Does employee participation matter? An empirical study on the effects of participation on well-being and organizational performance.

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Abstract. Employability, talent and/or motivation of people can be a source of sustainable competitive advantage; difficult for competitors to imitate. The involvement of people, and more specifically employee participation, has been identified as a key management tool to develop this advantage. Traditionally however, the Industrial Relations and Personnel Management streams have treated employee participation from different perspectives. Economic insights have guided the former, while how employees respond to the decisions in the workplace form the basis of the latter. Accordingly, three main employee participation practices are widely recognized in the field: employee management or decision-making, profit-sharing and employee share ownership. In this research, the relationship between 3 practices of participation, employee well-being and firm performance was explored in 278 Basque companies. Objective data was obtained for organizational performance measurement and 1,503 employee responses were gathered about participation practices and well-being. After controlling company size and sector (manufacturing and services were tested in this study) the results showed a significant relationship between any form of participation and employee well-being. Interestingly, a significant and negative relationship was revealed for the relationship between employee decision-making participation and labor productivity. No statistical relationship was found between financial participation practices and organizational performance. This study, therefore, confirms the relationship between one of the pillars of HR practices and employee well-being, but fails to show that participation is positively related to higher firm performance (or vice versa). New research lines are opened for scientific contributors and important insights offered for managers.

Keywords Management science; Strategic human resource management (SHRM); participation; employee well-being; labor productivity.

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Introduction

In the modern global economy, markets are increasingly competitive and dynamic (Noe *et al.*, 2017). In this context, employability, talent and/or motivation of people can be a source of sustainable competitive advantage; difficult for competitors to imitate (Barney, 1991). This theory, known as the Resource Based View of the firm (RBV) constitutes one of the most popular paradigms in management (Delery and Roumpi, 2017), and is widely used in the Strategic Human Resource Management (SHRM) field (Wright and Ulrich, 2017). RBV posits that HR practices have a substantial impact on the financial performance of an organization (Paauwe, Guest and Wright, 2013; Kurtulus and Kruse, 2017).

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Driven by this RBV perspective, research into employee participation has been growing and evolving (Boxall and Purcell, 2016). While there is evidence to show that employee participation is linked to organizational performance (Jiang and Messersmith, 2017), further studies have suggested that the effect is not necessarily straightforward (Mullins *et al.*, 2019; Peccei and Van De Voorde, 2019).

In his work analyzing the development of SHRM, Kaufman (2014) highlighted the 1960s as the moment when the field was separated into two: the internal side (or so-called *Personnel Management* stream) and the external side (also known as *Industrial Relations* stream). The former considers how employees perceive intended HR practices, how they react to these practices, and their resulting performance (Jackson and Schuler, 1995; Cropanzano *et al.*, 2017). The latter in contrast, has tended to equate the 'employee voice' with the action of trade unions (Benson and Brown, 2010). In terms of participation, the former enables what Boxall and Purcell (2016) called 'direct participation' whilst the latter is more closely related to 'indirect participation'.

Employee participation continues to be widely studied from those two parallel perspectives, although to the present day there is no agreement or single system of practices for employee participation in the organization (Poutsma, Ligthart and Kaarsemaker, 2017).

Importantly however, there seems to be a consensus in recognizing two large blocks of practices (see Figure 1):

- the HRM system block
- the Financial participation practices block

Figure 1. Two main blocks of full employee participation

The 'HRM system' block considers decision-making participation and profit-sharing as predominant practices in the field (Boselie, Dietz and Boon, 2005; Boon, Den Hartog and Lepak, 2019). By contrast, the 'Financial participation' block identifies employee stock ownership and profit-sharing practices as the most important (Kruse, Freeman and Blasi, 2010; Kurtulus and Kruse, 2017).

As a result of such contrasting approaches, current progress in the efficacy of participative practices to improve employee well-being, and the effect of such practices on organizational performance is ambiguous. This makes it difficult for researchers to consider a system of participative practices, and for practitioners to obtain an indication of which practices or combinations of practices are available and helpful to use (Mullins *et al.*, 2019). This field of study would therefore benefit from empirical research that is strongly grounded in HRM theory (Wright and Ulrich, 2017; Townsend *et al.*, 2019).

To fill this gap, this article considers the existing relationship between participation and both individual and unit level, outcomes. With this research, we aim to foster systemic evidence-based management and present some insights for future research.

To date, no empirical research studies have been found which combine these three participation practices as a bundle or system, i.e.: (i) decision making participation, (ii) profit-sharing participation and (iii) employee ownership participation. Although many previous studies on this topic have focused on participation practices in the 'HRM systems' block (e.g. Boon, Den Hartog and Lepak, 2019), or practices from the "financial participation" block (e.g. Blasi, Freeman and Kruse, 2016) only a limited number have considered all three practices as a part of a HR system or bundle (e.g. Poutsma, Ligthart and Kaarsemaker, 2017).

The objectives of the present paper are twofold. First, we aim to generate fresh insights into the broad HRM empirical literature by combining and reframing existing participation practices. Second, this study contributes to the growing literature on employee participation, by providing an empirical study in an employee-owned company context (Gomez, Uribetxebarria and Gago, 2019).

Specifically, the following research questions will be answered:

- What is the extent to which participation practices, employee well-being, and organizational competitiveness are linked?
- What is the synergistic effect of participation practices on employees and organizational outcomes?

Theoretical framework and hypothesis formulation

The SHRM field emerged incorporating the strategic perspective of the *Personnel Management* stream. However, there is an important distinction to be made between SHRM and traditional HRM. The later has been defined as all those activities associated with the management of work and people in organizations (Boxall and Purcell, 2016). SHRM in contrast, deals with the relationship between HRM activities, HRM outcomes and organizational performance (Poutsma, Ligthart and Kaarsemaker, 2017). Hence, while HRM is focused on the micro or individual level, SHRM attempts to align HR practices so that the employee contributes as effectively as possible to the strategic objectives of the company (Kaufman, 2015). To achieve that objective, the SHRM field as a scientific body of knowledge, is guided by two key research questions:

1) How much influence do HR practice bundles have on organizational outcomes?
2) How do HR practice bundles influence organizational outcomes?

The Human Capital theory has been widely adopted by scholars to shed light on the first question (Jiang and Messersmith, 2017), in addition to the RBV perspective. Becker (2002) defined Human Capital as '… the knowledge, the information, the ideas, the skills and the health of the people' (p.1). This theory considers human capital to be an enterprise-level resource that can help improve performance and generate economic value (Wright and McMahan, 2011). The uniqueness of the theory lies in the fact that it is an individual characteristic, instead of collective (Becker, 2008).

