

## Human Capital-Demographic Diversity in the Relationship Between HRM Practices and Firm Performance: The Spanish Case

<sup>1</sup>Rafael Triguero-Sanchez, <sup>1</sup>Jesus C. Pena-Vinces, <sup>2</sup>Jorge Guillen and <sup>1</sup>Mercedes Sanchez-Apellaniz  
<sup>1</sup>Department of Business Management and Marketing,  
College of Economics and Business, University of Seville, Seville, Spain  
<sup>2</sup>ESAN Graduate School of Business, Lima, Peru

---

**Abstract:** The purpose of this research is to analyze the moderating effect that the demographic diversity of employees may have on the relationship between HRM practices and business performance. Using a sample of more than one hundred Spanish companies, we carried out a factor analysis principal axis factoring with varimax rotation on the identified HRM practices and perceived organizational performance as factors with good factor loadings, consistent with the proposed model. Our findings indicate that the demographic diversity of employees, such as “age” and “gender”, conditions the effects of HRM practices on organizational performance. This research contributes to meeting the demand for studies including moderating variables between HR policies and practices and business performance. The literature pays little attention to non-linear models. Examining the factors determining demographic diversity sheds more light on the black box of the relationship between human practices and organizational performance. This study used a cross-sectional sample which limits the conclusions regarding the findings.

**Key words:** Demographic diversity, HRM practices, non-linear models, organizational performance, Spanish firms

---

### INTRODUCTION

In recent years, there has been a growing interest among researchers in the effect of employee diversity on organizational performance (Jackson *et al.*, 2003; Van Knippenberg and Schippers, 2007; Kmec and Gorman, 2010). Different studies have suggested that diversity can have both positive and negative effects (Pelled, 1996; Williams and O'Reilly, 1998; Richard *et al.*, 2007; Van Knippenberg and Schippers, 2007). Jackson *et al.* (2003) noted, however, that studies analyzing the impact of diversity on performance are based on a clearly structured set of theoretical approaches. One of their weaknesses is that only a few of them have analyzed how diversity affects performance and how diversity contributes to shaping individuals' beliefs, feelings and long-term career development.

Diversity refers to the differences among individuals based on any attribute that may lead to a perception that someone is different from oneself (Williams and O'Reilly, 1998; Triandis, 2004). Jackson *et al.* (2003) defined it as the distribution of personal attributes among interdependent members of a work unit. The attributes of interest may be those that are quickly

detected when we meet someone for the first time (demographic attributes such as age, gender or ethnicity); other underlying, less perceivable attributes only become apparent when we become acquainted with an individual (personality, knowledge, values) and others are found between these two extremes of transparency (such as education level or professional experience) which are known as human capital due to their relationship with professional knowledge, skills and know-how (Cornelius, 2002; Triguero-Sanchez *et al.*, 2011).

According to Van Knippenberg and Schippers (2007), the dissimilar findings in this research field could lead us to assume that the prevailing research in this field has focused on the “main effects” such as compromise or satisfaction, testing the relations between different dimensions of diversity and outcomes and neglecting potentially moderating variables. Although, the moderating nature of some variables of the relation between diversity and performance has been analyzed dogmatism (Chattopadhyay *et al.*, 2004); leadership (Muchiri and Ayoko, 2013); the degree and nature of interdependence between group members (Pettigrew, 1998; Martin-Alcazar *et al.*, 2012); team experience over time (Harrison *et al.*, 2002) few

researchers have considered diversity as a moderating variable between HR practices and corporate performance.

In addition, more than half of Spanish firms follow an isomorphic approach; in other words, these companies tend to imitate or copy the practices (HRM practices) of foreign businesses but in fact they are not aware of the way in which employee diversity affects their organizational performance. In this sense, our investigation is presented as a solution to this problem.

Therefore, the purpose of this study is to analyze the moderating effect of the demographic diversity of employees in the relationship between HRM practices and business performance.

Future, research will benefit from knowledge on the role of diversity as a moderating element in HR management and the way in which it can contribute to business success. In this way, the negative effects of diversity can be attenuated and the positive ones enhanced, contributing to the strengthening of the resource-based view, according to which HR is a source of competitive advantage (Barney and Wright, 1998).

Therefore, our study is structured as follows: firstly, it provides a literature review which allows the building of the research model and the posing of the hypotheses; secondly, it describes the methodology and tests the hypotheses and finally, it presents the findings and implications.

### **Research model and construct definitions**

**High-commitment HRM practices:** Since, the 1990s, it has been possible to find in the literature a growing interest in HRM and in particular in the relationship between HRM and performance (Guest, 1997, 2011). The literature has suggested that Human Resource (HR) practices are directly and indirectly linked to the collective behavior of employees, so they may have an impact on them and their attitudes (Triguero-Sanchez *et al.*, 2012; Triguero-Sanchez and Pena-Vinces, 2013) which in turn can serve as mediators between such practices and corporate performance. There is a growing consensus on the idea that a “high-performance” HR system should be designed to ensure that employees have high-level skills and capabilities, a high motivation level and the opportunity to contribute with voluntary efforts (Guest *et al.*, 2004). Thus, according to Boselie *et al.* (2005), organizational interests are fulfilled better with an HR system that focuses on employee interests and more specifically on their skill requirements, their motivations and the quality of their work.

Concerning the orientation of HR practices, Walton (1985) indicated the need to change from control practices to commitment practices as the basis for managing the manpower. For this researcher, there was no choice; he

prescribed a commitment strategy if we intend to prosper. The same analysis (Guest, 1997, 2011) can be found in the research by Foulkes (1980), Peters and Waterman (1982) and Lawler (1992), among others, who suggested that successful organizations seem to apply “high-commitment” HRM principles. Bowen and Ostroff (2004), on the same line, stated that employees’ involvement in the decisions affecting their group, the search for agreement among them and the prevention of interpersonal conflicts all require management systems that allow open discussion of their viewpoints.

Furthermore, Guest (1987, 1997) supported this approach and stated that “if an integrated set of HRM practices is implemented with the aim of achieving prescribed objectives of commitment to the organisation, high quality and flexibility then the outcome will be better employee performance”.

The idea that elevated-commitment HR management practices have an impact on attitudes towards work through employees’ perception or through their experiences is supported by the social exchange theory (Cropanzano and Mitchell, 2005) and the signaling “theory” (Ostroff and Bowen, 2000). These theories propose that high-commitment HR practices have an impact on employees because they support them; they work as “signs” of the intentions of the organization towards them.

### **Perceived organizational performance and its relationship with HRM practices:**

Multiple studies have addressed the relationship existing between HR management and Organizational Performance (OP) as well as their measurement (Gooderham *et al.*, 2008). However, there is no clear consensus on how to measure the relationship (Guest, 2011). Guest (1997) raised doubts about the “cause-effect” relationship between HRM as input and results based on financial performance. “Despite the attractiveness of using economic indicators in any attempt to convince top managers of the impact of HRM, we need to use a wider range of measures if we want to understand how and why HRM has an impact on financial performance” (Guest, 1997).

The use of “more closely related” indicators, especially those on which the workforce may have an impact, is theoretically more plausible (since HRM aims to improve the direct contribution of employees to performance) and methodologically they are easier to relate. We need performance indicators that are much closer in terms of whether they do indeed affect HRM practices. On this line, there is a clear option for the use of non-financial measures when analyzing the effectiveness of HRM practices (Bontis *et al.*, 2002; Triguero-Sanchez *et al.*, 2012).

An important mechanism that has been proposed suggests that the impact of HR practices on performance takes place through individual employees. Some researchers emphasize the crucial role of employee attitudes and behaviors in translating HR practices into firm performance. In line with this more central role of employees, these researchers emphasize the need to include employee perceptions in HR research studies (Guest, 2011; Triguero-Sanchez and Pena-Vinces, 2013).

