

# The impact of diversity and equality management systems on organisational dynamics: an Exploratory Analysis in small and medium enterprises

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## Abstract

The impact of Diversity and Equality Management Systems (DEMS) on organizational dynamics is a hot topic in scholarly debate. Human resource management practices targeted towards diversity and equality, such as recruitment and selection, compensation, training, mentorship, and development, constitute core components of DEMS. This study aims to assess which DEMS practices, if any, are implemented by SMEs to address the specific needs of minority and/or other disadvantaged groups and their effects on individual and collective performances. A tailored survey was administered to a sample of Italian make-to-order production SMEs in the furniture, textile-fashion, and mechanical sectors. The quantitative study examines whether companies implementing traditional High-Performance Work Systems (HPWS) are more sensitive to diversity and equality issues. Subsequently, the investigation focuses on gauging the impact of DEMS on individual and collective performances. Results indicate that DEMS practices are more prevalent in organizations accustomed to implementing advanced HPWS. Additionally, belonging to a formal business group contributes to the successful implementation of DEMS. The study's findings guide human resource managers to view diversity and equality management as an opportunity to enhance organizational well-being and improve group performances.

## 1. Introduction

The theory of the strategic role of human resources has been the foundation for research aimed at demonstrating the significance of human resource management (HRM) systems in achieving organizational goals (Guest, 1987). Since the mid-1990s, a multitude of exploratory scientific articles and case studies have illustrated a positive correlation between the presence of HRM systems and the operational and financial performance of firms (Huselid et al., 1997). Consequently, many researchers and practitioners have focused on identifying synergistic practices that optimize the value obtainable through human resources. This focus has led to the theorization of High-Performance Work Systems (HPWS), *i.e.*, organizational environments capable of implementing the best human resource management practices. Nowadays, the International Labour Organization defines a High-Performance Work System (HPWS) as characterized by the full implementation of five Human Resources (HR)-related elements: 1) people management, 2) employee involvement, 3) training and development, 4) work organization, and 5) diversity and equality practices (Armstrong et al., 2010).

While it has been over 30 years since companies and scholars recognized the first four elements as levers for operational and financial performance, acknowledgment of the fifth one occurred recently (Yadav and Lenka, 2020).

However, the topic of diversity and equality is not unfamiliar; it has been at the center of U.S., Indian, and European labor policy since the late 1960s (Armstrong et al., 2010). A plethora of laws were enacted to regulate the inclusion of minorities and disadvantaged people in the workplace and promote equality of opportunity (Armstrong et al., 2010). Since then, equality and diversity have been at the center of political debates in many countries. Nevertheless, it is only in the past two decades that researchers have realized the need to expand the concept of HPWS to include practices related to the effective management of minorities, gender diversity, and equality (Armstrong et al., 2010; Yadav and Lenka, 2020). Hence, the shift from a political to an organizational view of managing equality and diversity has only recently occurred. This shift is nurtured by the transformation of the labor market and social changes.

The evolution of perceptions, debates, and viewpoints on diversity and equality has led, in the field of organizational management, to the emergence of research strands on the management of this topic. Nowadays, two definitions are very useful for understanding the phenomena of diversity and equality management. The first, proposed by Bartz et al. (1990), states that diversity management is an approach that requires sensitizing and understanding the differences between employees and addressing differences as an organizational lever for more efficient and effective work. The second, proposed by Gagnon and Cornelius (2002, p.36), states that diversity management is an approach that responds to employees' needs not through equality in an absolute sense but through the 'differences' of equality determined by people's distinctive characteristics and needs. In short, values, culture, and gender must be considered as distinctive traits on which to model human resources management systems to seek inclusion, valorization, commitment, and attractiveness.

The importance of High-Performance Work Systems (HPWS) and its Diversity and Equality Management Systems (DEMS) pillar is particularly crucial today in light of current competitive forces that compel firms to confront unprecedented challenges in achieving organizational sustainability. This is especially true for small and medium-sized enterprises (SMEs), where human resources are not only one of the main levers of competitive success but also undoubtedly the primary distinguishing asset (Carlson, Upton, and Seaman, 2006; De Kok and Uhlaner, 2001).

While large companies can more easily contend with competition by leveraging a greater amount of resources, SMEs struggle to differentiate themselves from competitors through process and product innovation, product customization, and organizational flexibility (Petroni, Zammori, Marolla, 2017). SMEs can only remain competitive by responding to both the explicit and implicit needs of customers, necessitating a re-evaluation of their business models to achieve strategic goals and improve processes at both operational and managerial levels (Osei-Bonsu, 2016). As many authors have emphasized, the first and most crucial step in the improvement and transformation journey of SMEs is the effective management of human resources (HR) (Datta, Guthrie, and Wright, 2005; Hayton, 2004; Curado, 2017).

In light of these observations, various research strands (such as knowledge management, talent management, recruitment strategies, team management, etc.) have been undertaken to assess the impact of HR on the competitiveness of SMEs. Specifically, regarding operational performance, these studies demonstrate that the effective implementation of practices to

attract, accumulate, train, and retain people has positive implications for workforce commitment, adaptability to change, creativity, and innovation (Bilan et al., 2020; Della Torre et al., 2017; Guerrero, Cayrat, and Cossette, 2022; Della Torre et al., 2017).

Many authors have highlighted that, while competitors may have similar technological, structural, and capital resources, human resources and human capital are unique to each company (De Kok and Uhlener, 2001; Guerrero, Cayrat, and Cossette, 2022). Thus, two other aspects crucial for the competitiveness of SMEs are the attractiveness of high-potential workers and the ability to retain skilled human resources over time (Bilan et al., 2020; Della Torre et al., 2017).

The converging views on the importance of HR in SMEs have prompted many authors to study the impact of HPWS on HR performance. Although there are numerous studies on HPWS in SMEs, the DEMS pillar is, in most cases, excluded from the analysis. The few articles that focus on DEMS in SMEs analyse such approaches as if they were practices in their own right and not as pillars of an HPWS. Moreover, the impact of DEMS on SME performance is still an under-explored topic that deserves further study.

Nevertheless, while most studies show that the absence of diversity management negatively affects the company's attractiveness, HR retention, and organizational performance, there are mixed results regarding improvements in operational and financial performance related to the application of DEMS (Armstrong et al., 2010). Inconsistent results highlight the complexity of diversity issues and the impossibility of generalizing the results without a deep contextualization of extant studies (Yadav and Lenka, 2020; Verheij, Groeneveld, and Kuyper, 2017).

