Human resource management in small and medium-sized enterprises: a performance model definition

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Human resource management in small and medium-sized enterprises: a performance model definition

Pedro Novo Melo
School of Technical Short Cycles, Polytechnic Institute of Cávado and Ave, Campus of IPCA, Barcelos, Portugal; and Interdisciplinary Centre of Social Sciences (CICS.NOVA.UMinho), Braga, Portugal
https://orcid.org/0000-0002-9293-8869
Carolina Feliciana Machado
School of Economics and Management, University of Minho and Interdisciplinary Centre of Social Sciences (CICS.NOVA.UMinho), Campus Gualtar, Braga, Portugal
https://orcid.org/0000-0002-9685-1576
Chris Brewster
Henley Business School, University of Reading, Whiteknights, Reading, RG6 6UD, UK
https://orcid.org/0000-0001-5314-1518

Abstract

Background: Nowadays, studying small and medium-sized companies, particularly with regard to the management of human resources that takes place in them, is particularly relevant. Effectively, knowing that about 99.8% of companies are small and medium-sized, contributing very significantly to high levels of employability, it is extremely important to understand the role that people management assumes in these organizations, as well as which are the factors, both internal and external, that exert the greatest influence on them.

Purpose: In this paper we investigate internal and external factors of small business likely to correlate with a more formal and structured human resource management.

Study design/methodology/approach A conceptual model was defined through the literature on human resource management and its consistency was tested through three methodological steps (exploratory interviews; readjustment of variables with the Delphi method; multivariate statistical tests). From a survey of 186 smaller firms in Portugal, we tested conceptual model by structural equation modelling.

Findings/conclusions: The analysis reveals that dimensions such as organizational structure, management and communication style, career management, organizational flexibility, organizational strategy and national culture are positively related to more formal and structured human resource management practices and policies.

Limitations/future research: Due to its complexity, both at the level of the conceptual analysis and the empirical level, this study presents some limitations, namely, and among others, the complexity of the number of dimensions and variables under analysis, and the complexity of the model being tested. A broader line of research could include collecting data from employee. This analysis would allow for a different perspective of the company's procedures and would broaden some issues that are less detailed in this study.

Keywords
Human Resource Management (HRM); Small and Medium-Sized Enterprises (SMEs); conceptual model; performance.

Introduction

Over the past decades, there has been a growing recognition of the role of small and medium-sized enterprises (SMEs) in global economies. These represent more than 99% of all businesses and, in the developed countries, more than 60% of the number of jobs (Hope et al., 2019; OECD, 2019), constituting a crucial source of skills, innovation and employment.

There is a wide variety of forms of implementation of HRM practices in SMEs (Cardon & Stevens, 2004; Cassell et al., 2002), with a tendency towards more informality and limited connection to business strategy (Cardon & Stevens, 2004; Kotey & Slade, 2005; Melo & Machado, 2013). There are substantial differences between large and small enterprises and consequently the adaptation of standard HRM model to SMEs has proven unsatisfactory (Cardon & Stevens, 2004; de Kok & Uhlaner, 2001; Ghobadian & Gallear, 1997). The specific circumstance of SMEs do not allow for the transfer of policies and practices from large enterprises. For example, practices such as formal recruitment systems require significant financial resources, which are not available to most SMEs. Certainly, SMEs with connections to a large enterprise are more likely to implement similar HRM practices (de Kok & Uhlaner, 2001), but only where organisational policies and resources are shared. Barber et al. (1999) suggests the use of existing models of large-business HRM by SMEs is not significant. Research in the last few years has contributed to a more concrete vision of the reality of SMEs (Aït Razouk, 2011; Torre & Solari, 2013), different from previous understandings (Wilkinson, 1999).

A stronger clarification of the role of HRM in SMEs, identifying possible organisational and environmental dimensions that may contribute to the development of a more structured and formalised HRM model is necessary. We contribute to that endeavour using the example of Portuguese SMEs, which are typical of SMEs elsewhere in Europe (Hope et al., 2019).

The paper takes the following form. First, we examine the extant literature and from that develop a theoretical framework. We explain how we applied that framework to our data collection and then present the findings. Finally, we discuss those findings and draw conclusions. Our main findings guide us to the identification of a set of critical factors whose use is associated with more formal and structured HRM, that will assist in the development of HRM in SMEs.

1. Theoretical background

The context of HRM in SMEs is complex and it is difficult to find any clear and concrete answers, in the literature, to several important questions regarding the way that HRM operates. According to Harney & Alkhalaf (2020), as there are still relatively few studies that focus on the issue of HRM in SMEs, it is observed that in those where this issue is the focus of analysis, the supporting literature continues to be very fragmented and variable, with multiple definitions, explanations and methods.

There are points of contact whatever the context, such as, for example, the constant informality of HRM policies and practices. However, contexts vary: Tsai (2010) and Cunningham & Rowley (2010) highlight the reality of HRM in China. Identifying the main points of convergence and divergence between HRM policies and practices in the Western world and in Asia, Festing et al. (2013) review the existing relations between HRM and SMEs in Germany. Melo & Machado (2013) characterise HRM in SMEs in Portugal, detailing the policies and practices that are used by Portuguese enterprises and Ugheoke & Isa (2014), Galang & Osman (2014) and Mashavira, Guvuriro & Chipunza (2021) examine African and other Asian contexts.

