparison between the four micro-firms (1/4)

<i>HRM practices</i>	<i>Firm A</i>	<i>Firm B</i>	<i>Firm C</i>	<i>Firm D</i>
1. Employment Security	Very high concern, never fired anyone, it does not cross his mind, even if having an employee with a bad attitude. Score – 5	High concern, never fired anyone. Thinks a lot about “the [people] of the firm’s structure” Score – 5	High concern, never fired anyone. Score – 5	Very high concern, never fired anyone until 2011. After that, the owner did not renew the contract of the newer technical staff and of the commercial employee for not meeting the objectives. Score – 3
2. Selectivity in recruitment	Asks the software house who was trained at their training academy. Had to replace the hardware technician who retired, and used personal and clients’ contacts. Score - 4	They prefer people with less technical skills and train them internally, due to the salary value of a skilled technician. They focus on personal skills, which are very important to sales and interaction with clients. They select based on CVs and on recommendations. Score - 4	They give young people opportunities for internships and then employ them. They have vocational training or a bachelor’s degree (one case) in the informatics field. Besides their knowledge of a technical field, they value their interpersonal posture and being from the small villages around them (they want to contribute to their community). Has hired people without technical qualifications, and then trains them. Score – 5	Employees in the technical area are hired after an internship from university or vocational training. Score - 5
3. High wages	A little below average. They increased salaries but it was not enough to cover for the new taxes Score – 3	A little below average. They increased salaries and incentives in 2011, even guessing that wouldn’t be a good year. Score – 3	Average for that business’s HR market. Would like to pay more, but can’t. At the end of the year there are profit distributions, usually there is a salary. Score – 4	Average for that business’s HR market. They got to pay subsidies later than expected Score – 3
4. Incentive pay	Non-existing in a regular way, and not offered to all employees. Sometimes gives a bonus to the most valuable employee. Score - 3	They have several incentives: - revenue for each department - punctual incentives when they want to sell some product / service (limited in time) - average number of hours charged Score - 5	There is a bonus every year (about a salary) to each employee. The value is a bit different for each, is defined by the managers, and is based on their subjective overall perception of the year’s performance. Score – 4	Non-existent. Used to exist for a former commercial employee. Is analysing productivity data of the firm to implement as soon as possible. Score - 2

Table 9 - HRM practices comparison between the four micro-firms (2/4)

HRM practices	Firm A	Firm B	Firm C	Firm D
5. Employee Ownership	<p>Is thinking about giving partnership to the most valuable employee, already began the process in 2010, but in March 2013 the process is in “standby”</p> <p>Score – 1</p>	<p>Is not thinking about it.</p> <p>Score – 1</p>	<p>Is not thinking about it at the moment, but in the future probably (does not feel that the daughter will want to work at this firm).</p> <p>Score – 1</p>	<p>Already thought of that, but at the time being is not adequate. Will wait for better economic times.</p> <p>Score – 1</p>
6. Information sharing	<p>Mostly interpersonal. There was a time when there were meetings, but they ended due to agenda problems. They have a good relation among them and communicate easily, when considered necessary. R – As they don’t share the same clients, they don’t need to exchange so much information.</p> <p>Score – 2</p>	<p>The management (2 working managers) feel the need for motivating (information about results, clients), giving general information about (new) products/services from the software houses, positive and negative situations that occurred with clients, etc. Moreover, would like to have a specific time for all to share their ideas, doubts... They have been trying to implement meetings, but haven’t found the right model. Either agenda, time or structure of meetings haven’t been working. They are giving another try. Everyone has access to the data related to sales, clients, and running services and their values.</p> <p>Score – 5</p>	<p>Mostly interpersonal, there are also emails and register books of the assistances they do, in order to keep up with former clients’ information. There is no digitalisation of this processes. There are no formal meetings, but there are many spontaneous meetings among whoever is in the office when the owner wants to communicate some event or situation, and wants everybody to know, and learn. Sometimes, these ‘spontaneous’ meetings are just among the software staff.</p> <p>Score – 5</p>	<p>Mostly interpersonal communication, especially with technical staff. There used to be formal meetings, but only when they were many employees, and it didn’t work very well. They share information, mostly technical, and about the clients, trying to get support or other opinions on some issues.</p> <p>Score – 4</p>
7. Participation and Empowerment	<p>There is much autonomy in each employee’s work. There is some participation, employees and owner exchange opinions on technical and commercial issues. Only financial issues are not discussed.</p>	<p>There is much participation, employees and owners exchange opinions on technical and commercial issues. The level of autonomy depends on the department (hardware when is giving emergency support does not have much autonomy) and on the employee</p>	<p>There is much participation, employees and owners exchange opinions on technical and commercial issues. The level of autonomy depends on the person, but mainly, they ask for manager’s opinion and like to have it before acting, to “feel safer”.</p>	<p>There is a lot of participation in the technical field, empowerment up to some level, but they have to follow programming rules defined by the owner. They have autonomy in decision making. Just have to report it.</p>

Table 9 - HRM practices comparison between the four micro-firms (3/4)

HRM practices	Firm A	Firm B	Firm C	Firm D
7. Participation and Empowerment (continuation)		(there are some employees, namely coordinators of department, that have more autonomy than others)	The manager reads all the clients' reports to know what is being done, and if the hours indicated are adequate, and tries to understand the time for each task. There are no "personal clients of each technician, they are all <i>firm's</i> clients"	
	Score – 4	Score – 3	Score – 3	Score – 3
8. Self-managed teams	The owner admits to no self-managed teams. R - The employees in this firm work in a very independent way, with not much support from the others, only when absolutely necessary. There are not <i>self-managed teams</i> , but there are <i>self-managed employees</i> .	The owner admits to no self-managed teams. R - Employees are not very autonomous.	The owner admits to no self-managed teams. R - Employees are not very autonomous.	The owner admits to no self-managed teams. R - Employees are not very autonomous.
	Score – 3	Score – 1	Score – 1	Score – 1
9. Training and skill development	They have the mandatory training given by the software house. Moreover, they are mostly self-taught with autonomous learning activities.	They have the mandatory training given by the software house. Other training given by suppliers. Moreover, they are mostly self-taught with autonomous learning activities, and also among colleagues. Most complex problems are discussed both among the technical team and with the owners. They enroll in free training courses offered by the suppliers.	They have "quite a bit of training" the mandatory technical certifications, and also commercial training. In 2011 they had around 35 days of training in between the staff.	They have the mandatory training given by the software house. Moreover, they are mostly self-taught with autonomous learning activities.
	Score – 3	Score - 4	Score - 5	Score – 3

Table 9 - HRM practices comparison between the four micro-firms (4/4)

HRM practices	Firm A	Firm B	Firm C	Firm D
10. Cross-Utilisation and Cross-Training	There is not much, it does not “flow naturally.” The owner admits that his employees do not have “a dialogue and open spirit between each other” Score – 2	There is much cross training and knowledge sharing. As they don’t have previous specific skills, they learn on the job and with each other (the newest members learn with the older members). Most complex problems are discussed both among the technical team and with the owner Score – 5	There is a lot of cross-training and information sharing among them, which enables them to do tasks that are not necessarily their primary job. Score – 5	There is much cross training and knowledge sharing. As they don’t have previous specific skills, they learn on the job and with each other (the newest members learn with the older members). Most complex problems are discussed both among the technical team and with the owner Score – 5
11. Symbolic Egalitarianism	There is no differentiation. Score – 5	There is no differentiation. Score – 5	There is some, considering car usage. But it is also related to the job they are doing: only the ones that go to clients have cars. Score – 4	There is some. They all can use the company car, but two of the employees have it to full use. Score – 3
12. Wage compression	The highest salary is twice as much as the lowest Score – 5	The highest net salary is twice as much as the lowest. If talking about income before taxes would be about 30% difference Score – 5	The highest salary is 20% over the the lowest Score – 5	The highest salary is twice as much as the lowest Score – 5
13. Promotion from Within	They have a very small structure (4 people, including the owner) and promoting people does not make sense. Their structure dynamics was built as their abilities and personalities emerged. Score – 1	It didn’t happen until the moment, don’t expect to happen. It is a stable human structure. There are coordinators of each of the 3 departments, and there is mobility among staff from the hardware to the software departments (where it is easier to make some money because of the incentives; there weren’t raises because of the transition. Score – 2	It didn’t happen until the moment, don’t expect to happen. It is a stable human structure, and the coordination / supervision is done directly by the owners. Score – 1	There is one case in the firm’s history: the technical department director was a former technician and apparently led to a former, older worker in the company to resign Score – 3
HRM practices intensity scores	41 points / (5x13 practices=65)= 63,5%	48 points / 65 = 73,8%	48 points / 65 = 73,8%	41 points / 65 = 63,5%

Firm B is characterised by being the firm with the most structured incentive pay scheme. Their employees work based on defined and known productivity and sales goals, and also have access to the productivity level of the firm, and colleagues. They use one of the ERPs they sell to track their productivity. Firm D's owner is striving to get that level of structure. Firm B is the biggest one. Firm C is one that invests more in training, both external and internal, and reports a higher level of control by the owner and, at the same time, the one that has a more relational way of managing people (more meetings, more cross-training in several functions). This is one of the biggest firms, and the only one that has a woman managing. Firm D is intermediate in size, and has a bit of the features of the bigger sized firms, but at an intermediate level: the stress on training (mainly internal), the relational way of managing people, has some control over the employees' work, and is using the software he sells to track and manage their own work, but still in an initial level.

In all cases, employees confirmed the information given by the owners of their respective firm.

Organisational culture

Cameron and Quinn (2011) highlight that there is no single best organisational culture profile. Table 10 presents case study data for organisational culture scores on the OCAI by all firm owners and their employees.

According to the CVF's authors, results with up to 10 points apart are not considered as being different. All firms' cultural profiles have two or three types of culture within 10 points, which means that the configurations are balanced. The organisational culture profile design of firms are different, however firm D's owner's cultural profile is the most divergent (Table 10).

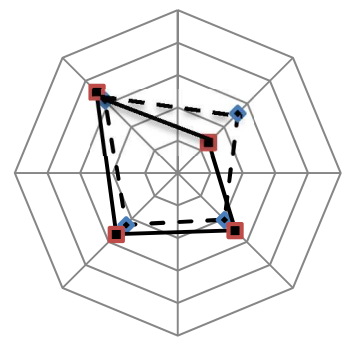
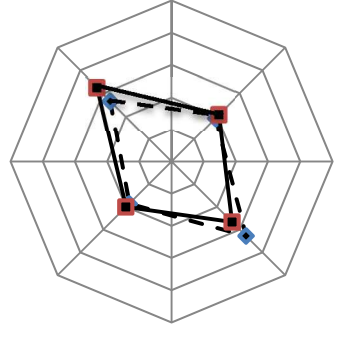
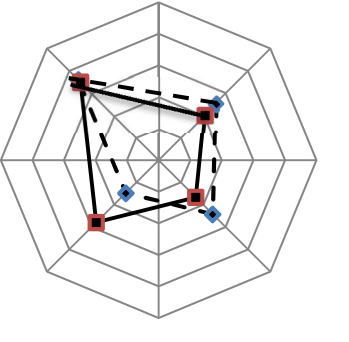
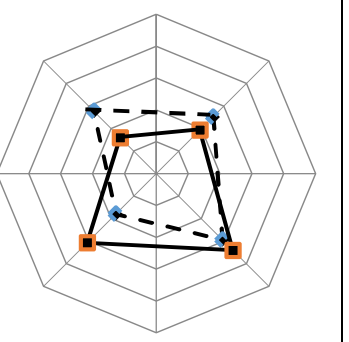
Among the owners, all but one referred that the most evident culture type in their firms is clan culture; firm D's owner had a different culture type, the market type. For this firm owner, orientation towards flexibility and focus on internal organisation, as well as on people, is his lowest priority. Firm A's and firm C's employees refer to their firms as having a clan culture orientation and firm B's and firm D's employees report a market orientation. Firm D's employees are in step with their employer. Firm B's owner referred to clan culture as the first type of culture, but market orientation is also among his primary focus, which is also perceived by his employees.

The firm owners acknowledge that their firms are moderate to high on the hierarchy culture type. Focus on internal control is reported as not being a priority by employees, except for Firm A's employees, who report moderate importance of this cultural orientation. This is contrary to the CVF authors' findings (Cameron & Quinn, 2011). This difference can be explained by the size of these firms, when compared to those authors' sources. As firms in this study are micro-firms (up to 10 workers), even though they began their businesses some years ago, processes have never been formalized, with frequent changes both in the procedures and in the people who apply them, and keeping a few formal rules is not considered very important.

Cameron and Quinn (2011), when analysing data trends, say that focusing on flexibility and innovation is not very common, which reflects a low adhocracy score. This is also the perception of this study's firm owners, but it is contradictory to the perception of their employees. Employees' rate adhocracy culture at a moderate level, reporting their perception as adapting to external changes, coming up with innovative solutions and taking some individual risks as being moderately important values for accomplishing their jobs. This result is congruent with employees not attributing great importance to rules and control, which contrasts with firm owners who want to control and implement some work standardization.

The greatest difference in profiles is between firm D's owner and his employees (the sum of the differences is 35 points). This owner is also the only one who does not consider his firm to have a clan type of culture; he believes that this cultural orientation is the least relevant. Firm B is in an opposite situation, the firm owner being closer to the employees' perceptions on organisational culture types: market/clan and clan/market.

Table 10 - Case studies' organisational culture scoring by owners and employees

Firms	Firm A	Firm B	Firm C	Firm D
Culture: Owners and Employees Legend: Owners ——— Employees - - - -				
Culture: Owners	(1) Clan – 35.0 (1) Hierarchy – 26.67 (1) Market - 25 (2) Adhocracy – 13.33	(1) Clan – 32.50 (1) Market – 26.67 (2) Hierarchy – 20.00 (2) Adhocracy – 20.83	(1) Clan – 35.00 (1) Hierarchy – 27.92 (2) Adhocracy – 20.42 (2) Market – 16.67	(1) Market – 34.00 (1) Hierarchy – 30.67 (2) Adhocracy – 19.33 (2) Clan – 16.00
Culture: Employees	(1) Clan – 31.39 (1) Adhocracy – 25.83 (1) Hierarchy – 22.5 (2) Market – 20.28	(1) Market – 32.75 (1) Clan – 26.81 (2) Adhocracy – 19.31 (2) Hierarchy – 18.61	(1) Clan – 35.97 (2) Adhocracy – 25.42 (2) Market – 24.17 (3) Hierarchy – 14.72	(1) Market – 29.38 (1) Adhocracy – 25.21 (1) Clan – 27.71 (2) Hierarchy – 17.92
Owner-Employees differences' sum	25	15	27	35
Differences	between Owners in all firms: Minimum difference – 7.47; Maximum difference – 19.0 = 11.53 between Employees in all firms: Minimum difference – 6.52; Maximum difference – 12.47 = 6.05			

Organisational Performance and Growth

Performance and growth are measured drawing on the three dimensions referred to in the literature (e.g. Hartnell et al., 2011; Venkatraman & Ramanujam, 1986): financial and business performance, and organisational effectiveness (Table 11).

The only firm to show growth in employee numbers during the period of the study was firm C. The number of employees was maintained in firm A, but between 2008 and 2013, the number of employees decreased in firms B and D.

The financial dimension was measured by the net income. Net income growth is measured by its evolution between 2008 and 2013. To compare net income values between the firms, the value per employee was calculated. To maintain the confidentiality of firms' figures, the percentage of the net income was calculated with the base set at the highest value (firm C). The biggest firm of all (10 employees) is firm C, which has the highest net income average of the four firms, immediately followed by one of the smallest firms (firm A, four employees); firm D is the one with the lowest net average income.

Net income growth (2008-2013) is the measurement of growth of each firm that we employed. Firm C is the one which grew the most regarding net income. Dividing that value by the average number of employees during the same period of time allows the comparison of the growth of the various firms: firm C increased its net income value of 2008 per employee by 501%, and firm B gained 30% per employee in relation to its income in 2008. All firms increased their net income, which makes us believe they had the capacity to overcome the hardest period of the economic crisis.

The business performance dimension is measured using the productivity indicator (sales/number of employees) between 2008 and 2013. To maintain confidentiality, the percentage was calculated based on the highest value of productivity (firm B).