Since the future prospects of SMEs in Italy depend on HR as key players (Camuffo and Comacchio, 2005), this article aims to shed light on the controversial point regarding DEMS in SMEs. More specifically, this study seeks to assess which diversity and equality practices, if any, are implemented by SMEs and what their effects are on individual and collective performance. Since DEMS is a pillar of HPWS, the article aims to explore whether there is a relationship between this pillar and the other four. The following questions summarize the paper's objectives:

- Q1. Do MTO SMEs implement systemic DEMS practices?
- Q2. Is there a relationship between the implementation of the first four pillar HPWS practices (hereafter, for the purposes of simplification, expressed as HPWS) and DEMS practices?
- Q3. Do DEMS practices positively affect individual and collective performances?

A survey was addressed to a sample of Italian Make to Order (MTO) SMEs. As will be seen below, MTO manufacturing companies were chosen for the strategic value of flexibility, innovation and customisation; performance areas on which much of the DEMS literature focuses. Companies included in the survey are similar in terms of dimensions, manufacturing peculiarities, target market, and workforce composition. They are located in the same geographical area (i.e., mid-Southern Italy).

The research followed the framework offered by Armstrong et al. (2010) to adequately account for possible interrelations and synergies among DEMS and HPWS. After framing the conceptual background against which this study was established, the paper proceeds as

follows: research objective and methodology, results and discussion, conclusions and avenues for further developments.

## 2. Literature overview and study rationale

### 2.1. The impact of DEMS practices on human resources performance

DEMS refers to systemic approaches within organisations to effectively manage diversity and promote equality and inclusion among the workforces. They consist of implementing policies, practices and initiatives aimed at addressing and eliminating barriers, prejudice and discrimination based on characteristics such as gender, race, ethnicity, age, disability, sexual orientation, and others. DEMS systems are constantly evolving, they seek to provide effective responses to changing workforce needs and challenges related to perceptions of inclusion and equality. While up until the 1980s the implementation of DEMS practices took on the nature of a reactive action to changes imposed by inclusion-oriented regulations and the elimination of discriminatory phenomena, they later began to take on a proactive strategic human resources management value. This transformation needed many steps and very often it was criticised for its trajectories. For example, DEMS practices have been used as a mere tool for the rhetoric of equality and equal opportunities or to identify and affirm the dominant cultures on which organisational behaviour converges. Since DEMS are strongly influenced by external antecedents to organizations such as society, the labor market, national regulations etc., it is not possible to unambiguously define a DEMS. However, researchers converge on what the foundational elements of such a management system should be. Organizations need to develop and implement policies and practices that promote diversity, equality, and inclusion. Policies relate to non-discrimination, equal opportunity, and anti-harassment and anti-bullying measures. Recruitment practices must be geared toward fair and inclusive recruitment patterns. This includes eliminating bias from job descriptions and selection criteria and employing diversity in interview groups.

Organizations must implement diversity and inclusion training courses targeted at employees and managers to ensure that they can develop sensitivity toward issues such as unconscious bias and cultural differences, enhance their skills in cooperating with people of different cultures, and finally in order to ensure respect in the workplace.

Opportunities for the development of underrepresented groups to improve their skills and promote career advancement must also be ensured.

Organizations need to promote an inclusive work environment in which each person feels valued, respected, and included. This may involve the creation of affinity networks or systems to enhance employee contribution and participation. Monitoring and measuring metrics related to diversity and equality, such as representation at various organizational levels, pay equity, and employee satisfaction, will have to be another tool of DEMS.

Finally, systems and practices for employee empowerment on diversity and equality management will have to be implemented in organizations.

The convergence on the practices that define DEMS is the result of numerous studies on the impact these practices and their synergies have on workforce performance and organizational well-being. Initially, authors focused on organizational culture and regulatory compliance.

Subsequently, many authors shifted their focus to signaling theory, emphasizing the symbolic significance of DEM in motivating the company's stakeholders. Finally, resource dependency theory was emphasized to analyze the material impact of DEM in diversifying the work environment and creating a more inclusive culture (Roberson, 2019). Regarding strategic practices, the most discussed include corporate social responsibility, diversity opportunity management, equality sponsorship, diversity policy, recruiting, and equal career and salary opportunities (Kim and Park, 2017; Leck, Saunders, and Charbonneau, 1996; Buttner and Lowe, 2017; Soare, Detilleux, and Deschacht, 2022). Many studies have focused on the impact of operational management aspects (e.g., diversity team management, coaching, mentorship, training) (Armstrong et al., 2010; Hoever et al., 2012, Fujimoto and Hartel, 2017), organizational structure and management policies (e.g., management commitment, the decision-making process, the communication process, job-oriented attributes) on staff and personal performances (Soare, Detilleux and Deschacht, 2022; Aghazadeh, 2004).

Outcomes related to individual (Armstrong et al., 2010; Roberson, 2019), group (Leslie, 2017, Armstrong et al., 2010), and organizational (Bramer, 2010; Prasad et al., 2011; Aghazadeh, 2004; Achkar and Bouri, 2021) performance have been used as indicators of the effectiveness of DEMS practices. Personnel performance includes commitment, problem-solving skills, innovation capabilities, absenteeism, satisfaction, and turnover (Roberson, 2019; Armstrong et al., 2010). Group-level outcomes include cohesion, conflict, creativity, and team productivity (Leslie, 2017; Armstrong et al., 2010; Schoenung and Dikova, 2016; Seong et al., 2012). Finally, organizational-level performances include financial viability, productivity, and competitiveness (Armstrong et al., 2010; Yandav and Lenka, 2020).

Although evidence emphasize that failure to manage diversity and equality negatively impacts organizational aspects and firm performance, there are conflicting results on the effectiveness of DEMS practices on personnel performances (Aghazadeh, 2004; Yadav and Lenka, 2020). According to some authors, the mixed results that have emerged from the plethora of DEMS studies are due to incorrect contextualization of researches (Yadav and Lenka, 2020). For example, many studies do not use control variables such as organizational or external antecedents or meso- and micro-structural organizational factors (Yadav and Lenka, 2020). Without proper contextualization of micro (e.g., managerial approach, composition of the workforce, diversity attributes, and organizational culture), meso (e.g., sector, size, belonging to a group, reference market), and macro (e.g., labour regulations, society, country of location) factors, efforts to implement DEMS systems are inconsistent (Konrad, Yang and Maurer, 2016; Verheij, Groeneveld and Kuyper, 2017, 2017).