Another approach is the constant search for differentiating factors of HRM in SMEs irrespective of context. Barrett & Meyer (2010) analyse perceptions of stakeholders; Hassan (2010) considers the relevance of quality assurance; Olander et al. (2011) seek to relate HRM in SMEs to knowledge management and Saridakis et al. (2013) to organisational commitment. And there have been attempts to evaluate the importance of HRM for the success of SMEs (Çalışkan, 2014). More recently, Fitriasari (2020) highlights the problem underlying the digital transformation at the HRM level in SMEs, which results in the emergence of new digital skills and abilities, as well as the adoption/introduction of digital tools in the work context. Based on resource-based theory and on the literature on proactivity, Zhang and Edgar, focusing on the context of SMEs, sought to study the effects of the HR system as an incorporation of HR practices in the capabilities of employees and how the proactivity of collaborators

helps explain this relationship. Bagis & Darmawan (2022) look to analyse the contribution of HRM to the business performance of SMEs, while Huang et al (2022) given the high level of unemployment, due to COVID-19, in the SME sector, highlight the need to incorporate ethical values and social responsibility in SME policies and practices.

Given the diverging and inconclusive character of the existing theory, even for the most basic aspects of the relation between HRM and SMEs, we ask: which internal and external factors influence the application of formal HRM in SMEs?

Fundamentally, we ask whether it is possible to define an HRM model for SMEs. The literature shows plenty of models that somehow seek to describe the critical factors of HRM (Brewster, 1993; Delery & Doty, 1996; Guest, 1987). However, none of them mention, or arguably relate to, small and medium-sized enterprises. We have used a series of studies to identify key features of HRM (Allen et al., 2013; Beer et al., 1999; Brewster, 1993, 2004; Cardon & Stevens, 2004;

Delmotte & Sels, 2008; Festing et al., 2017; Guest, 1997; Hendry & Pettigrew, 1986; Lengnick-Hall & Lengnick-Hall, 1988; Meyer & Smith, 2009; Nguyen & Bryant, 2004; Pearson et al., 2006; Sels et al., 2006; Sparrow et al., 1994; Wright & Snell, 1991; Harney, 2021; Burhan et al., 2020)). We accept that this set of studies does not represent the universe of studies undertaken about HRM, but they are reasonably consistent and a good representation of extant theories. These have served as a basis for the definition of the theoretical model to be used.

The objective of the analysis of these studies was to understand which dimensions and variables have been used by these authors to define HRM. As part of this stage we also conducted ten interviews with senior managers in SMEs from different sectors, to understand whether the possible internal and external factors we were identifying fitted their experience.

Putting the insights from all these studies together we developed Figure 1.
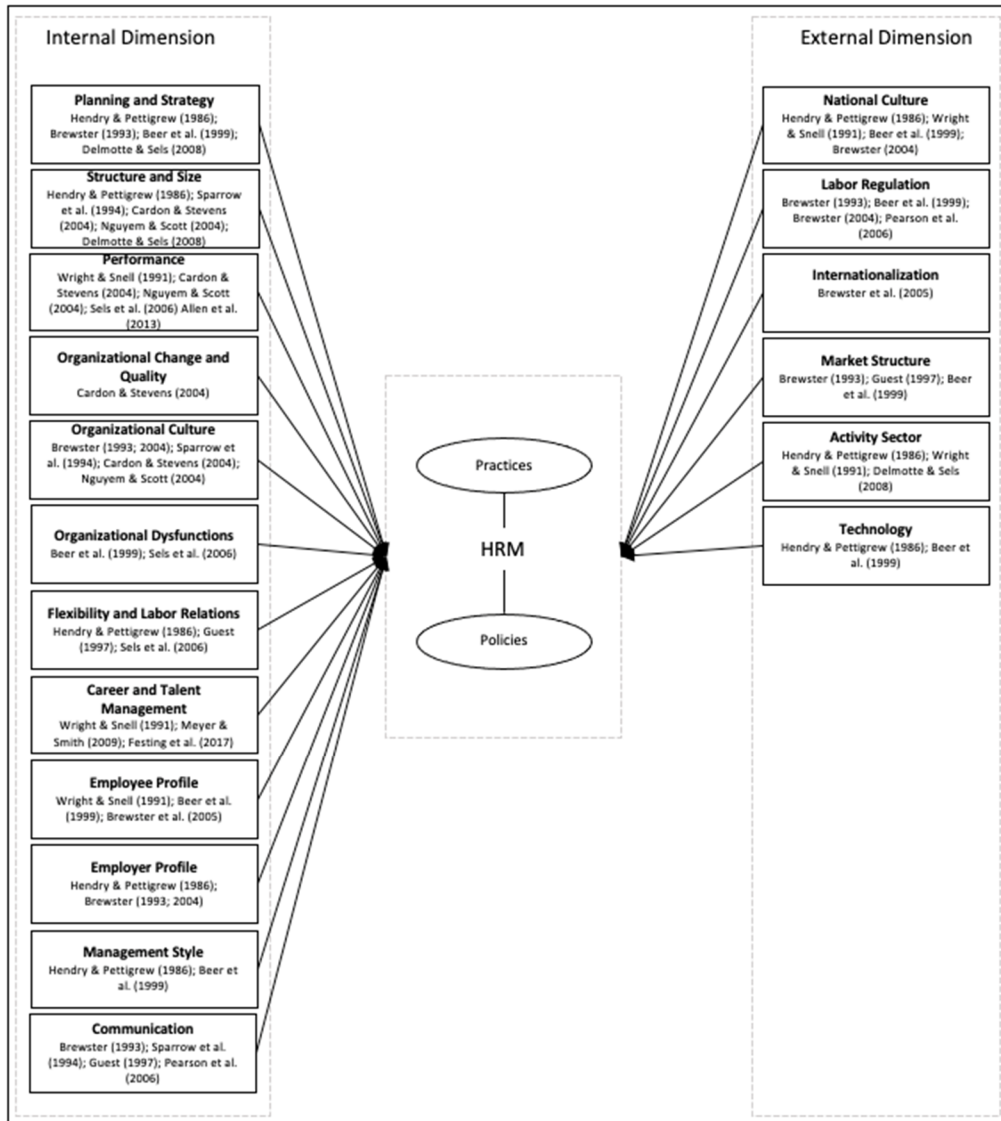
Figure 1 Proposed Theoretical Model
Source: the authors

The aim of our research is to offer a new model of HRM in SMEs, via the identification of variables that influence their people management, to establish the relationships between organisational variables, external environment and HRM policies and practices. Thus, we test this integrated conceptual model of formal HRM in SMEs. The conceptual model proposed includes a wide set of dimensions and variables which may influence the development of HRM in SMEs.

