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Managers' assessment of organizational performance. The role of perceived organizational commitment and HPWS in different ownership contexts

Izaskun Agirre-Aramburu[1*], Trini Blázquez-Díaz[2] and Frederick Freundlich[2]

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*Corresponding author: Izaskun Agirre-Aramburu, Business Faculty, Business Strategy Department, Mondragon Unibertsitatea, Ibarra Zelaia 2, Oñati, Guipuzcoa 20560, Spain
E-mail: iagirrea@mondragon.edu

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Additional information is available at the end of the article

Abstract: The purpose of this paper is to examine managers' perceptions of employee organizational commitment as a key mechanism through which High Performance Work Systems influence organizational performance. Additionally, we

ABOUT THE AUTHORS

Izaskun Agirre-Aramburu, PhD, is a professor of marketing at the Faculty of Business, Mondragon University, where she also coordinates the MBA–Executive that the Faculty offers jointly with the provincial chamber of commerce. She has been chairperson of the Department of Marketing and of Educational Innovation at the Faculty. She is a member of the research group on business development and her research areas include the customer experience, cooperative business and digital experience. In these areas, she has published articles in journals including the Journal Business Ethics, the Review of Radical Political Economics and the Annals of Public and Cooperative Economics.
Trinidad Blázquez, PhD, is a professor at the Faculty of Business, Mondragon University in the area of people management and serves on two coordinating teams, one for the Faculty's Masters in Strategic Talent Management and the other for its undergraduate degree in business administration. She carries out her research in the research program entitled "Cooperation, leadership & ownership".
Fred Freundlich, EdD, is a professor at the Faculty of Business, Mondragon University where he has taught undergraduate and graduate level courses on organizational behavior, ownership of enterprise, the social economy, business ethics and research design. For ten years he was coordinator of the Faculty's Masters in Social Economy and Cooperative Enterprise. His research examines social and psychological dynamics in firms with broadly shared ownership.

PUBLIC INTEREST STATEMENT

The authors examine the relationship among three different factors that often affect organizational performance: (1) senior managers' views of high-performance work systems (HPWS), (2) their views of employees' organizational commitment and (3) ownership structure. Senior managers' views have important effects on many aspects of a company, including human resource management (HRM) and employees' perceptions and behavior. HPWS are a bundle of HRM policies (transparency, teamwork, hierarchy reduction, etc.) and the authors look at how much managers' perceptions of HPWS-HRM are related to organizational performance. Next, they study how much of this effect is a result of HPWS first affecting managers' views of employee commitment, which, in turn, influences performance. Finally, the authors ask if the relationships among these three factors are different by ownership structure, that is, in employee-owned firms vs. conventionally-owned firms. They find these relationships do exist and that several do differ significantly by type of ownership.

assess whether ownership structure is a potentially powerful moderating factor in this mediation. We carry out a cross-sectional quantitative study comprising a sample of 198 firms (employee-owned cooperatives and conventionally-owned) in the Basque Country of Spain using structural equation modelling (PLS-SEM). Results indicate that, in both types of firms, managers' ratings of employees' organizational commitment do fully mediate their perception of the influence of HPWS on OP. Furthermore, ownership structure does act as a moderator; that is, managers' perception of employees' organizational commitment predicts OP in conventionally-owned firms, though not in employee-owned cooperatives. For this reason, managers in employee-owned, cooperatives should consider carefully the design of HWPS in their firms and take the most appropriate approach to enhance results. The study contributes new insights by integrating senior managers' perspectives on employee commitment into HRM's research agenda and placing "ownership context" into a coherent HRM framework. This is the first study to test the moderating effect of ownership structure on the HPWS-OP relationship as it is mediated by managers' views of employees' organizational commitment.

Subjects: Work & Organizational Psychology; Human Resource Management; Strategic Management; Social Work

Keywords: HPWS; ownership; PLS-SEM; manager-rated organizational commitment; human resource management

1. Introduction

Increasing globalization, the rapid development of new technologies and the attendant growth of competitive pressures are now defining features of the economic environment for enterprises around the world. Managers and scholars alike see the relationship between human potential and human performance as increasingly vital in this environment. Company policy and practice as they affect this question – *human resource management (HRM)* – are viewed as ever more central to companies' strategy and competitiveness (Guest, 2017).

The resource-based view of the firm argues that one key way an organization gains competitive advantage, and hence superior financial performance, is by having resources that enable it to act in ways that are costly for competing firms to imitate (Barney, 1991). HRM practices (training, extensive sharing of information, self-managed teams, job security and others) fit this view as they are socially complex and very difficult to take apart, such that competitors cannot effectively copy them. As a result, such practices, called High Performance Work Systems (HPWS) when bundled together, uniquely contribute to organizational performance (OP) (Ko & Smith-Walter, 2013; Messersmith & Guthrie, 2010) via desirable employee attitudes and related behaviors such as employee satisfaction (Fabi et al., 2015), organizational citizenship (Sun et al., 2007), and organizational commitment (Kim et al., 2016), among others.

However, although the positive association between HPWS and OP is clearly supported in the literature (Shin & Konrad, 2017), research regarding what can be done, specifically from a managerial perspective, in order to achieve organizational performance remains inconclusive. Few studies provide insights into the implementation of HPWS as interpreted through managerial perceptions and voice (Do et al., 2019). Managers are in an optimal position to understand the purpose and intent of the HRM practices they themselves design and employ in their firms, especially in today's highly dynamic business environment where organizations face many and varied external pressures. Boada-Cuerva et al. (2019) show that top management is a crucial factor in HRM, suggesting that senior managers can affect in meaningful ways how middle

managers and frontline workers experience and react to the initiatives of HR specialists. It is also centrally important to focus on the macro context of HRM and macro-level theorizing about it in order to understand how HRM practices respond to environmental pressures (Lewis et al., 2019).

There is great potential, therefore, in addressing the role that top executives play in HRM (Beer et al., 2015). Further, a focus on top management is consistent with previous work emphasizing the distribution of HRM responsibilities and roles among a variety of organizational actors (Valverde et al., 2006), in particular among managers at different levels (Sanders & Frenkel, 2011; Sikora & Ferris, 2014).

Despite the clear influence that top managers have on strategic decisions, and also, by and large, on HR-related topics, their influence is necessarily limited by contextual factors (Boada-Cuerva et al., 2019). Numerous scholars have found evidence of the effects of contextual factors such as organizational culture (Xi et al., 2021) and other organizational factors (e.g. corporate governance (Martin & Gollan, 2012) on HR practices. Indeed, an organizational culture affects the ways in which individuals think, make decisions and, in general, how they perceive, feel and act in their work place (Schein, 1990) and these cultural features are very likely to be influenced by another centrally important contextual factor—a firm's ownership structure—a key concern of this research.

Employees participate substantially in ownership in significant percentage of firms in advanced economies (Mathieu, 2019). Sharing ownership widely among employees tends to affect firms' policy and practice as these firms seek to create a culture of "co-ownership", of shared rights, responsibilities and mutual commitment (Agirre et al., 2015; Steare et al., 2015). In this vein, HRM systems in employee ownership firms, based on a workforce philosophy of co-ownership, generally include core practices that reflect this philosophy, practices that are often part of HPWS (Poutsma et al., 2017). As a consequence, worker cooperatives and other employee-owned companies (EOCs) are, in general terms, found to be substantively different from conventionally-owned companies in their management style, work practices and climate (Steare et al., 2015; Summers & Chillas, 2019). Many studies have shown that broadly shared ownership is associated with positive attitudinal-cultural factors in the firm (Han & Kim, 2018; Kruse, 2002) among these organizational commitment (Caramelli & Carberry, 2014; Yoon & Sen Gupta, 2015), a variable of central concern here. Further, a shared ownership culture not only signals that high-performance practices enactment is likely expected from the managers by employee-owners, but it can also affect the degree to which managers perceive the usefulness of these practices and employee support for organizational goals.

This study takes a further and novel step toward exploring these relationships by developing a conceptual model that draws on upper-echelons theory (UET) and agency theory (AT) in different ownership contexts. More specifically, the study addresses the following research questions:

RQ_1: Is top managers' perception of employees' organizational commitment a key contributor to the relationship between HPWS and organizational performance?