Regarding SMEs, there are few articles studying the impact of DEMS on human resource performance. Many authors discuss how these companies have more difficulty implementing DEMS practices due to organizational barriers (Konrad, Yang and Maurer, 2016; van Knippenberg et al., 2011), or are less sensitive to these issues due to workforce composition. The main critical failure factors to DEMS implementation in SMEs are related to the lack of a long-term strategic vision, clear human resource policy, managerial expertise, knowledge management systems, and strong sponsorship and commitment from top management.



## 2.2. HPWS and DEMS

Similarly to DEMS, it is difficult to find an unambiguous definition of HPWS in the literature. In their seminal work, Appelbaum et al. (1999) define it as the set of human resource management practices geared toward improving employee skills, motivation, and engagement. Evans and Davis (2015) defined HPWS as an integrated system of HR practices that are internally consistent (alignment among HR practices) and externally consistent (alignment with organizational strategy). Today, the HPWS model is recognized as a critical success factor for achieving competitive advantage (Fu et al, 2018). The foundation of an HPWS is the cohesive alignment between individual HR practices and the organization's strategy (Evan and Davis, 2005). The "fit" between people, work, processes, information, and strategy is a key element in the process of employee engagement in optimizing organizational performance, achieving improvement, and knowledge development and application (Zheng et al, 2018). One of the earliest contributions that provided a framework that integrates HR practices into bundles and aligns them with the organization's strategy belongs to Huselid (1995). Based on this founding study, several other authors have made further contributions to delineate the integrated bundles of practices that constitute an HPWS. They include: Selective hiring; Salary level and incentives; Performance appraisal; Effective training; Job design; Information sharing/communication; Job security; Self-managed and effective teams; Participation in decision-making; Career goals/development (Zheng et al., 2018). A key point to note is the synergistic effect created by these HR practice bundles. As shown by the meta-analysis of Combs et al. (2006), the impact of bundles of practices implemented as an integrated system is much stronger than their sum on organizational and HR performance. Therefore, some authors suggest studying the effects of HWPS practices on performance as if it were a single package (Armstrong et al., 2010). According to many authors, in HPWS systems, employee performance increases due to the enhancement of human capital in terms of skills, abilities, commitment, and motivation (Karadas and Karatepe, 2018), impacting individual and group performance. However, some studies show that the relationship between HPWS practices and HR performance is not entirely self-evident. Where such practices are directed by managers with the main purpose of boosting organizational performance- leaving out the workers' point of view-they can lead to increased stress and organizational conflict (Heffernan and Dundon, 2016; Ramsay et al., 2000). For an HPWS system to be implemented effectively, much organizational effort and investment of time and resources must be undertaken by the organization (Heffernan and Dundon, 2016). First, it is necessary for management to sense and seize the perception of human resources with respect to HR practices (Ramsay et al., 2000). The HR function needs to be strongly change-oriented and have cross-functional management skills (Lawler and Mohrman, 2000). Implementing an HPWS may require investments in training, technology, and HR practices. Such organizational efforts can result in critical failure factors for many SMEs that are characterized by few available resources or the lack of a structured human resource management system geared toward facilitating the transformation (Della Torre and Solari, 2013).

Over the past decade to respond to changes in the labour market and workforce perceptions of positive work environments, researchers have suggested adding the DEMS practices to the HPWS (Armstrong et al., 2010). Researcher and organizations are increasingly recognizing the value of diversity and equality in achieving high performance and competitive advantage (Armstrong et al., 2010; Leslie, 2017). They state that a diverse and inclusive workforce can

bring a range of perspectives, ideas, and experiences that lead to innovation, creativity, and better decision-making (Leslie, 2017; Achkar and Bouri, 2021). Although DEMS practices are to be considered part of HPWS, there are no articles studying the relationship between them and the canonical practices of HPWS nor articles studying the impact of DEMS as a factor of HPWS on human resource performance.

### 2.3. Research objective

Based on these premises, and motivated by the assumption that many SMEs have to deal with the challenges of globalization, we believe that examining the implementation of their DEMS practices is of particular interest.

To date, SMEs that are successful in identifying and implementing such practices are expected to achieve an increased competitiveness (Armstrong et al., 2010).

From this standpoint, this research aims to understand which DEMS practices are implemented in make-to-order (MTO) SMEs and how their implementation impacts staff and team performance. More specifically, the main goal of this research is to assess the level of implementation of DEMS practices and their effect on personnel and group performances for this subset of SMEs. These companies are similar in terms of manufacturing process, are oriented towards foreign markets, and have a diverse workforce composition. Research shows that organizations that implement HPWS practices are more sensitive to diversity management practices (Armstrong et al., 2010). Moreover, many researchers pointed out that not all DEMS practices are implemented at the same level (Yandav and Lenka, 2020). In summary, it can be assumed that SMEs prefer to focus on certain practices that they consider crucial. Thus, a complementary objective will be to confirm these hypotheses, specifically testing whether the SMEs analysed focused on a specific subset of DEMS practices. Lastly, since firms' size is generally found to be powerful enablers for DEMS practices (Armstrong et al., 2010), the ultimate aim of this study is to validate these conjectures.

## 3. Research methods and materials

### 3.1. The units of analysis

The focus of this study was limited to MTO SMEs involved in the mechanical, furniture and textile-fashion sectors located in mid-Southern Italy. A set of inclusion criteria to build the sample was adopted. The selection required that at least 30% of the employees were women, people with disabilities, and/or foreigners. Besides, companies should have at least 50% of the turnover to be derived from exports. Production systems of included MTOs featured low-volume-high-variety (LVHV) of customized products.

MTOs can be classified based on the "portion" of the design/production process that begins when an order is received. The classification of MTO firms is based on a continuum that has at its extremes two typologies: engineer-to-order (ETO) and assembly-to-order (ATO) (Carmignani and Zammori, 2016). ETO enterprises are those who maintain both design and manufacturing activities in house and their products are nearly unique. They maintain a competitive advantage by selling their engineering capabilities (Hendry, Kingsman and Cheung, 1998). The ATO MTO companies keep only the assembly phase in house. This means

that the last part of the process is triggered by customers' orders only. Therefore, production volumes are higher than those of ETO SMEs. ATO firms have a standard products catalogue and customization is limited to product re-configuration or dimensional changes. Companies can be at any point on the continuum and can change their position by modifying production assets and competitive strategies. The SMEs included in the survey can be ideally placed closer to the ETO class, whilst the ATO one was excluded. The selected companies are labour-intensive SMEs characterized by the ability to design and manufacture highly customized or even unique products and/or components for different customers.