2. Method

We tested this conceptual model via a three-stage empirical study. The first stage, as shown above, was to build the initial conceptual model based on

literature. Since the conceptual model proposed was complex, it was necessary to find a methodological alternative that allowed for clarification of the most relevant variables for each dimension. So in the second stage we adopted the Delphi method, sending a survey to a specific group of experts om HRM in SMEs (Hsu & Sandford, 2007; Hasson et al., 2000). A total of 22 academics of different nationalities took part three rounds of analysis with an acceptance rate of the variables of between 80 and 100%. And participation rates of between 16 and 40%. The last stage in the specification of the conceptual model implied the testing of a set of conjectures about what really matters and what really affects HRM in SMEs – a set of exploratory questions highlighting

possible relations between dimensions and variables. To do that we conducted the survey noted below. The factors found and selected were transformed into dimensions through the calculation of the variable. Table 1 shows the dimensions and variables scrutinized in the various stages and which were used to characterise the conceptual model.

Table 1 Dimensions and variables used in the conceptual model

Dimensions	Items
Organisational Structure	1. Corporate organisation logic
	2. Hierarchic structure
	3. Number of employees
Planning	1. Planning design
	2. Structural planning
Organisational Culture	1. Culture promotion activities
Quality Management	1. Quality assurance
	2. Reasons for certification
Organisation Disfunctions	1. Analytical measures for turnover and absenteeism rates
Career	1. Career promotion practices
Organisational Flexibility	1. Role of HRM in flexibility
	2. Schedule flexibility
Administration Profile	1. Level of education
	2. Management style
Organisational Performance	1. Turnover
	2. Long-term performance
Technology	1. Benefits from new technologies
	2. Corporate management systems
National Culture	1. Unsuitability of management practices
	2. Relation between management and national culture
Activity Segment	1. Type of activity segment
HRM Practices	1. Recruitment and selection
	2. Training and development
	3. Performance appraisal
	4. Job design
	5. Orientation and training of new hires
	6. Incentives and rewards
HRM Policies	1. Role of HRM
	2. Profile of the HR manager

Source: the authors

2.1. Sample and procedure

According to the European Commission, (2003/361/CE), an SME has < 250 employees, <= 50 million euros in turnover and <= 43 million euros in total balance. We sent a questionnaire by email to such firms in Portugal. A survey was the most adequate method for statistically testing our model. The email message contained a link to the study page which included the questionnaire to be filled in (Google Docs), information about the study and resumés of the research team – and indicated that the study results would be made available on the website so that companies would be able to trade their time completing the survey for results available to them at a later date.

We received 186 completed surveys. The large majority of the companies have 10-50 employees (64%); and only 2.7% of the companies have 201-250 employees. The average number of employees is 53.94, and the most common value in the sample is 20 employees. The standard deviation shows that the values are very close to the mean and there is no significant dispersion at this level.

To handle the data collected in the questionnaires, the IBM SPSS 21 programme was used, which enabled univariate and multivariate data analysis.

2.2. Data analysis

Structural equation modelling (SEM) was used in the definition of the final model, using the IBM SPSS Amos programme. SEM enables the creation of variable models, latent and observed, and consequent understanding of the most significant relations between them. The SPSS Amos programme enables the testing of structural equations models through the analysis of regressions and factorial analysis, and the presentation of a set of measures for the adjustment

of the model, enabling the researcher to understand if the model is adequate or inadequate. The use of multivariate data analysis techniques enables the researchers to empirically test models that are complete and complex. SEM is widely used in social and behavioural studies is the (Hooper et al., 2008; McDonald & Ho, 2002), and can enable two types of analyses: exploratory structural analyses and confirmatory structural analyses (Marsh et al., 2014; Schreiber et al., 2006).

The analysis of the adjustment of the model is fundamental to deciding whether the model is well defined or whether it is necessary to use a modification of the initial model or to test alternative models. According to McDonald & Ho (2002) the adjustment indexes determine the quality of the adjustment of the model to the data. There is a vast set of adjustable ratios. The most well-known and used are chi-square tests RMSEA, CFI, AGFI, RMR and SRMR (P. Barrett, 2007; Hooper et al., 2008; Weston & Gore, 2006). For each of these adjustable ratios, there are positive and negative points and, therefore, authorities suggest an accurate analysis of a model should consider several adjustable ratios (Hooper et al., 2008; Hu & Bentler, 1999; Weston & Gore, 2006). To Hooper et al. (2008), after the analysis of

several empirical studies, the guidance for the conjugation of ratios should include the following points: CFI $\leq$ 0.09; RMSEA $\leq$ 0.06; and SRMR $\leq$ 0.08.

3. Results

3.1. Model specification

The result of these three stages (interviews; Delphi method; and statistical tests) is that figure 1 was adapted as shown in Figure 2. Figure 2 presents variables and dimensions that we assume to be relevant for the scope of the study and which we designate as the adjusted theoretical model.