RQ_2: To what extent do senior managers' interpretations of employee commitment in different ownership settings influence the HPWS-organizational performance link?

With this research, we attempt to contribute in several ways to the literature on HRM and ownership structure. In the first place, we propose to examine senior managers' reports of HPWS practices and their beliefs about (a) these practices' effects on employee commitment and (b) the relationship of employee commitment to organizational performance. Secondly, for the first time in the scientific literature, we explore the potential "ownership effect", that is, whether ownership structure—employee-owned versus conventionally owned—is a significant moderator of the HPWS

—perceived OC—OP nexus. Our findings should encourage scholars to pay more attention to the connection between top management agency (Boada-Cuerva et al., 2019) and contextual factors such as ownership structure that influence HRM.

The remainder of the paper proceeds as follows. First, we discuss the primary theoretical arguments and empirical evidence regarding HPWS, OP and high-level managers' perceptions of employees' commitment, as well as the research on employee-ownership, building related hypotheses. Next, we present the methods used to test these hypotheses, ultimately by leveraging a model using data from 198 companies in the Basque region of Spain. Results are then presented and discussed. We conclude with an assessment of how the study's findings contribute to the HRM and shared ownership literatures and propose implications they have for managers and directions for future analyses.

2. Literature review and hypotheses

The mediating role of managerial perceptions of employees' organizational commitment on the relationship between HPWS and Organizational Performance.

2.1. Managerial rating of HPWS and organizational performance

It is widely acknowledged that HPWS are a key ingredient for leading organizations to better business results and long-term survival in today's turbulent business environment (Do et al., 2019; Shin & Konrad, 2017). They have been extensively studied and, in most cases, researchers have found HPWS to be positive predictors of these outcomes, including labor productivity (Kaushik & Mukherjee, 2022), capacity for innovation (Chen & Wang, 2010; Do & Shipton, 2019), return on assets (Lee et al., 2017), motivation, job satisfaction, job engagement and employee well-being (Arefin et al., 2019; Dorta-Afonso et al., 2021; Van De Voorde & Beijer, 2015), among others.

HR is considered critical by and for managers, and the contribution of HPWS to organizational effectiveness is framed by a range of HRM strategies, policies and practices that have an impact on organizational performance (Úbeda-García et al., 2018). Arthur et al. (2016), for example, in their work in the hotel sector found that top managers believe that investment in HR programs resulted in improved financial performance, showing differences in relation to the intensity of HPWS programs that were implemented at hotels.

Scholars have developed two somewhat overlapping theories to explain how HPWS translate into organizational performance: the behavioral theory and the resource-based theory. The resource-based perspective centers more on strengthening employees' potential contributions based on their knowledge, skills, and abilities. From this point of view, firms should recruit and hire the most knowledgeable, experienced and competent employees they can, train them as effectively as possible, and, by encouraging maximum performance of this best possible "stock of human capital", HPWS provide the company with the greatest possible competitive advantages (Al-Ajlouni, 2020). Do and Shipton (2019) work supports these perspectives, highlighting HPWS as a key ingredient for fostering human capital development in organizations, which in turn enables organizations to achieve their objectives more effectively from the viewpoint of senior managers.

From the behavioral point of view, scholars contend that HPWS affects organizational outcomes by encouraging employees, through specific policies and practices, to act in new ways that are both appealing to them and supportive of company goals (Xi et al., 2021). The resource-based and the behavioral perspectives are not mutually exclusive; each explains how different aspects and potential effects of HPWS can favor business performance.

2.2. Managerial ratings of HPWS and managers' perceptions of employee commitment

Top management's attitudes about the value of HRM and about their employees more generally may crucially shape HRM effectiveness (Arthur et al., 2016). Bowen and Ostroff (2004, p. 209) insist on this idea, observing that " … the success of an HRM system … depends largely on top

management support, including top managers' beliefs about the importance of people". Recently, Kim et al. (2021) demonstrate that executives weigh the profitability of investing in human resources by judging the potential of employees to provide a return on that investment. Specifically, their results hold that CEOs' positive perceptions of employees' ability and trustworthiness promote these executives' engagement in active facilitation by making more significant investments in their firms' human capital through HPWS. Top managers can, through their actions, increase the legitimacy of HRM practices, commit resources and influence to create a strong pro-HRM climate (Kramar, 2014).

At the same time, Do and Shipton (2019) study demonstrates that managers generally believe that HPWS matter; they can impact employee attitudes, behaviors, motivation and productivity. Shepherd and Mathews (2000) argue for the ability of managers to distinguish between committed and uncommitted employees by looking at their attitudes. Empirically, in this vein, Weer and Greenhaus (2020) show that managers tend to perceive employees as more highly committed to the organization when employees exhibit extra-role behaviors (organizational citizenship behavior —OCB) in comparison to engagement in their ordinary tasks. Similarly, Shore et al. (1995) and Allen and Rush (1998) find a positive relationship between managers' perceptions of employees' level of citizenship behavior and their perceptions of employees' organizational commitment. Since the relationship between HPWS and OCB is well documented and managers perceive employees' commitment though OCB, we should expect a positive relationship between HPWS and managerial ratings of organizational commitment.

2.3. Managerial perceptions of employees' organizational commitment and organizational performance

There is substantial evidence suggesting that organizations are looking for high performance and better human resources strategies to increase their employees' commitment, in part because this combination can provide higher incomes for all concerned. From this point of view, addressing employees' commitment is a key issue for management that can lead to competitive benefits and financial success. In this regard, several studies show employees who are engaged in their work and committed to their organizations give companies crucial competitive advantages—including higher productivity and lower employee turnover (Edgar et al., 2021; Ijigu et al., 2022).

Evidence also reveals that there are links between managerial perceptions of employees' behavior and managers' own behavior. In particular, UET purports that managerial beliefs, values and experience are reliable indicators of the kinds of influence managers have on firms' strategic choices and the outcomes resulting from those choices. More specifically, several studies disclose that managers' judgments about commitment may influence their actions regarding employees. Shore et al. (2008), for example, demonstrate the influence of perceived affective commitment on the allocation of rewards. Weer and Greenhaus (2020) show the important role that manager-rated organizational commitment plays in managers' decisions to provide employees opportunities for career growth. Senior managers' beliefs about employee attitudes and behavior can clearly have far-reaching consequences for the organization. In this vein, Do et al. (2019) establish that managers believe that HPWS are enablers of employee and organizational performance.

Given this review of the literature, we offer the following hypotheses:

H_1: The positive relationship between manager-rated HPWS and organizational performance is mediated by senior managers' perceptions of employees' organizational commitment.

H_{1a}: There is a positive relationship between senior managers' ratings of HPWS and their perceptions of employees' organizational commitment.

H_{1b}: There is a positive relationship between senior managers' perceptions of employees' organizational commitment and organizational performance.

2.4. The moderating effect of ownership structure

In general, the literature has evidenced that the strength of the direct or mediated relationships between HPWS and performance are *contingent* on several variables. Triguero-Sánchez et al. (2013), for instance, investigate the impact of cultural factors, such as the interaction of perceived hierarchical distance with HPWS and its influence on organizational performance. Implementation of HPWS appears less effective in more vertical structures than in more horizontal ones (with lower hierarchical distance). Likewise, Neal et al. (2005) explore the moderating role of organizational climate and competitive strategy with respect to the link between human-capital-enhancing HRM systems and productivity, and they conclude that the association between HPWS and productivity is contingent on organizational climate, that the relation is stronger for firms with a poorer climate. A recent study in Nigeria investigates the moderating effect of another contextual factor, "management support", on the relationship between HPWS and outcomes and it confirms that the positive effect of HR practices on organizational performance cannot be strengthened if management is not supportive of the HRM system in general (Ismail et al., 2019). A variety of contextual variables are clearly important in this relationship, but certain key contextual factors such as ownership structure have been left unexamined or not examined in sufficient depth, hence the inclusion of this variable in our study.