The companies included in the sample had the following features: a batch production environment and queue job shop structure, multi-skilled workers (with a craftsmanship attitude and problem-solving skills), strong product and process skills and a focus on innovation, product customization, lead time, and flexibility performances. These SMEs were selected since they are the ones where HPWS and DEMS implementation should lead to increased competitiveness through the drive for innovation and customization capabilities. In such companies that compete primarily through customisation, flexibility and innovation, diversity management can play a major role. Indeed, as discussed by many authors, diversity is more relevant the greater the potential for different cognitive, cultural, gender and competence traits to drive new strategies, new perspectives and product and process innovations. Besides, these companies were chosen because they reflect an ideal image of Made in Italy due to their high quality and innovativeness (Petroni, Zammori, Marolla, 2017; Barocco, Andreoni and Rangone, 2008). Finally, these sectors have a high relevance in Italy's gross domestic product (GDP and in exports to other countries).

### 3.2. The dimensions of analysis

A modified version of the research framework recommended by Armstrong et al. (2010) was embraced for the purpose of this research. More specifically, a four-phased research methodology was adopted, as reported in Table 1.

Drawing on Armstrong et al. (2010), a list of preliminary constructs related to those practices that need to be addressed to implement DEMS was crafted. The hypothesized constructs were refined based on a comprehensive literature review. The list was further refined by conducting a two-round Delphi with four academics from LUM University and seven specialists from recruiting agencies. The first Delphi round was conducted using a questionnaire containing the list of factors identified in the literature. Panelists were asked to provide their assessment of the relevance of each factor and practice belonging to them, as well as to propose modifications. A consensus was reached in the second round. The final list of factors considered to be suitable by the panel members is reported in Table 2.

All items reported by Armstrong et al. (2010) were retained and used as the basic constructs of the analysis. Diversity mentorship, Corporate Social Responsibility, and diversity and equality sponsorship practices were added to the list based on the literature review.



<i>Research phase</i>	
Step 1: Preliminary constructs definition	A preliminary list of constructs (referring to DMES practices) was formulated and operationalized through a series of sub-items. These items are capable of measuring both the degree of DEMS implementation and the achievement of personnel and group performance.
Step 2: Questionnaire construction	Constructs and their bundles were used to build a comprehensive questionnaire, which was sent to a large number of SMEs.
Step 3: Data validation and pilot test	Due to statistical validation, face and content validity were performed on the data collected from the subsample. Subsequently, a factor analysis was performed to test the constructs.
Step 4: Data Analysis	The results of the factor analysis were used to better understand the data collected. First, the SMEs were described and characterized by the average factor score, then the factor score was used to cluster the SMEs using the achieved performance (as clustering variables) and the degree of DEMS (as descriptive variables). Since it was expected that the clusters obtained could be explained by the different mix of practices used and at the different level of DEMS implementation, linear discriminant analysis and analysis of variance (ANOVA) were performed. Finally, in order to check if clusters also differ with respect to the number of SMEs implementing HPWS practices and belonging to an international group, two $\chi^2$ tests were performed.

Table 1. The four-phased research methodology adopted.

The first dimension was included in the workforce management factor, while the second and the third are diversity strategy factors. Diversity mentoring works by enhancing the capacity and openness of participants' thinking regarding equality and diversity issues they perceive to be important to them. This practice enables mentees to make better decisions, perform better, and achieve personal goals through increased self-awareness and self-motivation. Diversity mentoring is closely associated with stronger communications and more interaction between groups (particularly between disadvantaged groups). The panel argued that mentoring increases the likelihood of achieving equal opportunity goals (i.e., improving representativeness). Incorporating the equality and diversity program into the Corporate Social Responsibility (CSR) statement adds value to the corporate brand and improves the attractiveness of the diverse and highly skilled workforce. Adding the CSR in the strategy construct is consistent with the findings of Gulli et al. (2013) and Stangel-Meseke (2017): they noted that CSR help an organization to attract the best talent in order to stay ahead of competitors. Moreover, Brammer, Millington, and Rayton (2007) highlight the the contribution of corporate social responsibility to organizational commitment. Friday and Friday (2003) claims that diversity sponsorship has a critical role in introducing standards for equality and diversity in the workplace and in implementing DEMS practices. Because the panel did not find agreement on issues pertaining to race (as opposed to ethnic background), the practices pertaining to managing diversity with respect to race were eliminated.

Individual and group performance constructs were defined following the same approach for defining DEMS practices factors.

<i>DEMS pillars (i.e., construct)</i>	<i>DEMS practices</i>	<i>References</i>	<i>Changes after the Delphi</i>
Career opportunity	Pay rates by gender		none
	Pay rates by ethnic background		none
	Pay rates by disability	Kim and Park (2017); Leck, Saunders and Charbonneau (1996); Armstrong et al. (2010); Buttner and Lowe (2017); Kirchmeyer and Cohen (1992); Kirchmeyer (1995).	none
	<i>Pay rates by race</i>		<i>eliminated</i>
	Promotions by gender		none
	Promotions by ethnic background		none
	Promotions by disability		none
<i>Promotions by race</i>	<i>eliminated</i>		
Diversity and equality recruitment	Recruitment and selection by gender		
	Recruitment and selection by ethnic background	Armstrong et al. (2010); Thomas (1991); Konrad, Yang and Maurer (2016).	none
	Recruitment and selection by disability		none
	<i>Recruitment and selection by race</i>		<i>eliminated</i>
Diversity and equality strategies	<i>Corporate Social Responsibility</i>		
	Diversity and equality policy	Friday and Friday (2003); Kim and Park (2017); Hoever et al. (2012)	none
	Diversity culture	Ely and Thomas (2001); Hoever et al. (2012)	none
	<i>Diversity and equality sponsorship</i>	Friday and Friday (2003); Seong et al. (2012); Prasad et al. (2011).	<i>added</i>
Workforce management	<i>Diversity mentorship</i>		<i>added</i>
	Diversity training	Bezrukova, Jehn, and Spell (2012); Fujimoto and Hartel (2017);	none
	Diversity team management	van Knippenberg et al. (2011); Schoenung and Dikova, D. (2016);	none
	<i>Diversity conflict management</i>	Yang and Konrad (2011); Konrad, Yang and Maurer (2016).	<i>included in diversity team management</i>

Table 2. Preliminary list of DEMS practices.

With regards to performance factors, as shown in Table 3, the panel suggested changing items related to personnel creativity, decision-making and problem-solving skills. The first was included in innovation capabilities, while the second and the third were included in

productivity. They argued that creativity is fully recognized and valued by SMEs when it results in product, process or image innovation. Since SMEs may have difficulty assessing staff problem-solving and decision-making skills, the panel recommended including these elements in productivity.