The specification of the model consists of the formal design of the theoretical model which seeks to test the research issues. The definition of the theoretical model being tested considers the results shown in exploratory interviews and in the statistical results for the questionnaire topics. The most consistent and statistically significant relations were considered in the construction of the model. Figure 2 represents the initial theoretical model tested in the SPSS Amos programme.
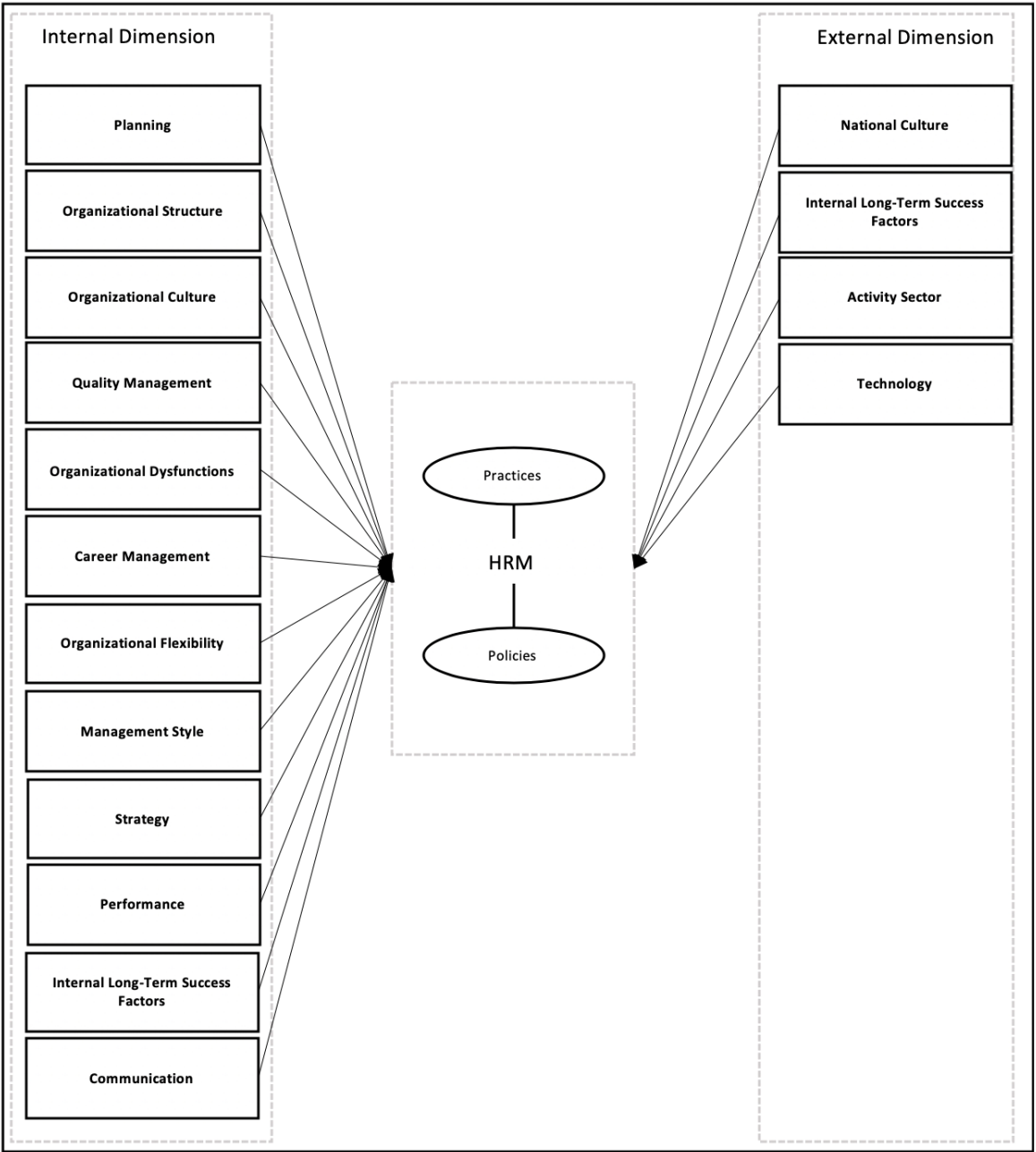
Figure 2 Adjusted Theoretical Model
Source: the authors

3.2. Testing the model

The quality of adjustment was assessed by the factorial weights and the individual reliability of the items, and the significance of the causal trajectories was assessed with a Z-test to the critical ratios. The assessment of the assumptions was undertaken considering the multivariate normality factors, the absence of multicollinearity and the non-existence of outliers. The existence of outliers was evaluated by the square distance of Mahalanobis (D^2) and the normality of the variables was assessed by the coefficients of asymmetry (Sk) with the reference value of <3 and kurtosis (Ku) with the reference value of <10. To assess the absence of multicollinearity of the data, VIF statistics were used. VIF above 5 indicates possible problems with the presence of multicollinearity. These are considered as outliers, observations that present p_1 and p_2 below 0.05. It is expected that the p_1 values are small and the p_2 values are high. One observation with values below

0.005 in the two levels can be considered as an outlier.

Sk and Ku values indicating a severe violation of the multivariate normality were found in the variables under analysis. Regarding the existence of outliers, there are three observations with values for p_1 and p_2 indicating that these are outliers. For a more adequate adjustment of the data, the three observations were eliminated. There are no variables with VIF statistics above 5, which would indicate the existence of multicollinearity of the data.