The value of sales per employee in firm B is explained by the fact that hardware sales are more important in this firm than in the others. It should be stressed that similar values were found among firms A and C, but the value for firm D was less than half of the others' (44%). When comparing the evolution of productivity between 2008 and 2013, firm A, despite having a high average income per employee (92%), was the firm which had a decreased average level of productivity per employee during the same period of time (-2%). Firm B was the one which improved its productivity average the most (+14%), maybe because the number of employees decreased. Firm D also had positive growth regarding productivity per employee probably for

the same reason (fewer employees). Firm C, which is the one having the best income per employee (100%), hardly shows any evolution regarding productivity growth by employee (1%), maybe because the number of employees increased, on one hand, and, on the other hand, maybe because sales were already very good. Regarding organisational efficiency indicators, employees of all the firms feel affectively committed to their firms, and employees of firms A, B and C all reported being more satisfied with their jobs than those in firm D.

Relating HRM practices, organisational culture to performance and growth

Table 11 points to different HRM practices profiles being related to culture types, and performance indicators. When considering the intensity of HRM practices usage, it looks like there is a trend towards high intensity being associated with higher productivity. However, Firm A, which also has good productivity and the best financial performance, does not fit the higher intensity HRM practices trend. When looking at the HRM practices profiles of the firms, we see a diversity of patterns. There seems to be several ways of managing people that are effective, and it appears that “the more HRM practices the better” may not necessarily apply.

The same diffuse findings occur when analysing HRM practices’ relation to culture. Data appear to be contradictory regarding the smaller firms among these micro-firms. Firm A’s owner and employees refer to clan culture as part of their primary culture type, but at the same time they say there is no cross-training or mutual support; they work mostly independently. Firm D’s owner and employees report more relational HRM practices (participation, discussion, mutual technical support, cross-training) while indicating that clan culture is not the primary type of culture he promotes. Nevertheless, his employees report clan as part of the main culture.

Regarding culture, there seems to be a more solid trend. Findings appear to point to clan culture perceived and promoted by the owners as being associated with better income and productivity. In addition, the one firm (firm D) whose owner’s CVF survey results show that the human relations model has the lowest priority among the culture orientations of his firm, shows the worst financial and business performance indicators, as well as low job satisfaction among employees.

Table 11 - HRM practices, Organisational Culture types (firm owners and employees), performance and growth indicators

	Firm A	Firm B	Firm C	Firm D
HUMAN ESOURCES MANAGEMENT PRACTICES				
HRM intensity scores	63,5%	73,8%	73,8%	61,5%
HRM practices generic profiles	<ul style="list-style-type: none"> · Hires qualified people in the ERP · Low continuous training · Autonomous way of working · <i>Ad hoc</i> incentive pay 	<ul style="list-style-type: none"> · On-boarding training · Intermediate training · Intermediate control · Incentive pay based on goal orientation 	<ul style="list-style-type: none"> · On-boarding training · High training · Tight control · Relational way of managing · <i>Ad hoc</i> incentive pay 	<ul style="list-style-type: none"> · On-boarding training · Intermediate training · Intermediate control · Relational way of managing · Preparing incentive pay, by studying firms productivity
ORGANISATIONAL CULTURE				
Primary Organisational Culture types (Firm Owners)	Clan, Hierarchy, Market	Clan, Market	Clan, Hierarchy	Market, Hierarchy
Primary Organisational Culture types (Employees)	Clan, Adhocracy, Hierarchy	Market, Clan	Clan, Adhocracy	Market, Adhocracy, Clan
NUMBER OF EMPLOYEES				
Average number of employees (2008-2013)	4	10.44	9.33	6.17
Number of employees 2013	4	7	10	5
Standard deviation	0	2.19	0.47	1.07
Employees growth (2008-2013)	0%	-47%	11%	-16,67%
FINANCIAL PERFORMANCE				
Average net income per employee compared to firm C (2008-2013)	92%	46%	100%	16%
Net income's standard deviation compared to average net income (2008-2013)	60%	36%	82%	72%
Net income growth per employee (2008-2013)	90%	30%	501%	33%
BUSINESS PERFORMANCE				
Productivity (Average sales/Average number of employees) compared to Firm B (2008-2013)	73%	100%	79%	44%
Productivity growth by employee (2008-2013)	-2%	14%	1%	6,1%
ORGANISATIONAL EFFECTIVENESS				
Work satisfaction	75%	60%	75%	53%
Affective Commitment	83%	80%	88%	76%

Satisfaction at work is at its lowest in the firms whose owners and employees indicate a market culture orientation as the most prominent (firms B and D). Affective commitment is high in all firms, regardless of the cultural profile.

4.4. Discussion

The positive relation between HRM practices and firm performance has been supported by research on both large and smaller firms, by means of the HRM perspectives (universalistic, contingency, configurational, and contextual) (e.g. Combs et al., 2006; Pfeffer, 2005; Rauch & Hatak, 2016). The influence of culture on performance has also been extensively confirmed, both for large and smaller sized firms, namely using the CVF model (e.g., Gregory et al., 2009; Hartnell et al., 2011; Neves, 2000; Patel & Conklin, 2012).

This study aimed to analyse the relation between HRM practices, culture and firm performance in micro-firms, in two complementary ways: (1) *to know how HRM practices and corporate culture are related*; and (2) *to examine how both variables, together, relate to organisational performance*. There are some, but not many, examples in the literature relating these topics, and even some for small firms (Patel & Cardon, 2010; Patel & Conklin, 2012; Wei et al., 2008), but we could not find any in the micro-firms context.

We discuss data relating each variable (HRM practices and corporate culture) with performance, analyse the relation between them, and of the set with performance.

Following the mainstream HRM literature, we started by analysing the relation of HRM practices intensity to firm performance. Empirical evidence generally supports the claim that *the higher HRM practices intensity, the higher the firm performance* (e.g., Huselid, 1995; Sels et al., 2006). However, the study of this relation is not straightforward, since the performance construct is not a single measure and different related indicators are considered in the literature: financial performance, business performance and organisational effectiveness (e.g., Huselid, 1995; Rauch et al., 2005; Varadarajan & Ramanujam, 1990).

To some extent, we find the HRM practices-performance link in our data: Firms B and C have a higher HRM intensity and have higher performance indicators in the three dimensions considered. However, Firm A, which also has good performance indicators, has a lower (intermediate) level of HRM intensity, about the same level of HRM intensity as the firm with lower performance indicators (firm D).

These findings can be explained by the dimensions of the sample; we do not have enough cases to define general relations, on the one hand. On the other hand, given that the evidence indicates that different HRM practices lead to the same good results, it enables to raise the equifinality characteristic of the configurational approach (e.g., Delery & Doty, 1996). That is, the configurational perspective can be a better, more comprehensive way of conceptualising this relation.

In analysing the details of the HRM practices profiles, we find a great deal of diversity: each firm has its own set of practices with different intensity. Findings point towards diverse ways of having the same good performance results, which is consistent with the configurational approach (e.g., Delery & Doty, 1996; Short et al., 2008). Another interesting finding that seems to support the configurational approach on the HRM-performance link is that considering that lower HRM intensity results in a good performance (as is the case of Firm A), there may be a hierarchical importance among the HRM practices (Bello-Pintado, 2015; Meuer, 2017). It looks like very few, and specific, HRM practices can be very effective, probably, emerged as the ones that are more adequate to specific context (Patel & Cardon, 2010; Veloso, 2008).

CVF and organisational performance research show that each type of organisational culture can be related to organisational effectiveness (Cameron & Quinn, 2011). However, that research also shows that the clan culture type is the most frequent predictor of efficacy in organisations (Hartnell et al., 2011), which is consistent with the findings in this study. The firms whose owners and employees referred to the clan as a primary culture type report the highest net income and productivity results and growth. These results are in line with Patel and Conklin's (2012) findings in their small size firms study.

They argue that, particularly during organisational changes and challenging times, such as the economic crisis years in which this study takes place, clan culture is the most fitting since it facilitates environmental adaptability. Clan culture can be a "competitive advantage, enabling the survival and growth of a firm that might otherwise fail" (Patel & Conklin, 2012, p. 224). Relating the results of organisational culture to HRM practices, there seem to be two contradictions. Firm A promotes an autonomous way of working, and unexpectedly both owner and employees report that the clan culture is among the primary types of culture in their organization. This means that, even though the owner does not promote clan culture in an intentional way (people development, participation), both owner

and employees *feel* the group culture. Data seem to support the important role of group culture in achieving good organisational results.

Firm D's owner, who manages people in a participatory manner (discussing topics, promoting mutual support and cross-training), does not report a clan type of culture; he rather indicates that market and hierarchy types of culture are his main behaviour patterns. This might be due to the recent letting go of several employees due to the heavy crises, in some cases, and due to poor performance, in another. Even if he is very concerned with employees' employment security, and promotes a supportive atmosphere, he was confronted with a situation where he had to let people go, and that might have made him realise what his real values are. This might stand out because of the forced choice format of the culture survey. Firm D has the worst organisational results and reports a clan type of culture as the least relevant culture type, thus reinforcing the literature trend on the importance of firm culture for firm effectiveness.

Clan culture type, which is focused on the internal aspects of the firm as it is, also enables the flexibility that is required in such small sized businesses to deal with internal and environmental changes. However, regarding HRM, we cannot deduce any regularity from the data. This may be partially explained by Wei et al.'s (2008) study's results "that it is more likely that culture acts as an antecedent of strategic HRM" (p.788). They also found that adhocracy and clan cultures support HRM practices usage, which in turn has a positive influence on firm performance. Organisational culture mirrors the leaders' attitudes and management patterns, which are entrenched in their behaviour and, therefore, they are not always aware of them (Schein, 1989). Firm A, being such a small firm (four employees), and even promoting autonomous way of working, probably felt the support of being in a small team. Moreover, the firm owner probably values that support when answering the culture survey. At the same time, the limited micro-firms resources also do not allow for the implementation of many HRM practices; only a small number may be implemented, and mostly in an informal way (Hayton, 2006; Patel & Cardon, 2010).

Our results support the following proposition: *Clan culture is related to best performing micro-firms, regardless of the type and intensity of HRM practices used.*

In this study, the two firm owners (firms A and C) that emphasise a hierarchy culture have good performances regarding financial results, productivity and organisational effectiveness.

Findings of a study on CVF and performance in small firms suggest that having a hierarchy culture orientation can be adequate if the long-term goal is not innovation (Schgens, Bausch & Balkin, 2013).

Analysing the most prominent types of culture in the best performing firms (A and C), both firm owners consider the clan culture type their most important cultural orientation. That is, they consider at least one of the upper quadrant culture types of the CVF model to be important (leadership emphasis, Cameron & Quinn, 2011). The worst performing firm's owner (firm D) reports his firm's most important culture types (hierarchy and market) to be based around issues of management (setting goals, defining responsibilities, controlling the procedures, etc.).

Perhaps the interaction of various types of culture is important for obtaining good organisational results. According to our findings, focusing only on the aspects of control and stability when companies are in a position of financial weakness is not sufficient.

Another literature discussion on the HRM-performance link is the causality direction (Wright et al., 2005): do HRM practices increase organisational performance or do well off organisations increase HRM practices usage? The general findings in literature point to the first type of relation, but there is a need to control for the causality direction, which is rarely done (Wright et al., 2005). Firm A, which has only an intermediate level of HRM practices intensity and has good performance in all indicators exposes the different case of micro-firms: performance may not have to do with a higher number of HRM practices, nor does high performance necessarily result in increased HRM practices being employed in that firm. Micro-firms deal with resource constraints that limit the implementation of some management practices (Hayton, 2006; Sels et al., 2006); practices are rarely formalised and only implemented when it is necessary (Innes & Wiesner, 2012). Therefore the HRM intensity measure is not the most adequate to use in micro-firms. All the firms seem to have qualified personnel, one way (hiring them already qualified) or another (training them until they get the required skills). Only firm D does not have any kind of incentive pay, the other firms, structured or in an *ad hoc* manner, manage to pay more over the salary. Even if we know that firm D's owner does not pay because he cannot afford it. These HRM practices together with emphasising culture types high on the control axis do not have a good performance result.

Furthering the knowledge on causality in the HRM-performance link and its relation to culture in micro-firms, the proposition that emerges is: Within the practices that constitute the HRM bundles, *there should be some kind of incentive pay, to have better organisational*

results. This kind of practice is consistent with market type culture. A combination of several culture types seems to be beneficial. However, for better results, a combination of cultures is advised, taking care not to focus exclusively on hierarchy and market cultures.

Lund (2003) found that job satisfaction was positively related to clan and adhocracy cultures, and negatively related to market and hierarchy culture orientations, which is consistent with the findings in this study. On the one hand, the employees working in the firms performing better (A and C) show the same, good level of job satisfaction. On the other hand, firms whose owners and employees report a market type of culture among their prominent types of culture present job satisfaction results that are not as good (firms B and D). The market culture is consistent with the goal orientation and productivity checking that Firm B implements and Firm D is preparing to implement.

If it is just the owner reporting those types of culture (firm A), it does not have the same impact, since the firm is performing well as far as productivity and financial matters are concerned. The proposition that is suggested is: *Goal orientation as HRM practices, which is consistent with a market culture type perception by micro-firms' employees, is associated with low work satisfaction.*

Findings point to some specificities of micro-firms.

The HRM practices quantitative analysis brings up a discussion point regarding micro-firms. There seems to be a positive relation between the size of the firm and the number of HRM practices they adopt (Wiesner et al., 2007). This was one of the findings in a study conducted in firms from 20 to 200 employees. This finding has methodological implications for measuring HRM practices, since it means that adding the number of practices, namely formalised ones, which is the way the mainstream literature measures the HRM intensity²⁸ (Combs et al., 2006; Messersmith & Wales, 2013), and connecting it to performance, may in smaller firms bias the results.

Findings reported in the literature on large firms are different from SME/micro-firms, suggesting the following proposition: *When trying to determine the HRM-performance link in micro-firms it is more prudent to look for certain sets of HRM practices (bundles) than to look for higher intensity (number) of HRM practices usage.*

According to Cameron and Quinn (2011), there is a trend in the literature suggesting that culture will change towards more stable and controlling types of culture when there is an increase in the number of employees. In our study, we did not find such a pattern. All firm

²⁸ As, for example, all the studies mentioned in Appendix A.

owners have at least one type of culture on the control axis among those most important to their firms, and it is only firm B's owner who did not report a hierarchy type of culture as being among the most important to his firm. However, Firm B's owner is the one that has more and better established control mechanisms, maybe more automatised, because it is so embedded that he and his employees do not realise it. Thus they do not feel it to report it in the culture measure. This leads us to propose that it is not only when firms grow bigger but also when firms grow older that they tend to become more stable, wanting to standardise procedures and control and compete in the external environment.

Data differences between micro and larger firms lead to the following proposition: *After a certain time in business, micro-firms seek to standardise and control processes and goals.*

4.5. Conclusions

The purpose of this study was to analyse and compare micro-firms' HRM practices and organisational culture relations, and examine the relation of both with organisational performance. On one side, the well-known HRM practices-performance link (e.g. Rauch et Hatak, 2016), and the relation between culture and organisational performance (e.g. Hartnell et al., 2011), and on the other, the scarce literature on micro-firms, which make up the majority of worldwide firm types are factors which make this an interesting topic to study.

Four firms were analysed to address the research question, using a mixed method approach across all four, with data collected between 2008 and 2013.

Pfeffer's (2005) thirteen HRM practices and CVF developed by Quinn & Rohrbaugh (1983) were the models used to study HRM practices and organisational culture. These are both important and widely-used models in the management field, namely when relating HRM practices and organisational culture with organisational efficiency (Gregory et al., 2009), also used in the Portuguese context (Neves, 2000). Performance and growth were measured using indicators of the three dimensions most employed by the literature that relates culture and organisational performance (Venkatraman & Ramanujam, 1986).

The main findings in this study point to some propositions connecting HRM practices to culture and performance.

Clan culture seems to be related to the best performing firms, independently of the type and intensity of HRM practices. It seems to be that this culture intention on the part of

the owner is of great importance. It is not the employees' perception of this type of culture that is related to best performance, it is when both employees and owners perceive this type of culture to be a central aspect of their organization that performance is better.

Business and financial results are positively affected by a combination of some kind of incentive pay (structured or *ad hoc*) and several types of culture, as long as the predominant cultures are not only on the control side of the axis (hierarchy and market cultures).

Job satisfaction (which is an organisational effectiveness measure) is negatively affected by owners' and employees' perceptions of market oriented culture amongst the primary culture types. This type of culture orientation is consistent with the HRM practices goal orientation. That is, when the owner is able to make employees incorporate this practice, the effect on job satisfaction is not positive.