<i>Performances (i.e., construct)</i>	<i>II level construct (bundles)</i>	<i>References</i>	<i>Changes after the Delphi</i>
Employee performances	Commitment	Yang and Konrad (2010); Bramer (2010); Armstrong et al. (2010); Brammer, Millington, and Rayton (2007).	none
	Innovation capabilities	Armstrong et al. (2010); Yang and Konrad (2010).	none
	Personnel creativity	Hoever et al. (2012); Armstrong et al. (2010).	<i>included in innovation capabilities</i>
	Decision-making skills	Pelled (1996); Leslie (2017).	<i>included in productivity</i>
	Problem-solving skills	Pelled, (1996).	<i>included in productivity</i>
	Turnover	Roberson (2019); Armstrong et al. (2010).	none
	Satisfaction	Gulli et al. (2013), Pieterse et al. (2013).	none
	Absenteeism	Roberson (2019).	none
	Sense of Belonging	Friday and Friday (2003); Gulli et al. (2013).	none
	Productivity	Roberson (2019); Armstrong et al. (2010).	none
Group performances	Cohesion	Roberson (2019); Webber and Donahue (2001).	none
	Group creativity and innovation	Leslie (2017); Armstrong et al. (2010).	none
	Conflict	Williams and O'Reilly (1998); Webber and Donahue (2001)	none
	Operational productivity	Leslie (2017); Armstrong et al. (2010).	none

Table 3. Preliminary list of the expected employee and group performances.

### 3.3. The survey items

The factors identified from the previous step were used to build a comprehensive questionnaire. Next, “face” and “content” validity were performed, before administering the survey. The MTO SMEs considered in the survey had to satisfy these requirements: 1) belonging to the Ateco 2007 code relating to production activities in the mechanics, fashion, and furniture sectors; 2) number of employees less than 250 and turnover rate lower than 50 million euros, sticking to the EU definition of SMEs; 3) being located in the mid-South of Italy;

4) having at least 50% of the turnover is generated abroad; 5) being classified as MTO producers; 6) being characterized by a workforce that is highly diverse in terms of gender, ethnic background, and disability (at least 30% of the workforce). The AIDA database (database containing financial information, accounts, and transactions of over 500,000 companies registered in Italy) was used to extract a sample of SMEs based on points 1), 2), and 3).

The result was a pre-sample of around 2,841 SMEs. This sample was refined to exclude artisan firms and ATO SMEs. This resulted in a final sample of 2,247 SMEs, of which 530, 810, and 884 respectively operated in the mechanical, fashion and furniture industries. Responses pertaining to the company description (belonging to the master data section of the questionnaire) were used to verify compliance with requirements 4), 5) and 6). Following the approach proposed by Armstrong et al. (2010), a comprehensive set of questions for each DEMS practice and individual and collective performance level as shown in Table 2 and 3 was drafted. Moreover, the questionnaire includes a section of questions about HPWS. This section was borrowed in its entirety from Armstrong et al. (2010). The questionnaire was administered in Italian, so checks for semantic equivalence between languages, conceptual equivalence between cultures and finally normative equivalence with the source questionnaire were necessary in the case of questions translated from English (Behling and Law, 2000). A back translation was then carried out to highlight potential inconsistencies. Decentering, on the other hand, was not implemented because, according to the panel, there were no distortions caused by the different social and cultural contexts between the companies included in Armstrong's study and those covered by this work.

Performance constructs were operationalized with a five-point Likert-type scale, corresponding to different and increasing degrees of performance improvements achieved during the last three years, while the scale level varies according to constructs related to DEMS practices. Career opportunity and diversity recruitment practices are measured with a three-point scale, while diversity strategy and workforce management are measured with a five-point scale.

At the end of the questionnaire construction process, 53 questions - classified in four main sections - were defined. The questionnaire sections are as follows: Master data (i.e., descriptive questions, 8 questions); HPWS practices implementation (18 questions); DEMS practices implementation (16 questions); and performance measurements (11 questions). To reduce response times and increase respondents' willingness to participate, the questionnaire was sent to the SMEs in an electronic format. The questions were asked in random order to prevent bias issues from emerging. Each SME was required to return the questionnaire completed by at least one senior manager or one middle manager. Failure to adhere to this request was a factor in excluding the respondent from the survey. The questionnaire was validated through face and content validity. These analyses ascertain the quality and the robustness of the constructs and of the measuring scale. Face validity was performed through a pilot test of the questionnaire. A representative sub-sample was contacted by telephone and, once the companies' agreements to participate were obtained, the questionnaire was administered to them.

Due to the strongly negative skew of career opportunity and diversity recruitment practices, telephone interviews were conducted to assess the degree to which these practices were implemented. Telephone interviews provided a more truthful view of actual levels of the

DEMS practices implemented. Moreover, insights from the unstructured discussions results in improved the questionnaires. The mean square error between the original auto-assessment given by the SMEs and the results of the telephone interviews were evaluated for each question, and then the mean of mean square error was calculated for each construct. Because this value for career opportunity and diversity recruitment practices was considered excessively high (i.e., 0.82 and 0.97, respectively), the questions were reformulated. More specifically, a detailed description of each level of the three-point Likert-type scale was provided. Level 1 indicates that the organization neither focuses on the issue, nor applies any effort to manage or drive it. Level 2 corresponds to choosing to adopt certain practices to comply with applicable regulations or avoid pressure from outside the organization, such as unions and/or associations for gender equality and foreign workers' rights. Level 3 indicates proactive selection and adoption of the best practices. The questions like, "On a 1–3 scale, how much do you implement this practice?", were substituted with sentences such as "Select the statement which best represents your way of working". The results of the second face validity indicated that the self-assessment of SMEs was much more accurate (mean of the mean square errors of career opportunity and diversity recruitment practices are 0.28 and 0.31). Although this approach could not guarantee the equidistance of the scale values (Rungtusanatham et al., 2003), the significant improvements in the results observed determined the choice toward this metrics methodology.