After the elimination of the variances and covariances that are less significant ($B_{variablexy}$ $p>0.05$) it was possible to define the estimated model presented in figure 3.
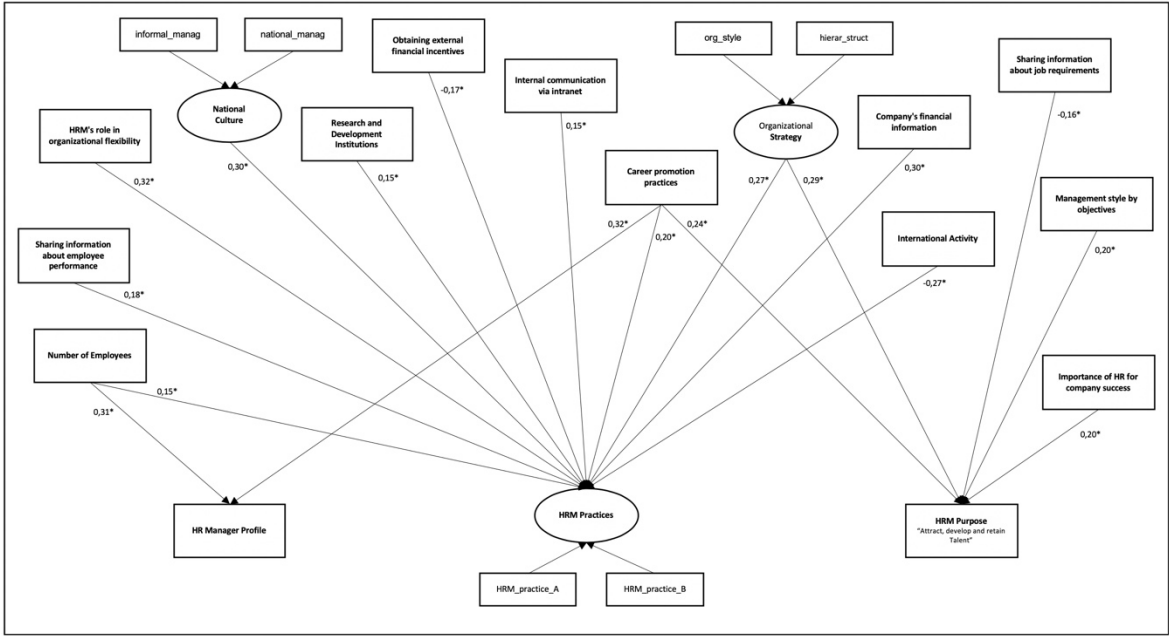

Figure 3 Standardized parameter estimates for the theoretical model
Source: the authors

The analysis of the trajectories between the factors revealed that the "Career" trajectory --> 'HR Manager' is the one with the biggest weight ($\beta_{career.HR\_Manager\_1}$ $=0.387; p=0.00)$, followed by 'Organisational Flexibility' --> 'HRM Practices'" ($\beta_{org\_flex.HRM\_practice}=0.320; p=0.00)$ and 'Careers' --> 'HRM Role' ($\beta_{career.role\_HRM\_2}=0.316; p=0.00)$. No variable presented Sk and Ku values indicating severe violations to normal distribution (Sk<3 and Ku<10). Regarding the presence of outliers, there is an observation of values of p_1 and p_2 which indicate these are outliers. For a more adequate data adjustment, the observation was eliminated.

There are no variables with VIF statistics above 5. The model revealed a good adjustment quality ($X^2/df=1.418$; CFI=0.918; GFI=0.904; RMSEA=0.048, C.I. of 90% [0.031;0.062]) (see table 2). The model's adjustment quality test was undertaken according to the ratings and respective reference values described by Barrett (2007), Hooper et al. (2008) and Weston & Gore (2006), which are: $X^2/df=<2-3$; CFI e GFI>0.90; RMSEA<0.05.

Table 2 Adjustment measures of the estimated model

X2/df	1.418
CFI	0.918
GFI	0.904
RMSEA	0.048
RMSEA I.C. 90%	0.031
	0.062

Source: the authors

Table 3 presents the standardised values estimated for the estimated model. The table is divided by structural model and measurement model. The structural model defines the causal relations and the measurement model defines the way the latent variables are operationalised by the observed variables.

Table 3 Results of the contrast of the structural equations model

				Standardised coefficient	*Standard error*	*Critical ratio*	*p*
STRUCTURAL MODEL							
A1	HRM_practice	<----	info_sharing_12	.295	.034	4.051	***
A2	HRM_practice	<----	global_activ	-.267	.029	-3.994	***
A3	HRM_practice	<----	Career	.197	.044	2.673	***
A4	HRM_practice	<----	org_flex	.320	.017	4.299	***
A5	HRM_practice	<----	performance_11	.146	.041	2.176	***
A6	HRM_practice	<----	internal_com_3	.146	.011	2.282	***
A7	HRM_practice	<----	info_sharing_3	.177	.033	2.495	***
A8	HRM_practice	<----	Strategy	.263	.036	2.823	***
A9	HRM_practice	<----	national_cult	-.297	.021	-3.277	***
A10	HRM_practice	<----	performance_24	-.170	.047	-2.641	***
A11	HRM_practice	<----	num_employee	.143	.000	2.168	***
A12	HR_manager_1	<----	Career	.387	.081	4.790	***
A13	HR_manager_1	<----	num_employee	.003	.001	4.693	***
A14	role_HRM_2	<----	Career	.316	.093	3.393	***
A15	role_HRM_2	<----	man_style_17	.231	.073	3.167	***
A16	role_HRM_2	<----	Strategy	.247	.075	3.275	***
A17	role_HRM_2	<----	info_sharing_7	-.150	.068	-2.207	***
A18	role_HRM_2	<----	performance_5	.231	.077	2.987	***

MEASUREMENT MODEL

			Standardised coefficient	*Standard error*	*Critical ratio*	*p*
HRM_practice_B	**<----**	**HRM_practice**	**.697**	**--**	**--**	**--**
HRM_practice_A	<----	HRM_practice	.624	.128	7.881	***
informal_manag	<----	national_cult	.854	--	--	--
national_manag	<----	national_cult	.680	.154	4.714	***
org_style	<----	Strategy	.869	--	--	
hierar_struct	<----	Strategy	.573	.114	5.325	***

*** Statistically significant at p<0.01   **Source:** the authors

Analysis of table 3 and figure 3, verifies that all the regression values for one variable above the other are significant. Thus, we can define the following relations:

A1. Information sharing about the company's financial situation is positively associated (β= 0.295; *p* < 0.01) with HRM practices.