Nishii and Wright (2008) indicated that in addition to the HR systems planned or designed by companies on paper, we must distinguish the implemented HR systems (what managers actually implement) as well as the perceived HR systems (how employees interpret such practices). The mismatch between what is planned and what is perceived is problematic if it is argued that the impact of HR practices on performance results from employees' perceptions (Den Hartog *et al.*, 2013).

Guest (2011) states that the models originating from organizational and social psychology make us reflect on the fact that what is actually important is not the presence of HR practices but rather the perception of the intention underlying such practices. The way in which practices are interpreted can shape the response to them.

In HR strategic management research, perceptions of corporate performance of the HR department or of managers have frequently been used as performance indicators, being considered as a reasonable substitute for objective performance measures (Den Hartog *et al.*, 2013). The measurement of perceived organizational performance refers to important aspects such as product quality, client satisfaction and the development of new products. On the same line, Den Hartog *et al.* (2013) established that the existing measures for sensing perceived organizational performance generally cover different performance aspects, adding to the product quality or client service and satisfaction other aspects related to reputation. In this study and according to Bontis *et al.* (2002), the items used to measure the "perceived performance measures" construct include the classification of the future perspectives of the business, meeting clients' needs and global assessment of business performance.

In this study, we expect HR practices focusing on commitment to correlate positively with perceived organizational performance measures global assessment of business performance, meeting clients' needs, the future perspective of the company and reputation. It is expected that commitment-oriented practices will encourage employees' participation in decision making in their group, the search for agreement among them and the prevention of interpersonal conflicts (Bowen and Ostroff,

2004). This is likely to favor greater employee integration and the development of positive attitudes and behaviors towards the organization. Such integration and behaviors are expected to be associated with higher performance levels (Den Hartog *et al.*, 2013). Therefore, we expect the perceived organizational performance to be higher when commitment-oriented HRM practices are implemented.

**Employee diversity as a moderating variable:** Although, the literature suggests that there is a relationship between HR practices and organizational performance, there are still open questions on how this relation takes place and which variables exist in the "black box." Therefore, there is a need for further research considering the factors that may intervene in and/or moderate the relation between HR practices and organizational performance.

In this sense, Guest (1997) suggests that we should keep cultural differences in mind (Guest, 2011) since different categories of workers may require different HR practices. Boxall and Purcell (2000) discuss this cultural issue, stating that "cultural standards and the particular history of the different societies always bring up differences in HR management systems". Other researchers (Chew and Sharma, 2005; McMillan-Capehart, 2005) have found evidence supporting the impact of culture and HR management on performance. According to Guest (2011), the commitment level developed by employees in response to HR practices cannot be homogeneous. The changing values of the workforce, the generation they belong to, their work experience and their varying personal circumstances may alter their priorities. The values and reasons of employees and the differences among them must be taken into account in research on HRM and performance.

The factors determining diversity can be grouped into the two general categories into which the most recent theoretical discussion has classified diversity dimensions: attributes that are demographic and not psychological and non-visible, underlying attributes of psychological or human capital (Lawrence, 1997; Martin-Alcazar *et al.*, 2012; Nataro *et al.*, 2012; Woehr *et al.*, 2013).

Organizational demography researchers focus mainly on characteristics that are visible such as age, ethnicity or gender or on attributes related to work, such as functional experience or tenure. In general, they use visible or prominent characteristics. Researchers in the field of decision making define diversity in terms of variations in experience or information but not in demographic or group affiliations (Williams and O'Reilly, 1998).

The theory most frequently used by demography researchers states that variations in the demographic

composition of work groups or teams affects group processes and this process has an impact on performance (Williams and O'Reilly, 1998). Most of this research follows the rationale of social categorization theory (Tajfel, 1981; Turner, 1985, 1987) and social identification theory (Tajfel, 1981; Hogg and Abrams, 1988; Muchiri and Ayoko, 2013).

The similitude/attraction paradigm (Byrne, 1971) provides predictions that are compatible with the two above theories. Pfeffer (1983)'s research on organizational demography indicates that the distribution of demographic differences among groups and organizations can have an impact on processes and performance. The basic principle of the theory suggests that similar attributes, ranging from attitudes and values to demographic variables, increase interpersonal attraction and sympathy. Individuals with a similar background can share common vital experiences and values and may find the experience of interacting with each other easier, more reinforcing and more desirable.

The other perspective that does not rely on the impacts of visible demographic characteristics explores how information and decision making can be affected by changes in the make-up of a group. This perspective addresses characteristics that are less visible in individuals such as experience or academic level; in general, these attributes tend to be related to their ability to perform certain professional tasks (Triguero-Sanchez *et al.*, 2012) and to their connection to organizational performance (Pelled, 1996).

According to this approach, the same trend of looking for similitude within a group may lead the same group to fail to capture the information held by its members. The information and decision-making theory proposes that variations in the composition of a group may have a direct positive impact by means of the increase in skills, capabilities and knowledge provided by diversity. It is assumed that groups of demographically diverse individuals will have a wider range of knowledge and experience than homogeneous groups of individuals. Researchers in this field widely agree that functional or background diversity provides the range of knowledge, skills and contacts that improves problem solving (Ancona and Caldwell, 1992; Pelled *et al.*, 1997). "Members that have entered the organisation at different timelines meet different groups of people and they often have different experiences and different perspectives on the organization's history" (Ancona and Caldwell, 1992).

Some researchers have surmised that diversity is a double-edged sword that could lead to high-quality solutions while also decreasing cohesion (O'Reilly *et al.*, 1991; Martin-Alcazar *et al.*, 2012; Muchiri and Ayoko,

2013). The current study is limited to the approach taken by Pelled (1996). Pelled (1996) argued that types or dimensions of demographic diversity (i.e., whether they are job-related or visible) should influence turnover and cognitive task performance. Individuals with different backgrounds provide multiple perspectives in solving problems and designing strategies (Jehn *et al.*, 1999). This approach relies on the knowledge-based view and the decision-making perspective (Richard *et al.*, 2007), also called the cognitive resource theory (Woehr *et al.*, 2013) and supports the assertion that diverse values in group members will contribute to a better team performance.

Some studies show that these positive impacts on performance are achieved when organizations adapt their management practices to the characteristics of their workforce thus improving management and performance (Benschop, 2001; Jabbour and Santos, 2008) for this reason, it is necessary to study this relation in greater depth (Richard and Johnson, 2001; Richard *et al.*, 2004). On the same line, Jackson *et al.* (2003) and Gooderham *et al.* (2008) evidenced the impact of diversity on business performance.

Based on the literature reviewed, in our study, we concentrate our attention on demographic diversity. We use those factors to establish the moderating effect of employee diversity on the relationship between HR policies focusing on commitment and organizational performance. The main reason, as we mentioned in the introduction, is that we have not found any research that has used these factors as moderator variables. Therefore, in Fig. 1, we summarize the theoretical background and research model of the literature to be analyzed.

### **Hypotheses**

**Age:** Age differences explain differences in values and attitudes (Cleveland and Shore, 1992). This happens for two reasons: first of all, individuals of different ages will have lived in different social, political and economic environments which will determine their attitudes and values (Cleveland and Shore, 1992; Martin-Alcazar *et al.*, 2012). On the other hand, future perspectives also change with age (Elder, 1975; Kooij *et al.*, 2010). Thus, some studies have suggested that older employees have different priorities and will respond more positively to HR practices reflecting such priorities. In general, we can detect a change of approach in individuals, focusing more on promotion at younger ages and on maintenance and prevention at older ages; development needs decrease with age, whereas safety needs increase (Lawrence, 1997; Kooij *et al.*, 2010).