Broad employee ownership of enterprise is now a significant phenomenon in advanced economies, involving thousands of firms and millions of employees (Mathieu, 2019). It might be conceptualized as a multi-logic hybrid model of corporate governance (Martin et al., 2016), where employee-owned firms are strongly influenced by a capitalist market logic combined with an internal democratic logic, a combination whose aim is to balance the long-term interests of diverse stakeholders by promoting substantial employee ownership of capital as well as authentic and widely shared psychological ownership.

Agency theory provides a rationale for the hypothesis of a positive relation between employee ownership and organizational commitment. In this vein, Mullins et al. (2019) have suggested that employee ownership is significantly related to the level of employee commitment and related concepts (organizational citizenship, psychological ownership) in employee-owned firms. A now fairly extensive body of research has shown that substantial employee ownership of a firm's capital frequently has marked effects on firm outcomes (Blasi et al., 2016; Jones & Kato, 1995). Theorists contend that companies in which employees have a substantial ownership stake tend to perform better for several reasons. One of these concerns employee-owners' direct economic incentives; if the firm performs better, its employee-owners receive larger payouts in profit-sharing and/or see increases in the value of their capital stake (Buchele et al., 2010). Scholars also contend that there are important social psychological forces in the shared-ownership enterprise that encourage improved performance. Co-owners often develop a sense of psychological ownership (Pierce & Jussila, 2011) and are thus more attached to the firm, offering each other greater help and support, monitoring each other's work more closely, contributing more to innovation or cost-cutting and feeling a stronger sense of responsibility for the firm in general (Thompson et al., 2014). Similarly, Weer and Greenhaus (2020) found that organizational democracy positively impacts value-based commitment. It is also important to emphasize that better economic performance occurs almost exclusively when broad employee ownership is combined with transparency, participation in decisions and related (high-performance work) practices (Blasi et al., 2017; Poutsma et al., 2015). In general terms, the literature suggests that EOCs represent a substantially different kind of organization, where managers are more likely to make use of a "more democratic management style" (Steare et al., 2015) and create and adopt practices that seem close to those included in advanced, "soft" human resource approaches (Kruse et al., 2004; Summers & Chillas, 2019).

An organization's HRM practices are partially derived from its HRM policies, which themselves are partially derived from its HRM principles and work and management philosophy, and partially from other contingencies, such as its strategy or the composition of its human capital (Poutsma et al., 2017). Reflecting these diverse contingencies, several studies have shown that employee ownership tends to involve a move toward greater adoption of high commitment/collaborative HRM practices. Along these lines, Marcoux et al. (2018) show that HRM practices in cooperative firms influence organizational commitment indirectly and mainly through the mediating perception of "a cooperative difference". Indeed, Leclerc et al. (2020) work show that employees perceive co-ops are different from conventional companies due to specific management practices, such as HPWPs. Employees and managers in shared-ownership firms, at least in part, come to believe that key elements of high-performance systems—transparency, participation, a transformational leadership style, profit-sharing, training and development—are put in place and cultivated *because* the firm is an employee-owned cooperative, because cooperative companies are different from conventional ones. Building and sharing a company vision with co-owner employees is a particularly influential empowerment practice, as it contributes to strengthening employees' affective commitment not only in a direct way, but also because it augments their perception of the co-operative difference, which itself becomes another source of affective and also normative organizational commitment (Leclerc et al., 2020).

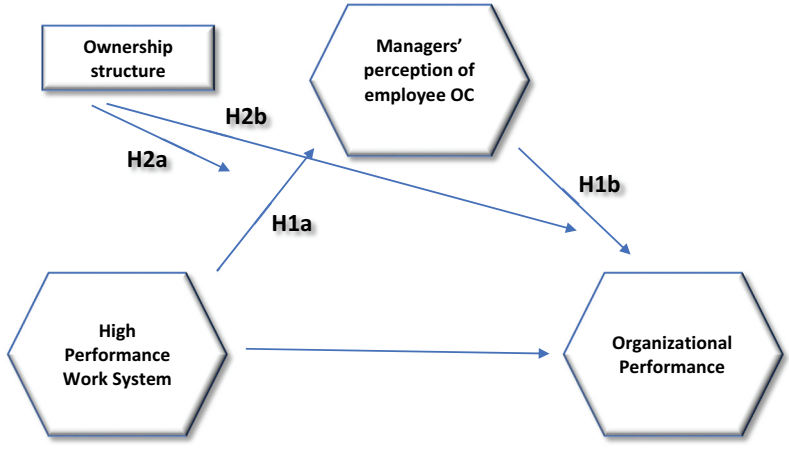
The arguments and evidence from the employee ownership and cooperative enterprise literature together with the findings on management perceptions suggest that if managers perceive organizational commitment to be relatively high in a firm, as tends to be the case in employee-owned firms and worker co-ops, then they will correspondingly perceive that the company would gain less in organizational commitment and performance by making further use of HPWS that seek to enhance them. Conversely, in conventionally-owned firms, where workers' emotional commitment tends to be perceived as relatively low, HPWS will tend to strengthen managers' perceptions of employees' commitment. This perception will then tend to improve management behavior toward company staff and therefore also organizational performance.

Given these analyses, our second hypothesis—a set of three related hypotheses—is as follows. The relationships described are presented in Figure 1 below.

Hypothesis 2 : Ownership structure moderates the indirect effect of managerial perceptions of OC on the relationship between HPWS and OP, that is:

$H_{2\alpha}$: The positive relationship between HPWS and managerial perceptions of OC will be stronger in conventional firms than in shared ownership firms.

Figure 1. Theoretical model.



H_{2b}: The positive relationship between perceived OC and OP will be stronger in conventional firms than in shared ownership firms.

3. Research method

This section outlines the methods and procedures used to test our hypotheses. We describe the sample and procedure, the construction of measures, the data analytic plan and our approach to common method bias.

3.1. Sample & procedure

The target population for this study was a set of companies in the Basque Country, a region of northern of Spain, that were operational at the time of data collection and had more than 50 employees, to ensure a size large enough for firms to have a specific human resource management function (Peña et al., 2015; Shijaku et al., 2015). A total of 1,144 firms were identified from SABI.[1]

The data collection instrument consisted of a 33-item survey completed by hand. Following Bou-Lousar et al. (2016), we selected chief executives and human resources managers as key informants since their perceptions as senior managers are the focus of the study. In order to avoid the possibility of a common method variance (CMV) problem, we split the questionnaire into different sections and address each section to the best informed respondent, as proposed by Bou-Llusar et al. (2016).

After several rounds of mailings, 210 questionnaires were received. Surveys that did not satisfy missing data criteria suggested by Hair et al. (2017) were removed and the final sample was composed of 198 valid questionnaires. A profile of the participating companies is provided in Table 1. Ultimately, the response rate was 17.31% of the total population, demonstrating the difficulty of obtaining valid responses in the contemporary business environment. This response rate is in line with typical response rates for research of this nature, ranging from 6% to 28% (Guthrie et al., 2011). Further, the response rate surpasses the 10% threshold established in previous questionnaire-based studies for sample representativeness of a population (González-Ramos et al., 2014). In addition, we examined generalizability through two different non-response bias tests. First, we carried out a series of t-tests that compare early with late respondents in terms of all key constructs, and second, responding firms were compared to non-responding firms in terms of size. No significant differences between groups were found in either test, suggesting that non-response bias was not an excessively serious concern. Finally, our sample characteristics allowed for detecting small differences.

Table 1. Profile of participating companies

Sector	Population	Proportion of sectors in population (%)	Answers	Proportion of answers in sample (%)
Industrial	494	43.18	126	63.64
Construction	67	5.86	4	2.02
Commerce	133	11.63	14	7.07
Services	368	32.17	40	2.20
Education	25	2.18	11	5.56
Health and social services	57	4.98	3	1.51
Total	1.144	100	198	100

3.2. Measures

Survey items used a seven-point Likert scale with the exception of the moderator variable, ownership structure (OWN), which, was measured as a dichotomous variable (employee-owned cooperative or conventionally owned). The questionnaire constructs are operationalized as composites and measured as follows (see Table A1 for a list the items in each composite):

To measure HPWS, an antecedent construct, we first reviewed the existing HPWS literature and ultimately adapted the scale developed and validated by Pascual and Comeche (2015), which was itself based on Pfeffer's (1998) original conceptual construction. This adaptation was done as a result of interviews with human resources managers of cooperatives and conventional companies. The scale consisted of 21 items that addressed seven standard areas of HPWS (job stability, recruitment, training, information-sharing, compensation, hierarchical status reduction, and team work).