A2. Companies with activity abroad have a negative association (β= -0.267; *p* < 0.01) with HRM practices.

A3. Career management practices are positively associated (β= 0.197; *p* < 0.01) with HRM practices.

A4. HRM's most structured role in organisational flexibility is positively associated (β= 0.320; *p* < 0.01) with HRM practices.

A5. The valuation of corporate relations with technological and scientific institutions and support institutions, in terms of long-term success, has a positive association (β= 0.146; *p* < 0.01) with HRM practices.

A6. Valuation of the intranet as an internal communication tool is positively associated (β= 0.146; *p* < 0.01) with HRM practices.

A7. Information sharing about the performance of each company employee is positively associated (β= 0.177; *p* < 0.01) with HRM practices.

A8. The logic of the organisational structure and the company's mode of operation is positively associated (β= 0.263; *p* < 0.01) with HRM practices.

A9. The less formal practices influenced by national culture have a negative association (β= -0.297; $p < 0.01$) with HRM practices.

A10. Companies seeing community funding as relevant for long-term success to the detriment of other factors is negatively associated (β= -0.170; $p < 0.01$) with HRM practices.

A11. The number of employees in the company is positively associated (β= 0.143; $p < 0.01$) with HRM practices.

A12. Career management practices are positively associated (β= 0.387; $p < 0.01$) with the presence of a HRM specialist.

A13. The number of company employees is positively associated (β= 0.003; $p < 0.01$) with the presence of an HRM specialists.

A14. Career management practices are positively associated (β= 0.316; $p < 0.01$) with HRM's role in attracting, developing and retaining employees.

A15. Management by goals is positively associated (β= 0.231; $p < 0.01$) with HRM's role in attracting, developing and retaining employees.

A16. Organisational structure and the company's mode of operation has a positive association (β= 0.247; $p < 0.01$) with HRM's role in attracting, developing and retaining employees.

A17. Information shared at the level of each role is negatively (β= -0.150; $p < 0.01$) with HRM's role in attracting, developing and retaining employees.

A18. The identification of HRM as a success factor in the long-term is positively associated (β= 0.231; $p < 0.01$) with HRM's role in attracting, developing and retaining employees.

From the analysis of Table 4 it can be verified that all the variances are adequate and with statically significant values.

Table 4 Variance coefficients of the structural equations model

	Estimate	*Standard error*	*Critical ratio*	*p*
national_cult	.836	.201	4.158	***
Strategy	.320	.066	4.818	***
Career	.129	.013	9.760	***
num_employee	.927	.100	9.618	***
info_sharing_12	.215	.022	9.704	***
global_activ	.243	.025	9.618	***
org_flex	.909	.093	9.781	***
performance_11	.128	.013	9.618	***
internal_com_3	.572	.163	9.618	***
info_sharing_3	.219	.023	9.677	***
performance_24	.087	.009	9.618	***
man_style_17	.178	.018	9.668	***
info_sharing_7	.244	.025	9.642	***
performance_5	.177	.018	9.642	***

***Significant at 0.01   **Source:** the authors

Results indicate that the variable 'HRM practices' is explained by the predictors proposed in the model, with 91% of its variance explained. 'The role of HRM' presents an explained variance of 25% and the 'profile of the HR manager' an explained variance of 20%.

3.3. Model interpretation

Figure 3 represents the existing relations between internal and external dynamics and the more formal HRM model.

Internal factors

Role of organisational flexibility in HRM in SMEs. According to Ruiz-Santos et al. (2003), companies need to be flexible in order to cope with the external environment. HRM has a role in the effective development of organisational flexibility. The absence of structured HRM makes the application of strategies such as versatility of roles more difficult. The model proves that there is a relation between organisational flexibility and more formal HRM practices. The companies that value the role of HRM in organisational flexibility also value best practices in HRM. One possible

interpretation for this relation is the fact that companies are better prepared for flexibility in terms of roles, for example, with the support of a more formal HRM function.

The role of size in HRM in SMEs. Literature suggests that the variable 'size' predicts the existence of a specialist HRM function in SME (de Kok & Uhlaner, 2001; Kotey & Sheridan, 2004). An empirical study undertaken by de Kok & Uhlaner (2001) demonstrated the importance of the size of the company as an indication of formal HRM development. The results of our model are consonant with this literature. Companies with a larger number of employees tend to use formal HRM practices more, as well as having an HR manager with responsibility for implementing the HRM policies.

Perception of the role of HRM for the long-term success of the company. All our organisations want long-term success, but this is only slightly connected to strategy and long-term planning. Companies with a more formal and structured HRM identify HRM as a success factor of the company in the long-term or, to put it another way, there is a valuation of people in the definition of the strategy and planning in the long-term for companies with a more structured HRM.

Role of organisational communication in HRM in SMEs. We find evidence of the importance of internal communication for companies using HRM policies and practices that are more formal, particularly the valuation of information sharing with employees about the company's financial situation; in the valuation of information sharing about the performance of each company employee; and in use of the intranet as a privileged instrument for internal communication.

The influence of management style in HRM in SMEs. According to Mukhtar (2002), the owner/manager's style of management may perform a fundamental role in the way decisions are taken and in the way strategies are defined. In small enterprises, the objectives of the business are inseparable from the personal objectives of the owners/managers. This influences the type of management practices and the type of organisation implemented in the company (Kotey & Slade, 2005). In the model definition and testing, it was possible to find some indications of the role of management style in our SMEs. For example, it was possible to relate some practices (the importance of teamwork, promotion of autonomy and accountability, participation of employees in the definition of business strategy, merit valuation,

among others) to the management style. However, we cannot confirm most of the variables defined in the theoretical model with the HRM policies and practices adopted in the companies. It is only possible to highlight, with statistically relevant data, that the companies that invest in management by goals tend to have as their HRM purpose, 'to attract, develop and retain employees'.