Redman and Snape (2006) and Williams *et al.* (2007) found that age is a determinant factor in HRM and its

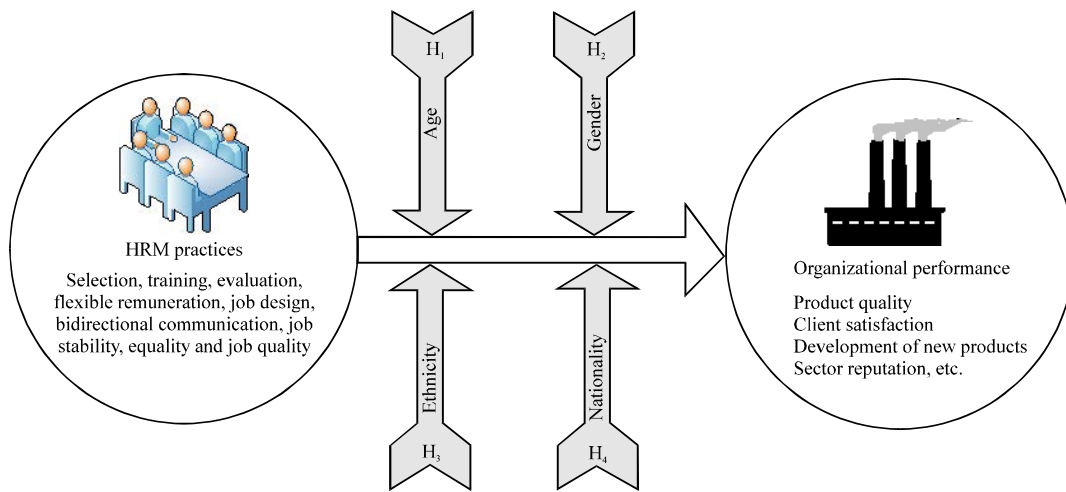


Fig. 1: Research model

relation to business success. Goll *et al.* (2008) found a positive relationship between greater age diversity and greater tolerance levels in uncertain situations. A relation between age in top management teams and international diversification of multinationals. The research by Kooij *et al.* (2010) mentioned above also pointed out age as a factor determining employee priorities and therefore their response to HR practices. The research by Kilduff *et al.* (2000) on top management teams also provided evidence on the positive effects of age diversity on performance. However, strong diversity does not have necessarily improve the effectiveness of HRMP (Jayne and Dipboye, 2004; Kilduff *et al.*, 2000). In sum, we believe that previous studies support the study of the age variable as a factor that can influence our research model. Therefore, we propose the following hypothesis:

- H<sub>1</sub>: age diversity will moderate the relation between HR practices and organizational performance

**Gender:** Previous research on gender has shown the relation of this variable to employee commitment and satisfaction at work and the desire to stay in the company (Jehn *et al.*, 1999; Major *et al.*, 2013). At the group level, increased gender diversity is positively related to improvement in the quality of the ideas of work groups (Hoffman and Maier, 1961), the quality of the decisions made (Hoffman *et al.*, 1962; Chatman *et al.*, 1998), increased performance (Watson *et al.*, 1998) and better work group construction processes (Kochan *et al.*, 2003). At the organizational level, evidence has been found of a positive relation to overall performance (Jackson *et al.*, 2003; Wegge *et al.*, 2008), financial

performance (Erhardt *et al.*, 2003) and corporate social image (Siciliano, 1996). Therefore, we propose the following hypothesis:

- H<sub>2</sub>: gender diversity will moderate the relation between HR practices and organizational performance

**Ethnicity:** The impact of diversity in ethnicity on business competitiveness has been addressed in multiple studies (Richard *et al.*, 2004; Brooks and Clunis, 2007), so better management of differences is demanded to attenuate the potential negative impacts and enhance the positive ones.

The research carried out by McLeod and Lobel (1992) verified that ethnically diverse groups produce higher-quality ideas than homogeneous groups. The study by O'Reilly *et al.* (1991) found a positive relationship between ethnic diversity and creativity as well as implementation capability. Richard *et al.* (2004) found that the relations between ethnic diversity and productivity change depend upon the company's innovation ability, the relation becoming more positive as ethnic heterogeneity increases.

Richard *et al.* (2007), based on the consideration that the potential negative consequences of ethnic diversity decrease over time whereas the positive ones increase, verified that ethnic diversity does indeed have a positive linear effect on long-term performance. They also found that the relation between ethnic diversity and productivity is more prominent in service companies. Thus, in multi-ethnic markets, if the workforce make-up is similar to that of the target market, it contributes to the understanding of its demands and improves clients' trust (Subeliani and Tsogas, 2005). Therefore, we propose the following hypothesis:

- H<sub>3</sub>: ethnic diversity will moderate the relation between HR practices and organizational performance

**Nationality:** Nationality, understood as the country of origin of individuals has been assimilated to domestic culture (Earley and Mosakowski, 2000; Ely and Thomas, 2001). Considered as a good reference unit for the study of cultural differences, it does not have to be either one for each country or the same for different ones (Pheng and Yuquan, 2002). Despite the existing research focusing on demonstrating the cultural convergence experienced in almost all countries and world regions, there are still national differences. The apparently globalized culture of the contemporary world rests on superficial manifestations such as dress codes, consumer products, films or sports but the deeper values determining the meaning for individuals of such activities or practices have not changed and it is unlikely that they will do so in the near future (Earley and Mosakowski, 2000; Pudelko, 2001).

Some academics (Lovelace *et al.*, 2001) have stated that the different characteristics derived from nationality affect conflicts among work team members and condition organizational success (Pheng and Yuquan, 2002; Triandis, 2004). Bochner and Hesketh (1994) suggested that heterogeneity in cultural values by nationality may have an important impact on individual performance. Other researchers (Earley and Mosakowski, 2000) have found that in the relation between nationality heterogeneity and effective performance, homogeneous and very heterogeneous groups are the ones that achieve the best results as compared with moderately heterogeneous groups, since the latter present emotional conflicts, communication problems and low levels of identification with the team. Consequently:

- H<sub>4</sub>: nationality diversity will moderate the relation between HR practices and organizational performance

## MATERIALS AND METHODS

**Population and sample:** The questionnaire methodology was adopted in the research on human resource management. Concerning the sample, the questionnaires were answered by HR managers, HR general managers and general managers.

Although, the general standard in HR research is to use one single informant in each company due to the difficulty of obtaining multiple informants, in fact, we recognized the possibility of single-method bias in our

data. Consequently, we increased the confidence in our data by: undertaking a factor analysis which shows the absence of a single general factor to account for most of the covariances in our variables indicating the absence of common method variance problems for our data (Podsakoff and Organ, 1986) and personally identifying qualified respondents (e.g., HRM managers). We promised that our analyses would be aggregated and that no organization would be identified individually. The previous literature has shown that the views of a single but well-qualified informant may better capture a firm's behavior than the views of several respondents in the case of organizations in which relevant decisions are often highly centralized (Triguero-Sanchez *et al.*, 2012).

The selected people in each company were contacted by telephone. The importance of taking part in the study as well as its usefulness were explained to them. When required, we made the commitment to send them the outcomes of our research. They were also assured that all the information would be treated in a confidential, comprehensive and anonymous manner. Finally, we highlighted the importance of any suggestions that the interviewees may propose to us and our gratitude for their participation. All of these aspects were emphasized in the introductory letter which was subsequently sent to the selected people along with the questionnaire and a prepaid envelope for returning the questionnaire upon completion.

The companies were selected from the SABI (Iberian Balances Analysis System) database. Among the registered companies, 1300 had between 100 and 2000 employees, according to the data registered in 2007 and 1169 were established before 2003. The resulting population was 902 with a well-balanced representation of all productive sectors. A total of 103 questionnaires from the 902 distributed were returned in different forms: via e-mail, postal mail and personal interviews at the respondents' organizations. This represents a response rate of 11.42%. With regard to the nature of the companies, 93% of them belong to the private sector and the remainder to the public sector; in other words, they belong to the Spanish Government. Table 1 and 2 summarize the descriptive statistics of the unit of analysis.