Consequently, knowledge, skills, abilities, and other characteristics (KSAO's) could also become a source of sustained competitive advantage (Delery and Roumpi, 2017). Decision making or participation in management enables employees to directly and/or indirectly invest in their knowledge, skills and abilities (Wright and McMahan, 2011). On the other hand, financial participation practices align employee interests with those of the organization, thereby enhancing employee intent to stay (Blasi, Freeman and Kruse, 2016).

Since Huselid's pioneering research (1995), there have been countless studies showing that HR practices have an impact on financial performance (Paauwe, Guest and Wright, 2013; Poutsma, Ligthart and Kaarsemaker, 2017). Guthrie (2001) for example, found what he called 'disordinal interaction' in the association between the use of high-involvement practices and employee retention and firm productivity. He conceptualized high-involvement work systems using the three main participation practices, among others. He concluded that employee turnover was associated with decreased productivity when use of involvement practices was high, and with increased productivity when use of these practices was low. Similarly, we conceptualized organizational outcome in this study through productivity since it indicates the extent to which the labor force of a company is efficiently producing output. Others (e.g. Koziol and Mikos, 2019), have recently linked human capital based job evaluation and remuneration systems, ensuring an employee-employer interests alignment.

Surprisingly however, there is little evidence showing no relationship between participative practices and organizational performance. Orlitzky and Frenkel (2005) first drawing on the same Human Capital theory, and Vanhala and Tuomi (2006) later were unable to link any association between decision making and/or profit-sharing practices with productivity.

Recently, Williams (2018) studied the effect variations of financial participation practices across European countries. Consistent with theoretical expectations, he found a positive link between profit-sharing and labor productivity when it is open to all employees, whilst a mixed evidence for a connection between employee share-ownership and productivity relationship.

Considering all the findings outlined in this section, we therefore propose testing the following hypothesis:

Hypothesis 1 – The greater the participation, the greater the organizational performance.

We operationalized this hypothesis, dividing it into the following sub-hypothesis:

- H1a – The higher the management or decision-making participation, the greater the labor productivity.
- H1b – Employee owned companies show greater labor productivity.
- H1c – Companies with profit-sharing participation show greater labor productivity.

Several systems scholars (e.g. Prigogine, 1978) have provided valuable knowledge on synergy. Corning (1998) defines synergy as the combined (interdependent) effects produced by two or more parts, elements or individuals, and that it is a ubiquitous phenomenon in nature and in human societies similarly. In reviewing this synergy concept in the physical, natural and social sciences, he suggested that synergy produces positive effects due to: (i) the greater shared effects formed by the accumulation of smaller additive effects, and (ii) the greater effectiveness created through the distribution of risks among the members of a system.

In this vein, it is reasoned that the combination of some HR practices produces synergistic effects so as to "the benefits will be greater than the sum of their individual elements" (Wood, 1999, p.368). Subramony (2009) posits the multiplier/synergistic effects of HR bundles can create a new outcome that beats the effect of a single practice.

The work of Corning (1998) and Subramony (2009) is largely supported by empirical evidence. A positive association has been observed in the relationship between full participation (decision-making, results and ownership) and organizational performance (e.g. Arando *et al.*, 2015; Blasi, Freeman and Kruse, 2016; Jones, Mygind and Sen, 2019; Mullins *et al.*, 2019). A further positive association between financial participation practices (profit-sharing participation and employee ownership participation) and financial performance has also been revealed (e.g. Braam and Poutsma, 2015).

In view of these theoretical principles and considering the empirical evidence we propose the following hypothesis:

Hypothesis 2 – Companies with full participation (management x ownership x profit) present higher organizational performance than those without participation.

Turning to the second SHRM research question (How do HR practice bundles influence organizational outcomes?), three views have been adopted to guide our study. First, *Behavioral perspective* has become a dominant theory to understand how participation practices affect individual and organizational outcomes (Jiang and Messersmith, 2017). Employee participation occupies a prominent place among HRM practices (Boselie, Dietz and Boon, 2005; Boon, Den Hartog and Lepak, 2019) and the behavioral perspective postulates that such practices are adopted to elicit the behaviors which contribute to organizational performance (Wright and McMahan, 1992). Thus HRM practices must ensure that the behaviors of people respond to strategic approaches (Schuler and Jackson, 1987). Accordingly, organizations that identify employees as a source of sustainable competitive advantage encourage participatory practices that involve them (Boxall *et al.*, 2019).

Second, Klein (1987) theorized about the mechanisms involved in the relationship between financial participation and organizational performance. He pointed out that financial participation promotes positive attitudes towards work through 3 psychological mechanisms: (i) instrumental (opportunities for financial participation), (ii) intrinsic (improved identification with the organization) and (iii) extrinsic (financial rewards).

Finally, *Social Exchange Theory* (SET) is considered as a Behavioral perspective paradigm (Cropanzano and Mitchell, 2005). Rooted in social exchange relationships (Blau, 1964) and the norm of reciprocity (Gouldner, 1960), SET states that any person who receives benefits from one party tends to compensate in kind. All in all, consistency between the message of employers and HR practices to recognize employee effort and reward the results of their work, has a positive impact on employee attitudes and behaviors (Bowen and Ostroff, 2004).

Consequently, employee attitudes and behaviors have gained prominence as a pathway of the HRM – organizational performance (OP) relationship (Jiang and Messersmith, 2017). Drawing on the abovementioned perspectives, scholars have largely identified a positive relationship between the three main participation practices (management, profit-sharing and ownership) and (i) job satisfaction (Dube and Freeman, 2010; Den Hartog *et al.*, 2013), (ii) organizational commitment (Park and Kruse, 2014; Kehoe and Collins,

2017; Han and Kim, 2018) and (iii) trust (Lee *et al.*, 2019). These first two outcomes comprise what Grant *et al.*, (2007) called psychological well-being while trust in management refers to social well-being. Van de Voorde and Boxall (2014) argued that "both social and psychological processes are involved as mechanisms connecting HRM and performance, associating research in SHRM with various fields in sociology and psychology concerned with employment relationships". In the last two decades researchers have begun to focus more directly on employee-centered outcomes (Boon, Den Hartog and Lepak, 2019), such as employee well-being (Guest, 2017; Peccei and Van De Voorde, 2019).

Thus, we propose:

Hypothesis 3 – The greater the participation, the greater the employee psychosocial well-being (satisfaction, commitment and trust).

This implies:

- H3a – The higher the employee participation in management, the greater the psychosocial well-being
- H3b – Employee owned companies exhibit higher psychosocial well-being.
- H3c – Companies with profit-sharing participation exhibit higher psychosocial well-being.

To conclude this section, we now consider the same theoretical principles used to propose Hypothesis 2, but with a focus on the synergistic effect of participation practices on attitudinal and behavioral outcomes.