The final questionnaire was sent to all selected SMEs in October 2020, and after four reminders (the last in December 2020), the response rate achieved was 24% (i.e., 540 SMEs). A sample consisting of 264 SMEs was obtained as a result of automatic elimination based on adherence to requirements 4), 5), and 6) (i.e., 210) and manual exclusion for missing data (i.e., 66). The low response rate and manual elimination required the assessment of the non-response bias and excluded SMEs bias. To this end, tests were performed to compare the proportion of SMEs responding and eliminated with the proportion of total questionnaires submitted and received for each industry and revenue class. The tests did not show any significant difference (i.e., non-response bias: Sector:  $\chi^2 = 2.56$ , d.f. = 2,  $P = 0.27$ ; Turnover:  $\chi^2 = 2.63$ , d.f. = 3;  $P = 0.45$ ; excluded SMEs bias: Sector:  $\chi^2 = 3.14$ , d.f. = 2,  $P = 0.44$ ; Turnover:  $\chi^2 = 1.5$ , d.f. = 3,  $P = 0.68$ ). Figure 1 shows the main descriptive statistics of the retained sample.

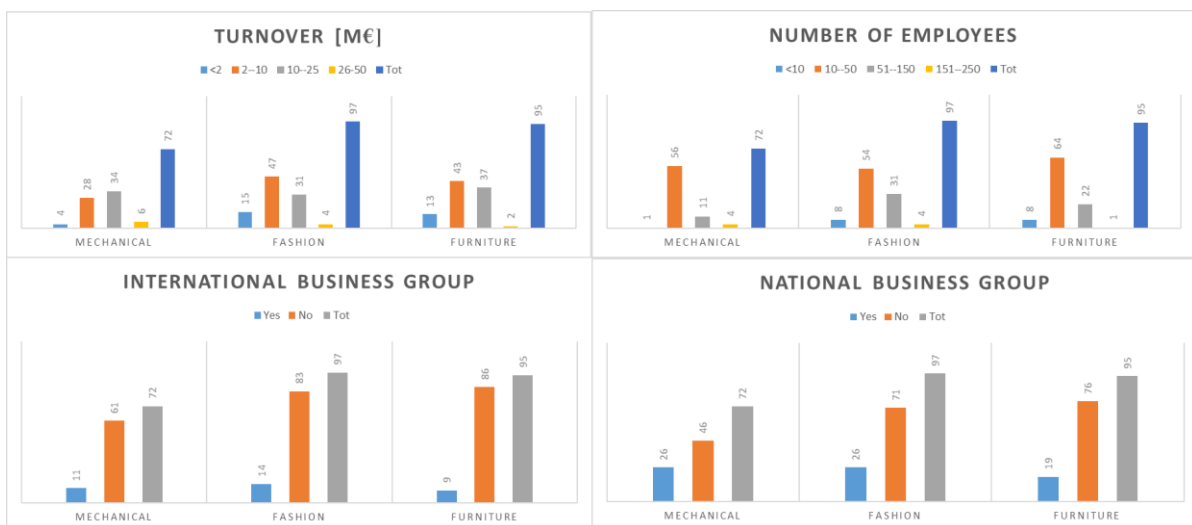


Figure 1. Descriptive statistics of the sample.



### 3.4. Robustness checks

Since the scale of values was different for the different items, the data obtained were standardized. The practices inherent in HPWS were considered to belong to a single factor. The values of each response related to HPWS practices were standardized, and the sum of the standardized responses was calculated for each firm and then standardized. This value indicates the level of implementation of HPWS practices. Following the framework proposed by Field (2005), to validate the model showed by Tables 2 and Table 3, a constructs' validity analysis was performed on the DEMS practices and performance measurements.

After assessing the overall significance of the correlation matrix with the Barlett's test and the validation of sample adequacy with the Kaiser-Meyer-Okin (KMO) test, data gathered were used to perform a confirmatory factor analysis with a VARIMAX rotation. Items with factor loading < 0.5 and discriminant validity > 0.4 on more than one of the factors were eliminated, as depicted in Tables 4 and 5. At the end of the process, five factors related to DEMS practices and three factors related to personnel and group performances emerged. The resulting DEMS practices factors are: equity salary (F\_1); diversity and equality strategy (F\_2); equity promotion (F\_3); workforce management (F\_4); and diversity recruitment (F\_5). The resulting factors related to performance are: group performances (P\_1); personnel operational performance (P\_2); and personnel wellbeing (P\_3). The result of the factor analysis shows a model with two more constructs than those hypothesized.

Tests' statistics	Diversity & Equity Practices				
	F_1; $\alpha = 0.865$	F_2; $\alpha = 8.110$	F_3; $\alpha = 8.775$	F_4; $\alpha = 0.880$	F_5; $\alpha = 0.865$
KMO = 0.797; Bartlett's test: $\chi^2 = 24,80.426$ , d.f. = 120, $\alpha = 0.000$					
Pay rates gender	.905				
Pay rates ethnicity	.843				
Pay rates disability	.830				
Monitoring gender	---				
CSR		.825			
Policy		.700			
Sponsorship		.688			
Culture		.677			
Promotion ethnicity			.921		
Promotion gender			.857		
Promotion disability			.842		
Mentorship				.852	
Training				.830	
Diversity team manag.				.791	
Monitoring disability					.819
Monitoring ethnicity					.817

Table 4. Factor analysis for diversity and equity constructs (factors, Cronbach's alpha, and factor loadings).

The carrier opportunity factor was sub-divided into equity salary and equity promotion, while personnel performance was sub-divided into personnel operational performance and personnel wellbeing. Since the loss of the original information content was very low (*i.e.*, the elimination of monitoring gender recruiting), and, as this is the best solution in terms of eigenvalues and total explained variance, these results were accepted as a validation of the model. Internal consistency of the factors was tested by Cronbach’s alpha. Since alpha coefficients are >0.6 (Nunnally and Bernstein, 1994), the internal reliability of the factors is confirmed.

Tests' statistics	Personnel and Group Performances		
KMO = 0.893; Bartlett's test: $\chi^2=$ 3,774.53, d.f. = 55, $\alpha =$ 0.000	P_1; $\alpha = 0.987$	P_2; $\alpha = 0.937$	P_3; $\alpha = 0.879$
Cohesion	.882		
Group creativity and inn.	.878		
Conflict	.846		
Operational productivity	---		
Innovation capabilities		.861	
Personnel productivity		.839	
Commitment		.812	
Sense of Belonging		---	
Absenteeism			---
Satisfaction			.852
Turnover			.765

Table 5. Factor analysis for personnel and group performances (factors, Cronbach’s alpha and factor loadings).