Table 1: Technical data of the survey data

Population size	902 firms
Universe	HR directors and CEOs
Place of study	Andalusia (Spain)
Sampling method	Survey: via e-mail, postal survey and personal interviews
Sample size	102 surveys (excluding those that were illegible and/or incomplete)
Time period	June 2009 to October 2009

Table 2: The statistics and characteristics of the sample

Characteristics	N	Minimum	Maximum	Mean	SD
Years of operation	97	7	86	20.90	12.28
Number of employees	102	30	1720	218.03	265.59
Total assets (last 3 years) in euros (€)	102	327393	416598667	37051984	65657472
Business membership (private)	102	0	1	0.93	0.25
HR department managers'	102	0	1	0.68	0.47
<b>Gender</b>					
Male	102	0	1	0.66	0.25
Female	102	0	1	0.34	0.26

SD: Standard Deviation; N: Number of firms

**Measurement of the variables:** A literature review was carried out to obtain a reliable measurement scale, using tools that have been broadly validated and contrasted in previous studies. The items adapted from the English literature were translated from English into Spanish by two native Spanish speakers who are familiar with the HRM terminology to prevent any ambiguity in the measurement scales.

**Organizational performance:** There are two approaches to evaluating organizational performance. First, performance is assessed from a purely “financial” perspective, using variables such as business profits, units produced, average sales per employee, ROI, ROA, ROS, etc. (Dalrymple, 2004; Goll *et al.*, 2008). Second, it is assessed from a non-financial perspective (subjective), focusing on the “perceived performance” of employees and/or directors regarding its competitors and industry (Bontis *et al.*, 2002; Real *et al.*, 2006). In our study, we used the second approach as Triguero-Sanchez *et al.* (2012) suggested, since such a measure is more appropriate for studying HRM.

To measure subjective or perceived, organizational performance, a reduced version of the measurement scale developed by Bontis *et al.* (2002) to evaluate organizations as a whole was used. This scale comprises only four items:

- Our organization is successful (regarding product quality and the development of new products)
- Our organization meets its clients' needs
- Our organization's future performance is secure
- Our organization is well respected within the industry (reputation)

An exploratory principal components analysis with varimax rotation of those four items showed that they formed only one factor with an eigenvalue >1. Furthermore, our results for the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity ( $\chi^2$ ) both offered satisfactory levels (KMO = 0.724,  $\chi^2 = 121.662^{***}$ ). The Cronbach's Alpha (CA) coefficient for the scale was 0.878, its Composite Reliability (CR) was 0.865 and its Average Variance Extracted (AVE) was 0.617.

**HRM practices:** The variables used to measure HRM practices are supported by the existing literature. We used the measuring items developed by Triguero-Sanchez *et al.* (2012), confirmed for the Spanish case with a 1-7, 38-item Likert-type scale. As we expected, all the items on the scale loaded on a single factor using principal component analysis with an eigenvalue >1. In addition, the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity ( $\chi^2$ ) both offered satisfactory levels (KMO = 0.842,  $\chi^2 = 754.415^{***}$ ). These items had a CA of 0.960, a CR of 0.951 and an AVE of 0.654. On the scale, 1 indicates high control and low commitment to the organization and 7 indicates high commitment and low control. For this variable, aspects such as personnel selection, training, evaluation, wage flexibility, job design, communication level, job stability, equal opportunities and the quality of human resource management were measured (Appendix 1).

**Diversity factors:** To evaluate the diversity constructs, we followed two steps. Firstly, we assessed them with Blau's index of heterogeneity which is broadly accepted in the social and behavioral sciences. The expression (Eq. 1) shows Blau (1977)'s index:

$$I = 1 - \sum P_i^2 \quad (1)$$

Where:

I = Blau's index

P = The proportion of people in each category studied

i = The number of categories observed

Secondly, once we had obtained the diversity indexes, they were transformed into a seven-point Likert scale (1 = low heterogeneity, 7 = high heterogeneity) with only one indicator for each measure; this analysis was necessary to obtain a parsimonious model (Triguero-Sanchez *et al.*, 2011), since the measures of organizational performance and HRM practices were evaluated based on a 7-point Likert scale. Therefore, exploratory principal components analyses were not carried out.

Constructs such as age (two items), gender (two items), ethnicity (five items) and nationality (two items) were evaluated (please see the full items in the Appendix).

Table 3: Descriptive statistics and bivariate correlations for all the variables

Variables	N	Mean	SD	1	2	3	4	5	6
Age	102	5.820	1.452	1					
Gender	102	3.580	1.619	0.078	1				
Ethnicity	102	2.570	2.223	0.243*	0.450**	1			
Nationality	102	2.350	1.844	0.223*	0.418**	0.922**	1		
Organizational performance	102	5.460	0.870	-0.112	0.101	-0.051	0.003	1	
HRM practices	102	4.194	1.309	-0.084	0.235*	-0.044	0.042	0.579**	1

\*The correlation is significant at the 0.05 level (bilateral). \*\*The correlation is significant at the 0.01 level (bilateral).  $\bar{p}<0.01$ ;  $p^*<0.05$ ; SD: Standard Deviation; N: Number of companies

Table 4: Results of the moderated regression analyses for human capital diversity and outcome variables

Variables	Model 1 (Age)	Model 2 (Gender)	Model 3 (Ethnicity)	Model 4 (Nationality)
Constant	5.59**	5.18**	4.17	3.92
Independent variables	-0.27**	0.23**	-0.33	-0.38
HRM practices	0.35**	0.38**	0.36	0.38
Independent variables x HRM practices	0.42**	0.52**	0.40	0.39
F	17.39**	20.07**	16.80	16.48
ΔF	1.28	7.03	0.61	0.01
R	0.59	0.62	0.58	0.58
R <sup>2</sup>	0.59	0.38	0.34	0.34
ΔR <sup>2</sup>	0.01	0.04	0.00	0.00
Region of Acceptance (RA)	4.01 (yes)	1.43 (yes)	NS	NS

The effects reported are standardized B; \* $p<0.05$ ; \*\* $p<0.01$ . 1. RA: The Johnson-Neyman procedure is used to find a “region” of statistical significance; NS: No Significance

As an example of the age construct, we asked the respondents to indicate the approximate percentage of employees aged under 36; based on the responses, we estimated Blau’s index for age and finally, we transformed the age index into a 7-point Likert scale (Table 3).

**Data analysis:** First, we analyzed the factor structure and reliability of all the scales using PASW Statistics 18 Software. The factor analysis and scale reliability procedures within the PASW Statistics 18 Software were carried out to assess the dimensionality and internal homogeneity of the scales (Hayes, 2013). The exploratory factor analysis (principal axis factoring with varimax rotation) identified HRM practices and perceived organizational performance as factors with good factor loadings which was consistent with the model that we proposed. As described in the “Criterion variables” and “Predictor variables” sections, the reliabilities for all the constructs exceeded Nunnally (1978)’s, recommended level of 0.70. Second, following Dawson (2014)’s recommendations, we conducted mean centering (i.e., subtracting the mean from the value of the original variable so that it has a mean of 0) for the HRM practices and organizational performance constructs. This procedure ensures that the (unstandardized) regression coefficients of the main effects can be interpreted directly in terms of the original variables (Hayes, 2013). It is important to mention that there are other alternative processes. However, as Dawson (2014) stated such procedures lead to identical results. Finally, we carried out the moderated regression analyses using an online resource. The results of this analysis are shown in Table 4.

The results of the correlation analysis (Table 4) show that diversity in age is positively correlated with ethnicity ( $p = 0.243^*$ ) and nationality ( $p = 0.223^*$ ) in the same manner as also happened with gender ( $p = 0.450^{**}$ ) and nationality ( $p = 0.418^{**}$ ), making it clear that greater dispersion in the origin of employees (nationalities) involves greater dispersion in their ethnicity ( $p = 0.922^{**}$ ). However, no significant correlation is observed between age and gender ( $p = 0.078$ ). Regarding the dependent variable, our data show that there is no significant correlation with the other variables in the study except for HRM practices ( $p = 0.579^{**}$ ) which strengthens our econometric model and confirms the results found in the literature review. Moreover, HRM practices seem to be correlated with gender ( $p = 0.235^*$ ). This indicates the importance of diversity in gender for the composition of the working groups in HR policy and management.