When analysing the relation between HRM practices and culture, we acknowledge the importance of considering several related variables in the organisational setting. In the literature, some argue that culture precedes HRM practices, providing the incentive for its implementation; others for the moderating role of culture, providing the context in which HRM practices will be developed, and another view argues for interaction, with mutual reinforcement, with no defined direction (Chan et al., 2004; Neves, 2000; Patel & Conklin, 2012; Wei et al., 2008). Our findings point to the latter, since the relation between the constructs does not have a single direction. The perception of clan culture seems to be independent of HRM practices, on one hand, and the perception of market culture by employees is consistent, probably deriving from goal orientation HRM practices, on the other hand. These contradictory findings make us lean towards the interaction advocates.

This study provided evidence regarding micro-firms' diverse HRM practices and culture and the relationship of these variables to performance, addressing a gap in the literature regarding knowledge of micro-firms, which are still little researched.

Regarding HRM practices, this study's findings point to differences from large firms and SME in terms of the impact of HRM practices and culture on performance. It seems to be more accurate to look for HRM bundles than to follow the mainstream method of intensity (number of practices), thus, taking a configurational perspective. There seems to be a hierarchy among HRM practices, namely, incentive pay has more impact on firm performance than other practices in micro-firms, which is another argument consistent with the pertinence of the configurational perspective.

Another micro-firm specific feature is that, as firms evolve (even if within the ten maximum workers category), owners perceive a hierarchy type of culture as prominent. Owners seek to standardise and to define the procedures, trying to control the quality and outputs, and the work being done, to be able to track productivity. This control culture is contrary to their employees' perceptions. Employees, regardless of the amount of time the firm has been in business, feel the culture as innovation prone, and supportive of individual risk taking. This perception is also congruent with the maturity and experience of the employees doing their jobs.

Studies on HRM practices and organisational culture should be pursued, especially in micro-firms, since the relation of these variables with performance is vastly acknowledged in the literature. The association between HRM practices and corporate culture should be further studied. Suggested propositions could be investigated to find evidence in larger micro-firm samples. Longitudinal studies in micro-firms should be conducted to find out how culture evolves during their life cycle.

Further studies should follow the configuration study stream of research, since the interactions between HRM practices and culture types seem to be able to shed light regarding firm dynamics.

One of the limitations in this study concerns the HRM practices analyses. We assessed the HRM practices' intensity based on the researcher's (and further analysis of a senior researcher) evaluation, not in a self-reported measure. Although it has the advantage of enabling comparison, it could have been a supplementary option, after the self-evaluation, or even to comment on the researcher's evaluation. The restricted number of cases is also a limitation. Taking the qualitative methodology option, more cases should be studied until finding data saturation. Quantitative approaches may enable findings generalisation.

There are six significant features of this research which should be highlighted: (1) the choice of cases, since the firms are business rivals, in the same geographical area; (2) there is a wide spectrum of contextual variables and performance indicators covered, thus controlling many dummy variables referred to in the literature; (3) different sources of data collection allowing information depth and triangulation, as well as continuous data collection across a six-year period, enabling a look at changes over time, which is particularly interesting in an economic crisis; (4) the HRM practices analyses used both a quantitative, mainstream method and also a qualitative method, identifying the firms' profiles and characteristics, enabling a richer analysis of the phenomena; (5) the cultural analysis conducted was broad and complex,

not only focusing on the most valued cultural orientation, but analysing the cultural profile in each firm, and comparing owners' and employees' perceptions of types of cultures; and finally, (6) the joint analysis of HRM practices and corporate culture, which is rare in the literature.

The results are relevant to the advancement of knowledge of HRM practices and organisational culture related to performance, in the most generalised type of firms worldwide, as well as for micro-firm owners, particularly in this area of industry.

**CHAPTER 5. A Configurational Approach to Human Resources Management
Practices in Micro-firms (Study 3)**

5.1. Introduction

Configurational studies had their greatest advancement in the late 1970s and early 1980s (Miles & Snow, 1978; Mintzberg, 1979, 1980). The study of the HRM practices' role in firms' competitive advantage and performance using a configurational approach followed the trend also in the 1980s (Delery & Doty, 1996). Organisational configurations are "multidimensional constellation[s] of conceptually distinct characteristics that commonly occur together" (Meyer et al., 1993, p. 1175). Configurations, therefore, are patterns of variables that are related to an effect, rather than the relation of single variables with that effect (Delery & Doty, 1996). In the HRM field, these configurations act as bundles of practices that cooperate with each other, influencing employees' characteristics and ultimately affecting firm performance (Subramony, 2009).

This study aims to characterise HRM practices usage patterns across micro-firms, specifically, in the ERP business sector. We analyse the relationship of HRM practices patterns with other intangible internal organisational factors, such as owner personal and managerial characteristics, tangible firm's characteristics (age and dimension), as well as performance.

From the literature point of view, this study makes several contributions. First, it answers the need for more configurational research in the HRM field (Short et al., 2008). Second, it improves knowledge of HRM practices in micro-firms. There is a line of research focusing on HRM practices configurations in very small firms (less than 15 or 20 employees; e.g., (Jaouen & Tessier, 2008, 2009), and in SME (e.g., Innes & Wiesner, 2012; Verburg, Hartog, & Koopman, 2007), but not specifically in micro-firms. Third, considering micro-firms are owner-centred, and several internal factors contribute to their organisational dynamics, this study also adds to the literature, measuring internal intangible factors related to the owner. Both internal resources (human capital, owner's characteristics) and its management practices (entrepreneurial orientation, small business orientation and organisational culture) are measured and analysed relating to HRM practices configurations. We analysed some reported relevant micro-firm characteristics (age and dimension) relating to the HRM practices configurations. Fourth, we examine the relation between HRM practices and micro-firms' performance. Finally, in this study, we depart from the gathered empirical data to define the configurations developing out of HRM practices instead of considering configurations already defined in the literature (Meuer, 2017; Subramony, 2009).

To exhibit the HRM practices in micro-firms and their relations to other internal organisational variables and performance, we present the methodology section, where there is a detailed description of the study's variables and its measurement, and also of the data collection processes. We also describe the procedures used to identify the HRM practices configurations (bundles) and to define the HRM practices clusters performed by micro-firm owners. We then present the main results regarding HR bundles, HRM practices clusters characteristics relating to intangible internal organisational factors and to the owner characteristics and organisational performance. Finally, we discuss the results and provide implications, both theoretical and managerial, as well as limitations of the study and suggestions for future research.

5.2. Methodology

5.2.1. Data Collection and Sample

The goal of this study is to identify main patterns of HRM practices usage in micro-firms in the ERP business sector and improve the understanding of the relationship between these kinds of practices and business performance.

Given the specific focus of the study, micro-firms in the ERP business sector, databases from three major ERP developing and distributors companies in Portugal were used. Sampling procedures were performed considering the methodological orientations that enabled it to be specific to the targeted population (Gomes & Cesário, 2014; Leedy & Ormrod, 2005). The sample includes these software houses' partners, as well as companies of the national database "2020 Consultants" program, which also sell ERPs built by other firms. To "control for industry effects in configurations research" (Dess et al., 1993, p. 786) we focussed on one subsector of the industry.

There was a pilot test of the questionnaire with three micro-firm owners that satisfied the sample's conditions. Some minor changes were made, using the information that this participants provided. The questionnaire was administrated personally to owners in the continental part of Portugal, totalling 187 participants, between November 2015 and June 2016. Criteria to be included in the study were: being in the market for more than three years, having at least three workers, and having all financial data available. According to these criteria, the sample was reduced to 114 participants. Methodologically, the use of specific

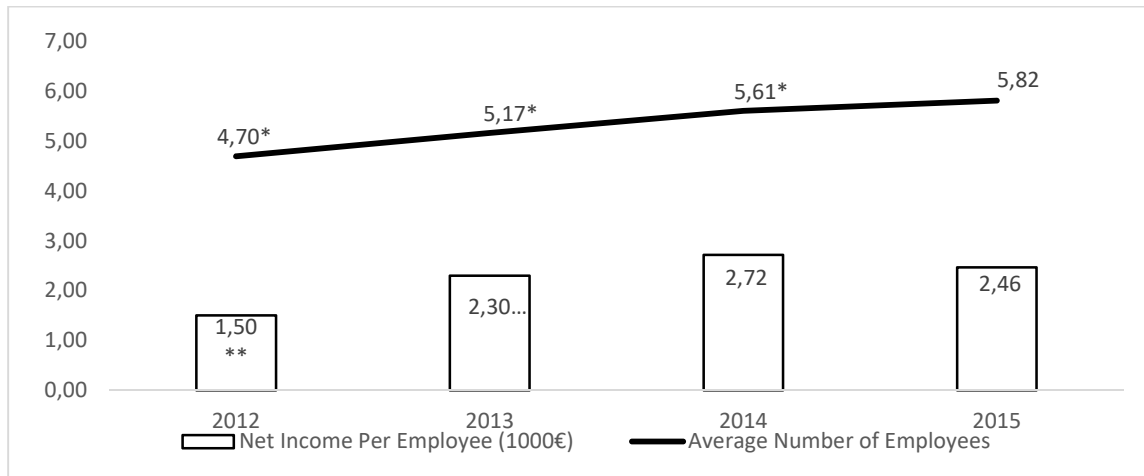
criteria enabled to focus on the targeted sample, and the data collection is considered of convenience (Gomes & Cesário, 2014; Leedy & Ormrod, 2005).

The national distribution of the firms in the sample was as follows: north 49.1%, centre 31.6%, Lisbon and south 19.3%. Most respondents were men (83.3%), 44.9 years old, on average. These business owners were very qualified: 46% have a bachelor's degree, and 14.9% have an MBA or postgraduate training. When they began their business, on average, the owners had 9.4 years of experience in the field, and 22.8% had previous entrepreneurial experience.

The firms in the sample, on average, have 15 years of existence, and 88.6% of the owners intend to make the business grow in terms of employee number or expansion to other locations. The average number of workers grew by approximately one by the end of 2015 (Figure 7). Financial net results grew until 2014, and in 2015 decreased a little (Figure 9). There was a positive evolution during this period for both performance indicators. To better understand the paths, we compared each pair of years' means. Regarding the average number of employees, there were significant differences between 2012 and 2013 ($M = 4.70$, $SD = .263$ and $M = 5.17$, $SD = .261$, with $t(113) = -3.845$, $p = .000$, respectively); between 2013 and 2014 ($M = 5.17$, $SD = .261$ and $M = 5.61$, $SD = .272$ and , with $t(113) = -3.959$, $p = .000$, respectively). This indicator still grew in 2015, but not in a significant way.

Net income per employee also grew during these years. However, only between the years 2012 and 2013 was there a significant difference: on average, firms in 2013 had a higher profit per employee than in 2012 ($M = 2303.19$, $SD = 418.25$ and $M = 1498.55$, $SD = 436.19$, with $t(113) = -2.017$, $p = .046$). This performance indicator is not statistically relevant, even if there is a graphically positive evolution. The net income grew but, as the average number employees also grew, the net income was not sufficient to show statistically significant differences between those years.

Figure 9 - Net income per employee (1000 euros) and average number of employee paths over the years 2012-2015



Legend:

* Significant difference between Average Number of Employees 2012–2013: $t(113) = -3,845, p < .01$

Significant difference between Average Number of Employees 2013–2014: $t(113) = -3,959, p < .01$

** Significant difference between Net Income Per Employee 2012–2013: $t(113) = -2,017, p < .05$

5.2.2. Measures

The questionnaire used has four major constructs: (a) Characterisation of the respondent and firm; (b) Firm owner's profile; (c) Management of the internal resources: entrepreneurial orientation, small business orientation, and human resources management practices; and (d) Subjective performance evaluation. Corporate performance data were obtained using the SABI database, which includes official national data delivered by firms to the state (Ministry of Finances).

Regarding the business owner, there were questions about the participant's gender, age, level of education, specific training in the business field, previous experience as an entrepreneur, previous experience in the field of the business, and if the business owner intended to grow the business in the next three years. Regarding the firm, there were questions about the year of its foundation, location, tax number, how the firm owner sees his/her business, and which management software he/she represents.

To identify the owner/manager profile we used the Entrepreneurial Potential Assessment Inventory (EPAI) (Correia-Santos et al., 2010), a 30-item scale. Participants answered a five-point Likert scale from Strongly Disagree to Strongly Agree. The EPAI scale has four dimensions:

- Nine items measured Entrepreneurial Motivation ($\alpha=.74$) (e.g., “I am strong enough to overcome difficulties in life”);
- Four items measured Social Competencies ($\alpha=.76$) (e.g., “I know people from very different places.”);
- Eight items measured Psychological Competencies ($\alpha=.65$) (e.g., “Frequently, I surprise people with my new ideas”);
- Nine items measured Management Competencies ($\alpha=.83$) (e.g., “Usually, I can find the necessary resources to make my initiatives happen”).

There were three scales to measure Internal firm’s resources management: Entrepreneurial orientation (Miller, 1983); Small Business Orientation (Runyan et al., 2008); and Group culture (Cameron & Quinn, 2011).

Entrepreneurial orientation (Miller, 1983), is a nine-item scale addressing three dimensions: innovativeness ($\alpha=.75$), proactiveness ($\alpha= .77$) and risk-taking ($\alpha=.81$) (three items each). Participants answered bi-polar statements on a seven-point scale from ‘-3’ to ‘+3’ with a neutral value (‘0’).

Entrepreneurial orientation innovativeness example of a question:

Please choose the point on the scale, thinking how you acted in the last three years: Favour a strong emphasis on the marketing of tried and true products or services – A strong emphasis R&D, technological leadership and innovation

Entrepreneurial orientation proactiveness example of a question:

Typically responds to actions which competitors initiate – Typically initiates actions which competitors then respond to

Entrepreneurial orientation risk-taking example of a question:

Strongly favour low-risk projects (with normal and certain rates of return) – Strongly favour high-risk projects (with chances of very high return)

Small business Orientation (Runyan et al., 2008) is a nine-item scale. Participants answered a seven-point scale ranging from Strongly disagree (1) to Strongly agree (7).

The scale has two dimensions (Purpose and Business Goals and Emotional Link):

- Five items measured Purpose and Business Goals (e.g., “I established this business because it better fits my personal life than working for someone else”);
- Four items measured Emotional Link (e.g., “I consider this business an extension of my personality”).

Even though both subscales were tested, only Emotional link, considering three items showed good reliability to proceed in the study ($\alpha=.77$).

Group culture scale is a sub-scale of the Organisational Culture Assessment Instrument (OCAI) (Cameron & Quinn, 2011). Participants answered a seven-point scale ranging from Strongly disagree (1) to Strongly agree (7). This sub-scale has six items ($\alpha=.83$), such as ‘The organisation is a very personal place. It is like an extended family. People seem to share a lot of themselves.’

The HRM practices scale was built based on the 13 practices of managing people (Pfeffer, 2005). Participants were asked to respond to a three-point scale on whether the practice was nonexistent/low, had an intermediate, or high presence in their firm. As an example of the 13 items, ‘Please choose the option that happens, not what you wish to do/have done, regarding each of the following people management practices: (1) Employees’ employment security.’

Performance is evaluated based on a subjective perception of the owner: ‘How do you evaluate the results you have been having?’ Participants answered on a six-point scale from Very bad (1) to Excellent (6).

Accounting data were used to measure performance (Short et al., 2008) and follow the HRM-performance link tradition (e.g., Huselid, 1995), using net income results and employee growth. Net income is a more distant organisational output of HRM practices than productivity (sales per employee) (Huselid, 1995; Jiang et al., 2012). We chose this indicator because, in the sector under study, some firms sell hardware in a more intensive way than others. This increases the level of sales and does not correspond to actual income, since they have very narrow profit margins when compared to services these firms provide.

The Sabi²⁹ database provided information about the number of employees and net income. Performance indicators were employee growth between 2012 and 2015 (number of employees in 2015 minus number of employees in 2012), and net income per employee growth (net income per employee in 2015 minus net income per employee in 2012). Appendix E – Study 3 - Questionnaire displays the complete questionnaire.