Next, we used established scales for OC, the hypothesized mediating variable. The eight-item scale was translated into Spanish from the one validated by Holgado (2008) which was itself based the scale used by Allen and Meyer (1996). However, considering the existing controversy in the literature on the number of dimensions make up the OC scale (Cohen, 2007), the authors decided to use a two-dimensional definition of OC (affective commitment and continuance commitment). Since the current study assesses managers' perception of employees' commitment to the organization, items were adapted accordingly.

We operationalized OP, the outcome variable, by asking general managers to compare their firm with its principal competitor over the three previous years in terms of profitability, growth in sales and market share. The authors sought objective measures of organizational performance, but almost two-thirds of the sample did not provide quantitative responses due to company policy or for other reasons and the SABI database does not include this type of data for all companies.

Management-rated OC is modeled as a composite estimated in Mode A (correlation weights) at the dimension level and in Mode B (regression weights) at the second-order construct level. Given the original instrument used, the existence of uncorrelated items is presupposed at the second-order construct level, but not at the indicator level (Afshari & Gibson, 2015). By contrast, the seven HPWS practices (a second-order construct) and OP are modeled as composites exclusively in Mode A.

3.3. Data analysis methods

Partial Least Squares, a variance-based structural equation modeling approach (PLS-SEM) was the main technique used to test our hypotheses, an approach commonly employed to model latent variables. PLS-SEM estimates the parameters of a set of equations in a structural equation model by combining principal components analysis and regression-based path analysis (Mateos-Aparicio, 2011). The method offers various advantages for researchers using cause-effect relationship models to explain or predict a particular construct. This decision was based first on the characteristics of the composite constructs included in our model. Both theoretical argument (Henseler et al., 2014; Rigdon et al., 2017) and empirical evidence (Sarstedt et al., 2016) support the use of PLS-SEM in models based on composite variables. Secondly, PLS-SEM techniques were applied because component scores were used in a subsequent analysis for modeling a multidimensional construct using a two-stage approach (Chin, 2010; Wright et al., 2012). Thirdly, the research model was complex, given the types of relationships hypothesized (direct, mediated and moderated) and their multi-dimensionality. PLS, as a result, allows us to meet the study's explanatory and confirmatory purposes, facilitating understanding of the causal relationships among variables. SmartPLS 3.2.7 was the statistical analysis software used (Ringle et al., 2015). Finally, in order to analyze the potential moderating effect of ownership structure (OWN), the sample was split in two: (i) employee-owned firms ($n = 68$) and, (ii) conventionally owned firms ($n = 125$) and analyses of the two are compared.

3.4. Common Method Bias (CMB)

Since all data on the latent variables were collected from a self-administered questionnaire, CMB is a possible problem. Bearing in mind that the information could not be obtained from other sources, we sought to uncover possible CMB and limit it, following Huber and Power (1985); Podsakoff et al. (2012); and Podsakoff et al. (2003). We psychologically separated the measurement of predictor and criterion variables and guaranteed response anonymity. The common method bias test proposed by Kock (2015) was applied. All the variance inflation factors (VIFs) resulting from a full collinearity test were lower than 3.3, thus the model can be considered free of CMB.

4. Results

We assessed the PLS model in three stages: (1) goodness of fit of the overall model, (2) the measurement model and (3) the structural model: mediation and multi-group analysis (Henseler, 2018; Henseler et al., 2016).

4.1. Overall model: Goodness-of-Fit (Gof)

Since our study has a confirmatory purpose, we began the analysis of the estimated model by focusing on several measures of overall goodness-of-fit (GoF), summarized in Table 2. First, the evaluation of the standardized root mean square residual (SRMR) index (Hu & Bentler, 1998) offered a satisfactory value of .049, under the cut-off of .08 proposed by Hu and Bentler (1999).

Additionally, we carried out various tests of model fit (SRMR, d_{ULS}, d_G) by means of inference statistics and bootstrapping (Henseler et al., 2016). Since these indices were lower than the bootstrap-based 99th quantile (HI99), the discrepancy between the empirical and the model-implied correlation matrix is not significant at the 99th quantile level. The hypothesized model, therefore, cannot be rejected as it is likely true and, thus, the data do not contain more information than the model conveys (Henseler et al., 2016).

4.2. Measurement model

We perform confirmatory composite analysis of the saturated model using an overall model fit test allowing us to assess the external validity of the composites (Henseler, 2017; Schuberth et al., 2020). The two measures of discrepancy between the empirical and the model-implied correlation matrix are lower than or equal to their corresponding HI99 (see Table 2); hence, the discrepancy is not significant and we can safely assume that indicators formed the composites according to the measurement model proposed (Henseler, 2017).

Table 2. Tests of model fit

Estimated model			
	Value	**HI95**	**HI99**
SRMR	.049	.045	.050
d_{ULS}	.216	.183	.231
d_G	.080	.076	.090
Saturated model			
	Value	**HI99**	
SRMR	.049	.045	.051
d_{ULS}	.216	.182	.233
d_G	.080	.076	.091

Notes: SRMR: standardized root mean square residual; d_{ULS}: the unweighted least squares discrepancy; d_G: the geodesic discrepancy; HI95: bootstrap-based on 10,000 subsamples 95th percentile; HI99: bootstrap-based on 10,000 subsamples 99th percentile.

Note also that all the composites are higher order composites with the exception of OP, which has a first order structure. We follow the two-step approach in order to establish the final Hierarchical Component Measurement model. Regarding the assessment of the measurement model, as mentioned, we distinguish between composites in Mode A and Mode B. The seven HPWS practices and OP construct are exclusively estimated in Mode A, where we expect its manifest variables to be correlated. In this case, traditional measures of internal consistency, reliability and validity can be applied (Henseler et al., 2016). Both indicators and dimension have loadings above .7. Consequently, the individual item reliability is considered adequate. Additionally, both dimensions and the higher-order construct achieve composite reliabilities (CR) greater than .7, thus meeting CR standards. Further, convergent validity is achieved, as average variance extracted (AVE) measures are above .5 (see Table A1). Finally, by comparing the square root of the AVE with construct correlations (Fornell & Larcker, 1981) and the HTMT criterion (Henseler et al., 2015), we observe that construct discriminant validity is also attained (see Table B1).

Turn next to the other composite, senior manager perceptions of employee OC. This variable is estimated in Mode A at the indicator level and in Mode B at the dimension level. In the first series, note in Table A1 that the indicators satisfy reliability requirements, as their loadings are, in general, greater than .7. Composite reliability (CR) figures are also greater than .7, and thus the variables again meet construct reliability standards (Chin, 1998). The average variance extracted (AVE) is then applied to assess the composites' convergent validity (Henseler et al., 2009) and we observe that all AVE values exceed the .5 level, suggesting that the composite explains at least 50% of the variance of its indicators. Finally, the results of applying the Fornell and Larcker (1981) criterion and the strictest Heterotrait-Monotrait Ratio (HTMT) of .85 (Henseler et al., 2015) demonstrate that all the variables also attain discriminant validity; that is, each differs conceptually from the others. In light of these tests and other results described above, all the items are retained to support the content validity of the scales.

Next, the OC multidimensional composite is assessed on two levels (see Table 3), at the construct level (for external and discriminant validity) and at the indicator level (for multicollinearity and weight assessment). Taking the indicator level first, the analysis begins by testing for potential multicollinearity among items (Roldán & Sánchez-Franco, 2012). The maximum variance inflation factor (VIF) value for our indicators is 1.23, substantially below the accepted maximum threshold of 3.3 for excessive multicollinearity (Petter et al., 2007). Next, the magnitude and significance of the weights are checked, providing information about how each dimension contributes to the composite (Chin, 1998), and allowing for a ranking of the dimensions according to their contribution.