Together, these results provide important insights into the moderating effects of the variables under study on the diversity variables: moderating effects are shown for age ( $B = -0.27^{**}$ ;  $RA = 4.01$ ) and gender ( $B = 0.23^{**}$ ;  $RA = 1.43$ ) whereas ethnicity shows no moderating effect ( $B = -0.33$ ;  $RA = 0.00$ ) and nor does nationality ( $B = -0.38$ ;  $RA = 0.00$ ) (Table 4). The next section, therefore, moves on to discuss such results in detail.

## RESULTS AND DISCUSSION

Hypothesis 1 evaluated the moderator effect that age has on the relationship between HRM practices and organizational performance (Table 4); our results show great statistical significance (Value Moderator (VM) = 4.01). Thus, hypothesis  $H_1$  is confirmed



( $\beta = -0.27^{**}$ ). Therefore, such results indicate (model 1) that the smaller the age differences in the workforce (a more homogeneous workforce in terms of age), the more HR policies focusing on commitment will favor organizational performance. These findings are in line with the suggestion made by Kooij *et al.* (2010), that is, employees' priorities change with age and as a result, their response to HR changes too. Thus, older employees have different priorities and respond more positively to HR practices reflecting such priorities. In general, we can detect a change of approach in individuals, focusing more on promotion at younger ages and on maintenance and prevention at older ages; development needs decrease with age whereas safety needs increase. Consequently, in more homogeneous age groups, commitment-focused HR practices favor business performance since the employee priorities are more similar.

Hypothesis 2 evaluated the moderator effect of gender diversity on the relationship between HRM practice and organizational performance; our results show statistical significance ( $VM = 1.43$ ). Thus, hypothesis  $H_2$  is confirmed ( $\beta = 0.23^{**}$ ). These results indicate that senior managers' perception of the performance of their organizations is better when they have a balanced composition in terms of men and women. This is in line with the studies carried out by Hoffman and Maier (1961), Hoffman *et al.* (1962), Chatman *et al.* (1998), Watson *et al.* (1998), Jehn *et al.* (1999) and Kochan *et al.* (2003) which indicated that greater gender diversity is associated, among others with greater commitment, improvement in the quality of ideas and solutions and better performance. According to the gender role theory (Eagly and Karau, 1991), men and women place differential emphasis on research and family roles due to the stereotypes associated with the roles that they occupy. At certain levels, employees may place a higher priority on achieving an acceptable balance between personal and professional life (Guest, 2011). Thus, for example and as result of the differential socialization process on the grounds of gender, men and women may prefer different employment compensations (Barbulescu and Bidwell, 2003). Some studies have revealed that women may face greater problems than men that cause work-life conflicts (Gorman and Kmec, 2007) and therefore they appreciate easy access and a good schedule more than men do (Konrad *et al.*, 2000) and they may prefer jobs that are more compatible with family demands which provide them with predictable schedules and the possibility of temporarily leaving their job in the case of emergencies related to their home (Brett and Stroh, 2003). The implementation of commitment-focused HR policies, specifically job design and equality, has more positive impacts on perceived performance when gender diversity exists.

On the other hand, other studies have found that the gender distribution in an occupation is correlated with the perspective of being successful (Cejka and Eagly, 1999), so women expect that there will be a smaller possibility for them to find a job in areas in which there is a tradition of discrimination against them. Therefore, they would be expected to prefer organizational cultures and leaders who do not accept discrimination or at least take a passive attitude towards it. Thus, when gender diversity exists, the perspectives of women on being successful within the organization are better and have positive impacts on organizational performance.

Hypotheses 3 and 4 evaluated the moderator effect of ethnicity and nationality on the relationship between HRM practice and organizational performance; we must reject these hypotheses, since the values of their moderating effect are outside the acceptance range, according to Johnson-Neyman (Hunka and Leighton, 1997). These results suggest that organizational performance and the implementation of HR policies in Spanish firms do not depend on factors such as the ethnic diversity and country of origin of their employees. Bear in mind that the manpower of Spanish companies still remains quite homogeneous as far as ethnicity and nationality are concerned. Our results satisfy the interest of a large number of academics, since the study delved into the effects of employee diversity (Van Knippenberg and Schippers, 2007). Thus, our work aimed to address the previously neglected study of moderating variables in HRM practices and diversity management as Van Knippenberg and Schippers (2007) and Guest (2011) pointed out and to shed some light on the so-called "black box" of diversity. In addition, it follows the current of thought that says that the effects of diversity can be contradictory (Richard *et al.*, 2007) as we found with the variables gender and age. In this sense, our study is in line with the research by Woehr *et al.* (2013) and Hollenbeck *et al.* (2004), who argued that the indicators related to age and gender might provide moderating effects in the relation between HR practices and organizational performance.

## CONCLUSION

The prevailing need to manage employees' diversity by formulating and implementing human resource practices that affect firm performance has become evident. It is clear that staff diversity might have positive effects within a firm. Hence, there is no doubt that it should be managed; otherwise, we would probably only find harmful effects.

In relation to the driving factors of diversity as moderators of the relationship between HRM practices and firm performance, our study has shown that the age

and gender in the organizations are key elements to be taken into account when configuring an HRM practices system.

The data show that organizations' HR policies and practices have positive effects on organizational performance when they strive to gain employees' commitment.

Far from presenting a direct relation between HRM practices and organizational performance, a measured level of diversity emerged. Indeed, as previous research has reported, HRM practices determine their effects on organizational performance when the level of diversity is taken into account (Jayne and Dipboye, 2004; Richard *et al.*, 2004).

Furthermore, all the HRM practices studied showed positive effects on organizational performance, in particular practices related to quality in the workplace, such as quality programs in management, employee participation in solving organizational problems, the establishment of quality circles, the existence of team work improvements and to a large extent, the achievement of employees' commitment through quality assurance in their work. At the same time, the activities carried out by the organization for all employees to benefit from equal opportunities have become a valuable indicator of HR practices. The design of the work position is another HR practice that allows the existence of multifunctional teams in which an adequate job design or the existence of suitably qualified employees with regard to the competences attributed and/or attributable (flexibility) plays an essential role in configuring competitive advantage that is, they contribute to improving performance.

Employee training and stability are also key factors, especially in some key positions, in which these aspects are considered to be very important for the organization's future and employees' career paths. Furthermore, along with job design, the selection process plays a role in organizations that seek their employees' commitment. Evaluation and valuation have also been shown to be highly relevant to HRM. One example is that companies inform their employees about their economic and financial situation to achieve their involvement in, commitment to and cooperation regarding the organization's common objectives. Therefore, communication becomes another important factor in achieving such results. Finally, the policy of offering incentives based on work performance (awards for productivity, group performance and participation in the profits) also appears to be an important factor in HRM practices.

On the other hand, greater gender diversity seems to have an impact on the perception that managers have of

their organization. This aspect must also be considered since greater gender diversity is associated with a better corporate image (Siciliano, 1996). As well as firms having the ability to gain benefits in aspects such as firm success (regarding product quality and the development of new products), they can gain knowledge in relation to meeting their clients' need and earning a good industry reputation.

## IMPLICATIONS

The findings of this study have a number of important implications for future practice. The best outcomes in the implementation of HR policies focusing on commitment are achieved when age is more homogeneous; similar ages determining similar priorities allowing for the sharing of knowledge and experience and preventing conflicts among members from very different areas allow HR commitment-focused practices to translate into a better organizational performance. However, the more diverse a workforce is in terms of gender, the greater the likelihood that this outcome can be achieved. HR commitment practices, specifically job design and equality, may have more positive impacts on perceived performance when gender diversity exists because men and women place differential emphasis on work and family roles and women appreciate easy access and a good schedule more than men do.