Dube and Freeman (2010) found that the combination of the three participation practices enhances several employee level outcomes: job satisfaction, attitude towards the company and the likelihood of staying in it. The study by Blasi *et al.*, (2008) showed financial participation practices have a greater effect on employee turnover, loyalty and effort when combined with decision making participation (see Figure 2).

In contrast, challenging synergistic theory, Bakan *et al.*, (2004) argued that a combination of profit-sharing participation with management participation does not produce more favorable effects on worker attitudes (e.g.: commitment) in comparison to participation in decision-making alone. In the same sense, Larraza-Kintana and Bayo-Moriones (2009) concluded that the effectiveness of a profit-sharing program to improve employee affective commitment seems to be greater in companies with low employee participation at work.

Most recently, Kim and Han (2019) proposed a path analysis using a multisource, time-lagged dataset of 176 US companies to study the link between participation and productivity. They showed empirically that employee ownership and decision-making participation are related to labor productivity. Social cohesion and voluntary turnover variables were sequentially used as mediating collective attitudinal and behavioral outcomes, indicating a positive synergistic effect of participatory practices on labor productivity.

Based on these findings, we propose the following hypothesis:

Hypothesis 4 – Companies with full participation (management x ownership x profit) present higher employee psychosocial well-being indicators (satisfaction, commitment and trust) than others.

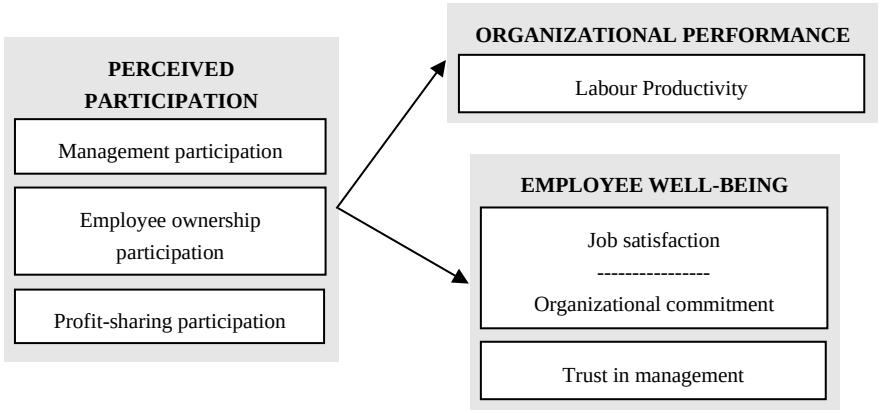

Figure 2. The three variables configuration of the present reasearch.

Methods

Sample and Data Collection

We conducted a survey questionnaire based on previous studies in the SHRM field (e.g. Elorza *et al.*, 2016; Garmendia, 2019) to gauge some key scales used in this analysis. The questionnaires were distributed to employees in companies operating in Gipuzkoa, a province of the Basque Country in the Northern Spain and in accordance with the procedure introduced later in this section. At present, Gipuzkoa constitutes the European territory with the highest number of employee-owned companies (Gomez, Uribetxebarria and Gago, 2019) which is particularly relevant in terms of employee participation (Jiang *et al.*, 2015; Boxall and Huo, 2019).

Five business sectors constituted the sample: (i) the automotive sector in which 430 informants belonging to 66 companies participated, (ii) the machine tool sector in which 331 people working in 63 companies participated, (iii) the components sector in which 233 informants from 42 companies participated, (iv) the advanced services sector in which 298 people from 57 companies participated, and (v) 211 informants from the information and communication technologies sector with 50 companies represented.

According to EUSTAT[3] a total of 5,620 organizations belonging to the (i) Industry, (ii) Energy and Sanitation and (iii) Information and Communications sectors were registered in 2018 in the region of Gipuzkoa. Thus, as 278 companies participated in this research, the sampling error is 5.7%.

The data collection procedure consisted of three steps. First, business sectors were selected and companies in each sector were identified. Second, an official statement was issued to each selected company explaining the research study and inviting them to collaborate. A deadline was set for responding to the surveys once the company agreed to participate in the project. Despite a small difference in sectors, approximately half of the selected companies agreed to complete the survey by appointment. The respondents were randomly selected to avoid biases in the answers, and data was collected out of the company, in cases where the company did not agree to participate. In the third and final step, the objective of the study was explained to the respondents and confidentiality was guaranteed. Respondents were told that there were no right or wrong answers, and that they should answer as honestly as possible. All the above actions were designed to mitigate the effect of Common Method Variance (CMV) (Chang, van Witteloostuijn and Eden, 2010).

Table 1. Sample representativeness by *Participation practices* and *Sectors*

Participation practice		**Machine tool**		**Automotive**		**Components**		**MANUFACTURING**		**Adv. Services**		**ICTs**		**SERVICES**	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
Management[1]	*Low*	12	*18%*	25	*40%*	10	*24%*	47	*27%*	8	*14%*	4	*8%*	12	*11%*
	Med.	36	*55%*	28	*44%*	23	*55%*	87	*51%*	21	*37%*	21	*42%*	42	*39%*
	High	18	*17%*	10	*16%*	9	*21%*	37	*22%*	28	*49%*	25	*50%*	53	*50%*
Profit-sharing	*No*	51	*77%*	41	*65%*	22	*52%*	114	*67%*	34	*60%*	35	*78%*	69	*68%*
	Yes	15	*23%*	22	*35%*	20	*48%*	57	*33%*	23	*40%*	10	*22%*	33	*32%*
Ownership	*No*	54	*82%*	50	*79%*	24	*57%*	128	*75%*	43	*75%*	36	*72%*	79	*79%*
	Yes	12	*18%*	13	*21%*	18	*43%*	43	*25%*	14	*25%*	7	*14%*	21	*21%*
TOTAL		**66**	***24%***	**63**	***23%***	**42**	***15%***	**171**	***62%***	**57**	***21%***	**50**	***18%***	**107**	***38%***

[1] *Management participation*, which was calculated as an average of Autonomy, Information, Participation in decision-making and Training scales, was clustered using the K-Means method at 3 different levels: (i) low, (ii) medium and (iii) high. N: number of companies. %: represents the percentage of the companies for a given sector.

As shown in Table 1, the sample configuration varied depending on the sector and participation practice selected. The Machine Tool, Automotive and Components business sectors constitute Manufacturing com-

[3] Eustat is the public body of the Basque Country that collects, analyses and publishes statistical information about every aspect of Basque Country.

panies while Advanced Services and Information and Communication Technologies (ICTs) comprise Services. Manufacturing which represents a 62 percent of the sample, showed little difference of perceived financial participation practices, as compared to the Service sector. It is important to note that only a third of the companies offer a Profit-sharing practice to employees, independent of the sector. Similarly, between one fourth and one fifth of the companies offer shares to employees with almost no difference between sectors. This small difference is significant because it indicates that employee ownership practice, which makes the territory of Gipuzkoa singular in Europe, goes beyond the sector/branch context.