Finally, Urban and Ahlemann (2010) propose a simple method for evaluating discriminant validity using inter-construct correlations. If correlations among the composites and all other constructs are less than .7, then the constructs differ substantially from one another. This is the case here, as can be seen in Table 4.

5. Structural model

5.1. Mediation

Mediation is the term used to describe the role of an intermediate variable or mechanism that transmits the effect of an antecedent variable to an outcome (Aguinis et al., 2017). We verify the presence of mediation effects, applying the analytical approach described by Nitzl et al. (2016). The procedure has two main steps: a) determining the significance and magnitude of indirect effects, and b) determining the type of effect and/or mediation. As indicated in Table 5, the indirect effect is significant (β=.162; t = 2.411) since managerial perceptions of both relationships, HPWS—OC (β=.651; t = 14.931) and OC—OP (β=.248; t = 2.448) are positive and significant while the direct effect is not significant (β=.140, t = 1.569). In the full sample, it seems managers' beliefs about employees' OC do fully mediate their perceptions of the influence of HPWS on OP. Hypothesis H_1, (i.e. both H_{1a} and H_{1b}) then, is confirmed.

Table 3. Measurement model

Composites	Loadings	Weights	CR	AVE
HPWS (High order Composite Mode A)			**.894**	**.549**
Job security and employment stability	.641***	.183***		
Hiring	.757***	.194***		
Decentralization. Team work	.842***	.228***		
Reduction in status differences	.793***	.224***		
Compensation	.654***	.196***		
Training	.652***	.127***		
Information and Communication	.816***	.191***		
Managers' perception of employees Organizational Commitment (High Order Composite Mode B)			**na**	**na**
Affective Commitment	.916***	.724***	.936	.785
Continuance Commitment	.758***	.444***	.839	.569
Organizational Performance-Composite Mode A			**.940**	**.797**
Growth in profits	.875***	.272***		
Growth in market share	.891***	.302***		
Sales growth	.916***	.276***		
Profitability	.888***	.271***		

Notes: CR: Composite Reliability; AVE: Average Variance Extracted.

na: not applicable; *** significance at $p<.001$ (2-tailed).

Table 4. Discriminant validity

	HPWS	Managers' perception of employee OC	OP
HPWS	.741	na	.331
Managers' perception of OC	.651	na	na
OP	.302	.339	.893

Notes: HPWS: high-performance work system; OP: organizational performance.

The HTMT appear above the diagonal in bold. The correlations appear below the diagonal. On the diagonal itself, the AVE squared appear in italics.

5.2. Multi-Group analysis

Multigroup analysis (MGA) or between-group analysis as applied in PLS-SEM is a means for testing predefined data groups to determine if there are significant differences in group-specific parameter estimates (Hair et al., 2017). In our research, MGA was used to test the potential moderating influence of ownership structure (OWN) on managers' perceptions of the relationships included in our research model (H_2). Accordingly, the sample firms were split into two groups, employee-owned and conventional, non-employee-owned organizations. In both groups, assuming 80% statistical power and a 5% level of significance, the samples sizes (employee-owned = 68; non-employee-owned = 125) guaranteed a minimum effect of .15 (Cohen, 1992). In addition, before performing this multi-group analysis, the measurement invariance was evaluated using MICOM (Henseler et al., 2016). MICOM is a three-step process involving: (1) configurational invariance

Table 5. Effects on endogenous variables

Effects on endogenous variable	β	t-value	p-value	CI	Support	Variance Explained (R^2)	f^2
Total effect HPWS on OP	.302	5.311	.000	[.211;.397]			
Direct Effects HPWS → OP	.140	1.569	.058	[−.002;.292]	no	4.23%	.013
HPWS → Managers' perception of employee OC	.651	14.931	.000	[.579;.721]	yes	42.4%	.737
Managers perception of employee OC → OP	.248	2.448	.007	[.077; .411]	yes	8.4%	.041
$H1_{(+)}$: Indirect Effect, HPWS on OP, thru managers' perception of employee OC	.162	2.411	.008	[.051;.271]	yes		

Notes: R^2 (organization commitment) =0.424; R^2 (performance)=0.126.

CI Percentile confidence interval. Bootstrapping based on *n*=10000 subsamples. Hypothesized effects are assessed by applying a one-tailed test for a t student distribution (CI 95%).

assessment, (2) compositional invariance assessment and (3) the assessment of equal means and variances. In accordance with the MICOM procedure, calculating partial measurement invariance is a requirement for comparing and interpreting the MGA's group-specific difference in PLS results (Henseler et al., 2016). As Table 6 describes, partial measurement invariance was achieved for all the variables. Then, the permutation-based procedure and Henseler's MGA were applied, both non-parametric approaches to conducting multi-group analyses.

The results of the multi-group analysis (MGA), found in Table 7 and Figure 2, reveal notable differences between perceptions of managers in employee-owned and non-employee-owned firms, though our hypotheses are only partially confirmed. Overall, ownership structure *does* act as a moderator for the indirect effect of managers' perception of workers' OC on the HPWS- OP nexus. More specifically, Hypothesis 2 is partially supported. The data do not confirm Hypothesis 2a: ($\beta_{CONV.} - \beta_{EO} = .101$; $p = .139$), which predicted a stronger positive effect of managers' perceptions of high-performance work systems on their views of employees' organizational commitment in conventional companies than in employee-owned ones. HPWS practices influence managers' perception of employees' OC positively, significantly and to a similar degree in both kinds of ownership structure.

Turning to Hypothesis 2b, by contrast, we observe that a substantial distinction between the two groups of firms *does* exist with respect to the effect of managers' beliefs about the effect of employees' OC on OP ($\beta_{CONV.} - \beta_{EO} = .578$ p = .007). In other words, ownership structure *is* moderating the relationship in this case. Hypothesis 2b, then, is confirmed; managers' perceptions of the OC—OP relationship is stronger in *conventionally-owned* companies. The data show these significant differences using both methods (permutation and PLS-MGA), thus increasing our confidence in the results. Note further that the contribution of each dimension to the higher-

order composite *managerial perceptions of employees' OC* is different according to the type of ownership structure (see Figure 2). In the case of conventional firms, managerial perceptions of employees' OC are defined by *both* OC's affective commitment dimension (w = 0.737 $p = .000$) and its continuance commitment dimension (w = .427 $p = .000$), while in employee-owned companies, organizational commitment turns out to be defined exclusively by affective commitment (w = .794 $p = .000$); continuance commitment is not significant (w = .385 $p = .095$) in these firms.

6. Discussion

Although the SHRM literature has traditionally focused on the mechanisms through which certain HR practices influence performance measures, few studies have specifically considered top managers' role in HRM, particularly with respect to what they believe and ultimately do in terms of people management. Addressing this important gap in the literature, the current study examines the implications of senior managers' perceptions of their employees' commitment for the HPWS-OP relationship. Our research shows that managers' positive attitudes toward HPWS-enhanced commitment can stimulate a positive view of the relationship of these phenomena to organizational performance and suggests that these views inspire managers to empower workers to address organizational challenges. This result aligns with those of Yun et al. (2007) who contend that management perceptions are a crucial phenomenon at work to which employees can respond to produce positive consequences. It implies that workers may have a self-interested motive for engaging in performance-enhancing behaviors in order to influence managers' perceptions, creating a virtuous circle of managers and employees responding positively to each other.