Another important practical implication is that HR managers must pay greater attention to variables such as employee age, taking into account the fact that organizations currently operate in fast-changing and uncertain environments (Pena-Vinces *et al.*, 2012). Therefore, they must consider in their policies that their HR should not cover a very large age range, since this seems to have a positive impact on business management.

HRM managers must pay attention to the design of their strategies for diversity of HR, since they do not all have positive effects on organizational performance, as is the case of ethnicity and nationality when Spanish firms are evaluated.

An implication of these findings for the society is apparent for the first time. Four different generations are working together in one work environment, introducing an unprecedented challenge to the market since each of them has its own needs, characteristics and ways of working (SI, 2008).

Traditionals were born between 1928-1945, Boomers from 1946-1964, Generation X (known in Spain as Baby Boomers because of our historic difference) were born between 1965 and 1978 and the youngest generation is Gen Y, born between 1979 and 2000.

Today we have a higher percentage of workers leaving firms than joining them. In the coming years, 50 million European workers will retire and only 20 million will enter the labor market. In this situation, valuable experience disappears from the labor market. The HRM practices and the way in which businesses design them will become a crucial part of companies.

### LIMITATIONS

A limitation of the study is that we must be careful with the findings because the study focused on a specific region with its own particular culture. Further, work needs to be undertaken to establish whether other geographical areas with different cultures are needed to generalize our findings. Additionally, we recognize the small size of the sample which not allow global conclusions to be made for the HRM literature.

Further, research might also explore each of the HRM practices separately to determine which have more influence on organizational performance when they are constrained by employees' diversity.

### APPENDIX

#### Appendix 1 (The full survey):

##### Diversity factors (estimated by means of the Blau index):

###### Age:

- Approximate percentage of employees in your organization's workforce aged <36 years
- Approximate percentage of employees in your organization's workforce aged between 36 and 45 years

###### Gender:

- Approximate percentage of women working in your company with respect to the total
- Approximate percentage of men working in your company with respect to the total

###### Ethnicity:

- Approximate percentage of black employees
- Approximate percentage of Caucasian employees (Europeans or European origin)
- Approximate percentage of Native American employees
- Approximate percentage of employees of North African, Persian or Arabic origin
- Approximate percentage of employees of other races (Roma, Asian ...)

###### Nationality:

- Approximate percentage of foreign employees
- Approximate percentage of national employees

##### HRM practices: Where: 1 = fully disagree and 7 = fully agree

###### Selection:

- Our company has processes of recruitment and selection that can fill up all the available vacancies
- As part of the selection process, applicants are informed about the negative aspects of the job
- In our company, we have developed systems to select personnel (in addition to interviews and/or curriculum analysis)
- Our company has processes of recruitment and selection that can fill up all the available vacancies
- As part of the selection process, applicants are informed about the negative aspects of the job
- In our company, we have developed systems to select personnel (in addition to interviews and/or curriculum analysis)

###### Training:

- Our firm offers training for those positions considered to be "key positions"
- All employees receive training for their jobs (without any legal requirement)
- When employees receive training, their performance improves
- When employees receive training, it is often relevant to their future/career in the company (job promotions)
- Non-management employees are generally measured by a performance appraisal
- Non-management employees receive part of their salary based on performance
- Normally non-management employees are informed of their performance through information provided by third parties (e.g., superiors, customers, suppliers ...)

###### Flexible remuneration:

- Non-management employees are remunerated according to their individual performance
- Non-management employees are remunerated according to their group performance
- Non-management employees have the right to receive monetary incentives
- Non-management employees have the right to receive other types of incentives such as profit-sharing, bonuses, recognition

###### Job design:

- There is a strong implementation of self-managed or self-directed teams
- There is a strong implementation of multi-functional teams
- There is a strong presence of "project-based teams"
- There is a strong implementation of flexi-jobs (flexi-time, online work, video conferencing, measures to strike a balance between work and family life)
- Most jobs have been designed for employees to optimize their skills and strengths
- Most employees are well qualified or are able to develop new skills
- Employees are given the opportunity to change jobs

###### Bidirectional communication:

- The firm provides its employees with regular information about business operations and business behavior
- Employees are consulted to know their views and opinions
- The firm provides employees with information about the business plan on a regular basis
- The organization has mechanisms to consult employees about plans and future projects of the firm
- We consult employee representatives before setting the performance target (individual, group)

###### Job stability:

- Vacancies that require experience are filled by internal promotion
- The organization regularly allows internal promotion
- The organization is committed to secure job stability
- Employees are often made redundant

###### Equality:

- The organization carries out actions to ensure that all employees have equal opportunities

###### Job quality:

- The organization gives employees the opportunity to engage in problem-solving situations
- The organization has a strong presence of quality circles
- The organization facilitates the involvement of its employees in improving teamwork
- Employees feel committed when assured of the quality of their work

##### Organizational performance (perceived): Where 1 = fully disagree and 7 = fully agree:

- Our organization is successful (regarding product quality and the development of new products)
- Our organization meets its clients' needs
- Our organization's future performance is secure
- Our organization is well respected within the industry (reputation)

**REFERENCES**

- Ancona, D.G. and D.F. Caldwell, 1992. Demography and design: Predictors of new product team performance. *Organiz. Sci.*, 3: 321-341.
- Barbulescu, R. and M. Bidwell, 2013. Do women choose different jobs from men? Mechanisms of application segregation in the market for managerial workers. *Organiz. Sci.*, 24: 737-756.
- Barney, J.B. and P.M. Wright, 1998. On becoming a strategic partner: The role of human resources in gaining competitive advantage. *Hum. Resour. Manage.*, 37: 31-46.
- Benschop, Y., 2001. Pride, prejudice and performance: Relations between HRM, diversity and performance. *Int. J. Hum. Resour. Manage.*, 12: 1166-1181.
- Blau, P.M., 1977. *Inequality and Heterogeneity: A Primitive Theory of Social Structure*. Free Press, New York, USA., ISBN-13: 978-0029036600, Pages: 307.
- Bochner, S. and B. Hesketh, 1994. Power distance, individualism/collectivism and job-related attitudes in a culturally diverse work group. *J. Cross-Cult. Psychol.*, 25: 233-257.
- Bontis, N., M.M. Crossan and J. Hulland, 2002. Managing an organizational learning system by aligning stocks and flows. *J. Manage. Stud.*, 39: 437-469.
- Boselie, P., G. Dietz and C. Boon, 2005. Commonalities and contradictions in HRM and performance research. *Hum. Resour. Manage. J.*, 15: 67-94.
- Bowen, D.E. and C. Ostroff, 2004. Understanding HRM-Firm performance linkages: The role of the strength of the HRM system. *Acad. Manage. Rev.*, 29: 203-221.
- Boxall, P. and J. Purcell, 2000. Strategic human resource management: Where have we come from and where should we be going? *Int. J. Manage. Rev.*, 2: 183-203.
- Brett, J.M. and L.K. Stroh, 2003. Working 61 plus hours a week: Why do managers do it? *J. Applied Psychol.*, 88: 67-78.
- Brooks, A.K. and T. Clunis, 2007. Where to now? Race and ethnicity in workplace learning and development research: 1980-2005. *Hum. Resour. Dev. Q.*, 18: 229-251.
- Byrne, D.E., 1971. *The Attraction Paradigm*. Vol. 11, Academic Press, New York, USA., Pages: 474.
- Cejka, M.A. and A.H. Eagly, 1999. Gender-stereotypic images of occupations correspond to the sex segregation of employment. *Pers. Social Psychol. Bull.*, 25: 413-423.
- Chatman, J.A., J.T. Polzer, S.G. Barsade and M.A. Neale, 1998. Being different yet feeling similar: The influence of demographic composition and organizational culture on work processes and outcomes. *Admin. Sci. Q.*, 43: 749-780.
- Chattopadhyay, P., M. Tluchowska and E. George, 2004. Identifying the ingroup: A closer look at the influence of demographic dissimilarity on employee social identity. *Acad. Manage. Rev.*, 29: 180-202.
- Chew, I.K.H. and B. Sharma, 2005. The effects of culture and HRM practices on firm performance: Empirical evidence from Singapore. *Int. J. Manpower*, 26: 560-581.
- Cleveland, J.N. and L.M. Shore, 1992. Self and supervisory perspectives on age and work attitudes and performance. *J. Applied Psychol.*, 77: 469-484.
- Cornelius, N., 2002. *Building Workplace Equality: Ethics, Diversity and Inclusion*. Cengage Learning EMEA, Boston, MA., ISBN-13: 978-1861525857, Pages: 320.
- Cropanzano, R. and M.S. Mitchell, 2005. Social exchange theory: An interdisciplinary review. *J. Manage.*, 31: 874-900.
- Dalrymple, J.F., 2004. Performance measurement for SME growth: A business profile benchmarking approach. Proceedings of the 2nd World Conference on POM and 15th Annual POM Conference, April 30-May 3, 2004, Cancun, Mexico.
- Dawson, J.F., 2014. Moderation in management research: What, why, when and how. *J. Bus. Psychol.*, 29: 1-19.
- Den Hartog, D.N., C. Boon, R.M. Verborg and M.A. Croon, 2013. HRM, communication, satisfaction and perceived performance: A cross-level test. *J. Manage.*, 39: 1637-1665.
- Eagly, A.K. and S.J. Karau, 1991. Gender and the emergence of leaders: A meta-analysis. *J. Pers. Social Psychol.*, 60: 685-710.
- Earley, C.P. and E. Mosakowski, 2000. Creating hybrid team cultures: An empirical test of transnational team functioning. *Acad. Manage. J.*, 43: 26-49.
- Elder, G.H., 1975. Age Differentiation and the Life Course. In: *Annual Review of Sociology*, Inkeles, A., J. Coleman and N. Smelser (Eds.). Palo Alto, California, pp: 165-190.
- Ely, R.J. and D.A. Thomas, 2001. Cultural diversity at work: The effects of diversity perspectives on work group processes and outcomes. *Admin. Sci. Q.*, 46: 229-273.
- Erhardt, N.L., J.D. Werbel and C.B. Shrader, 2003. Board of director diversity and firm financial performance. *Corporate Governance: An Int. Rev.*, 11: 102-111.