Second, there is an important difference with regards to the Management practices perceived by employees, depending on the sector and the practice level analyzed. Based on Lawler's (1986) 'High-involvement management', Autonomy, Information, Participation in decision-making and Training were considered as Management participation practices (see details in the next section). Closer inspection of Table 1 shows that half of the Service sector companies scored "high" for Management practices and 89 percent scored between "medium" and "high". An opposite trend was observed in Manufacturing, scoring mainly "medium" for Management practices (51% of companies), and almost 80 percent of the sector scoring between "medium" and "low".

To conclude, assuming "both, universalistic and contingency approaches are relevant to understand HR practices in any workplace" (Peccei *et al.*, 2013, p.40), we seek to highlight the contingent singularities of the sample. Boxall and Purcell (2016) argued when analyzing the contingency approach, that societal, industry and the organizational context need to be considered when adapting company HRM for a business to succeed. It would seem that in the context of the present study, *Management participation practices* showed more association with industry or sectorial contingency factors, whilst the role of societal context seemed to be a driving force behind *Financial participation practice*s.

Measures

Perceived participation practices

SHRM literature distinguishes between 'intended' and 'perceived' practices as two different and sequential steps to explain a pathway between HRM and performance (Bowen and Ostroff, 2004; Wright and Nishii, 2013). Scholars have argued that employee perceptions of HR practices are more related to employee behavior than management rated practices (e.g. Elorza et al., 2016; Kehoe and Wright, 2013). In this vein, Boon *et al.*, (2019) found a clear trend, emphasizing the employee and their perception, as the most used data source since 2011. In light of this trend, Beijer et al., (2019) conducted a systematic review, confirming that studies have increasingly made use of employees as informants to measure HR practices (e.g. training, participation, autonomy, incentive compensation). They also revealed a lack of transparency in how these measures are often reported, suggesting greater clarity in the HR practices construct. Consistent with the literature, we operationalized participation practices measuring them using employee perceptions (see Figure 2) and then manage the reporting issues by assessing validity and reliability of the scales (see *Analysis procedure* section).

Participation in Management: In the questionnaire, respondents were asked about the level of: (i) autonomy (Morgeson and Humphrey, 2006), (ii) training, (Elorza, Aritzeta and Ayestarán, 2011) (iii) participation in decisions (Elorza *et al.*, 2011) and (iv) information (Elorza *et al.*, 2011). These four practices were rated using a six-point Likert scale ranging from (1) "strongly disagree" to (6) "strongly agree." Table 1 shows all items included in the questionnaire regarding participation in management practices used in this work and the result of the Exploratory Factor Analysis (see more details in the *Analysis procedure* section).

Employee ownership participation: Employees were asked "if there exists or not a system of participation in the stock of the organization" (Eurofound, 2013).

Profit-sharing participation: Employees were also asked "whether there is available, or not, a payment system depending on the profits of the company" (Eurofound, 2013).

Employee well-being

Questions about psychological and social well-being were also directed to employees of the organization. In particular, they were asked about: (i) job satisfaction (Rafferty and Griffin, 2006), (ii) organizational

commitment (Cook et al., 1981; Meyer, Allen and Smith, 1993) and (iii) trust in management (Gavin and Mayer, 2005). All constructs were rated using a six-point Likert scale ranging from (1) "strongly disagree" to (6) "strongly agree". Table 1 sets out all items included in the questionnaires regarding employee psychosocial well-being scales used in this work and the result of the Exploratory Factor Analysis (see more details in the *Analysis procedure* section).

Organizational performance

While several outcome measures (e.g., turnover, absenteeism, profits) have been used to determine the efficiency of HR practices, we focused on labor productivity for three reasons. First, labor productivity is an important organizational outcome recognized as total output divided by labor inputs (Tangen, 2005). Generally, it indicates the extent to which the labor force of a company is efficiently producing output. Second, SHRM theorists have identified labor productivity as the crucial indicator of workforce performance (Dyer and Reeves, 1995; Guest, 1997) suggesting a multidimensional concept of performance such as HRM outcomes, organizational outcomes, and financial outcomes. Finally, productivity is one of the most frequently used outcome variables in the SHRM literature (Boselie, Dietz and Boon, 2005). Boselie and colleagues have encouraged a focus on productivity as the "bridge in future research between the often labelled soft HRM outcomes (e.g., employee satisfaction, commitment and trust) and hard financial outcomes (e.g., sales, profits, ROI)" (2005, p.80). Drawing on previous research (e.g., Datta, Guthrie and Wright, 2005; Kim and Han, 2019), we measured productivity as the ratio of company sales to number of employees. Each company has been assigned organizational performance indicators, obtained from the SABI[4] Database.

Analysis procedure

The empirical analyses were performed in two main phases: (a) the pre-processing or data preparation phase, and (b) the data analysis phase. In the first phase, the psychometric properties of the scales used in the study were assessed, and hence the dimensionality and reliability of the scales were analyzed. Then, considering data was gathered by employees and the study has a focus on organizational level, it was (i) evaluated whether the data enabled an aggregation or not, and if did so (ii) checked the reliability of the aggregated means at organizational level. Finally, after evaluating the normality of the variables used in the study, control variables were identified. Consistent with prior empirical research (e.g. Wood and Ogbonnaya, 2018) the effect of the *company size* and the *sector* was checked to determine whether they could be endogenous variables or not.

The data analysis phase was conducted considering correlational nature of the study. Pearson correlations were calculated between selected variables (see Figure 2) and then means comparisons were analyzed using *t-Student* or ANOVA statistical tests to answer the proposed hypothesis.

Dimensionality and Reliability assessment

The Exploratory Factor Analysis (EFA) test was carried out to evaluate dimensionality. This test assesses the underlying factor structure and refines the item pool. Therefore, the EFA of the items for *Management participation practices* and *Psychosocial well-being* were used with varimax rotations to identify the common factors (Worthington and Whittaker, 2006). As set out in Table 2, the EFA provides overall confirmation of the scales with almost 70 percent of the variance explained. Nevertheless, item SI2 was not considered because it was loaded in a factor other than SI0 and SI1. Consistent with Brown (2014), loading factors above .4 were used to define a "salient" factor loading.

Cronbach's alpha coefficients (Cronbach, 1951) and Composite Reliability (CR) were used to asses internal consistency reliability for the items. Both data quality indexes informed "the proportion of a scale's total variance that is attributable to a common source, presumably the true score of a latent variable underlying the items" (DeVellis, 2003 p.31).