HPWS is a complex system, not a single individual practice, and its effects result from the effective integration of different practices rather than the additive effects of separate practices in isolation (Subramony, 2009). HPWS helps organizations respond to dynamic environments by motivating top managers to identify and respond to problems and opportunities arising from the human dimension of management. If senior executives feel that employees are empowered and incentivized, employees are then more motivated to engage, to proactively respond to changes

Table 6. Results of the measurement invariance of composite models. (MICOM) procedure

Step 1		Step2			Step 3a				Step 3b				
Compositional Invariance					Equal Variance				Equal Means				
Composite	Configura-tional Invariance	Original Correlation	5%	Partial Measurement Invariance Established	Variance-Original difference (CONV vs. EO)	2.5%	97,5%	Equal	Mean-Original difference (CONV vs. EO)	2.5%	97,5%	Equal	Full Measurement Invariance Established
HPWS	Yes	.996	.992	Yes	.514	−.434	.463	No	−.465	−.298	.285	No	No
Managers' perception employeeOC	Yes	.999	.941	Yes	.497	−.447	.514	Yes	−.380	−.291	.303	No	No
OP	Yes	.999	.992	Yes	.297	−.397	.428	Yes	−.051	−.289	.298	Yes	Yes

Notes: HPWS: High performance work system; Managers' perception employee OC: Managers' perception employee organizational commitment; OP: organizational performance.

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Table 7. Direct effect in employee-owned and conventionally-owned subsamples. Multi-group analysis based on permutation and MGA test

Direct effect on Endogenous Variable	Conventional, Non-employee Owned Firms				Employee Owned Firms				Difference $\beta_{CONV.}^{\dagger} - \beta_{EO.}^{\dagger\dagger}$	Permutation p-value	Henseler PLS-MGA *p*- value	Significant
	R^2 (Explained variance)	Direct Effect	p-value	CI percentile	R^2	Direct Effect	p-value	CI percentile				
Managerial perception of employee OC	.444				.320				.124	0.303	-	No
H2a:(+)HPWS		.666***	.000	[.585;.746]		.566***	.000	[.403; .736]	.101	.136	.184	No/No
OP	.187				.122				.065	.503	-	No
HPWS	(.99%)	$.032^{ns}$	.382	[−.142;.215]	(13.28%)	.415**	.003	[.131; .504]	−.383	.028	.024	Yes/Yes
H2b:(+)Managerial perception of employee OC	(17.71%)	.410***	.000	[.204;.609]	(−1.08%)	$-.168^{ns}$	.220	[−.508; .215]	.578	.005	.013	Yes/yes
H2 (+)INDIRECT EFFECT		.273**	.001	[.136; .423]		$-.095^{ns}$	.243	[−.337;.098]	.368	.006	.008	Yes/yes
TOTAL EFFECT		.306***	.000	[.195; .424]		.320***	.003	[.131; .504]	−.014	.481	.443	No/No

Notes: Managers' perception of employee OC: Managers' perception of employee organizational commitment; HPWS: high performance work system; OP: organizational performance. CI Percentile confidence interval. Bootstrapping based on *n*=10000 subsamples.

Hypothesized effects are assessed by applying a one-tailed test for a t student distribution (CI 95%). Multi-group test based on 10,000 permutations one-tailed test for group comparisons for hypothesized effects.

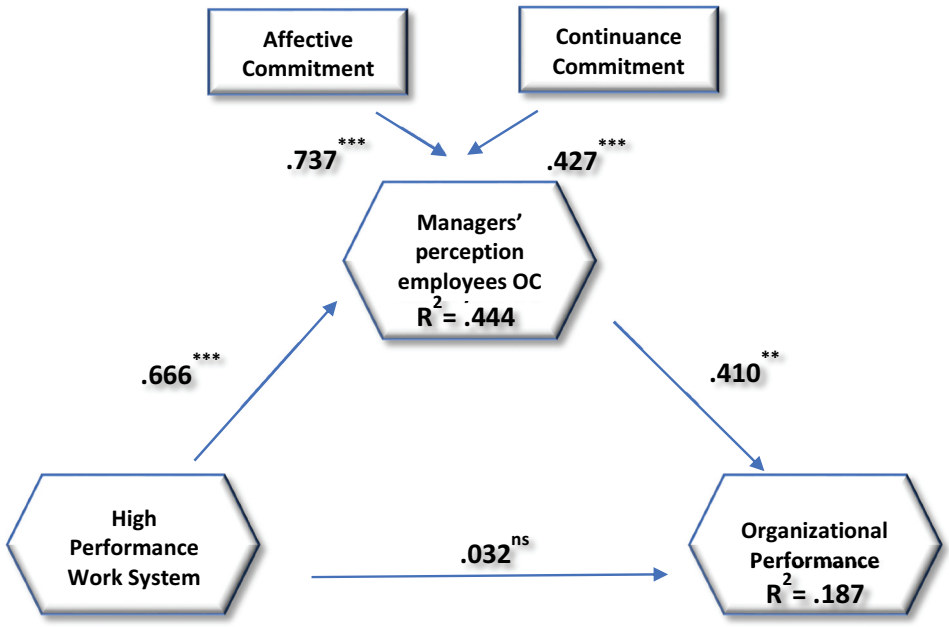
Two tailed test for group comparison for effects from R^2.

** significance at $p<.05$, *** significance at $p<.001$, ^{ns} no significant.

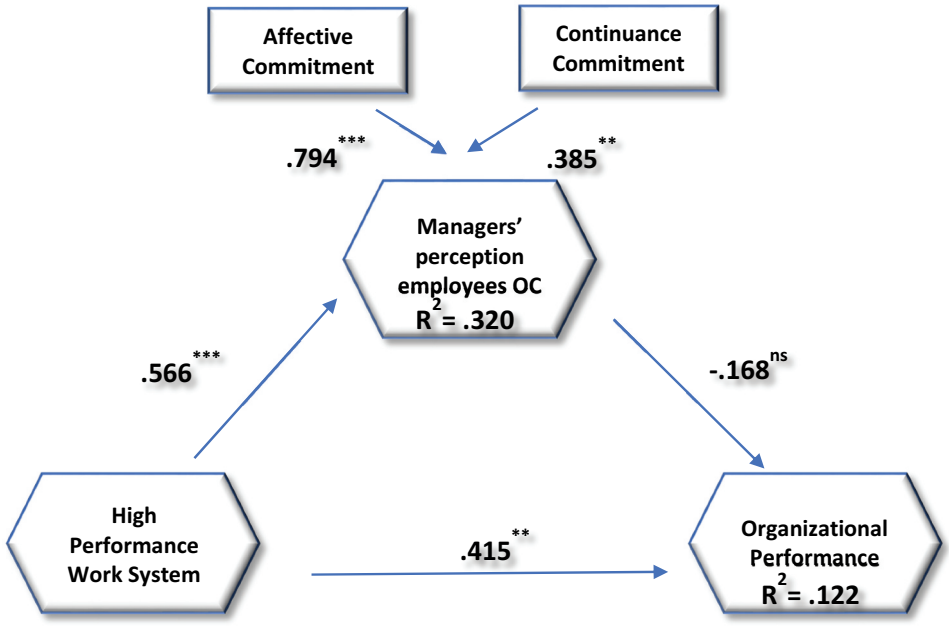
†The term "CONV." is an abbreviation for conventionally-owned companies.

††The term "EO" is an abbreviation for employee-owned companies.

Figure 2. Structural model, path coefficients, conventionally-owned versus employee-owned firms.



(a) Conventional, Non-employee ownership



(b) Employee Ownership

and solve problems, rather than wait for instructions from management (Jiang et al., 2012). Likewise, the literature on managerial perceptions of employee commitment confirms the importance of manager-rated commitment as an influence on management treatment of employees (Shore et al., 2008) and their employees' opportunities for career growth within the organization (Weer & Greenhaus, 2020).

Our findings also suggest that when managers perceive employees to be more committed to the organization as a consequence of HPWS, this perception acts as mechanism to enhance OP; that is, managers' perceptions of this kind lead them to be willing to reward and challenge employees who are committed to the organization. Rewards can take the shape of new, career-enhancing responsibilities and decision-making power in their current job and/or future organizational advancement, and these changes in work relations and job responsibilities result in improved performance for the organization. Managers, through their actions, appear to affect how workers experience and react to HPWS initiatives. This finding supports the contention that top management is a crucial factor in HRM, because their HRM-related beliefs and actions may shape the firm's overall HRM philosophy (Boada-Cuerva et al., 2019) and, consequently HRM/HPWS-related policy and action. This result is also consistent with prior studies showing that several psychological and demographic or directly observable personal characteristics may influence executive sense-making and action in connection with HR issues (e.g. Arthur et al., 2016; Brandl & Pohler, 2010).