- Foulkes, F.K., 1980. *Personnel Policies in Large Nonunion Companies*. Prentice-Hall, Englewood Cliffs, NJ., ISBN-13: 9780136603085, Pages: 354.
- Goll, I., N.B. Johnson and A.A. Rasheed, 2008. Top management team demographic characteristics, business strategy and firm performance in the US airline industry. *Manage. Decis.*, 46: 201-222.
- Gooderham, P., E. Parry and K. Ringdal, 2008. The impact of bundles of strategic human resource management practices on the performance of European firms. *Int. J. Hum. Resour. Manage.*, 19: 2041-2056.
- Gorman, E.H. and J.A. Kmec, 2007. We (have to) try harder: Gender and required work effort in Britain and the United States. *Gender Soc.*, 21: 828-856.
- Guest, D.E., 1987. Human resource management and industrial relations. *J. Manage. Stud.*, 24: 503-521.
- Guest, D.E., 1997. Human resource management and performance: A review and research agenda. *Int. J. Hum. Resour. Manage.*, 8: 263-276.
- Guest, D.E., 2011. Human resource management and performance: Still searching for some answers. *Hum. Resour. Manage. J.*, 21: 3-13.
- Guest, D.E., N. Conway and P. Dewe, 2004. Using sequential tree analysis to search for bundles of HR practices. *Hum. Resour. Manage. J.*, 14: 79-96.
- Harrison, D.A., K.H. Price, J.H. Gavin and A.T. Florey, 2002. Time, teams and task performance: Changing effects of surface- and deep-level diversity on group functioning. *Acad. Manage. J.*, 45: 1029-1045.
- Hayes, A.F., 2013. *Introduction to Mediation, Moderation and Conditional Process Analysis: A Regression-Based Approach*. 1st Edn., The Guilford Press, New York, USA., ISBN-13: 978-1609182304, Pages: 507.
- Hoffman, L.R. and N.R.F. Maier, 1961. Quality and acceptance of problem solutions by members of homogeneous and heterogeneous groups. *J. Abnormal Social Psychol.*, 62: 401-407.
- Hoffman, L.R., E. Harburg and N.R.F. Maier, 1962. Differences and disagreement as factors in creative group problem solving. *J. Abnormal Social Psychol.*, 64: 206-214.
- Hogg, M.A. and D. Abrams, 1988. *Social Identifications: A Social Psychology of Intergroup Relations and Group Processes*. Routledge, London, UK., ISBN-13: 9780415006958, Pages: 268.
- Hollenbeck, J.R., D.S. DeRue and R. Guzzo, 2004. Bridging the gap between I/O research and HR practice: Improving team composition, team training and team task design. *Hum. Resour. Manage.*, 43: 353-366.
- Hunka, S. and J. Leighton, 1997. Defining Johnson-Neyman regions of significance in the three-covariate ANCOVA using mathematica. *J. Educ. Behav. Stat.*, 22: 361-387.
- Jabbour, C.J.C. and F.C.A. Santos, 2008. The central role of human resource management in the search for sustainable organizations. *Int. J. Hum. Resour. Manage.*, 19: 2133-2154.
- Jackson, S.E., A. Joshi and N.L. Erhardt, 2003. Recent research on team and organizational diversity: SWOT analysis and implications. *J. Manage.*, 29: 801-830.
- Jayne, M.E.A. and R.L. Dipboye, 2004. Leveraging diversity to improve business performance: Research findings and recommendations for organizations. *Hum. Resour. Manage.*, 43: 409-424.
- Jehn, K.A., G.B. Northcraft and M.A. Neale, 1999. Why differences make a difference: A field study of diversity, conflict and performance in workgroups. *Admin. Sci. Q.*, 44: 741-763.
- Kilduff, M., R. Angelmar and A. Mehra, 2000. Top management-team diversity and firm performance: Examining the role of cognitions. *Organiz. Sci.*, 11: 21-34.
- Kmec, J.A. and E.H. Gorman, 2010. Gender and discretionary work effort: Evidence from the United States and Britain. *Work Occupat.*, 37: 3-36.
- Kochan, T., K. Bezrukova, R. Ely, S. Jackson and A. Joshi *et al.*, 2003. The effects of diversity on business performance: Report of the diversity research network. *Hum. Resour. Manage.*, 42: 3-21.
- Konrad, A.M., J.E. Ritchie Jr., P. Lieb and E. Corrigan, 2000. Sex differences and similarities in job attribute preferences: A meta-analysis. *Psychol. Bull.*, 126: 593-641.
- Kooij, D.T.A.M., P.G.W. Jansen, J. Dikkers and A.H. de Lange, 2010. The influence of age on the associations between HR practices and both affective commitment and job satisfaction: A meta-analysis. *J. Organiz. Behav.*, 31: 1111-1136.
- Lawler, E.E., 1992. *The Ultimate Advantage: Creating the High-involvement Organization*. Jossey-Bass, San Francisco, Pages: 371.
- Lawrence, B.S., 1997. The black box of organizational demography. *Organiz. Sci.*, 8: 1-22.
- Lovelace, K., D.L. Shapiro and L.R. Weingart, 2001. Maximizing cross-functional new product teams' innovativeness and constraint adherence: A conflict communications perspective. *Acad. Manage. J.*, 44: 779-793.
- Major, D.A., V.J. Morganson and H.M. Bolen, 2013. Predictors of occupational and organizational commitment in information technology: Exploring gender differences and similarities. *J. Bus. Psychol.*, 28: 301-314.