5.2.3. Data Analysis

To identify patterns in HRM practices a multiple correspondence analysis (MCA) was performed. MCA is a multivariate method used to study the relationships between multiple

²⁹ The Sabi database provides detailed information on private held firms located in Portugal and Spain. The authorized access is available for research among Instituto Politécnico do Porto staff and students, which is the author’s of the thesis employer (Bureau van Dijk, n.d.).

categorical variables (Carvalho, 2017; Greenacre, 2007; Oliveira, Esteves, & Carvalho, 2015; Ramos & Carvalho, 2011). As with standard principal component analysis (PCA), MCA defines orthogonal axes (dimensions), which individually explain part of the total variance and reduces the multidimensionality of the input data. All the active variables are used to define these (new) dimensions, and a discrimination measure and a contribution are computed for each. The most relevant active variables for each dimension are the ones that have the highest discrimination contributions values (i.e., highest explained variance (Bernardes, Silva, Carvalho, Costa, & Pereira, 2014)).

MCA provides a graphical display of the associations between all the multiple categories into a subspace with the minimum number of dimensions (axes or factors) possible and, in particular, bi-dimensional graphs (Ramos & Carvalho, 2011). MCA also allows identifying patterns, considering the privileged associations between categories with larger contributions to one or both dimensions by displaying the geometric proximity of the categories in the factorial plane (Silva, Carvalho, Oliveira, Fialho, Soares & Jacinto, 2017). These dimensions were then related to the performance variables, both objective and subjective.

Next, a cluster analysis was performed to classify micro-firms according to the main patterns of HRM practices identified from the MCA. Using MCA object scores as input variables, a hierarchical cluster analysis (HCA) with two heuristics aggregation—ward method and furthest neighbour method—was performed. HCA was suited by a k-means algorithm and a typology of the 114 micro-firms was identified. Then the typology which differentiates micro-firms against HRM practices was regressed on several internal organisational factors (predictors). To do that a multiple categorical regression (CATREG) was used, as it was necessary to accommodate independent metric variables with a categorical dependent variable.

Statistical analyses were conducted using SPSS Statistics 23.0.

5.3. Results and Discussion

As referred previously, this study has two major goals, to identify HRM practices patterns and to characterise types of micro-firms regarding the HRM practices usage, and, in both cases, relate them to performance.

In the next section we will address the first objective presenting data regarding the HTM practices bundles and relating them to performance, and subsequently discuss the results and present the contributions. In the following sub-section we identify the HRM practices taxonomy in micro-firms, and also, discuss and display the contributions of these findings.

5.3.1. Human Resources Management Practices Bundles in Micro-Firms and Performance

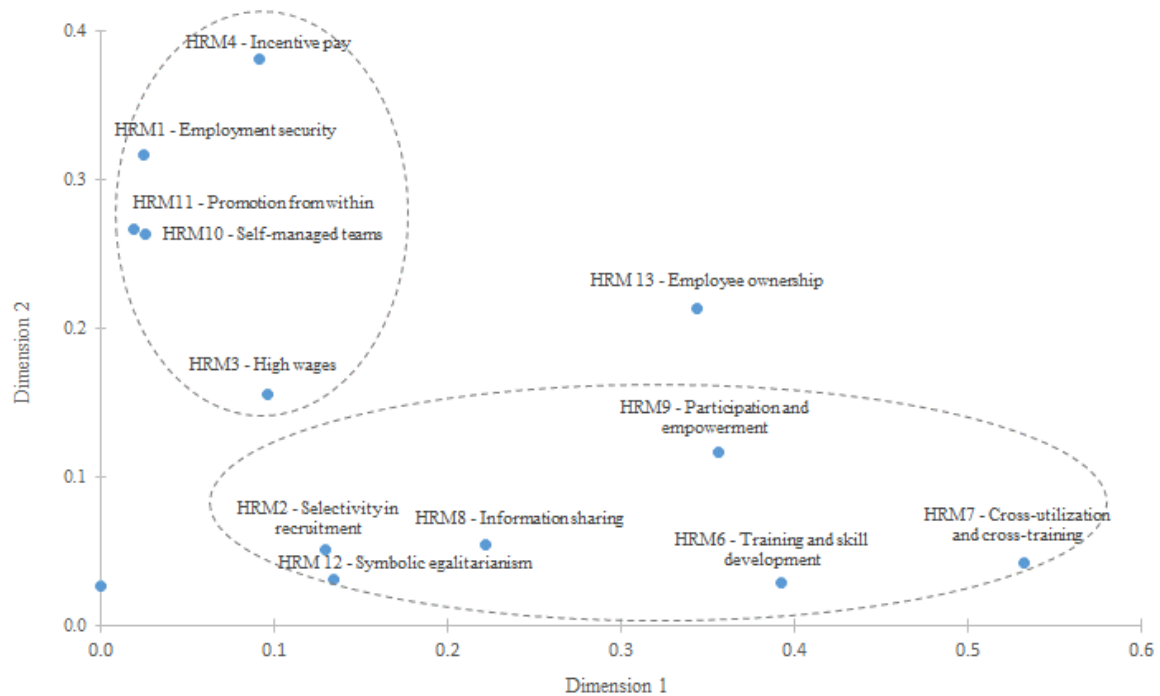
The MCA output revealed two distinct dimensions, which enable the conception of two-dimensional patterns of HRM practices. The discrimination measures underlined in Table 12 are associated with the variables that contribute the most to the definition of each dimension. Only variable HRM 5 (wage amplitude) does not discriminate on the two dimensions; all the other active variables discriminate on both dimensions.

Table 12 - Contribution of the active variables

Active variables	Dimensions			
	1		2	
	Discrimination	Contribution	Discrimination	Contribution
HRM1 – Employment security	.025	1.04	.317	16.29
HRM2 – Selectivity in recruitment	.130	5.48	.051	2.62
HRM3 – High wages	.096	4.06	.155	7.97
HRM4 – Incentive pay	.092	3.88	.381	19.58
HRM5 – Wage amplitude	.000	0.00	.026	1.35
HRM6 – Training and skill development	.393	16.57	.028	1.46
HRM7 – Cross-utilisation and cross-training	.533	22.47	.042	2.16
HRM8 – Information sharing	.223	9.39	.055	2.81
HRM9 – Participation and empowerment	.356	15.02	.116	5.98
HRM10 – Self-managed teams	.026	1.09	.263	13.54
HRM11 – Promotion from within	.019	0.81	.267	13.73
HRM 12 – Symbolic egalitarianism	.134	5.67	.030	1.57
HRM 13 – Employee ownership	.344	14.52	.213	10.94
Active Total	2.370	100.00	1.944	100.00
Inertia	0.182		0.150	

Figure 10 displays the association of the active variables with the two dimensions, through their discrimination measure. Considering the variables mainly associated with each dimension they can be labelled as development practices and transactional practices, respectively.

Figure 10 - Discrimination of the active variables in each dimension



Development practices focus on attracting and developing people; these include training and skill development, participation and empowerment, information-sharing, cross-utilisation and cross-training and selectivity in recruitment. Transactional practices concern practices as in a commercial operation such as high wages, incentive pay, promotion and job security. Employee ownership is not a common practice among these micro-firms (82.4% do not have it), so it is not a discriminative issue to consider.

These dimensions are related to performance in different ways. Results of the categorical regression indicate that there is a small effect between HRM practices and employee growth between 2012 and 2015, ($F(2,111) = 2.674$, $p = .073$, $R^2 = .046$); transactional practices contribute to predict effect ($\beta = .200$, $p = .033$) (Table 13 and Table 14).

Table 13 – Categorical regression coefficients: Dependent variable employee growth between 2012 and 2015

	Standardised Coefficients				
	Beta	Bootstrap (1000) Estimate of Std. Error	df	F	Sig.
Development practices	,077	,094	1	,666	,416
Transactional practices	,200	,093	1	4,660	,033

Criteria Variable: Employee growth between 2012 and 2015

Legend: Estimate of Std. Error- Estimate of Standard Error; df: Degrees of freedom; Sig.: Significance

Table 14 – Correlations and tolerance: Dependent variable employee growth between 2012 and 2015

	Correlations				Tolerance	
	Zero-Order	Partial	Part	Importance	After Transformation	Before Transformation
	Development practices	,076	,078	,077	,127	1,000
Transactional practices	,200	,201	,200	,873	1,000	1,000

Criteria Variable: Employee growth between 2012 and 2015

Transactional practices ($\beta = .354$, $p = .000$) are associated to micro-firm performance evaluation by their owners ($F(2,111) = 9.529$, $p = .000$, $R^2 = .147$) (Table 15 and Table 16).

Table 15 – Categorical regression coefficients: Dependent variable owner's subjective performance evaluation

	Standardised Coefficients				
	Beta	Bootstrap (1000) Estimate of Std. Error	df	F	Sig.
Development practices	,145	,085	1	2,903	,091
Transactional practices	,354	,092	1	14,801	,000

Criteria Variable: Subjective performance evaluation

Legend: Estimate of Std. Error- Estimate of Standard Error; df: Degrees of freedom; Sig.: Significance

Table 16 – Correlations and tolerance: Dependent variable owner's subjective performance evaluation

Correlations and Tolerance

	Correlations			Tolerance	
	Zero-Order	Part	Importance	After Transformation	Before Transformation
Development practices	,145	,145	,143	1,000	1,000
Transactional practices	,354	,354	,857	1,000	1,000

Criteria Variable: Subjective performance evaluation

Discussion and Contributions

The process of identifying the HRM practices configurations started with the definition of HRM practices patterns. Two dimensions emerged, which we titled *transactional HRM practices* and *development HRM practices*.

This is supported by Huselid's (1995) seminal study, "The impact of human resources management practices on turnover, productivity, and corporate financial performance." Huselid, back in 1995, among the 816 firms with an average of 4,412 employees also found two factors on the scale he developed based on thirteen HRM practices: the employee skills and organisational structures and employee motivation practices. Both the dimensions we found and the factors of Huselid's (1995) scale match the main HRM practices.

Analysing more recent work, the practices contained in each dimension moved us towards the AMO framework definition: HRM practices that enhance employees' abilities, motivation and opportunity to perform (Appelbaum et al., 2000; Gerhart, 2007; Jiang et al., 2012). The *transactional HRM practices* refer to some of the motivation-enhancing practices, while the dimension *development HRM practices* refer to abilities-enhancing features and opportunity to perform practices. Jiang et al.'s (2012) meta-analysis in large firms and Rauch and Hatak's (2016) meta-analytic work in SME (firms up to 500 employees) also used this paradigm as a starting point. In both meta-analyses, the authors used the framework to analyse data and discuss the results. In fact, more research is required to validate the AMO model (Marin-Garcia & Tomas, 2016). On the one hand, these two dimensions challenge the established three HRM practices bundles supporting performance in the HRM literature. On

the other hand, our two dimensions derive from an empirical analysis, rather than a theoretical one, on which the three-dimensional AMO framework is based. Meuer (2017) also uses this framework to categorise the high-performance working practices. He explains the complementarities within these practices, but does not confirm the three dimensions empirically, nor does he use them to explain findings.

This result introduces the empirical argument that HRM practices are probably organised the same way in smaller and bigger firms, as we had seen in a seminal work more than 20 years old (Huselid, 1995). The impact the HRM practices may have, their sophistication or the way they are used, might be different. Nevertheless, there is some empirical evidence that points to an HRM practices bi-dimensional structure, which future studies should pursue.

Analysing the relationship of these dimensions with performance, we found that, on our sample, only the *transactional HRM practices* relate to firm performance indicators, namely with employment growth between 2012 and 2015 and with owner's subjective performance evaluation, not actual net income growth.

Employment growth is an organisational output conceptually connected to HRM practices: They are both about people in their workplace (Rauch et al., 2005). Firms which want to grow employee numbers (and that was 86% of the sample) will probably invest in their employees through HRM practices. If they only wanted to increase sales, theoretically, they could use strategies other than human resources (Rauch et al., 2005).

The theory underlying HRM practices' influence on performance advocates the use of intermediate variables (e.g., Huselid, 1995). HRM practices have a direct influence on employees' knowledge, skills, and abilities, empowering and motivating them to perform better. That is, increasing productivity (sales per employee) is the intermediate variable that will impact firm performance (B. E. Becker & Huselid, 1998; Sels et al., 2006). In our study, we decided to use a more distal outcome, a financial result (net income per employee) due to specificities of the business sector of the sample.

The period of our study (2012–2015) corresponds to years of increased ERP (Enterprise Resource Planning) systems activity demand, due to constant new legislation regarding employment and commercial taxes and laws. These were in context of economic and political pressures related to the heavy financial crisis the country was facing. During this period Portugal was one of the OECD countries with the largest growth rates in using ERP (OECD, 2015, see figure p. 135). Firms had to attract new and the most talented employees,

to face the market need for services in their field of business. Consequently, they tended to value more transactional practices, rather than development, due to the immediate market demand on services in this field. In doing so, increasing the number of employees, even if increasing sales and profits, the average net income often did not grow at the same pace as employment for all the firms. Therefore, employment growth is one of the organisational outcome variables more likely to be influenced by HRM practices, specifically, the transactional practices (Rauch et al., 2005). The period of our study, had a very high level of unemployment in the general population, which was not so evident on this economic sector.

In the HRM practices-performance link literature, some studies use objective data to measure performance (e.g., Huselid, 1995; Sels et al., 2006), but many academics use subjective measures. Each study defines its performance indicators, and the participants are asked to compare their firm's performance with competitors using a Likert scale (e.g., Sheehan, 2013), or indicate their growth percentage (e.g., Messersmith & Wales, 2013). Subjective performance evaluation is backed by Wall et al.'s (2004) findings on the validity of perceptual indicators.

In this study, besides the objective measures (employment growth and financial performance), answering the SME literature call, we decided to consider the idiosyncratic perspective of the business owner. The level of satisfaction with business accomplishments concerning sales or assets is different for each owner (Lumpkin & Dess, 1996; Thorpe & Clarke, 2008). Thus our subjective measure of performance is the level of organisational performance perception. The use of transactional HRM practices is associated with a higher level of organisational performance perception. Therefore, owners who pay higher than their competitors' pay incentives, promote their employees, provide job security and have autonomous people working as a team evaluate their firms as having better results.

Studies that explore the link between HRM practices and organisational performance report a significative relation: bigger or smaller, direct or mediated. Usually, HRM practices are measured with an intensity index (e.g., Messersmith & Wales, 2013; Sels et al., 2006; Sheehan, 2013). The few studies using individual HRM practices are the ones who pursue the configurational approach and therefore define their respective sets of HRM bundles, which, of course, do not match completely. They also report different findings. For example, in the European Union context, based on the CRANET questionnaire, Stavrou and Brewster (2005) presented 15 clusters, among them group-bonus bundle, merit-pay bundle and career bundle, none of which was significantly related to performance. Meuer (2017), studying 530 United

Kingdom for-profit firms with an average of 296 employees, found four HRM bundles including an incentive-based one; All were related to their firm's performance. The meta-analysis performed in SME studies relating HRM practices to performance by Rauch and Hatak (2016) indicated that the motivation-enhancing practices, which are parallel to the transactional practices in our study, were not as important as other (opportunity-enhancing) practices in the SME context. Regardless of the statistical methodology or objective that led to the definition of HRM practices patterns, there was always at least one of them that related to the transactional practices. We also know that various HRM practices have different relations to different organisational results, but empirically this is not always confirmed.

5.3.2. Human Resources Management Practices Taxonomy in Micro-firms

From the intersection of the MCA dimensions, the topological configuration of the HRM practices showed two patterns. In turn, cluster analysis allowed the definition of the types of micro-firms associated with those patterns (see Figure 11).