[4] Iberian Balance Sheet Analysis System (Sistema de Análisis de Balances Ibéricos) provides financial information corresponding to the annual balance sheets of more than 2 million Spanish companies.

Table 2. Items used for *Management participation practices* and *Psychosocial well-being* second order latent variables scales and the result of Exploratory Factor Analysis (EFA).

Code	Items	Fctr 1	Fctr 2	Fctr 3	Fctr 4	Fctr 5	Fctr 6	Fctr 7
	Autonomy							
SA1	My job allows me a chance to use my personal initiative or judgement in carrying out work.		.699					
SA2	The job allows me to make a lot of decisions on my own.		.856					
SA3	The job provides me with significant autonomy in making decisions.		.796					
	Training							
SF1	I feel that the company dedicates enough resources to foster my professional development.	.729						
SF2	I feel that the company provides me enough training to perform my job.	.807						
SF3	I think that the company values and promotes my training.	.824						
	Participation in decision-making							
SP1	I participate in the definition of the annual targets for my department/section.			.773				
SP2	I participate in the definition, control and monitoring of the business plan on an annual basis.			.784				
SP3	I have the chance to participate in important decisions about the future of my department/section.			.632				
	Information							
SI0	I am informed about our company's plans for the future (challenges, targets, investments, etc.).						.645	
SI1	I have frequently updated information about the performance of my department/section (sales, results, project status, etc.).						.759	
SI2	I have enough information to do my job properly.	.396						
	Job Satisfaction							
RS1	Overall, I am satisfied with the kind of work I do.				.799			
RS2	Overall, I am satisfied with the organization in which I work.				.485			
RS3	Overall, I am satisfied with my job.				.754			
	Organizational commitment							
RC1	I am proud to be working for this company.					.417		
RC2	I feel a strong sense of belonging to this organization.					.679		
RC3	I really feel as if this organization's problems are my own.					.643		
	Trust in management							
CON1	I openly share the mistakes I have made at work with those in charge, even though this may damage my reputation.							.614
CON2	I freely share with my managers my opinions, ideas, concerns and even feelings and illusions.							.628
CON3	I am comfortable leaving in the hands of those leaders decisions on issues that are very important to me.							.417
	Variance after Rotation	2.975	2.566	2.303	2.233	1.553	1.549	1.484
	Percent of Explained Variance	14.17	12.22	10.97	10.64	7.4	7.38	7.07
	Cumulative Percent of Explained Variance	14.17	26.38	37.35	47.99	55.38	62.76	69.83

Cronbach's alpha (α) is calculated by:

$$\alpha = \frac{k}{k-1}\left(1 - \frac{\sum s_i^2}{s_x^2}\right) \quad (1)$$

where k is the number of items, s_i^2 is the variance of individual item i where i =1,…, k, and s_x^2 is the variance for all items on the scale.

Composite Reliability (CR), in contrast, is calculated by:

$$CR_j = \frac{\left(\sum_{i=1}^{k} \lambda_{ij}\right)^2}{\left(\sum_{i=1}^{k} \lambda_{ij}\right)^2 + \sum_{i=1}^{k} \varepsilon_{ij}} \quad (2)$$

where k is the number of items, λ_{ij} is the resulting loading factor for an item i where i =1,…, k and for the scale j, and ε_{ij} is the error variance for an item i and scale j.

Table 3. Cronbach α coefficients and Composite Reliability indexes for measured scales.

Variable	α	CR	Variable	α	CR
Autonomy	.92	.83	Job Satisfaction	.82	.73
Training	.92	.83	Organizational Commitment	.75	.61
Information	.84	.50	Trust in management	.74	.57
Decision-making participation	.90	.78			

After the index calculations were carried out, all Cronbach α coefficients scored between acceptable and excellent reliability (George and Mallery, 2016 p.240) (Table 3). The most likely reason for the low Composite Reliability index obtained for the Information variable (.5) lies in the fact that item SI2 was removed. Coefficient alpha (α) uses indicator correlations while CR uses factor loadings as input for the calculations (Peterson and Kim, 2013). This, in fact, makes the former a more reliable index, and thus it is more widely accepted (McNeish, 2018). In view of these results, we concluded that internal consistency reliability was validated, and consequently the psychometric properties of the scales proven.

Data aggregation at the organizational level

Our study was performed at a unit or group level. Therefore, we tested whether the dataset enabled an organizational level analysis by calculating interclass correlation indexes ICC(1) and ICC(2) for each scale (Bliese, 2000). ICC (1) represents the amount of individual level variance that can be explained by group membership whilst ICC (2) represents the reliability of the group means.

A consistent estimate for ICC (1) and ICC (2) is:

$$ICC\ (1) = \frac{MS_B - MS_W}{MS_B + (k-1)MS_W} \quad (3)$$

$$ICC\ (2) = \frac{MS_B - MS_W}{MS_B} \quad (4)$$

where k is the average number of individuals in each group, s_i^2 is the variance of individual item i where i =1,…, k, and s_x^2 is the variance for all items on the scale.

The ICCs for the employee-level scales showed that there was significant variation in responses across companies: (i) between 11.9 % and 20.2 % of the variance in *Management participation practices* was as a result of the clustering in companies, and (ii) a range between 9.2 % and 16.1 % of the variance in *Psychosocial well-being* indicators was attributable to a company membership of employees (see Table 4). Hence, the ICC rates justified data aggregation at organizational level (Bliese, 2000).

Table 4. Interclass correlation indexes ICC (1) and ICC (2) for measured scales.

Scale	ICC (1)	ICC (2)	Scale	ICC (1)	ICC (2)
Autonomy	.141	.555	Job Satisfaction	.150	.567
Training	.119	.508	Organizational Commitment	.161	.592
Information	.202	.646	Trust in management	.092	.433
Decision-making participation	.125	.519			

It was thus appropriate to check the reliability of the aggregated means at organizational level. To calculate this agreement index, the test of within-group agreement was used.

The within-group agreement (r_{wg}) as proposed by James, Demaree and Wolf (1993) is calculated by

$$r_{wg} = \frac{J[1-(M_S^2/\sigma_{EU}^2)]}{J[1-(M_S^2/\sigma_{EU}^2)]+(M_S^2/\sigma_{EU}^2)} \quad (5)$$

where J is the number of items in the measure and M_S^2 is the mean of the observed item variances. σ_{EU}^2 is equal to (A^2-1)/12, where A is the number of response options for a given item (must be between 5 and 9) and 12 is a constant.

The average agreement rate of the measures for all firms was .72 (with a minimum average of .18 and a maximum average of .98). In 42 % of the sampled companies (119 companies out of 278) the average agreement rate (r_{wg}) was below .70, calling into question their level of reliability. Whether or not these 119 cases belonged to a particular business sector was checked, and the result showed a proportional distribution among the analyzed sectors. Thus, randomness in the error was proven. The possibility that these cases were related to those people who completed the survey out of the company was also tested. Certain bias was observed: 65% of the companies with an average agreement rate (r_{wg}) below .70 was by appointment.