- Martin-Alcazar, F., P.M. Romero-Fernandez and G. Sanchez-Gardey, 2012. Effects of diversity on group decision-making processes: The moderating role of human resource management. *Group Decis. Negot.*, 21: 677-701.
- McLeod, P.L. and S.A. Lobel, 1992. The effects of ethnic diversity on idea generation in small groups. *Acad. Manage. Proc.*, 1: 227-231.
- McMillan-Capehart, A., 2005. A configurational framework for diversity: Socialization and culture. *Personnel Rev.*, 34: 488-503.
- Muchiri, M.K. and O.B. Ayoko, 2013. Linking demographic diversity to organisational outcomes: The moderating role of transformational leadership. *Leadersh. Organiz. Dev. J.*, 34: 384-406.
- Natario, M.M.S., L.M.C.A. Nunes and A.C.O. Goncalves, 2012. Identify cultural patterns in the cities of Guarda and Covilha. *Rev. Applied Manage. Stud.*, 10: 27-38.
- Nishii, L.H. and P.M. Wright, 2008. Variability within Organizations: Implications for Strategic Human Resource Management. In: *The People Make the Place: Dynamic Linkages between Individuals and Organizations*, Smith, D.B. (Ed.). Taylor and Francis Group, New York, USA., pp: 225-248.
- Nunnally, J.C., 1978. *Psychometric Theory*. 2nd Edn., McGraw-Hill, New York, USA., ISBN-13: 9780070474659, Pages: 701.
- O'Reilly, C.A., J. Chatman and D.F. Caldwell, 1991. People and organizational culture: A profile comparison approach to assessing person-organization fit. *Acad. Manage. J.*, 34: 487-516.
- Ostroff, C. and D.E. Bowen, 2000. Moving HR to a Higher Level: HR Practices and Organizational Effectiveness. In: *Multilevel Theory, Research and Methods in Organizations: Foundations, Extensions and New Directions*, Klein, K.J. and S.W.J. Kozlowski (Eds.). Jossey-Bass, San Francisco, CA., ISBN-13: 978-0787952280, pp: 211-266.
- Pelled, L., K. Eisenhardt and K. Xin, 1997. Demographic diversity in work groups: An empirical assessment of linkages to intragroup conflict and performance. Working Paper, School of Business, University of Southern California, USA.
- Pelled, L.H., 1996. Demographic diversity, conflict and work group outcomes: An intervening process theory. *Organiz. Sci.*, 7: 615-631.
- Pena-Vinces, J.C., G. Cepeda-Carrion and W.W. Chin, 2012. Effect of ITC on the international competitiveness of firms. *Manage. Decis.*, 50: 1045-1061.
- Peters, T.J. and R.H. Waterman, 1982. *Search of Excellence*. Harper and Row, New York, USA.
- Pettigrew, T.F., 1998. Intergroup contact theory. *Ann. Rev. Psychol.*, 49: 65-85.
- Pfeffer, J., 1983. *Organizational Demography*. In: *Research in Organizational Behavior*, Staw, B. and I. Cummings (Eds.). Vol. 5, JAI Press, Greenwich, CT., pp: 299-357.
- Pheng, S.L. and S. Yuquan, 2002. An exploratory study of Hofstede's cross-cultural dimensions in construction projects. *Managerial Decis.*, 40: 7-16.
- Podsakoff, P.M. and D.W. Organ, 1986. Self-reports in organizational research: Problems and prospects. *J. Manage.*, 12: 531-544.
- Pudelko, M., 2001. A contribution to overcome the universalism-particularism-controversy in cross-national management research. Proceedings of the 16th Workshop on Strategic Human Resource Management, August 12-16, 2001, San Antonio, Texas, USA.
- Real, J.C., A. Leal and J.L. Roldan, 2006. Information technology as a determinant of organizational learning and technological distinctive competencies. *Ind. Market. Manage.*, 35: 505-521.
- Redman, T. and E. Snape, 2006. The consequences of perceived age discrimination amongst older police officers: Is social support a buffer? *Br. J. Manage.*, 17: 167-175.
- Richard, O.C. and N.B. Johnson, 2001. Understanding the impact of human resource diversity practices on firm performance. *J. Manage. Issues*, 13: 177-195.
- Richard, O.C., B.P. Murthi and K. Ismail, 2007. The impact of racial diversity on intermediate and long-term performance: The moderating role of environmental context. *Strat. Manage. J.*, 28: 1213-1233.
- Richard, O.C., T. Barnett, S. Dwyer and K. Chadwick, 2004. Cultural diversity in management, firm performance and the moderating role of entrepreneurial orientation dimensions. *Acad. Manage. J.*, 47: 255-266.
- SI., 2008. *The European world of work*. IPSOS for Steelcase International (SI), USA.
- Siciliano, J.I., 1996. The relationship of board member diversity to organizational performance. *J. Bus. Ethics*, 15: 1313-1320.
- Subeliani, D. and G. Tsogas, 2005. Managing diversity in the Netherlands: A case study of Rabobank. *Int. J. Hum. Resour. Manage.*, 16: 831-851.
- Tajfel, H., 1981. *Human Groups and Social Categories: Studies in Social Psychology*. Cambridge University Press, Cambridge, UK., ISBN-13: 9780521228398, Pages: 369.
- Triandis, H.C., 2004. The many dimensions of culture. *Acad. Manage. Execut.*, 18: 88-93.

- Triguero-Sanchez, R. and J.C. Pena-Vinces, 2013. Collectivist culture as a determining of organizational performance through human resource practices. *Investigaciones Europeas Direccion Economia Empresa*, 19: 158-168.
- Triguero-Sanchez, R., J.C. Pena-Vinces and M. Sanchez-Apellaniz, 2011. HRM in Spain its diversity and the role of organizational culture: An empirical study. *Eur. J. Social Sci.*, 26: 389-407.
- Triguero-Sanchez, R., J.C. Pena-Vinces, M. Gonzalez-Rendon and M. Sanchez-Apellaniz, 2012. Human resource management practices aimed to seek the commitment of employees on the financial and non-financial (subjective) performance in Spanish firms: An empirical contribution. *J. Econ. Finance Admin. Sci.*, 17: 17-30.
- Turner, J.C., 1985. Social Categorization and the Self-Concept: A Social Cognitive Theory of Group Behavior. In: *Advances in Group Processes: Theory and Research*, Lawler, E.J. (Ed.). Vol. 2, JAI Press, Greenwich, CT., pp: 77-122.
- Turner, J.C., 1987. *Rediscovering the Social Group: A Self-Categorization Theory*. B. Blackwell Publisher, Oxford, UK., ISBN-13: 9780631148067, Pages: 239.
- Van Knippenberg, D. and M.C. Schippers, 2007. Work group diversity. *Ann. Rev. Psychol.*, 58: 515-541.
- Walton, R.E., 1985. From control to commitment in the workplace. *Harvard Bus. Rev.*, 63: 77-84.
- Watson, W.E., L. Johnson and D. Merritt, 1998. Team orientation, self-orientation and diversity in task groups: Their connection to team performance over time. *Group Organiz. Stud.*, 23: 161-188.
- Wegge, J., C. Roth, B. Neubach, K.H. Schmidt and R. Kanfer, 2008. Age and gender diversity as determinants of performance and health in a public organization: The role of task complexity and group size. *J. Applied Psychol.*, 93: 1301-1313.
- Williams, H.M., S.K. Parker and N. Turner, 2007. Perceived dissimilarity and perspective taking within work teams. *Group Organiz. Manage.*, 32: 569-597.
- Williams, K.Y. and C.A. O'Reilly, 1998. Demography and Diversity in Organizations: A Review of 40 Years of Research. In: *Research in Organizational Behavior*, Staw, B. and R. Sutton (Eds.). Vol. 20, JAI Press, Greenwich, CT., pp: 77-140.
- Woehr, D.J., L.M. Arciniega and T.L. Poling, 2013. Exploring the effects of value diversity on team effectiveness. *J. Bus. Psychol.*, 28: 107-121.