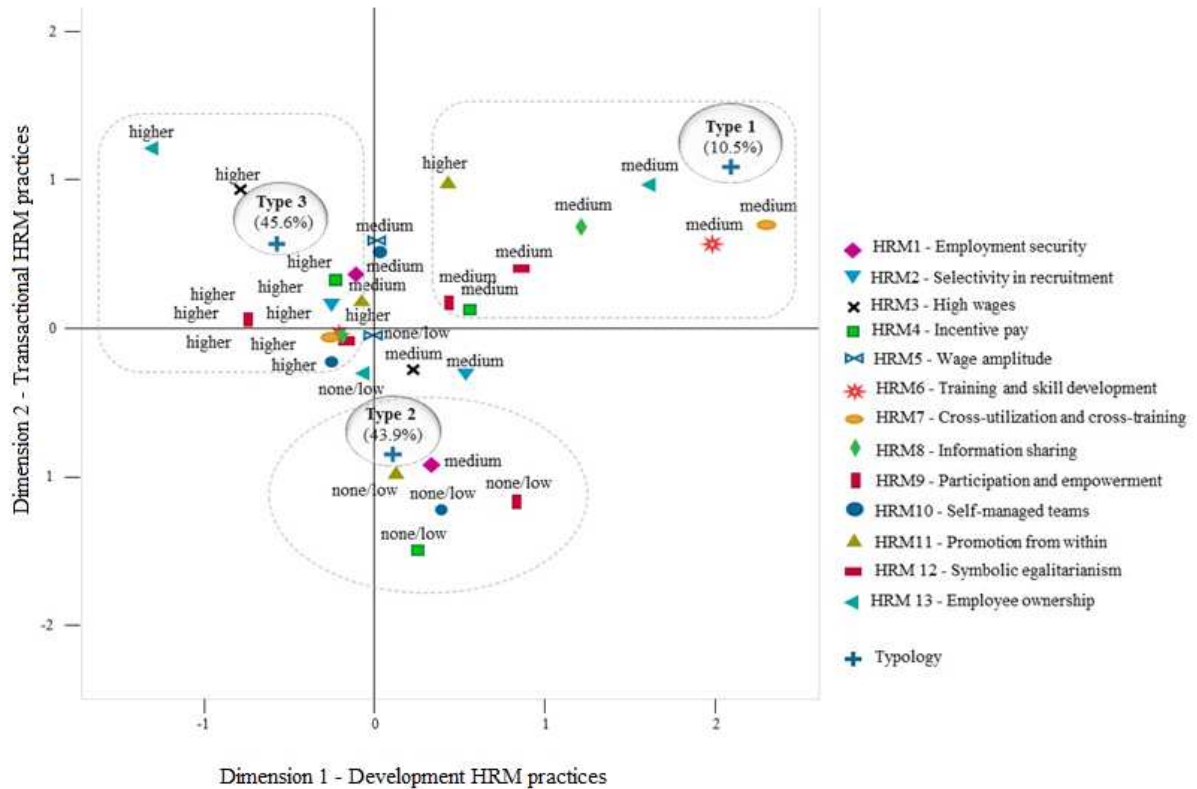
The micro-firms' clusters grow in HRM practices sophistication. The lower sophisticated group (Cluster 2) represents 43.9% of the firms which exhibit, significantly, the lowest intensity of HRM practices. They have the least developed HR systems when compared to the other groups. This group's characteristics include the most controlling practices (not giving or giving little autonomy to the employees) and also not paying incentives or promoting. This type of firm does not invest in their employees' level of ability, motivation or opportunity, which are the key aspects of high-involvement HR practices (Boselie et al., 2005). As Lacoursière and colleagues (2008), we named the HRM practices in these firms "low-involvement HRM practices."

The second group (Cluster 1), represents only 10.5% of the sample's firms and is associated with HR practices' medium intensity. It is, to a certain extent, halfway between the two other firms' profiles. These firms have most practices that aim to enhance employees' abilities, motivation, as well as opportunity to develop themselves and the firm, which occurs at an intermediate level. We named this HRM practices group "intermediate-involvement HRM practices."

The most sophisticated type of micro-firm, regarding HRM practices (Cluster 3, 45.6%) includes firms that bring up all HRM practices considered in this study, with a higher intensity. They apply not only the more transactional practices such as paying higher than the market, paying incentives, and giving autonomy to the employees, but also development

practices. These include exigent recruitment processes, training, information sharing, job participation and ownership sharing. Following the strategic HRM literature, we called this group of firms HRM practices “high-involvement work practices” (Lacoursière et al., 2008).

Figure 11 - Topological configuration of the HRM practices and micro-firms’ clusters



Having defined the HRM practices used in micro-firms, it is important to compare those types (clusters, as a criteria variable) with other internal organisational factors associated with firm performance to understand the organisational contexts and management styles in each case (predictors). Table 17 shows the regression results and other descriptive data, that enables a better characterisation of the clusters.

The firm owner of the group of companies that adopt the *low-involvement HRM practices* scores lower regarding the entrepreneurial potential dimensions (EPAI scale). Those business owners that use more controlling HRM practices seem to lack social competencies related to communication, persuading others and establishing social networks. These owners also score low on management competencies as strategic vision and ability to mobilise resources. They manage their staff in a family-like way, but in a lower degree than other types of micro-firms. Such owners are less proactive, and not as emotionally linked to their businesses as other firm owners. They mostly evaluate their firms’ performance as “fair.”

The firm owners of the group of companies that adopt *intermediate-high-involvement HRM practices* score low regarding the entrepreneurial potential dimensions (EPAI scale), namely, entrepreneurial motivation, psychological competencies and management competencies. Their best entrepreneurial potential feature are their social competencies. The owner profile seems to be congruent with their low entrepreneurial orientation regarding low innovation and risk-taking attitudes. They manage their staff in a family-like way, but in a lower degree than other types of micro-firms. These firm owners evaluate their firms' results mostly as "good," but some of them refer to their performance as "fair."

Micro-firms whose owners use *high-involvement work practices* are also the ones with better entrepreneurial potential profile scores, with all entrepreneurial orientation dimensions' higher than the other micro-firm owner's types. They also are the ones who value the most their staff's opinions and run their business in a family-like manner. They are also emotionally linked to their firm and evaluate better their firms' performance, mostly as "good," but also as "very good."

Table 17- Clusters' characterisation

	Clusters		
	“Intermediate-Involvement Work Practices” (Type 1)	“Low-Involvement Work Practices” (Type 2)	“High-Involvement Work Practices” (Type 3)
	N=12 (10.5%)	N=47 (41.2%)	N=52 (45.6%)
Organisational Variables			
<i>Firm owners' characteristics</i>			
Education	42% Secondary school; 33% Bachelor's degree	34% Secondary school; 48% Bachelor's degree	35% Secondary school; 48% Bachelor's degree
Managerial intentions/ Intentions to grow	97% intends to grow	86% intends to grow	90% intends to grow
Perspective of the business	67% Hardware and software supplier and related services	44% Hardware and software supplier and related services	48% Hardware and software supplier and related services
Entrepreneurial Motivation			Higher than Type 1 ($\beta = .216$; $p = .015$) M=3.9 (.460)
Social Competencies			Higher than Type 2 $\beta = .231$ / $p = .018$ M=4.0 (.528)
Psychological Competencies	Lower than type 2 and 3 ($\beta = .270$; $p = .001$) M=3.6 (.420)		
Management Competencies			Higher than Types 1 & 2 ($\beta = .313$; $p = .000$) M=3.947 (.460)
<i>Other issues firm owners' managerial posture</i>			
Entrepreneurial Orientation: Innovation			Higher than Type 1 ($\beta = .277$; $p = .002$) M=5.35 (1.20)
Entrepreneurial Orientation: Proactivity			Higher than Type 2 ($\beta = .272$; $p = .005$) M=4.97 (1.21)
Entrepreneurial Orientation: Risk-taking	Lower than type 2 and 3 ($\beta = .209$; $p = .042$) M=2.94 (0.63)		
Small Business Orientation: Emotional Link			Higher than Type 2 ($\beta = .248$; $p = .024$) M=5.86 (.898)
Clan Culture			Higher than Types 1 & 2 ($\beta = .291$; $p = .001$) M=6,37 (.68)
<i>Performance</i>			
Number of employees growth 2012-2015	M=1.08 (1.62)	M=.86 (1.69)	M=1.23 (2.20)
Average net income growth 2012-2015	M=588,15€ (3333,47€)	M=172,52€ (3877,24€)	M=63,21€ (779,07€)
Firms with positive growth	50.0%	60.0%	63.5%
Minimum / Maximum	-2.802,33€ / 9.074,52€	-10.861,6€ / 9.943,17€	-18.018,67€ / 8.832,17€
Average net income between 2012-2015	M=3.710,04€ (7.754,88€)	M=874,18€ (2.192,25€)	M=3.227,62€ (4.348,42€)
Subjective performance	33% Fair 41.7% Good	51.1% Fair 38.3% Good	47.9% Good 27.1% Very good

Legend: M – Mean

Discussion and Contributions

After defining the HRM practices patterns, we identified the three clusters that aggregate types of micro-firms according to their HRM practices: low-involvement HRM practices, intermediate-involvement HRM practices and high-involvement HRM practices.

The three clusters show a hybrid configuration of both HRM practices bundles; all three exhibit sets of HRM practices of both transactional and development bundles. This hybrid nature of management implementation practices is coherent with the systemic paradigm of configurations theory, in which companies operate to find their balance (Doty et al., 1993; Messeghem & Pierson, 2003). The way micro-firms manage their employees is an interaction of several factors including environment, business strategy, and managers' personality and behaviours concerning the employees (Sheppeck & Militello, 2000). Considering micro-firms are owner-centred, and several internal factors contribute to the organisational dynamics, this study also adds to the literature measuring internal intangible factors related to the owner. Both internal resources (human capital, owner's characteristics) and management practices (entrepreneurial orientation, small business orientation, and organisational culture) are measured and analysed relative to HRM practices configurations. The managing style emerges from the interaction of these factors in a spontaneous, rather than a planned, manner. It is important for firm owners to know their position in the configurations, to understand their practices more comprehensively and learn what they can do better.

The clusters we identified translate the levels of sophistication in HRM practices usage, that is, the degree to which they are applied in micro-firms. Our findings are parallel to those of (Lacoursière et al., 2008). Examining 176 Canadian manufacturing firms from 20 to 249 employees (median 50 employees), these authors obtained identical results: traditional-low-involvement HRM practices, functional-high-involvement HRM practices and high-involvement HRM practices.

In our study, the owner characteristics and their management style are the internal organisational characteristics that differentiate the three groups of firms. As firm-owners' entrepreneurial potential competencies and entrepreneurial orientation style increases, they use HRM practices at higher levels of sophistication. We know from the literature that the smaller the firm, the stronger the effect of the entrepreneur's personality-related characteristics and consequent behaviour (Jaouen & Lasch, 2015; Mills & Pawson, 2012). In the literature, the owner's level of education is also considered an important factor (Lacoursière et al., 2008;

Rauch & Hatak, 2016). However, as our sample was very qualified (over 60% have a bachelor degree, MBA or post-graduate training), possibly due to the business sector under study, differences in the results were more associated with personal characteristics and management styles.

The number of employees was also associated with the degree of HRM practices sophistication (Lacoursière et al., 2008). In our study, however, the differences between firm groups were not so evident.

There were no statistically significant differences regarding performance indicators (employee growth, average net income growth or subjective performance evaluation), which means that micro-firms, even if using different management styles regarding HRM, do not have statistical different performance results.

We find that these results may be supported, on the one hand, by the equifinality assumption of the configurational approach that there are numerous organisational ways to succeed (Doty et al., 1993). That is the basic notion of configurations: there are more than one “best way.” Moreover, also based on the nature of the configurational approach, is the notion that the effects of each practice are not as strong as groups of practices combined accomplishing virtuous overlaps of core and peripheral HRM practices (Chadwick, 2010; Meuer, 2017). In this study, apparently, if there are enough transactional HRM practices among the set, the development practices will help to succeed but are not the core ones.

This study adds to the micro-firm literature in HRM following the literature’s methodological suggestions. We define the configurations based on empirical data, developing the presented configurations rather considering known configurations in the literature (as AMO framework), as also recommended and valued in the literature (Meuer, 2017; Subramony, 2009). We focus on a specific sector, the ERP business sector. We also controlled the macroeconomic context and industry, as they have a direct effect on firm performance (Johan Wiklund et al., 2009). This focus is important, as there are not many studies in micro-firms, and a confined empirical approach is a methodologically more rigorous way to perform the research (Dess et al., 1993). Also, in the study of HRM practices, it is a requested approach because it controls contextual factors that may influence the effectiveness of HR practices (Meuer, 2017). Moreover, the concentration in just one business sector is a common procedure when using the configurational approach, as Short et al. (2008) identified in their literature review.

Another feature to be considered, as pointed out by Short and co-workers (2008), is the longitudinal approach (Short et al., 2008)(Short et al., 2008)(Short et al., 2008)(Short et al., 2008). We considered the growth related to a defined period, allowing for a time lag to occur. It is a post-predictive approach (measuring HRM practices after the organisational performance measure) type of causality study, as defined by (P. Wright et al., 2005). This approach afforded time for the human resource strategies to have an impact; moreover, with this procedure, we valued a relative measure, not an absolute one. Within this framework each firm was compared to itself, enabling an understanding of the impact on the performance of their own HRM practices. (Aït Razouk, 2011), who studied French SME based on data collected in 1998 and 2005, found that the HRM practices-performance link resists temporal periods. The author posited that HRM practices could thus predict present and future performances.

5.4. Limitations and Future Research

This study contributes to the development of research into the micro-firm type of business, as well as the specific field of HRM. However, it has several limitations. First, only one business sector was studied. This characteristic can be considered a downside, because of the low representability of the broader business context. However, the results may be useful beyond this specific industry, as they are more reliable than if a mixture of business sectors was studied, even if using a larger sample. Second, the sample size did not allow for more definitive conclusions, even in the business sector that received our focus. Third, only a limited number of questions regarding HRM practices were posed. Fourth, performance, when relating to HRM practices' influence, considers several intermediate indicators (which in turn are related to various practices). Future studies in micro-firms should also contemplate those intermediate indicators (e.g., productivity, turnover, innovation, quality).

5.5. Conclusions

We designed this study to improve knowledge on HRM practices in micro-firms, characterising their usage patterns, analysing its relationship with other internal organisational variables and relating them to performance.

This study answers the literature's request for more configurational research in the HRM field (Short et al., 2008), namely examining "how configurations of firms differ in regards to human resource practices" (p. 1068). We decided to use the configurational approach because it captures the business scenery, including a set of variables that interact with each other. Moreover, it is considered important to study and theorise about both HRM (Delery & Doty, 1996) and the entrepreneurial setting (Lumpkin & Dess, 1996) into which the micro-firms are commonly integrated.

We contribute to the micro-firm business field of study by identifying, on the one hand, the HRM practices patterns, and on the other, configurations that represent the types of HRM practices used in micro-firms. We add to the HRM literature by identifying the HRM bundles most related to firm success. The empirical study revealed two main HRM practices bundles: the transactional and the developmental. Only the transactional dimension is related to organisational performance (in both employee growth and subjective performance evaluation). The HRM practices related to high wages, bonus payment, career and autonomous work were the ones that had a better impact regarding those performance indicators.

To understand which of the HRM practices micro-firms use, based on those two dimensions, we found three types of micro-firms: the low-, the intermediate- and the high-involvement HRM practices users. The three types of firms use HRM practices in different degrees and at various levels of sophistication. We found that none of the three types is significantly more associated than others with the performance indicators we considered. Following the configurational perspective, the intersection of both transactional and developmental practices were found to be equally effective.

We also found that what differentiates a firm's type of HRM practices usage are the owner entrepreneurial characteristics and management style. The more entrepreneurial potential competencies the owner possesses, the more he/she: engages in proactivity, innovation and risk-taking activities; feels involved in the business and treats employees as family and develops their abilities; and uses HRM practices (and to a higher degree).

This study performance data refers to the severe economic and financial crisis period experienced by Portugal. At that time, to face international demands, a great deal of control and changes in procedures dictated an increase in information technology and communication software production. These circumstances determined that the most effective management practices, positioning firms to respond to the market's needs effectively, would be the

transactional practices. We used the post-predictive approach to measure the effects of HRM practices (Wright et al., 2005). We also contributed to micro-firms literature, introducing HRM practices patterns and types based on empirical data, linking owner characteristics and their way of managing.

For the ERP-selling firms and software houses that partner with them, we begin to fill the gap about which are the HRM practices bundles more effective for micro-firms' success, and which are the characteristics and management styles of their owners. The study thus provides important information for initial and ongoing training.

Further qualitative and quantitative studies should investigate micro-firms' HRM practices namely regarding other periods to better understand the importance of the sector and macroeconomic contextual factors.

GENERAL CONCLUSIONS

General conclusions

Micro-firms are the most numerous type of firms worldwide, and regarding HRM and people management this is an understudied organisational context. These firms represent 90% of enterprises worldwide (OECD, 2017b). In Portugal, in 2015 they represented 96.2% of the enterprises in the country, they employ 46.4% of the active population, and they represent 21.9% of gross national product, a little more than small and medium-sized firms (INE, 2017).

Research on smaller firms' HRM has been increasing, specifically in the entrepreneurship literature relating it to growth (Mayson & Barrett, 2006) and to the owner's human capital (Rauch et al., 2005). Research regarding HRM in smaller firms' also has been increasing in the HRM literature: relating it to performance (Sheehan, 2013), to organisational culture (Patel & Cardon, 2010), to entrepreneurial orientation (Messersmith & Wales, 2013), among other organisational variables. However, none of these studies refers to micro firms. In the French context, there seems to be an ongoing line of research on very small firms (up to 20 employees) (e.g., Jaouen & Tessier, 2009). Nevertheless, these are not exactly micro-firms. Thus, research on this type of firm is very scarce.