In addition to the 119 organizations, in another 13 companies only one survey was available per organization (a single informant). In these cases, it was not possible to determine whether they were reliable responses as there was no way of calculating the agreement rate. These thirteen cases were discarded to mitigate the error due to the source (Gerhart *et al.*, 2000) and were added to the previous 119, resulting in 47% of the companies in the sample being questionable from a measurement quality point of view (see Table 5).

Table 5. Percentage of companies according to agreement index*(r_{wg})*.

	Nb. of companies	% of companies
Reliable companies (r_{wg} > .70)	146	52%
Unreliable agreement index (less than .70)	119	42%
A single respondent	13	5%
TOTAL	**278**	**100%**

Based on these results, the following procedure was determined: reliable companies were used for the statistical analyses and each significant conclusion achieved was checked whether the same result was obtained with the whole sample. When the entire sample results are in agreement with the reliable sample, the data/charts of the whole sample are presented.

The influence of *company size* and *sector*

First, correlation analyses confirmed that the relationship between the size of the organization (measured in number of employees) and *Management participation* was statistically significant and negative (Pearson's correlation: -.18, $p < .01$). In contrast, the data showed that company size has a statistically significant and positive relationship with profit sharing (.25, $p < .01$), and with ownership participation (.17, $p < .01$). Organizations with ownership and profit-sharing practices in our study were larger than the ones without such practices; participation companies, with an average size of 108 and 113 employees for the companies with mentioned participation practices respectively, are significantly higher than the ones without such practices (62 and 48 employees, respectively). A statistically significant and positive relationship between

size and most organizational performance indicators was also found, as the Added value (.62, $p < .01$) or Operating incomes (.67, $p < .01$).

Second, several mean comparison analyses were carried out using the ANOVA test. These analyses showed that most of the of participation in management, well-being and organizational performance variables showed statistically significant differences in averages (at $p<.05$ level and/or $p<.01$ level) between the sectors.

Data analysis

Finally, after controlling *company size* (as the logarithm of the total number of employees in the workplace) and *sector* (with five industry dummy variables, with Manufacturing and Service as the reference type), the Pearson correlation test was conducted to understand the relationship between independent and dependent variables (see results obtained in Table 6). Regression analysis was used to eliminate the effect caused by the endogenous variables and the obtained variable residuals were used for the correlations. *t-Student* and ANOVA statistical tests were also performed to examine differences between participative and non-participative organizations.

Results

Hypothesis 1 – The greater the participation, the greater the labor productivity.

Surprisingly, management participation and autonomy showed lower productivity; the relationship between management participation and productivity (-.19; $p<.05$) or autonomy and productivity (-.26; $p<.01$) was statistically significant and negative (see Table 6).

Therefore, there is contradictory evidence as regards the first sub-hypothesis. As for financial participation practices, the means comparison between both employee ownership and profit-sharing participation showed no statistically significant differences. We can thus conclude that there is neither favorable nor contradictory evidence for the H1b and H1c hypothesis.

Hypothesis 2 – Companies with full participation (management x ownership x profit) present higher labor productivity than those without participation.

To test this hypothesis, we aimed to (i) identify the three different participation practices combinations in the sample, and (ii) understand the differences between organizational performance indicator. To this end we carried out a hierarchical cluster analysis using Ward's method. The process provided six main groups of companies (see Table 7):

Table 7. Sample representativeness by *Participation practice combinations*, *Sectors* and the *Average company size* (measured by the number of employees)

Participation practices combinations	M	A	C	MAN.	A	IC	SERV.	Total		Size
Ownership, Profits and high Management	1	4	1	6	2	1	3	*9*	*3%*	*128*
Ownership, Profits and medium Management	11	8	17	36	12	6	18	*54*	*20%*	*122*
NO ownership, Profits and medium Management	5	10	4	19	12	2	14	*33*	*12%*	*156*
NO ownership, NO Profits and high Management	12	10	5	27	9	6	15	42	*15%*	40
NO ownership, NO Profits and medium Management	25	18	9	52	10	20	30	*82*	*30%*	*62*
NO ownership, NO Profits and low Management	12	13	6	31	12	8	20	*51*	*19%*	*44*

NOTE: M: Machine-tool; A: Automotive; C: Components; MAN: Manufacturing; A: Advanced Services; IC: Information and Communication Technologies; SERV.: Services; Total: number and percentage of companies; Size: average number of employees

The first three combinations showed two or three participation practices while the others revealed one or none. Interestingly, the first three occurred in the larger companies (ranging between an average of 122 to 156 employees), which suggests the greater the combination of participation practices the larger the company.

Table 6 Means, Standard Deviations, minimum, Maximum and Correlations of Study Variables.

Variable		*M*	*SD*	*min*	*MAX*	1	2	3	4	5	6	7	8	9	10	11	12
1.	Autonomy	4.52	.76	2.00	6.00	1											
2.	Training	4.15	.84	1.80	6.00	.641**	1										
3.	Information	4.13	1.07	1.33	6.00	.662**	.526**	1									
4.	Decision-making participation	3.7	.96	1.00	6.00	.706**	.621**	.715**	1								
5.	**Management participation**	4.12	.78	1.87	5.68	.854**	.790**	.865**	.896**	1							
6.	**Profit-Sharing participation**	1.35	.44	1.00	2.00	.221**	.227**	.393**	.151	.293**	1						
7.	**Ownership participation**	1.26	.40	1.00	2.00	.256**	.272**	.429**	.274**	.359**	.665**	1					
8.	Job Satisfaction	4.8	.61	2.00	6.00	.660**	.630**	.536**	.545**	.688**	.190*	.227**	1				
9.	Organizational Commitment	4.05	.78	1.67	5.89	.695**	.654**	.663**	.685**	.787**	.327**	.506**	.665**	1			
10.	Trust in management	4.46	.61	2.40	6.00	.728**	.640**	.567**	.557**	.711**	.241**	.334**	.615**	.755**	1		
11.	**Psychosocial well-being**	4.36	.58	2.44	5.94	.769**	.702**	.655**	.659**	.817**	.286**	.392**	.839**	.910**	.862**	1	
12.	**Labor Productivity**	9,889.56	24,765.59	48.69	217,309.52	-.263**	-.153	-.138	-.145	-.192*	.014	.049	-.137	-.082	-.144	-.118	1

NOTE: Pearson correlations (ρ) corresponding to the variables residuals referring to the group of reliable companies (rwg>.7), after controlling for *size* and *sector*. N=146. *p ≤ .05; **p ≤ .01.