The role of career management in HRM in SMEs. HRM has a relevant role in the application of career management practices and policies (Baruch, 2003; Hall & Moss, 1998; Orpen, 1994). According to these authors, HR managers are the ones who identify, analyse and guide jobs and, consequently, career management. Our model confirms this assumption. The companies that value career management practices have HR managers, use HRM best practices and define the role of HRM as 'to attract, develop and retain employees'. Companies with structured and formal HRM management use career management practices, such as information about vacancies in the company or in other companies from the same group, and training as an integral part of career development and career counselling. These results partly confirm the results presented in the operationalisation of the variables for the proposed model. Pearson's R correlation coefficient proved a moderate relation between 'career management practices' and 'HRM integrative practices' (r 0 0.470; p > 0.01) and a moderate relation between 'career management practices' and 'career incentives' (r = 0.414; p > 0.01).

Influence of structural and organisational management on HRM in SMEs. SMEs show few hierarchical levels and show evidence of informality. In the operationalisation of the variables for the proposed model, it was possible to confirm a positive relationship between the company structure and HRM practices. The results from the R of Pearson were statistically relevant (between 0.236 and 0.387; p>0.01) and prove this relationship. The results suggest that the companies that value the logic of organisational structure and the company's mode of functioning, based on: a) free initiative and creativity, b) valuing the work environment; c) mechanisms for the integration of new members; d) team work; e) compromise of the managers with the company; f) valuation of work practices; and g) valuation of the hierarchical demarcation, use HRM practices that are more formal and which define the role of HRM as 'attracting, developing and retaining employees'.

External factors

External Factors in HRM in SMEs. In the study of external factors considered relevant for the success of a company in the long-term, the importance of the relation between companies and technological and scientific institutions stands out. It is possible to prove that the companies that identify the relation with technological and scientific institutions as being fundamental for the long-term success of the company have HRM practices that are more formal and structured. This relationship is positively associated (β= 0,146; p < 0,05).

4. Discussion and conclusions

The aim of the study was to test a model to enable us to improve our understanding of the influence of the internal and external dynamics of SMEs on the practices, role and formalisation of their human resource management. This results in a broader research project which seeks to study the informal and formal side of HRM and the relationship with other organisational dimensions.

SMEs represent more than 90% of global companies. Despite the important role they perform in the global economy, there remains a shortage of research into SMEs generally, and their HRM in particular. Scientific advances in the management of large companies may not easily be transferred to SMEs. However, researchers (Cunningham, 2010; de Kok & Uhlaner, 2001; Kotey & Sheridan, 2004; Melo & Machado, 2013; Tsai, 2010) have begun to deepen our understanding of the relationship between SMEs and HRM and the differences between HRM in large companies and HRM in SMEs (Cardon & Stevens, 2004; Kotey & Sheridan, 2004).

Multivariate tests, structural equation models and case studies have highlighted the internal and external factors associated with HRM practices, such as, information sharing about financial situation and employee performance; valuing the internal communication tool (for example, the intranet); career management practices (special emphasis on training in career development and new workers integration); logic of organisational structure and company functioning, initiative/creativity boosting practices; working environment valuation; integration mechanisms' workers; team work practices; managers' commitment towards the team; people as a success factor in the long-term; existence of an HR manager; and the value of the local corporate context.

Communication is a requirement for social and organisational life (Cunha et al., 2007). Much of the time spent in organisations is spent communicating. It is through oral and written communication that managers try to influence their employees. So, communication is a preponderant factor for organisations generally (Cheney, 1983) and specifically for SMEs. However, in practice, the external communication of many SMEs in Portugal remains limited. There are still many SMEs that have no website or even email for external contact. The perception is that the internet is marginal for the company's business and investment will not bring positive results (Vescovi, 2000). Internally, information sharing about the company' financial situation and the employees' performance are examples of how communication can be strategic; the key to the creation of a strong HRM system (Stanton et al., 2010).

For an SME, being flexible to better manage the interface with an ever uncertain external environment (Ruiz-Santos et al., 2003; Temtime & Pansiri, 2006) is fundamental to its success (Fiegenbaum & Karnani, 1991; Gupta & Cawthon, 1996). The lack of resources, informality (Bacon & Hoque, 2005), and the need for continuous market' readjustment (Levy & Powell, 1998) makes SMEs adept at organisational flexibility. HRM assumes a prominent role, since it may improve the practices associated to organisational flexibility, as shown in this research. In SMEs, the business goals are inseparable from the personal goals of the owners/managers (Kotey & Slade, 2005) – they present personal features which may affect the propensity for business planning (Richbell et al., 2006). Therefore, a management style that is focused on management by goals and on the identification of people as a success factor in the long-term enables a better balance between personal goals and business objectives.

The competitiveness of SMEs is based on internal elements supported by resources and capacities that are difficult to copy, such as technological innovation, flexibility, organisational structure and HRM (Bacon et al., 1996; Wagar, 1998). The design of organisational structure is a mix between deliberate and unconscious choices and emerging developments (Meijaard et al., 2005); and the type of structure is determined by the size of the company, technology, the environment and the strategy (Cunha et al., 2007) and the allocation of work (Meijaard et al., 2005). Since SME frequently have informal structures, administrative and accounting

procedures are insufficiently developed (Lloyd-Reason & Mughan, 2002). Therefore, as defined in the proposed theoretical model, the identification of the efficiency of the organisational structure is a key success factor in the long-term. The mode of functioning of the company, associated with the practices that stimulate free initiative and creativity, valuation of the work environment, work practices, teamwork and the managers' commitment to the company allows for the enhancement of the use of HRM policies and practices that are more strategic for SMEs.