To be able to compare results, and acquire some valuable and useful information about this understudied group of firms, we focus on one of the subsectors of Information and Communication Technology (ICT): ERP selling and consulting firms. ERP programs are systems that enable information flow across all the enterprise's functions (Shaul & Tauber, 2013). The amount of economic activity associated with this sector in Portugal increased more than 20% between 2008 and 2015 (INE, 2016). Regular firms in this business sector are replacing the one-individual firms³⁰ (more than 30% increase), which means employing more people (INE, 2014, 2017). However, the value rate of services, during the same period, decreased both in one-individual type of firms and the regular firms. The participants in this project are (regular) firms selling ERP software (57.9%, more than one brand) and doing connected consulting services, and therefore compete in the same market. The firms studied have from three up to ten employees. A sample with these characteristics allows having a good degree of possibility of the results being due to the organisational variables and analysis we are making, rather than other contextual variables (e.g., Lumpkin & Dess, 1996). We performed three studies. The two initial studies were multiple case-studies, with data gathered in two different time-periods, and finally we conducted a study based on quantitative data. All

³⁰ One-individual-firm is a type of firm that has only one employee, the owner.

studies analysed organisational performance in time-lagged periods. To study HRM we used Pfeffer's (2005) thirteen practices³¹. We selected this list because: (1) it is a common practice for measuring HRM practices in smaller firms using practices that derive from larger firms, (2) this list includes practices that are adequate for the type of management in very small and flexible firms, and (3) it does not include practices that should not apply to micro-firms.

Main theoretical contributions

Our project is grounded in a resource-based view of firms that attempts to understand HRM practices' relation to micro-firms' competitive advantage (Barney, 1991).

We began exploring the HRM-performance link in micro-firms with a qualitative, in-depth approach to two micro-firms in the region of the second largest Portuguese city. To be able to compare the case studies, we used a large number of variables referenced in both the HRM practices and entrepreneurship literature regarding the human element of the firm, namely entrepreneurial characteristics and managerial styles (EO and SBO). We collected data from both owners and their employees at two different times. In 2010, the objective was to get to know the organisational dynamics of the firms, and HRM practices were surveyed. In 2012, updates on the recent history of the firm, and of HRM practices employed, were made, and we characterised the owners' entrepreneurial traits and management styles. We analysed organisational performance indicators concerning the period from 2008 to 2011. This longitudinal approach is in pace with what is being asked by both the literature in the entrepreneurial and the HRM fields.

We started with a general research question: *how do HRM practices relate to performance in micro-firms?*

The main findings pointed to some specific features of micro-firms, compared to what happens in larger firms. The firm owner who has a slightly higher HRM practices score does not have the best performance results. Through the years, the performance of this firm increased. The owners' HRM practices are similar in many ways, although there are some important distinctions between them.

³¹The practices are: employment security, recruitment selectivity, high compensation, incentive pay, employee ownership, information sharing, participation and empowerment, self-managed teams, training and development, cross-utilisation and training, symbolic egalitarianism, wage compression, and promotions from within. The practices are detailed in Appendix B.

One difference is the source of recruiting. The firm that performs better recruits qualified personnel from the software house academy, while the other firm recruits from universities or vocational courses. Secondly, the way they organise work is also different. Newcomers in the first firm, as they are more qualified from the start, are given more autonomy regarding the way they perform in their work. The second firm, because they incorporate inexperienced people in the firm, they have to train them internally, which is time-consuming and can result in delays in responding to clients' needs. The second firm did not perform as well as the first one. The other issue on which they differ is information sharing and cross-training. This difference is in part a consequence of the qualifications and level of autonomy of the people who are hired, on the one hand, and the extent to which an autonomy-giving sort of managerial style is employed, on the other. The approach of acquiring qualified staff in the market and allowing them to work autonomously (for example, not setting programming rules) rather than training internally and defining technical orientations had better organisational performance results. Teaching trainees to deliver their work in a certain manner takes time and supervisory effort and takes time away from other tasks. Given the limited human resources available, it may work better to not guide or control the employee's way of working. The first firm, which performed better, has fewer employees, and thus promoting from within doesn't make much sense in such a small business, while in the second firm, being larger makes promoting from within a possible HRM practice.

Larger firms' experience in business is also favourable to performance. Although the number of years in business was not very different between the firms in this study, it was enough for one of the firms to get more customers in the first set of "golden years" of information systems (the passage of the millennium, and the currency change in Portugal in 2002).

The first study allowed for answering another research question. Going further in the HRM practices-performance link study in micro-firms, we introduced owner characteristics into the equation: *how are firm owners' characteristics and managerial styles related to HRM practices and firm performance?*

Regarding the relation between owners' managerial orientation (entrepreneurial orientation, EO and small-business orientation, SBO) and performance, in the crisis scenario, we first noticed that SBO was similar in both owners; the difference was in EO style. We argued that these findings point to Runyan et al.'s (2008) distinction between the two

constructs. Based on this promising idea, we followed through with this distinction in the next stage of our project.

Findings at this stage suggested that a higher EO is associated with better performance in a turbulent environment, while a lower EO is associated with better performance in a more stable economic environment. Although there is evidence of a relation between EO and better organisational performance (Rauch et al., 2009), recent research has shown that it is not a general relationship that extends to an economic crisis situation. Specifically, the findings seem to support contingency theory in relating the innovation and proactivity dimensions to positive results and risk-taking to negative results in turbulent times (Covin & Slevin, 1989a; Kraus et al., 2012).

In terms of the relation of the owners' managerial style with HRM practices and performance, we found that the owner with higher entrepreneurial competencies and higher EO is also the one who wants to grow and the one who invests more in people. He hires junior qualified but inexperienced employees, and thus promotes internal cross-training and information sharing and has a more relational attitude towards employees, and promotes interaction among them. We categorised his way of managing people as "relational".

The owner with lower entrepreneurial potential and lower EO hires senior and experienced people (with higher human capital), promotes a more individualistic and autonomous way of working, and does not encourage information sharing or cross-training as a general matter. Thus, he has a "distant" way of managing people. Yet even though his firm had a lower HRM practices score, and a lower level of entrepreneurial managerial behaviour, it is the better performing of the two firms, which is inconsistent with what has been found in the literature concerning large firms.

The second study concerns the relation of HRM practices with the organisational culture and performance. There is an abundance of research associating each of these organisational variables with firm performance. Research that examines the combined impact of the two together, and their relation to performance, is more rare, but pertinent, since the existing studies point to a mutually reinforcing effect. We collected broad and in-depth data from both owners and their employees, we were at the premises of the firms, getting direct information about their organisational dynamics, and also collected secondary data regarding three dimensions of firm performance. Data collection took place at two different times, initially to learn about the firms' history and management dynamics, including HRM practices (2010-2011), and at the second time (2013) to collect not only information about the recent evolution

of firm dynamics, but also about organisational culture and employee-based information about performance indicators (organisational effectiveness). To study culture, we used the competing values framework (CVF), a widely studied and known model among academics and practitioners that comprises four types of cultures: clan (or group) culture, adhocracy (or development) culture, market (or rational) culture, and hierarchy (or rule-following) culture.

We developed this study with a twofold objective: we wanted to understand *how HRM practices are associated with culture types*, and then, *how these two organisational variables were related to micro-firm performance*.

Findings pointed to some propositions associating HRM practices, culture types and firm performance. Clan culture appears to be a key element in the best performing firms, and that happens regardless of the nature and intensity of HRM practices. There is, however, an HRM practice that seems to be more influential: incentive pay. Whether structured based on known goals or distributed on an *ad hoc* basis, incentive pay is related to better performance, as long as firms take care not to use exclusively hierarchy and market types of cultures. Still, when the goal orientation practice is embedded in employees, in a way that they report market culture among the primary organisational culture types, they also report lower job satisfaction (an organisational effectiveness measure).

Our findings regarding the association between HRM practices and culture point towards the importance of analysing both variables at the same time, because we can better understand their effects on performance. Based on data from this study, it seems that HRM practices and corporate culture do not interact in any specific way. Culture may precede HRM practice (clan culture's effect on performance appears to occur regardless of HRM practices), and HRM practices may stimulate the development of a certain culture (goal orientation regarding incentive pay encourages development of a market culture among employees).

This study's results show specific features of micro-firms concerning their HRM practices, corporate culture, and performance. As firms develop, even while still remaining at or below ten workers in size, owners report that hierarchy culture (definitions and standardising procedures and rules) appears among the primary types of culture in their firms. This finding is divergent from the presumption in the literature on large firms that this type of culture happens as the firms gets bigger. Regarding micro-firms, it seems to happen as firms get older.

Another finding that emerges from these studies of micro-firms is that when studying HRM practices, it appears to be more valid to search for bundles of practices, pursuing a more

finely grained analysis, than to measure the number of practices and their intensity, which is the mainstream approach. Another finding that suggests the validity of a configurational perspective is the fact that there appear to be some HRM practices with more impact on firm performance than others (e.g., incentive pay).

The final study in our project follows the configurational literature. This selection is based upon our findings in the previous studies, and is also asked for by the HRM field and the entrepreneurship literature, as well as by the small firm studies: there are sets of HRM practices and firm owners' characteristics that work together, getting sometimes the same and sometimes different results. We then asked two new general questions: (1) *What are the HRM practices patterns used by micro-firms?* (2) *How do they relate to firm performance?*

To answer these questions, we collected information from a national sample of business owners of ERP selling and consulting micro-firms. We identified two main HRM practices bundles, transactional (e.g., incentive pay, high wages, job security), and developmental (e.g., participation and empowerment, selectivity in recruitment, training and skill development). These findings, on the one hand, present empirical evidence that HRM practices in micro-firms are probably organised the same way as in large firms (Huselid, 1995). On the other hand, our findings call into question the three-dimensional view of HRM practices proposed by the AMO framework (Appelbaum et al., 2000).

We also found that only the transactional dimension is related to organisational performance, as assessed by employee growth and subjective performance evaluations. The growth indicator follows the national data of employment growth in this specific subsector (INE, 2017), which was due to the intensification of the need for ERP systems resulting from new legislation concerning the economic crisis in the country. The HRM practices involved are congruent with keeping pace with the demands of the market: there is neither time to train staff nor enough internal resources to meet the demands.

We identified three types of firms regarding HRM practices in different degrees and level of sophistication: traditional-low-involvement HRM practices, functional-high-involvement work practices, and high-involvement work practices. These findings are congruent with another study conducted in SME (Lacoursière et al., 2008), which bring us again to the patterns of bigger firms.

Findings indicate that what differentiates the firm's types of HRM practices usage is the owner's entrepreneurial characteristics, and management style: the higher their

entrepreneurial competencies and orientation, the more they use HRM practices and to a higher degree.

All three types of firms seem to have the same firm performance; there are no significant differences among them. Two characteristics of the configurational approach can explain this result. The general characteristic of configurations is the equifinality assumption that states that there are many ways to succeed. The specific characteristic of configurations applied to HRM systems is the virtuous circle of the overlapping effect of several practices working together, which have a stronger influence on individuals, which in turn will influence organisational outcomes.

Table 18 presents a summary of the main research questions and main theoretical and empirical contributions of this thesis.

Table 18 - Summary of empirical studies and results

Empirical studies	Main research question	Main contributions
Study 1 – The HRM practices-performance link incorporating the firm owner: Case-studies in micro-firms	<p>(1) How do HRM practices relate to performance in micro-firms?</p> <p>(2) How are firm owners' characteristics and managerial styles associated with HRM practices and performance?</p>	<ul style="list-style-type: none"> - We found that more individualistic and autonomous ways of working showed better performance results than relational HRM practices; - Previous technical experience, autonomy, and scarce cross-training work better on firm performance than internal training and development; - Firm experience in business (age) and hiring qualified staff are critical factors for success. - A higher EO is associated with better performance results in a turbulent environment - A lower EO is associated with better performance results in a stable economy - higher EO, and entrepreneurial competencies, are associated with a higher level of HRM practice activities: investing in people, hiring junior people, internal cross-training, information sharing and a more relational posture between owner and employees - lower EO, and lower entrepreneurial profile, is associated with hiring senior and experienced people (with higher human capital), promoting a more individualistic and autonomous way of working, not promoting information sharing or cross-training as a general procedure

Empirical studies	Main research question	Main theoretical contributions
Study 2 – The relation of HRM practices, culture and micro-firms’ performance: a multiple case-study approach	<p>(1) How are HRM practices associated with culture types?</p> <p>(2) How are HRM practices and culture types related to firm performance?</p>	<ul style="list-style-type: none"> - It is important to analyse both variables simultaneously, because we can better understand their effects on performance - It seems that HRM practices and corporate culture do not interact in any specific direction - Clan culture perception by both owners and employees is associated with best performing firms, regardless of the HRM practices and their intensity of use - Incentive pay, whether structured or <i>ad hoc</i>, seems to be the most influential HRM practice on good micro-firm performance; however, it is important not to exclusively use hierarchy and market types of cultures when providing incentive pay. - Goal orientation as an HRM practice is embedded in employees’ way of working, in such a way that they report market culture, it affects job satisfaction (an organisational effectiveness measure) negatively.
Study 3 – A configurational approach to human resource management practices in micro-firms	<p>(1) Which HRM practices do micro-firms use? How do they relate to firm performance?</p> <p>(2) What types of micro-firms are there, regarding HRM practices usage? How do they relate to firm performance?</p>	<ul style="list-style-type: none"> - Two main HRM practices bundles, the transactional and the developmental - Only the transactional dimension is related to organisational performance: employee growth and subjective performance evaluation - There are three types of firms regarding HRM practices usage in different degrees and level of sophistication - None of the three types is significantly more associated than others with performance - What differentiates the firms’ types of HRM practice usage is the owner’s entrepreneurial characteristics and management style: the higher entrepreneurial competencies and orientation, the more owners use HRM practices.

Main Empirical Contributions

This thesis is a pioneering examination of specific information on managing people and its relation to performance and owners’ characteristics in micro-firms in Portugal. It fosters knowledge about how micro-firm owners manage people and how the ones whose businesses thrive do it. Achieving an understanding of these matters can have a positive impact on micro-business, and its region’s economies.

Micro-firm managers and academic programmes in business management and entrepreneurship, regarding the micro-firms, should be aware of the importance of transactional and motivational HRM practices to improvement of performance. More specific contributions from this thesis are the importance of incentive pay and clan culture's positive impacts on firm performance. Owners should also be aware that different ways of managing people may lead to similar results, such as for example hiring already trained staff or training them on the on-boarding process - regardless of the approach, ultimately they all obtain the necessary qualifications to perform well.

This thesis supports well known entrepreneurial literature on firm growth (Davidsson et al., 2009), which posits that business owners should get a sustainable advantage before growing.

Regarding policy decisions, the different results regarding micro-firms, and the continuous efforts academia makes on developing research suggest that European, national and regional strategies should be implemented to motivate owners to continue their learning process and to help them improve their businesses.

Suggestions for future research

What motivated this project was the fact that the most common type of firm worldwide – micro-firms – is rarely studied, and therefore a great deal is unknown about them. Most classifications include micro-firms in the SME group of firms. However, the literature on SME and even specifically on small firms disregards firms with 10 or fewer employees. Therefore, there is an entire business context to explore.

Our initial interest was in how people are managed in micro-firms and what effect that management has on firm performance. Our point of departure was work on the HRM-performance link, as well as the entrepreneurship and SME literature.

We would like to point to several issues to define future research in the field of micro-firms' HRM, concerning the geographical context, the time frame, the method, the content and the perspectives to include.

Since this is nearly a new field, more research should focus on micro-firms, their owners, and the way they manage people. Research in other geographical regions and on different business sectors would be welcome.

The period in which this project occurred was a special one, for the country and for the sector itself, so new studies in different time frames would be useful in achieving a better understanding micro-firms' HRM and performance dynamics. The longitudinal approach is very important since HRM practices' consequences take time to happen, and the time lag enables the influence of contextual variables to be examined. In considering the long term effect of HRM practices, it would be of great value to understand if low-involvement and high-involvement work practices firms maintain the equifinality effect of configurations regarding performance indicators.

Regarding the method, the configurational approach is a comprehensive way of studying organisational dynamics, and for purposes of researching the HRM practices-performance link, specifically in micro-firms, it seems like a good option. Considering the interaction of each practice in the whole organisational effect may be of greater importance than just considering the intensity index, as is usually done in the HRM literature, namely, when studying SMEs. It would also be of great interest to conduct a more detailed study of each of the practices.