Hypothesis 3 – The greater the participation, the greater the employee psychosocial well-being (satisfaction, commitment and trust).

H3a: Companies with management participation showed a higher psychosocial well-being (4.66±.42) than non-participating companies (3.81±.55), with a statistically significant difference of .85 (95% CI, -1.02 to -.68), $t(144) = -9.8$, $p < .001$. Similarly, there was a statistically significant difference for all well-being indicators: job satisfaction, organizational commitment and trust. (see Figure 3).

Management participation also showed a statistically significant and strongly positive correlation with commitment (.78; $p<.01$), satisfaction (.68; $p<.01$) and trust (.71; $p<.01$). Hypothesis H3a is therefore confirmed and we can conclude that the greater the participation in management, the greater the well-being.

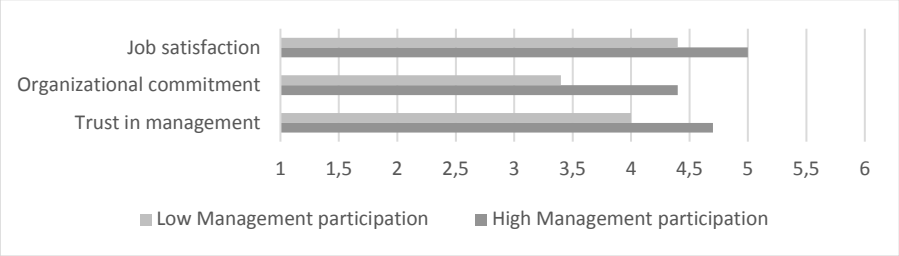

Figure 3. Differences of employee psychosocial well-being indicators between companies with high participation in management and low participation in management[5].

H3b: Organizations with ownership participation practices exhibited higher psychosocial well-being (4.77±.48) than those without (4.29±.58), with a statistically significant difference of -.48 (95% CI, -.69 to -.26), $t(138) = -4.43$, $p < .001$. Hypothesis H3b is therefore confirmed.

H3c: Companies with profit-sharing participation practices presented a higher psychosocial well-being (4.67±.50) than companies without such practices (4.30±.60), with a statistically significant difference of -.37 (95% CI, -.56 to -.18), $t(140) = -3.71$, $p = <.001$. All well-being indicators showed similar results; hence we can conclude that hypothesis H3c is confirmed.

Hypothesis 4 – Companies with full participation (management x ownership x profit) present higher employee psychosocial well-being indicators (satisfaction, commitment and trust) than others.

The procedure used to test this hypothesis was similar to that of Hypothesis 2: the same companies were grouped by different participation practice combinations (see Table 7), and the main differences of psychosocial well-being between the six groups of companies was tested using ANOVA.

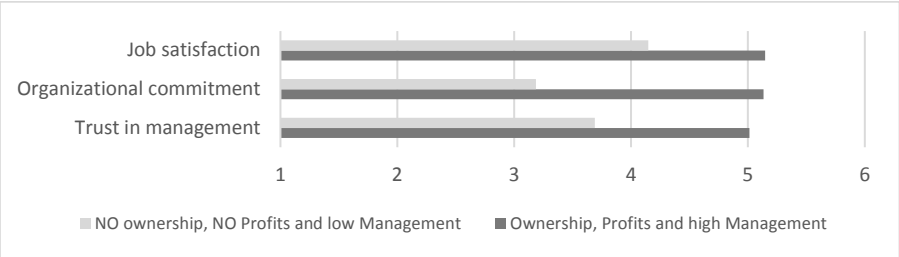

Figure 4. Differences in employee psychosocial well-being indicators between companies with high participation in management and low participation in management [5].

[5] Note: the figure shows original values (on a scale from 1 to 6) although the statistical analyses were conducted with the variables residuals (after controlling for size and sector).

Organizational commitment, job satisfaction and trust reported by employees presented significantly greater average means in the group participating in all 3 forms, than in the group that did not participate in any (see Figure 4). Therefore, hypothesis 4 is confirmed.

In summary, the evidence showed a significant and strong relationship between any form of participation and employee well-being, but a significant and negative relationship between management participation and labor productivity. No statistical relationship was found between financial participation practices and organizational performance.

Discussion and Conclusions

One of the main goals of the present study was to understand the effect of participation in employee well-being and organizational performance. With this goal in mind, we developed a system of participative practices considering the recent calls for integrating both HRM and ER streams (Townsend *et al.*, 2019). The existing three main practices were put together in a single bundle, recognizing the boundaries of 'an integrated field of study', embedded in and connected to a particular employee-owned context (Gomez, Uribetxebarria and Gago, 2019). In addition, by including the employee as an outcome we expressly took into consideration suggestions about expanding the limited adoption of performance definition (Guest, 2017; Farndale and Paauwe, 2018). Here we present the three main contributions of this work.

Contribution 1: Our results showed that companies with participation in management, ownership and/or results are associated with better well-being indicators than companies that do not encourage participation (see Figure 5). This is consistent with the extant literature (e.g. Blasi *et al.*, 2016; Lee *et al.*, 2019).

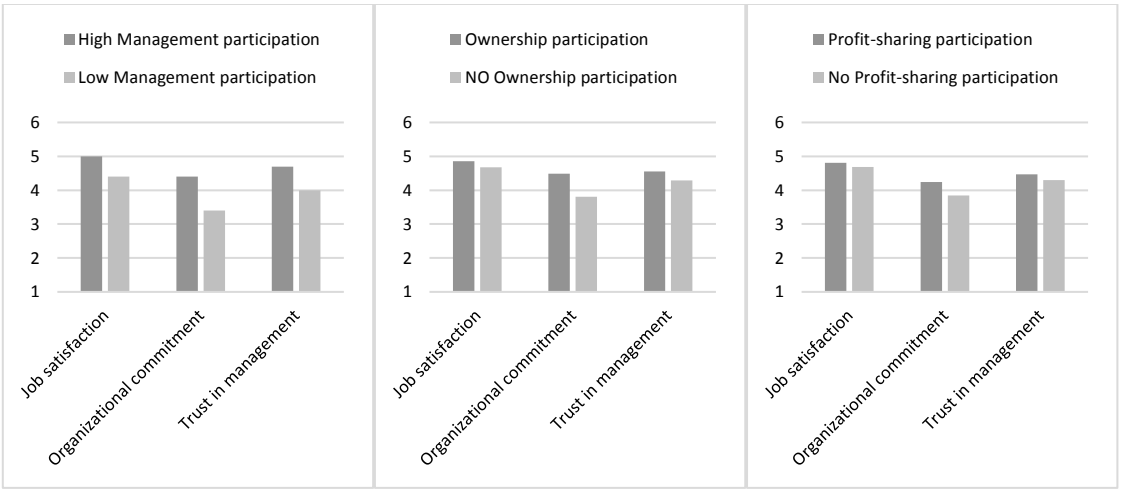

Figure 5. the three psychosocial well-being indicator means comparisons, comparing participation and non-participation companies, by studied participation practices [6]

Psychosocial well-being was measured through job satisfaction, organizational commitment and trust in superiors. All three well-being indicators revealed statistically significant differences between participation and non-participation companies, in any of the three participation practices.