Notwithstanding the clear importance of senior managers and their influence on strategic decisions and HR related topics generally, it is important to emphasize that their influence is conditioned by contextual factors. In particular, our study contributes to the literature in highly novel way by addressing ownership structure as a potentially important moderator. We discover, interestingly, that ownership structure *does* moderate the mediating effect of managerial impressions of employees' organizational commitment on the relationship between HPWS-OP. In other words, we find significant differences between employee-owned cooperatives and conventional firms in terms of managers' perceptions of HPWS and employees' organizational commitment as antecedents of OP. In conventional firms, management perceptions of employee commitment seem to be an important mechanism by which HPWS generate an effect on organizational performance. This finding might reflect that HR practices are a successful tool for enhancing worker's commitment, from managers' point of view, and, following expectancy theory (Vroom, 1994) managers will be motivated to cede important kinds of responsibility and decision-making to employees. Managers could well understand that workers who are committed to the organization strongly value opportunities to grow and develop in their current job and contribute to the organization. When people make commitments, they sacrifice time and allocate scarce cognitive and emotional resources; thus, they are likely to expect something in return—reciprocity (Vance, 2006). From this perspective, in exchange for workers' commitment—especially affective commitment—organizations should provide different kinds of value, such as professional development, recognition, etc. The resulting emotional commitment to and, to a lesser degree, the desire to continue in, the organization, in general terms, help produce a positive effect on organizational results.

However, from managers' point of view, this does not appear to be the case in all kinds of firms. Our results show that, in employee-owned enterprises, senior manager-rated employee commitment is not the process by which HPWS influence OP. Developments in commitment theory (Dey et al., 2014) help explain our results. The relationship between commitment and performance is quite variable and can depend on certain, key organizational features such as organizational climate and a wide variety of company policies and practices. In conventional companies, employment is generally characterized by (a) little or no participation in ownership (b) relatively low job security (c) relatively little or no profit-sharing or gainsharing and (d) a relative lack of commitment-enhancing management practices (Steare et al., 2015; Summers & Chillas, 2019). The reverse tends to be true in substantially employee-owned firms and in all four of these key respects, the first by definition and the other three through policy and practices that are relatively common in firms that share ownership (Blasi et al., 2017).

It seems highly plausible, following resource-allocation theories of motivation (Neal et al., 2005), that if the implementation of HPWS represents a marked change in the conditions of employment for most workers, as would tend to be the case in conventionally-owned enterprises, the resulting change in managerial perception of workers' organizational commitment could be not only substantial and but also consequential for performance.

In employee-owned firms, however, where key aspects of HPWS are much more commonplace (Leclerc et al., 2020), while employees do value them and managers believe they are related to commitment to the organization, strengthening and adding to them does not seem likely to change the environment enough for the increase in managers' perception of workers' organizational commitment to generate better results.

7. Theoretical implications

With this paper, we highlight the role of top management in the HRM arena, examining managerial perceptions of employees' organizational commitment as a mechanism through which HPWS influence performance in different ownership contexts. Top managers are not the sole deliverers of HP practices, but they function as crucial agents for organizations in establishing and enforcing HR philosophies and policies (Purcell & Hutchinson, 2007) and, as a consequence, their perceptions of their own companies' HRM practices and their results are highly salient. Managers will be inclined to enact HR performance practices if they actually believe that these activities are useful (Harris et al., 2002) and effective (Sikora et al., 2015). This means managers are much more likely to genuinely foster HPWS activities when they perceive employee support for the firm, that is, organizational commitment.

We confirm that a firm's ownership structure is fundamental from managers' point of view. HPWS enhance manager-rated employee organizational commitment (affective and continuance commitment) in conventionally-owned firms and this perceived commitment is the factor that explains performance improvement. Managers believe HPWS generate higher commitment, leading employees and hence the firm to perform better. Thus, conventional firms in our study may indeed be an appropriate environment in which to implement or strengthen HPWS practices.

In employee-owned firms, however, managers' perceptions of employees' commitment do not play a mediating role between HPWS and OP. Davis (2006) reminds us that co-operatives tend to be guided by humanistic principles of equity and human development in addition to profit-oriented business principles and, thus, in accordance with these principles, on average, they make more use than conventional companies of key elements of HPWS in their HRM, elements such as employee development, transparency and participation in decision making. Thus, there is a difference between firms with different ownership structures in the way firm policy and practices are perceived in the organization (Marcoux et al., 2018) even when practices adopted are similar. In a co-operative context, employees tend to go beyond their employment contract because of their affective commitment, which is generally nourished by a specific collaborative, humanistic management style and organizational culture that helps co-operative, employee-owners fulfill their own beliefs, values and expectations (Davister, 2007).

8. Practical implications

Since our study demonstrates that HPWS predict performance (Dastmalchian et al., 2020), corroborating much prior research, managers of firms with any kind of ownership structure are well-advised to promote HPWS. The study also reinforces the increasingly widespread, but by no means universal, belief among managers in conventional companies that building an effective high-performance HR system is likely to exert a powerful influence on employees' attitudes, creating a pro-commitment environment and improving organizational performance. Investing in employment practices such as fair compensation (Lakhani, 1988), and job security (Appelbaum et al., 2000), as well as in work practices that enhance transparency, participation and reduce hierarchy (Chowhan, 2016; Gould-Williams & Gatenby, 2010), in all probability, will have a positive effect on commitment (identification with and willingness to continue at the firm) and on performance in conventional companies.

Still, we along with others, find that context does matter (Chadwick, 2010; Meuer, 2017) and, in this sense, our findings have different management implications for enterprises with different types of ownership structure. In employee-owned firms, while managers would also be wise to fortify HPWS to enhance organizational performance, unlike in conventional companies, they

should be cautious about using these HR practices in the belief that they will improve results through strengthening commitment. Probably, given the relationship between the principles and the culture of worker-owned businesses, and the prevalence of certain human resource management practices (Guzmán et al., 2019), managers do not perceive these practices enhance workers' commitment enough to improve their work performance. Hence, co-operative managers should continue and even strengthen their operationalization of co-operative values and principles in their HRM practices to try to ensure employees' work experience fulfills their ownership expectations as far as possible.

9. Future research

Considering the set of variables potentially associated with managerial perceptions, combined with the range of multiple contextual factors, there are myriad research opportunities regarding the potential impact of HPWS on organizational outcomes from the perspective of managers. We suggest four lines of future research:

The first line of future research would involve the analysis of top management characteristics that could have an impact in the HRM realm. Arthur et al. (2016) refers to the HR-related beliefs and values of top management. Likewise, work on top management characteristics also needs to go beyond the single individual characteristics analysis and focus at the level of senior management teams. While top managers' personal characteristics and their own position towards HRM functions are important for understanding their perceptions of HPWS and organizational commitment, other conceptual approaches that address emotions and managerial action (Huy, 2011) would be useful to consider. Thus, our second recommendation with regard to future research calls for the inclusion of different conceptual approaches beyond cognition, such as work on emotions and action. This would allow for a deeper and broader exploration of how top managers shape HPWS.

Other contextual and organizational factors such as customer perception, cultural values, executive compensation, or governance mechanisms might also make constructive additions in this arena since these factors may shape top management's interpretation of HPWS issues and their resulting actions.

Finally, future research should also explore what other motivational paths might explain the relationship among HRM, perceived commitment and performance in shared ownership contexts. Much research clearly remains to be done on these phenomena and their interconnections, in the Basque Country and beyond.

10. Limitations

It is also important to note that our findings must be interpreted in light of the study's limitations. First, this investigation is based on cross-sectional data. When causal relationships are to be investigated, longitudinal data generally help researchers understand the direction of causality. Longitudinal information would provide more confidence in the inferences about the causal direction of the relationships in our model. Second, this paper only contemplates companies operating within a single geographical context, the Basque Country. Therefore, extrapolating these results to different contexts must be approached with caution. Consequently, similar studies should be conducted in different contexts (cultures, countries) and the results compared and contrasted. Further, the sample size could be a weakness in the multi-group analysis. Large effects in a population can be captured easily in small samples, but modest effects can be missed. Clearly, larger sample sizes are recommended for future investigations.