Pursuing a configurational approach to its fullest would entail not only examining the owners' characteristics and managerial styles, but also introducing a comprehensive analysis of the organisational culture he/she promotes, and its relation with firm performance. Considering the importance of each employee in such small firms, introducing their perspective and human capital analysis would be an important input.

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APPENDIXES

Appendix A - Examples of studies of HRM practices in SME

Authors	Sources of the HRM practices	Number of employees	HRM Practices measure
Way, 2002	large firms studies - Arthur (1994), Becker and Huselid (1998), Guthrie (2001), Huselid (1995), Ichniowski et al. (1997), and MacDuffie(1995)	20-100	<ol style="list-style-type: none"> 1) Extensiveness of staffing 2) Group-based performance pay 3) Pay level 4) Job rotation 5) Self-directed teams 6) Formal training 7) Involvement in meetings discussing work-related issues
Datta, Guthrie & Wright, 2005	Guthrie (2001) and Huselid (1995)	+ 100 employees, 60% of revenue of the same type of activity	<ol style="list-style-type: none"> 1) intensive/extensive recruiting, 2) hired on the basis of testing, 3) use of internal promotions, 4) use of performance (versus seniority) based promotions, 5) receive performance feedback on a routine basis, 6) receive multi-source performance feedback, 7) use of skill-based pay, 8) use of groupbased (gainsharing, profit-sharing) pay, 9) intensive/extensive training in firm-specific skills, 10) intensive/extensive training in generic skills, 11) use of cross-training or cross-utilization, 12) use of employee participatory programs, 13) provided operating performance information, 14) provided financial performance information, 15) provided information on strategic plans, 16) use of attitude surveys, 17) use of teams, 18) access to grievance system.
Sels, De Winne, Delmotte, Maes, Faems e Forrier, 2006	large firms studies - Guthrie (2001) and Huselid (1995)	10-100	<ol style="list-style-type: none"> 1) Training 2) Selection 3) Compensation 4) Careers 5) Performance management and rewards 6) Participation
Patel & Cardon, 2010	Sels, De Winne, Maes et al. (2006), (Beer, Spector, Lawrence, Mills, & Walton, 1984)	10-100	<p><i>A. HR flows</i></p> <ol style="list-style-type: none"> 1) Selection. 2) Training 3) Careers <p><i>B. Rewards</i></p> <ol style="list-style-type: none"> 4) Appraisal 5) Compensation <p><i>C. Employee influence</i></p> <ol style="list-style-type: none"> 6) Participation

Authors	Sources of the HRM practices	Number of employees	HRM Practices measured
Guest & Conway, 2011	large firms studies: Pfeffer, 1998	+50 (median 104 employees)	(1) recruitment and selection; (2) training and development; (3) appraisal; (4) compensation and financial flexibility; (5) job design; (6) two-way communication; (7) employment security and the internal labour market; (8) single status and harmonisation; (9) and quality/involvement.
Messersmith & Wales, 2011	Schuler, 1986;	+ 10 (median 25 employees)	1) Seleção 2) Training 3) compensation 4) performance appraisal 5) rewards 6) promotion 7) job security 8) flexible work practices 9) job security 10) pay level
Razouk, 2011	large firms: based on <i>High Performance Work Practices</i> literature, does not mention specific authors on the measures section	+ 20	1) appraisal linked with performance, 2) appraisal linked with training, 3) appraisal linked with promotion, 4) individual wage increases, 5) profit-sharing, 6) information on the formation, 7) information on the strategy, 8) information on the economic situation, 9) information on the employment evolution, 10) discussion of information, 11) collective discussion, 12) quality action, 13) group of quality.
Sheehan, 2013	large firms studies - Pfeffer (1994) and Guest and Conway (2011) - SMEs studies - Michie and Sheehan (2008), Nguyen and Bryant (2004) and Razouk (2011)	10-249	1) Recruitment and selection 2) Performance appraisal 3) Performance-based compensation 4) Training and development 5) Employee voice, consultation and participation and information sharing 6) Strategic people management

Appendix B – Pfeffer’s (2005) Thirteen HRM Practices Description

Pfeffer's (2005) Thirteen HRM Practices Description

HRM practices	Definition based on Pfeffer (2005)
<p>1. Employment Security</p>	<p>Employment security refers to a long contractual relationship between employer and employee. It indicates stability from the organisation towards its workforce, and that kind of commitment is paid back by the employees.</p> <p>On the contrary, if the employer that conveys by direct communication or actions that employees are easily replaceable this practice does not encourage commitment, dependability, or motivation to engage in special efforts when needed by the firm.</p> <p>A high employment security concern and practice is considered a good HRM practice</p>
<p>2. Selectivity in recruitment</p>	<p>Considering that firms aim to maintain the employees they hire, they should be cautious when choosing people. Not only on who they choose, but also on how they choose, therefore the requirements and the selection methods.</p> <p>The selectivity in recruitment also has a symbolic side. If employees feel that there was a demanding selection process, they not only feel that they are special, but also that there are expectations for high levels of performance.</p>
<p>3. High wages</p>	<p>Paying more than the average helps to attract more candidates, including the best employees in the market, enabling the best pool of candidates to choose from. It is also a good strategy to make them want to stay. If employees perceive that they earn more than the market, they will probably work better to be able to continue in that firm.</p> <p>Managers may consider low labour costs are a necessary issue for being competitive. But this may not apply, even to firms that rely on low-cost competitive strategy because the labour budgets are only a part of the total costs of products or services, and because this practice may be reimbursed with better services, productivity or innovation.</p>
<p>4. Incentive pay</p>	<p>Money has been being used to motivate employees and to overcome many organisational issues. To motivate employees there are several non-financial options such as recognition, job design, training and development opportunities, which are very important and useful. However, employees will feel entitled to share profits if they have contributed to the increased firm performance. And this contingent payment should be awarded not only to managers and shareholders, but to all employees in general. Otherwise they will feel an unfair treatment and will become demotivated, and will not continue their best efforts.</p>
<p>5. Employee Ownership</p>	<p>This practice has two types of gains: helps to align employees and firm's interests because they are also part of the firms and help them to take a long-term perspective of their relationship to the firm, and invest their time and effort on the work they perform. Thus, having a positive impact on firm performance.</p>
<p>6. Information sharing</p>	<p>It is crucial to give employees information not only about their work, but also about the context so they know how to do their jobs and what decisions to make to help the organisation succeed. This information could regard strategy, short and long time goals, expectations, financial and other business information.</p>
<p>7. Participation and Empowerment</p>	<p>Practices that promote employee participation and implementation of their ideas; as well as empowerment regarding decision making in their work, and autonomy have been having very good organisational results, both in the staffs moral and financial.</p>

8. Self-managed teams	<p>The work process is organised in teams. These type of work organisation is effective because it relays on peer coordination, monitoring and peers expectations management. In the micro-firms of this project if present, employees can work as a team in the same client complementing their skills, and organising their own agenda, as well as presenting solutions to clients without previous hierarchical consent.</p>
9. Training and skill development	<p>Training and skill development are important practices to provide a better performance. It is important to firms to not only provide this kind of learning activity, as well as to enable new knowledge and skill utilisation.</p>
10. Cross-Utilization and Cross-Training	<p>This practice regards polyvalence and enabling employees to do multiple jobs/tasks. This is beneficial for a number of reasons: having a number of qualified staff not only relying one a short number; is motivational since employees have a change in their job: and, in times of crises or necessary change is easier reallocate employees, enabling employment security.</p>
11. Symbolic Egalitarianism	<p>Symbols may create distance and hinder generalized commitment among employees. When the symbols show egalitarianism, communication between hierarchical levels is easier, and any message spreads in a more fluid way.</p> <p>There are many types of symbols: dress, access to some type of equipment, parking space, type of company car, type / dimension of office, etc.</p>
12. Wage compression	<p>There is often the idea of relation between the wage amplitude, namely comparing the CEO salary with other employees. Wage compression also regards salaries among workers.</p> <p>Wage compression may have a good impact on performance specially among interdependent jobs, because it tends to eliminate interpersonal competition and increase work cooperation.</p> <p>Another thing is incentive pay, where big differentiation may motivate employees to work to succeed and obtain the promised incentives.</p>
13. Promotion from Within	<p>A policy of promotion from within is, at the same time, the last step in the ladder, and a helpful objective supporting the other human resources management practices presented. To be able to be promoted, it is necessary to have enough training, it implies that there is a need to promote participation and delegation among employees, to test their abilities before promoting them. Supports the employment security, and motivates employees to perform well.</p>

Appendix C – Study 1 - Dimensions, related items, and data collection techniques

1. Organizational structure and work dynamics		
Sub-dimension	Question / Item	Data collection technique/ year
1.1. Organizational characteristics	- Firm age	Owner interview /2010
	- Firm location	Observation / 2010+2012
	- Number of employees	Tax information data sheet / 2010+2012
	- Firm's historical important moments	Owner interview / 2010+2012
1.2. Schedule	- Formal	Owner and employee interviews / 2010
	- Actually done by employees	
	- Owner's satisfaction with employees' availability	
	- Owner's average working hours	
	- Owner's schedule predictability	
	- Owner's availability out of working hours	
	- Number of active clients	
- Advertising/obtaining clients strategy	Owner interview / 2010	
1.5. Working facilities and conditions	- Workplace characteristics	Observation / 2010+2012
	- Space for meals and/or employees socialization	Observation, owner interview / 2010
	- Atmosphere between employees	Observation, owner interview / 2010
	- Social relations promotion (employees and/or employers)	Owner interview / 2010+2012
	- Work atmosphere /climate in general	Observation, owner interview / 2010
1.4. Clients	- Type	Owner interview / 2010
1.3. Certifications	- Firm's certifications	Owner interview and organizational data / 2010+2012
1.5. Employees	- Number in 2008, 2009, 2010, 2011	Tax information sheet data / 2010+2010
	- Gender	Owner interview / 2010+2012
	- Qualifications	Owner interview and organizational data / 2010
	- Seniority in the firm	Owner interview and organizational data / 2010
	- Type of contract	Owner and employee interviews / 2010

2. Owner characteristics		
Sub-dimension	Question / Item	Data collection technique / year
2.a. Personal data	- Year of birth	Owner interview / 2010
	- Marital status	
	- Personal attitude /posture in general	
2.b. Owner's human capital	- Academic qualification	Owner interview / 2010
	- Former experience in management	
	- Former experience in business field	
2.c. Attitude w/employees	- Attitude / posture towards employees	Observation / 2010
2.d. Entrepreneurial data	- Former experience in self-employment	Owner interview /2010
	- Attitude / posture towards business	
	- Entrepreneur profile	
2.e. Managerial Style	Entrepreneurial Orientation	Survey / 2012
	Small Business Orientation	Survey / 2012

3. HR practices		
Sub-dimension	Question / Item	Data collection technique
3.1. Employment Security	- Type of contracts of employees - Number / reason of former employee dismissal - Perspective on employee dismissal	Owner interview / 2010+2012
3.2. Selectivity in recruitment	- Strategies for identifying candidates - Criteria for selection	Owner interview / 2010+2012
3.3. High wages	- Level of employee wages compared to the market - Source of information about employees wage level - Perspective on the level of wage that should be paid	Owner interviews / 2010+2012 employee interviews / 2010 Owner interview / 2010+2012
3.4. Incentive pay	- Existence of incentives - Attribution procedure - Knowledge by employees	Owner interviews / 2010+2012 employee interviews / 2010
3.5. Employee Ownership	- Existence - Perspective on employee firm's ownership	Owner interview
3.6. Information sharing	- Techniques: informal and formal - Level of importance given - Meetings: frequency; reasons	Owner interviews / 2010+2012 employee interviews / 2010
3.7. Participation and Empowerment	- Opinion asked to employee: to whom; circumstances; examples - Areas / amount of autonomy	Owner interviews / 2010+2012 employee interviews / 2010
3.8. Self-managed teams	- Existence	Owner interview / 2010+2012
3.9. Training and skill development	- Existence: internal and external - Amount: internal and external - Subjects of training: internal and external - External suppliers and their subjects - Perspective on training importance	Owner interviews / 2010+2012 employee interviews / 2010
3.10. Cross-Utilization and Cross-Training	- Existence - Circumstances - Level of employee's polyvalence	Owner interviews / 2010+2012 employee interviews / 2010
3.11. Symbolic Egalitarianism	- Existence of symbols of status - Who benefits from these symbols	Owner interview / 2010+2012
3.12. Wage compression	- Owner's perspective - Percentage of higher wage compared to lower	Owner interview / 2010+2012
3.13. Promotion from Within	- Existence - Recruiting in or out when there is a new vacancy in the firm	Owner interviews / 2010+2012 employee interviews / 2010
3.14. General idea on employees	- Level of employee competence - Level of satisfaction with employee competence - Level of satisfaction with employee performance - Perspective of employee importance on firm's results	Owner interview / 2010+2012

4. Organizational indicators		
Sub-dimension	Question / Item	Data collection technique / year
4.1. Operational indicators: Turnover	- 2008	Owner interview (2010) organizational data sheet 2010+ 2012
	- 2009	
	- 2010	
4.2. Operational indicators: Employment growth	- 2008/2010	Tax information data sheet sheet / 2010+ 2012
4.3. Operational indicators: Productivity (Sales/ employee)	- 2008	Tax information data sheet / 2010+ 2012
	- 2009	
	- 2010	
4.4. Operational indicators: Operational results (sales-costs)	- 2008	Tax information data sheet / 2010+ 2012
	- 2009	
4.5. Financial performance indicator	- Net results	Tax information data sheet / 2010+ 2012
4.6. Contextual indicators: Software supplier evaluation	- Awards	Owner interview and observation / 2010+ 2012
4.7. Contextual indicators: Owner firm's success evaluation	- Firm's success	Owner interview / 2010+ 2012
4.8. Firm performance evaluation	- Firms' performance (subjective)	Commercial support person from software supplier / 2012

Appendix D – Study 2 – Detailed case-studies description

Firms	A	B	C	D
Business's characteristics				
Establishment year	1994	2000	1998	1997
Start-up year in this ERP business	1995	2000 (both ERPs)	2000	2004
Business Products and Services	ERP A + New software (for micro firms) + hardware and infrastructure assistance	ERP A + ERP B + hardware and infrastructure assistance + Sales of hardware and informatics accessories	ERP B + Hardware and infrastructure assistance + sales of hardware and informatics accessories	ERP A + Hardware and infrastructure assistance
Organizational structure	3 software technicians (including the owner), 1 hardware technician; All take telephone calls when at the office. Administrative work is divided; the owner takes the administrative tasks that are related to accounting	ERP A - 1 software technicians; ERP B - 3 software technicians; 1+1 hardware technician (the owner is a hardware technician and also ERP B software technician not so specialized); 1 receptionist and administrative worker	4 software technicians (including the owner); 1 programmer; 3 hardware technicians (including the other owner); 2 receptionists/ administrative assistants (one of these more specialized in accounting matters and buying specialized material)	2 software technicians (including the owner); 1 hardware technician; 1 financial manager (also being trained up as a software technician).
Employees' characteristics				
# in 2013	4	7	10	4
Gender	4 male	7 male; 1 female	5 male; 5 female	2 male; 2 female
Average (2008-2013)	4	10.44	9.33	6
Evolution of # of employees	Always the same number of people. In 2011, the employee with hardware and infrastructure field retired, and was replaced, and the firm feels that it was an advantage.	In 2011 a programmer was dismissed because his work wasn't necessary. The second partner retired in 2012, and another employee working in ERP B left. A firm was acquired, and its owner was integrated in the ERP A field, replacing, to the firm's advantage, the former partner. The number of employees decreased to 9. This firm works with freelance software sellers. During 2013, the older, former owner retired and a marketing trainee was dismissed.	In 2010 they hired someone for the commercial field, but the results were not good. In 2012, they hired a programmer, so as to be able to offer other services to their clients.	Grew until 2010 (the year when another firm was acquired, and the business owner was integrated into the firm, in the commercial field). By the end of 2011 the person integrated into the commercial field was asked to leave the firm (due to lack of results). The receptionist was also dismissed and her functions were absorbed by the person responsible for financial matters.
Qualifications and recruitment strategies	2 – higher education (one incomplete) 1 – high school (12 years) Based on recommendation of others; with experience in the field	1 – higher education 5 – high school (12 years) 1 – basic education (9 years) Mixed strategies: based on recommendation of others, with experience in the field, trial for several months in the firm, after internship from high school or faculty	1 – higher education 6 – high school (12 years) 1 – basic education (9 years) Mixed strategies: based on recommendation of others, not necessarily with experience in the field, trial for several months in the firm, living in the area	3 – higher education 1 – high school (12 years) Usually hires after internship from high school or faculty. Has an agreement with a faculty for internships in the area of software.