In addition, closer inspection of Figure 5 indicates that, *participation in management* is the practice revealing the greatest differences, in absolute terms, with respect to any of the employee well-being indicators. Consistent with these results, Table 6 highlights that participation in management is the type of participation that best explains well-being.

Arguably, participation in management (autonomy, information, training and decision-making participation) is more directly perceived by an employee as a real participation. Closer to day-to-day demands of the job, such participation constitutes a more stronger predictor over job satisfaction manifested sometimes as the intent to stay (Blasi, Freeman and Kruse, 2016), organizational commitment (Kehoe and Collins, 2017) or trust (Lee *et al.*, 2019).

[6] Note: the figure shows original values (on a scale from 1 to 6) though the statistical analyses have been made with the variables residuals (after controlling for size and sector).

This implies that full employee participation constitutes an employee well-being predictor. Boxall and Huo (2019, p.105) recently argued "the most sustainable work systems serve investors well while also serving employees and their communities well". Consequently, business managers as well as policy makers should seriously consider investing in any of the abovementioned participation practices or combination of them, when developing a sustainable work system.

It is important to note that although all practices are associated with well-being, participation in management is the most strongly associated predictor and therefore the recommended starting point for any organizational change process.

Contribution 2: We found that company size is related to most performance indicators (see *Analysis procedure* section) and when controlled, companies with financial participation (ownership or profit-sharing participation) do not present differences in organizational performance with respect to those that do not have financial participation mechanisms. Unexpectedly, in the sample collected in this research, ownership and profit-sharing participation were found to be two practices with little or no relation to performance.

This result challenges prior findings in which scholars have associated financial participation with performance. O'Boyle, Patel and Gonzalez-Mulé, (2016), for instance, conducted a meta-review of empirical studies suggesting benefits of employee ownership in a variety of contexts. In their review they found no differences in effects across different firm sizes (i.e. number of employees).

This suggests that economies of scale are probably behind the better results observed in the larger companies. Sometimes the growth of a company is the consequence of good organizational performance. In fact, in our study company size seemed to be a more accurate predictor of organizational performance than financial participation practices. It is important to note however, that the larger the company the lower the participation in management. This poses a challenge for managers to define the appropriate company structure which foster employee well-being whilst delivering financial results.

Contribution 3: Some results in relation to productivity correlations (see Table 6) present new areas to be studied. Management participation was found to be the only participation practice that is related to labor productivity, the association being statistically significant and negative. This indicates that the greater the participation in management the lower sales per personnel ratio. However, it can also be interpreted in the opposite way: higher productivity is related to lower management participation rates.

Presumably, higher productivity is a consequence of a higher sales rate in the company (ceteris paribus), which leads to a higher work intensification. Nevertheless, this does not necessarily imply more resources. Indeed, less autonomy could be perceived as a diminishment of resources by employees. This tension, which can be seen as an inconsistency signal (Bowen and Ostroff, 2004) and result in a loss of health well-being (Orlitzky and Frenkel, 2005), might give support to 'the dark side' of HRM – well-being relationship. Boxall, Guthrie and Paauwe, (2016) argued that "scholars in HRM are increasingly taking on board the need to consider both the light (positive) and dark (negative) sides of particular approaches to HRM" (p 107). They noted that scholars have started paying closer attention to the balance between processes that unleash human potential and those that increase the intensity of work (Boxall and Macky, 2014).

In short, it should be noted that while our study confirms the relationship between one of the pillars of HRM and employee well-being, it does not show that participation is positively related to higher firm performance. We therefore invite other authors to continue investigating the mechanisms of *participation* as a contributor to maximize employee well-being and organizational performance.

Limitations and recommendations for future research

As this study has some limitations, the results must be considered with caution. First, these findings raise intriguing questions regarding the (i) nature of the variables included at the present study and the way they have been measured, and (ii) the existence of alternative mechanisms operating between the studied variables at the current research. The former is related to the idea of using a wide well-being construct, including the three main domains: psychological, health and social. The latter, as other scholars have noted (e.g. Peccei and Van De Voorde, 2019), and from a more theoretical point of view, is related to the adoption of other complementary frameworks that would enrich the obtained results by adopting new pathways. Job Demands and Resources Theory (Bakker and Demerouti, 2017) is currently being used as a pathway by

HRM scholars to understand how HR practices affect different well-being constructs (Conway *et al.*, 2016; Huo and Boxall, 2017; Kloutsiniotis and Mihail, 2019). Others (e.g. Van Veldhoven *et al.*, 2019) theorize with the universality principals of the perspective.

Second, it would be interesting from the methodological viewpoint, to mitigate some empirical ambiguity. Scholars (Gerhart, 2013; Wright and Ulrich, 2017) identified research design issues and rigorous data analysis problems reviewing HRM field works. The former is related to ensuring the construction of a model to 'capture' the multilevel phenomenon when analyzing *HRM – Performance* relationship (Peccei and Van De Voorde, 2016). The latter, on the other hand, proposes fixing three different issues related to data analysis: (i) using multiple data sources and respondents to help mitigate the CMV issue, (ii) measurement separation in time to help evaluating causality, and (iii) as the nature of the phenomenon affects different levels, it is likely necessary to test endogenous variables at those different levels.

Last but not least, Boxall *et al.*, (2019) recently challenged the scientific community, encouraging SHRM researchers to identify emerging HRM models and their context. They argued it was also important to describe how those HRM models work and to test how they affect outcomes. We aimed with this work to generate fresh insights into the broad HRM empirical literature (i) combining and reframing existing participation practices, and (ii) providing an empirical study in an employee-owned company context. The current study tried to shed light on the latter, by investigating the differences, if any, between participation practices through multiple levels (Farndale and Paauwe, 2018) in a very singular context (Gomez, Uribetxebarria and Gago, 2019). To do so, Townsend *et al.* (2019) highlighted the value of a broad view of HRM and Industrial Relations (IR) streams as 'a broad field of study'. Based on the work of Cullinane (2018), Townsend and colleagues posited the importance of an integrated view of the field "embedded in and connected to societal, organizational and wider policy concerns" (2019, p.4). Nevertheless, it would be valuable to use and merge different methodological strategies, such as qualitative and quantitative methods, in order to complement the findings achieved (Cornelissen, 2017).

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