11. Conclusions

Our focus in this study is to analyze senior managers' views on the extent to which HPWS affect firm performance through organizational commitment and also under what ownership conditions this mediation is effective. The results reveal that managers believe that HPWS lead to higher

levels of commitment, which in turn conduct to better performance by employees and the organization. Managers also highlight that conventional companies may in fact be an appropriate environment in which to introduce or strengthen the practices of HPWS. In contrast, in employee ownership contexts, given the relationship between principles and culture, managers are unlikely to perceive that these practices increase employee commitment sufficiently to improve their job and organizational performance.

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Author details
Izaskun Agirre-Aramburu[1]
E-mail: iagirrea@mondragon.edu
ORCID ID: http://orcid.org/0000-0001-5990-3376
Trini Blázquez-Díaz[2]
ORCID ID: http://orcid.org/0000-0003-1184-2003
Frederick Freundlich[2]
ORCID ID: http://orcid.org/0000-0003-2697-5095
[1] Business Faculty, Business Strategy Department, Mondragon Unibertsitatea, Oñati, Spain.
[2] Business Faculty, Cooperation in Business: Leadership and Ownership Department, Mondragon Unibertsitatea, Oñati, Spain.

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Note
1. SABI is an acronym for a database called "Sistema de Análisis de Balances Ibéricos" (Analysis System for Iberian Financial Statements).

Disclosure statement
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Availability of data and material
The data that support the findings of this study are available from the corresponding author upon reasonable request.

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Appendix A

Table A1. Measurement model- first and second stage

Construct/Dimension/ Indicator	Loading	Weight	CR	AVE
Affective Commitment (Composite Mode A)	**.916*** **	**.724*** **	**.936**	**.785**
AFEC1- Workers seem very committed to the organization.	.907***	.312***		
AFEC2- Workers seem to be emotionally attached to the organization.	.877***	.274***		
AFEC3- Workers seem to view organizational problems as their own.	.896***	.280***		
AFEC4- Workers really care about the fate of this organization.	.863***	.262***		
Continuance Commitment (Composite Mode A)	**.758*** **	**.444*** **	**.839**	**.569**
CC1. Workers remain in this organization because they know they will lose benefits (stock options, capital) they have accumulated until now.	.601***	.180**		
CC2. The workers remain in the organization because some kind of compensation scheme based on the company's future success has been implemented.	.770***	.328***		

(*Continued*)

Table A1. (*Continued*)

Construct/Dimension/ Indicator	Loading	Weight	CR	AVE
CC3. The workers have invested too much of themselves into this organization to consider going elsewhere.	.818***	.382***		
CC4. The workers remain in the organizational because they are aware that, by leaving the firm, they would lose an opportunity for professional development.	.809***	.404***		
Organizational Commitment (Multidimensional construct, Mode B)			**na**	**na**
High performance work system-HPWS (Multidimensional construct Mode A)			**.894**	**.549**
Job security & employment stability (Composite, Mode A)	**.641*** **	**.183*** **	**.912**	**.776**
SEG1-One of our values is job stability.	.837***	.319***		
SEG2-We go to great lengths to ensure maximum job stability amongst our workers.	.925***	.421***		
SEG3-Retaining staff is a priority even in times of recession.	.879***	.390***		
Hiring/Recruitment (Composite, Mode A)	**.757*** **	**.194*** **	**.807**	**.584**

(*Continued*)

Table A1. (*Continued*)

Construct/Dimension/ Indicator	Loading	Weight	CR	AVE
SEL1-We clearly and objectively define the job description for all of the jobs in the company.	.795***	.450***		
SEL2-We prioritize internal promotions over hiring from the outside.	.801***	.456***		
SEL3-We keep and update a data base of job applicants.	.692***	.401***		
Decentralization. Team work (Composite, Mode A)	**.842*** **	**.228*** **	**.913**	**.778**
DES1-We have worker participation programs.	.862***	.362***		
DES2-We regularly organize task forces/improvement teams/quality teams to solve organizational problems.	.896***	.379***		
DES3-We purposefully encourage team work.	.887***	.393***		
Hierarchical Status Reduction// Reduction in status differences (Composite, Mode A)	**.793*** **	**.224*** **	**.856**	**.665**
REDIF1-We ask our workers about general company issues and take their opinion into account.	.817***	.443***		
REDIF2-Relations among co-workers are spontaneous and informal.	.845***	.434***		

(*Continued*)

Table A1. (*Continued*)

Construct/Dimension/ Indicator	Loading	Weight	CR	AVE
REDIF3-Workers know they can approach managers directly about any issue.	.784***	.347***		
Compensation (Composite, Mode A)	**.654*** **	**.196*** **	**.812**	**.595**
RETR1-We know exactly which are the most important positions in the Company and the staff who hold these positions are paid accordingly.	.615***	.234**		
RETR2-There is a fair, equitable balance in this Company between a worker's performance and the salary he/she receives.	.824***	.439***		
RETR3-We make use of non-monetary rewards for our workers (promotions, career development, quality of working life … .).	.854***	.579***		
Training (Composite, Mode A)	**.652*** **	**.127*** **	**.949**	**.861**
FORM1-Training is one of the company's key values.	.928***	.408***		
FORM2-Our training programs anticipate future needs.	.945***	.328***		
FORM3-To ensure the quality of our training programs (and modify them if necessary), we analyze their contribution to improving the organization.	.910***	.342***		

(*Continued*)

Table A1. (*Continued*)

Construct/Dimension/ Indicator	Loading	Weight	CR	AVE
Information and Communication (Composite, Mode A)	**.816*** **	**.191*** **	**.905**	**.762**
COMUN1-We are highly transparent in the information we provide workers on important issues such as salaries, promotions and performance appraisals.	.810***	.315***		
COMUN2-Permanent, accessible communication channels exist for all our workers.	.900***	.408***		
COMUN3-We are highly transparent in the information we provide our workers on issues such as the company's market position and expectations with the exception of information that may involve a strategic risk.	.905***	.417***		
Organizational Performance (Composite, Mode A)			**.940**	**.797**
RTDO1-Growth in profits.	.876***	.286***		
RTDO2-Growth in market share.	.894***	.306***		
RTDO3-Sales growth.	.919***	.285***		
RTDO4-Profitability.	.881***	.244***		

Notes: CR: Composite Reliability, AVE: Average variance extracted.

na= not applicable, ** significance at $p < .01$*** significance at $p < .001$(2-tailed).

Appendix B

Table B1. Discriminant validity-first stage

	INFO_COM.	AFFECT COMMIT	CONTIN COMMIT	DECENT.	TRAIN	RED_STATUS	COMP	OP	SEC	HIR
INF-COM.	*.873*	**.499**	**.414**	**.806**	**.622**	**.801**	**.467**	**.246**	**.428**	**.714**
AFFEC COMMIT	.445	*.886*	**.477**	**.609**	**.359**	**.701**	**.464**	**.292**	**.525**	**.505**
CONT COMMIT	.335	.434	*.755*	**.512**	**.293**	**.394**	**.405**	**.371**	**.380**	**.511**
DECENTRALIZATION (DECENT)	.692	.538	.427	*882*	**.543**	**.809**	**.479**	**.252**	**.506**	**.774**
TRAINING (TRAIN)	.546	.332	.234	.488	*.928*	**.450**	**.499**	**.083**	**.391**	**.514**
RED_STATUS	.653	.581	.321	.660	.378	*.816*	**.511**	**.273**	**.482**	**.736**
COMPENSATION (COMP)	.409	.395	.332	.416	.418	.378	*.771*	**.365**	**.410**	**.602**
OP	.216	.269	.325	.223	.076	.235	.331	*.893*	**.167**	**.373**
SECURITY (SEC)	.377	.467	.317	.439	.357	.391	.350	.151	*.881*	**.569**
HIRING (HIR)	.529	.391	.377	.571	.404	.520	.430	.286	.438	*.764*

Notes: The HTMT appear above the diagonal in bold. The correlations appear below the diagonal. On the diagonal itself, the AVE squared appear in italics.