#### 4. Findings

The resulting factor scores were used to characterize SMEs in terms of implementation of DEMS practices and performance. The following computation approach was used to calculate the factor score  $f_{ij}$  to evaluate the level of the  $j^{\text{th}}$  performance factor achieved by the  $i^{\text{th}}$  SME:

$$f_{ij} = \beta_{1,j} \cdot X_{1,j}(i) + \dots + \beta_{n,j} \cdot X_{n,j}(i) \tag{1}$$

where  $X_{1,j}(i), \dots, X_{n,j}(i)$  are the scores obtained by the  $i^{\text{th}}$  SME on each one of the ‘ $n$ ’ performance elements that have a positive load on factor ‘ $j$ ’, and  $\beta_{1,j}, \dots, \beta_{n,j}$  are the  $\beta$ -coefficients resulting from the standard regression approach. Hence, the lower  $f_{ij}$  is, the lower the level of the  $j^{\text{th}}$  performance pillar achieved by the  $i^{\text{th}}$  SME, and vice versa. Since standardized data were used, the obtained factor scores have a mean of zero and a standard deviation of one. Factor scores related to performance factors (such as clustering variables) and the factor scores related to the degree of DEMS implementation (as descriptive variables) were used to run a cluster analysis.

K-mean clustering revealed the presence of three well-defined clusters of SMEs differing in terms of performances. The clusters, their centroids, and the robustness of the outcomes, as ascertained with a one-way ANOVA, are shown in Table 6.

<i>Cluster's label</i>	<i>Number of cases</i>	<i>Centroids: (P_1: Group performance; P_2: Personnel operational performances; P_3: Personnel wellbeing)</i>		<i>Comments</i>
C_1	23	(1.25; 1.07; 1.96)		High/average performances
C_2	20	(2.47; -0.13; 0.32)		High group performance, average personnel well-being and low/average personnel performance
C_3	221	(-0.35; -0.10; -0.62)		Low/average performances
Total	264	[-]		[-]

<i>Cluster</i>		<i>Error</i>		<i>Critical Value</i>	
<i>Mean square</i>	<i>d.f. Mean square</i>	<i>d.f. Mean square</i>	<i>d.f. Mean square</i>	<i>F</i>	
P_1	93.27	2	.293	261	318.36***
P_2	14.52	2	.896	261	16.203***
P_3	54.50	2	.590	261	92.36***

Notes: The critical values of F correspond to the following p-values: (\*)  $p \leq .05$ , (\*\*)  $p \leq .001$  and (\*\*\*)  $p \leq .0001$ .

Table 6. The obtained clusters.

Since clusters were formed using normalized factor scores, zero corresponds to an average performance level, negative values indicate below-average performances, and positive values indicate above-average performance. Cluster centroid analysis shows: only one cluster excels in group performance (C\_2); two clusters have a high group performance and personnel well-being (C\_1; C\_2); and one cluster has below-average levels of performance (C\_3). It is interesting to note that the cluster with the highest group performance is also the cluster with the lowest level of personnel performance. A further element of interest is that high group performance corresponds to high personnel wellbeing and vice versa. The difference in the number of firms in the clusters is another issue that needs to be considered. Most companies show low performance and only a few have high personnel wellbeing and group performance.

To enrich the results and to shed light on the first and second clusters, the distribution of the SMEs from all three sectors in the clusters was analysed. The  $\chi^2$  test (i.e.,  $\chi^2 = 22.83$ ,  $df = 4$ ,  $P \cong 0.00$ ) suggests that there is a difference with respect to the distribution of sectors in the clusters. While the composition of C\_2 suggests that the mechanical sector is more focused on group performance, the distribution of firms in C\_1 shows no differences between sectors, as reported in Figure 2. A MANOVA was computed to ascertain if the identified clusters also differ in terms of implemented DEMS and HPWS practices (HP). The Box's M test failed and MANOVA revealed that the clusters do not differ in term of F\_1 (equity salary) and F\_5 (diversity recruitment) (i.e.,  $F_{F_1} = 0.67$ ,  $df = 2$ ;  $\alpha = 0.529$ ;  $F_{F_2} = 2.51$ ,  $df = 2$ ,  $\alpha = 0.083$ ). For these

reasons, F\_5 and F\_1 were excluded from the analysis. Once F\_1 and F\_5 were eliminated, the MANOVA was repeated and it succeeded (i.e.,  $\Lambda$ -Wilks = 0.486,  $\chi^2 = 187.125$ ,  $df = 8$ ;  $\alpha \cong 0$ ; Box's M test = 43.76, F – Fisher = 1.997,  $\alpha > 0.05$ ) (Table 7).

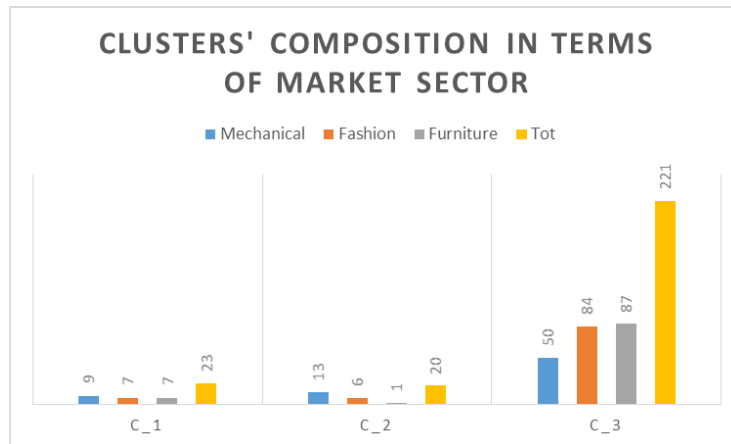


Figure 2. Clusters' composition in terms of market sector.

The study results, which are summarized in Table 7, revealed that:

- SMEs belonging to C\_1 synergistically implemented and fully exploited HPWS practices and DEMS practices related to strategy, workforce management and promotion, with a peak in diversity strategy and workforce management (i.e., F\_2 = 1.41; F\_4 = 1.10);
- SMEs in C\_2 have implemented HPWS practices at a high level and DEMS practices at a medium to high level, but not systematically;
- SMEs belonging to C\_3 did not implement HPWS and DEMS practices at all.