HRM Practices in Micro-firms in the ERP Selling and Consulting Sector

Firms	A	B	C	D
Owners'/ownership's characteristics				
Number of owners (including silent partners)	1 (+ 1 capitalist partner, who does not work, nor manages the firm)	1 (until 2012 there were 2 owners, one responsible for each software; and the remaining one also responsible for hardware and infrastructure assistance. There is another capitalist partner, who doesn't work or manages the firm).	2 (Partner 1 - responsible for Hardware and infrastructure assistance; Partner 2 - responsible for software implementation and maintenance)	1 (+1 who is a working partner, but does not manage the firm)
Gender (not including silent partners)	Male	Male (the former partner was also male)	Partner 1 - Male; Partner 2 - Female (married couple)	Male
Qualification at start-up	Informatics for Management Degree (needs one year to complete)	Electronics Engineering Degree (former , retired partner Technical High School)	Partner 1 – Systems Engineering degree; Partner 2 - Informatics Bachelor	Applied Mathematics Degree
Experience in the field at start-up	Has worked for about 25 years in the field. Worked in 2 different small/medium software firms for 5 years before starting his own business.	Present owner – 5 years Former partner had 22 years in the field, the last 5, before coming into this business, doing the same thing	Partners 1 and 2 - all their working life (about 20 years); worked for a single, big IT company before starting their own business	All his life (about 20 years); before starting his own business, worked for 2 or 3 years in 3 different firms
Management experience at start-up	He does not have any previous experience as a manager.	Present owner – 5 years in a company where he sold ERP B Former partner had 22 years of management experience	Partner 1 – 10 years as Director of Infrastructure Department, in a large software company; Partner 2 – 13 years as a Software Department Director of the same large software company	Some experience in student associations during college years. In his 1st job, 6 months after beginning the job was invited to manage 100 trainers across the country.
Self-employment experience at start-up	About 3 years, as an independent worker, giving software assistance to clients from the firm where he worked previously, which closed down.	Present owner – none; Former, retired partner (had 5 years in another, similar firm where he sold ERP A)	None (both partner 1 and 2)	Independent worker during 5 years, including college years, creating software, implementing software in some firms, lecturing classes, on an irregular, ad hoc, basis

Appendix E – Study 3 - Questionnaire

Caro(a) empresário(a),

Estamos a desenvolver um estudo onde se pretende identificar qual a forma de gerir recursos humanos relacionada com o melhor desempenho financeiro de pequenas empresas tecnológicas.

O estudo decorre no âmbito do doutoramento realizado no ISCTE – Instituto Universitário de Lisboa, subordinado ao tema *Práticas de Gestão de Recursos Humanos em Pequenas Empresas na área das Tecnologias de Informação.*

No final do trabalho terá acesso aos resultados das 200 empresas inquiridas. A partir desses resultados ficará a saber qual a forma de gerir pessoas relacionada com o melhor desempenho financeiro das empresas.

As respostas são confidenciais e os resultados serão agregados e tratados conjuntamente com as respostas das outras empresas.

Estimamos 15 minutos para responder.

Muito obrigada pela sua colaboração!

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Parte 1 - Caracterização do respondente e da empresa

Caracterização geral do respondente:

1.1. Sexo:

Masculino

Feminino

1.2. Em que ano nasceu? _____ (escreva o ano em que nasceu)

1.3. Qual é o nível mais elevado de formação académica que concluiu?

Ensino Primário	<input type="checkbox"/>	
Ensino Básico	<input type="checkbox"/>	
Ensino Secundário	<input type="checkbox"/>	
Licenciatura	<input type="checkbox"/>	
Mestrado / MBA / Pós Graduação	<input type="checkbox"/>	
Doutoramento	<input type="checkbox"/>	
Outro (qual?)	<input type="checkbox"/>	

1.4. Antes de iniciar esta empresa, já tinha experiência como empresário (com capital social)?

Sim

Não

1.5. Já tinha experiência de trabalho na área do seu negócio?

<input type="checkbox"/>	Sim, como trabalhador por conta de outrem. Quantos anos?	<input type="text"/>
<input type="checkbox"/>	Sim, como empresário/ trabalhador por conta própria. Quantos anos?	<input type="text"/>
<input type="checkbox"/>	Não	<input type="text"/>

1.6. Tem intenção de fazer crescer/desenvolver o seu negócio nos próximos 3 anos (número de trabalhadores, instalações)?

Sim

Não

Características da empresa

1.7. Ano em que foi fundada a empresa _____ (escreva o ano)

1.8. Localização da empresa

Cidade _____

Distrito _____

1.9. Número de contribuinte _____

1.10. Como vê o seu negócio (escolha o que melhor se aplica à atividade da sua empresa):

<input type="checkbox"/>	Parceiro global de informática dos seus clientes
<input type="checkbox"/>	Especialista em oferta de software e serviços relacionados
<input type="checkbox"/>	Fornecedor de hardware, software e serviços relacionados
<input type="checkbox"/>	Outro, qual? _____

1.11. Quais os software que representa:

<input type="checkbox"/>	PhC	<input type="checkbox"/>	Primavera	<input type="checkbox"/>	Sage
<input type="checkbox"/>	Outros, quais?				

Parte 2 – Perfil pessoal**2.1. Por favor responda tendo em conta a sua maneira de ser habitual.**

	Discordo completamente	Discordo	Não discordo nem concordo	Concordo	Concordo completamente
2.1.1 Eu sou forte o suficiente para ultrapassar as dificuldades da vida.					
2.1.2. Eu consigo lidar com as situações que surgem na minha vida.					
2.1.3. Eu sinto-me capaz de lidar de forma eficaz com as situações do dia a dia.					
2.1.4. Na maioria das situações consigo que as outras pessoas façam o que eu quero					
2.1.5. Quando quero que alguém mude o seu ponto de vista sobre um assunto, normalmente sou bem sucedido(a).					
2.1.6. Normalmente, sou capaz de persuadir os outros em muitas coisas					
2.1.7. Conheço pessoas de sítios muito variados.					
2.1.8. Frequentemente surpreendo as pessoas com as minhas ideias novas.					
2.1.9 As pessoas frequentemente pedem-me ajuda para atividades criativas.					
2.1.10. Gosto mais de um trabalho que exige aptidões específicas e práticas do que um trabalho que requer invenções.					
2.1.11 Eu reconheço facilmente as minhas emoções tal qual como as experiencio.					
2.1.12. Eu sei muito bem o que as outras pessoas estão a sentir só de olhar para elas					
2.1.13. Uma das coisas que é mais importante para mim é ter um trabalho em que sou patrão de mim próprio(a)					
2.1.14. Um dos principais lemas que me tem orientado tem sido procurar ter uma vida independente.					
2.1.15. Vou esforçar-me para vir a ter o máximo de dinheiro possível					
2.1.16. Um dos meus maiores lemas é vir a dispor do máximo de dinheiro possível.					
2.1.17. Normalmente, consigo encontrar os recursos necessários para concretizar as iniciativas que tenho.					
2.1.18. Consigo concretizar iniciativas consideradas impensáveis.					
2.1.19. Geralmente consigo definir estratégias eficazes para concretizar os objetivos que pretendo.					
2.1.20. Geralmente sei como obter os recursos de que preciso para avançar com iniciativas que considero importantes.					
2.1.21. Para mim é importante ter mais dinheiro do que o necessário para viver.					

2.1. Por favor responda tendo em conta a sua maneira de ser habitual (cont).

	Discordo completamente	Discordo	Não discordo nem concordo	Concordo	Concordo completamente
2.1.22. Consigo ver de maneira clara como concretizar iniciativas impensáveis.					
2.1.23. Gosto de ter poder de decisão sobre o meu futuro pessoal e profissional.					
2.1.24. Frequentemente, faço tudo para ser o líder nos projetos que chegam ao meu grupo.					
2.1.25. Gosto de ser responsável pelas situações dentro do meu grupo.					
2.1.26. Eu costumo tomar a iniciativa em qualquer projeto em que estou envolvido.					
2.1.27. Para mim, é difícil continuar em frente quando alguma coisa má acontece.					
2.1.28. Não demoro muito tempo para recuperar de uma situação de grande stress.					
2.1.29. Eu acho que consigo conduzir facilmente os meus colegas quando tenho uma ideia.					
2.1.30. Levo muito tempo a recuperar dos contratempos na minha vida.					
2.1.31. Eu acredito que vale a pena correr riscos mais elevados para ter maiores recompensas.					
2.1.32. Para mim, o melhor plano possível é aquele que é livre de riscos.					
2.1.33. Para receber as maiores recompensas, eu estou disposto a correr qualquer tipo de riscos.					
2.1.34. Eu procuro novas experiências mesmo quando os resultados podem ser arriscados.					

Parte 3 – Gestão dos recursos internos da empresa**3.1. Indique, por favor, como atuou (habitualmente) nos últimos 3 anos.**

A posição 4 significa que nenhuma das posições é predominante.

3.1.1. Foca-se mais no marketing de produtos e serviços reais e já experimentados	+++ ++ + 0 + ++ +++	Foca-se mais na inovação, Investigação e Desenvolvimento de produtos e serviços
3.1.2. Não introduziu novos produtos ou serviços	+++ ++ + 0 + ++ +++	Introduziu muitos novos produtos ou serviços
3.1.3. Mudanças no produto ou serviços têm sido de natureza menor	+++ ++ + 0 + ++ +++	Mudanças no produto ou serviço têm sido relativamente grandes

3.2. Ao lidar com os meus concorrentes...

3.2.1. Tipicamente respondo a ações que os concorrentes iniciaram	+++ ++ + 0 + ++ +++	Tipicamente inicia ações a que depois os concorrentes respondem/copiam
3.2.2. - É raramente a 1ª empresa a introduzir novos produtos /serviços, técnicas administrativas, tecnologias operacionais, etc	+++ ++ + 0 + ++ +++	É muito frequente ser a 1ª empresa a introduzir novos produtos/serviços, técnicas administrativas, tecnologias operacionais, etc
3.2.3. Em geral, tenho uma forte tendência para “seguir o líder” ao introduzir novos produtos ou ideias	+++ ++ + 0 + ++ +++	Em geral, tenho uma forte tendência para estar à frente de outros concorrentes na introdução de novos produtos ou ideias
3.2.4. Prefere fortemente projetos de baixo risco (com taxas de retorno certas e normais)	+++ ++ + 0 + ++ +++	Prefere fortemente projetos de elevado risco (com probabilidades de retorno muito elevado)
3.2.5. Acredita que devido à natureza do ambiente, é melhor explorar gradualmente, via comportamentos tímidos, incrementais	+++ ++ + 0 + ++ +++	Acredita que devido à natureza do ambiente, ações arrojadas, com impacto alargado são necessários para atingir os objetivos da empresa
3.2.6. Tipicamente, adopta uma postura cautelosa, “esperar para ver” de forma a minimizar a probabilidade de tomar decisões que se venham a tornar dispendiosas	+++ ++ + 0 + ++ +++	Tipicamente, adopta uma postura arrojada e agressiva, de forma a maximizar a probabilidade de explorar potenciais oportunidades

3.3. Ao lidar com a concorrência...

3.3.1. A minha empresa é muito agressiva e intensamente competitiva	+++ ++ + 0 + ++ +++	A minha empresa não faz nenhum esforço especial para tirar negócios à concorrência
3.3.2. Tipicamente procura evitar confrontos competitivos, preferindo uma postura de “viver e deixa viver”	+++ ++ + 0 + ++ +++	Tipicamente adota uma postura muito competitiva “desarmar a concorrência”

3.4. Para cada afirmação indique o seu grau de concordância

3.4.1. - Estabeleci este negócio porque se enquadrava melhor na minha vida pessoal, do que trabalhar para outra pessoa/empresa

Discordo Muito (1) (2) (3) (4) (5) (6) (7) Concordo Muito

3.4.2 - Não tenho planos para expandir significativamente este negócio em dimensão ou vendas

Discordo Muito (1) (2) (3) (4) (5) (6) (7) Concordo Muito

3.4.3 - Os meus objetivos para este negócio são mais orientados, para mim, do que orientados financeiramente.

Discordo Muito (1) (2) (3) (4) (5) (6) (7) Concordo Muito

3.4.5 - Este negócio é a minha fonte primária de rendimento

Discordo Muito (1) (2) (3) (4) (5) (6) (7) Concordo Muito

3.4.6 - O meu objetivo para este negócio inclui expandir para mais localizações (2 ou mais)

Discordo Muito (1) (2) (3) (4) (5) (6) (7) Concordo Muito

3.4.7 - Considero que este negócio é uma extensão da minha personalidade (objetivo)

Discordo Muito (1) (2) (3) (4) (5) (6) (7) Concordo Muito

3.4.8 - Considero que este negócio é uma extensão da minha personalidade (resultado)

Discordo Muito (1) (2) (3) (4) (5) (6) (7) Concordo Muito

3.4.9 - Os meus objetivos para este negócio estão interligados com as necessidades da minha família.

Discordo Muito (1) (2) (3) (4) (5) (6) (7) Concordo Muito

3.4.10 - Eu adoro o meu negócio.

Discordo Muito (1) (2) (3) (4) (5) (6) (7) Concordo Muito

3.4.11 - Eu estou emocionalmente ligado ao meu negócio.

Discordo Muito (1) (2) (3) (4) (5) (6) (7) Concordo Muito

3.4.12 - Se me dessem um valor razoável era capaz de vender o meu negócio

Discordo Muito (1) (2) (3) (4) (5) (6) (7) Concordo Muito

3.5. Para cada uma das práticas de gestão de pessoas indique como tem atuado. Por favor responda o que se passa na realidade e não o que gostaria de ter feito/de fazer.

3.5.1 - Segurança no emprego dos colaboradores

Inexistente/ Baixa Média Elevada

3.5.2 - Exigência e grau de preocupação no processo de recrutamento e seleção

Inexistente/ Baixa Média Elevada

3.5.3 - Nível de salários face ao mercado concorrente

Baixo Média Elevado

3.5.4 - Pagamento de prémios e recompensas

Inexistente/ Baixa Média Elevada

3.5.5. Diferença entre o salário mais baixo e mais elevado na empresa é

Inexistente/ Baixa Média Elevada

3.5.6. Oportunidades de formação e de desenvolvimento de competências em cursos de formação

Inexistente/ Baixa Média Elevada

3.5.7. Formação interna entre trabalhadores

Inexistente/ Baixa Média Elevada

3.5.8. Grau de partilha de informação entre colaboradores

Inexistente/ Baixa Média Elevada

3.5.9. Participação e autonomia dada aos colaboradores

Inexistente/ Baixa Média Elevada

3.5.10 Existência de equipas auto-geridas

Inexistente/ Baixa Média Elevada

3.5.11 Promoção de trabalhadores

Inexistente/ Baixa Média Elevada

3.5.12 Símbolos de *status* entre os trabalhadores

Inexistente/ Baixa Média Elevada

3.5.13 Partilha do capital social da empresa com colaboradores

Inexistente/ Baixa Média Elevada

3.6. Para cada afirmação que se segue indique o seu grau de concordância: 1- Discordo completamente e 5 - Concordo completamente.

	Discordo completamente	Discordo	Não discordo nem concordo	Concordo	Concordo completamente
3.6.1. A minha empresa é como uma extensão da família. As pessoas partilham muito das suas vidas.					
3.6.2. Lidero a minha empresa procurando ser um exemplo de facilitação e apoio.					
3.6.3. O estilo de gestão da minha empresa é caracterizado pelo trabalho em equipa, consenso e participação.					
3.6.4. A “cola” que mantém a minha empresa unida é a lealdade e a confiança mútua.					
3.6.5. Na minha empresa preocupo-me com o desenvolvimento humano. Persisto na elevada confiança, a abertura e a participação.					
3.6.6. Na minha empresa, define-se o sucesso com base no desenvolvimento dos recursos humanos, do trabalho em equipa e do empenho dos colaboradores.					

Parte 4 – Desempenho da empresa

4.3. Como avalia os resultados que tem obtido?

Muito maus Maus Suficientes Bons Muito bons Excelentes

MUITO OBRIGADA PELA SUA COLABORAÇÃO!