The research focused on the Portuguese context, which, culturally, is part of the Latin cluster (Hofstede & Hofstede, 2010). Institutionally, Portugal has been classified – by authors who show good understanding of socioeconomics but not much of geography - as a Mediterranean country (Amable, 2003). Such national differences have a clear connection to HRM practices amongst larger organisations (Wood, Brewster & Brookes, 2014). We suspect that national differences will have an impact on SMEs too but, as our survey only covered Portuguese companies, we are unable to comment further. In the Portuguese context, it has not been possible to confirm any cultural connection of the link between the role of HRM in 'attracting, developing and retaining employees' and the existence of an HR manager. However, it was possible to confirm that companies using more formal and structured HRM practices undervalue national culture and give it a negative connotation.

Applying these statistical tests, and our interpretation of them, to our existing models we can finally propose the model shown in figure 4. The structural equations model allowed the highlighting of a set of relations between the variables of the internal and external dimensions and the HRM dimensions, like, for example, organisational communication, planning and strategy, organisational structure, among others.
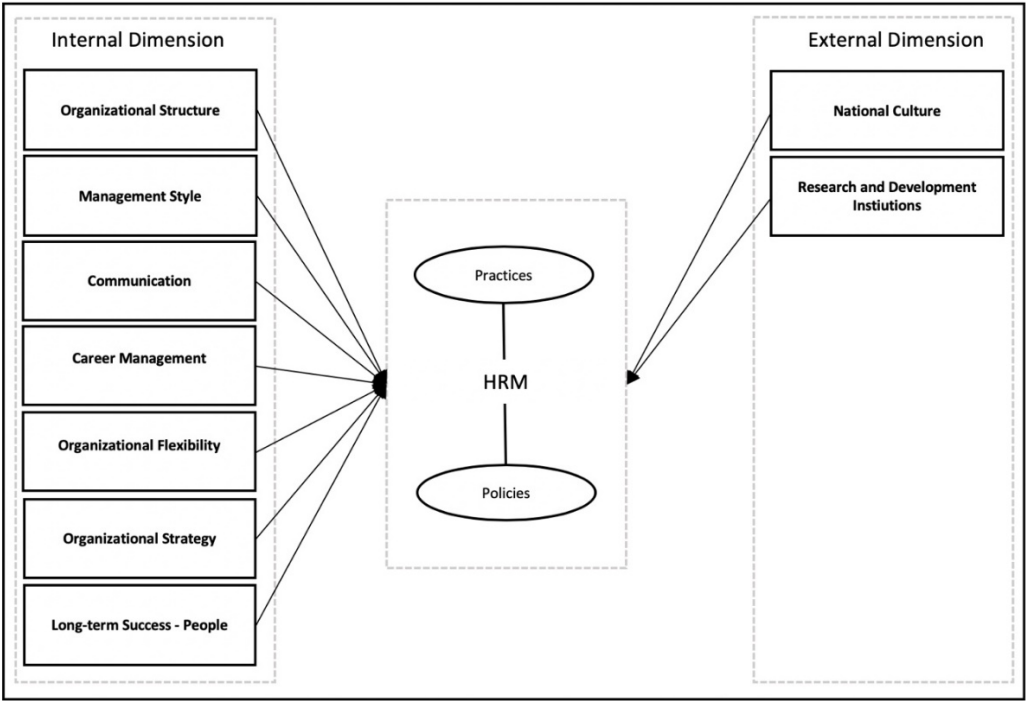

Figure 4 Theoretical Model Proposed
Source: the authors

In sum, with the present study, we aim to contribute to a deepening understanding of HRM in SMEs, identifying a set of key variables that influence people management in SMEs, but also highlighting existing interactions between organisational variables, the external environment and human resources policies and practices, and ultimately obtaining a proposal for a conceptual model of HRM in SMEs. Facing the diversity of existing practices in this type of organisations, we understand that the present research, while proposing a theoretical model about HRM in SMEs, needs extensive testing. It does, however, form a valuable base for such future research.

Limitations and future research

Due to its complexity, both at the level of the conceptual analysis and at the empirical level, this study presents a set of limitations worth noting here: a) the complexity of the   number of dimensions and variables under analysis; b) identification and selection of the dimensions to be included in the analysis; c) difficulty in maintaining a reasonable number of participants in the Delphi method; d) complexity of the model being tested.

Despite the importance of small and medium sized enterprises in our economic and social lives, studies of people management in SMEs remain rare. Over the last few years, the number of studies about SMEs has risen in quantity and quality, but there remains a considerable mismatch between studies of large and small companies.

In our analysis of HRM in SMEs, and our attempts to model it, it was necessary to use a wide set of dimensions. This created methodological difficulties. Due to the high number of dimensions and variables, and the inexperience of SMEs in completing research forms, it became an important and complex challenge to achieve a reasonable number of responses. The participation of a set of national and international experts through the application of the Delphi method provided a conceptual enrichment to the present investigation. However, some limitations arose here too, associated with the reduced number of participants through successive rounds. The construction of the structural equations model was demanding due to the complexity of the model being tested. The high number of relations, variances and covariances of the model limited the analysis of the model.

This study is not hermetic and serves as a starting point for the broadening of the assessed dimensions. It would be interesting to understand, for example, the succession process of a family SME, a more in-depth definition of the type of organisational structures present in the SME; or a characterisation of the type of planning and strategy most commonly used. A broader line of research could include collecting data from employee. This analysis would allow for a different perspective of the company's procedures and would broaden some issues that are less detailed in this study.

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✉ **Correspondence**

Pedro Novo Melo

School of Management, Polytechnic Institute of Cávado and Ave
Campus of IPCA, 4750-810 Barcelos, Portugal

E-mail: pmelo@ipca.pt