<i>Mean, standard deviations, results of one-way Anova</i>							
<i>Factor</i>	<i>Cluster, means and standard deviation</i>			<i>F</i>	<i>Canonical discriminant functions</i>		
	<i>C_1</i>	<i>C_2</i>	<i>C_3</i>		<i>F1</i>	<i>F2</i>	
<i>F_2</i>	1.416 (0.949)	0.416 (0.745)	-0.185 (0.892)	36.236***	0.604		0.546
<i>F_3</i>	0.658 (0.532)	-0.058 (1.171)	-0.063 (0.984)	5.664**	0.374		0.367
<i>F_4</i>	1.105 (0.899)	0.342 (0.986)	-0.146 (0.933)	20.138***	0.486		0.451
<i>HP</i>	1.297 (0.938)	1.247 (0.844)	0.248 (0.816)	60.701***	0.599		-0.803
<i>F_1</i>	0.178 (0.906)	0.133 (0.815)	-0.030 (1.01)	0.637	---		---
<i>F_5</i>	0.391 (1.139)	0.187 (0.286)	-0.057 (1.017)	2.512	---		---

Notes: The critical values of F correspond to the following p-values: (\*)  $p \leq .05$ , (\*\*)  $p \leq .005$  and (\*\*\*)  $p \leq .001$ .

**Table 7.** Results of discriminant analysis.

As suggested by Hubert and Olejnik (2006), a linear discriminant analysis was performed to understand which practices have the greatest impact on the performance being investigated. Outcomes of the linear discriminant model are summarized in Table 7. The predictive level of the model is 0.695 and four factors are significant at a level  $\alpha < 0.05$ . More specifically, the results of the first canonical function showed that diversity and equality strategy (i.e., F\_2), HPWS practices (HP), and diversity workforce management (i.e., F\_4) are the factors with the highest discriminating power, whereas the discriminating power of equality promotion (F\_3) is rather low. High discriminant power of F\_2 and F\_4 was quite predictable, as many authors stressed the importance of diversity and equality strategy and workforce management on group performances and personnel wellbeing (Yadav and Lenka, 2020; Armstrong et al., 2010). This assertion is confirmed by analysis of the characteristics of C\_1: high values of group performance and staff wellbeing and high values of implementation of DEMS practices. A further expected result is the high value of equity promotion in C\_1. Indeed, the literature suggested that promotion opportunities are strongly correlated with personnel performance (Yadav and Lenka, 2020). On the other hand, the presence of a cluster characterized by very high levels of group performance, average levels of personnel wellbeing, and low levels of personnel operative performance was quite unexpected. Another discriminant analysis was performed after removing the noise introduced by the low-level SMEs (i.e., those belonging to C\_3) to shed light on this interesting issue. By doing so, results changed significantly: The MANOVA indicates that the only distinguishing factor is diversity and equity strategy, as shown in Table 8.

<i>Results of one-way ANOVA and canonical function coefficients</i>		
<i>Factor</i>	<i>F</i>	<i>Canonical discriminant functions</i>
		<i>F1</i>
F_2	14.422***	0.860
F_3	6.927	---
HP	0.034	---
F_4	7.040	---
F_1	0.030	---
F_5	0.611	---

Notes: The critical values of F correspond to the following p-values: (\*)  $p \leq .05$ , (\*\*)  $p \leq .005$  and (\*\*\*)  $p \leq .001$ .

Table 8. Results of discriminant analysis on C\_1 and C\_2.

These results do not provide an explanation for the question, "Why is Cluster 2 characterized by such high levels of group performance and low levels of personnel operational performance?" A plausible explanation might be found in factors such as equity pay rates and diversity recruiting. However, since these factors exhibit low and similar levels across clusters (and are not discriminative), the analytical possibilities are limited. Lastly, due to the level of personnel operational performance in C\_2 being lower than in C\_3, it cannot be conclusively stated that DEMS practices strongly impact this performance factor. However, the analysis results allow for the answering of the first three research questions:



- Rq1. There are MTO SMEs that have implemented DEMS practices and they did it in a rather thorough and synergic way. However, no company has fully implemented DEMS practices related to recruiting and pay rates.
- Rq2. These SMEs have achieved consistent improvement in both group performances and personnel wellbeing.
- Rq3. SMEs with a high degree of expertise in implementing HPWS practices are those that implement DEMs the most.

The first result confirms what is reported in the literature: SMEs are expected to implement DEMS practices in a selective way, because a full DEMS implementation is challenging and can be afforded almost exclusively by companies with a formalize structure and a high managerial level (Yadav and Lenka, 2020). The literature shows that companies belonging to a formal business group are the most sensitive to issues related to equity and diversity. Thanks to the possibility of sharing experiences and knowledge among the members of the group, SMEs could reduce both dimensional and operating constraints related to DEMS practices implementation. To assess if the excellent SMEs of C\_1 and C\_2 have some peculiarities in terms of either belonging to a formal group (national group or international group) or HPWS implementation a final  $\chi^2$  test was carried out. As statistically proved by the  $\chi^2$  test (i.e.,  $\chi^2 > 23.5$ ;  $df = 4$ ;  $P \cong 0$ ), the percentage of companies belonging to an international business group is not homogeneous among clusters (they are more concentrate in C\_1 and C\_2). This can be taken as proof that SMEs organized in international business group are more likely to have high group performances and personnel wellbeing and a high level of DEMS practices implementation. Although this sample is far too small to make statistical inferences, the fact that SMEs could achieve high group performance and personnel wellbeing may be a positive sign regarding the possibility of implementing DEMS practices even in very small companies, especially if size constraints can be overcome by belonging to a formal group.

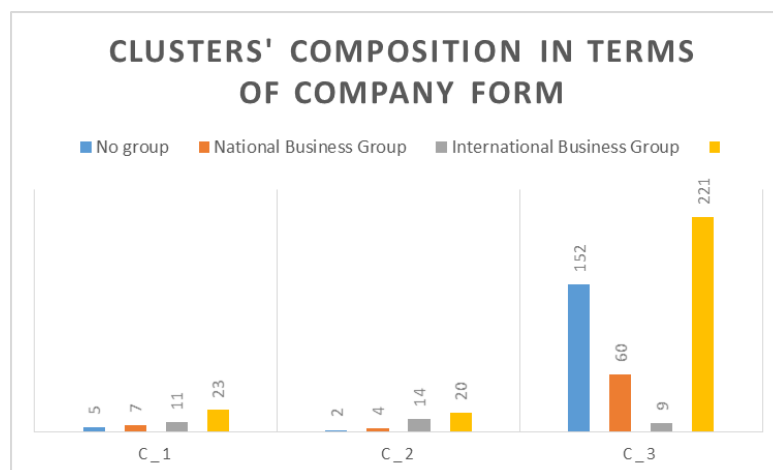


Figure 3. Clusters' composition in terms of SMEs belonging to a formal group.

## 5. Discussion

Data analysis has unveiled the presence of three distinct clusters of SMEs exhibiting significant differences in terms of HR performance. Specifically, SMEs falling within Cluster

C\_1 are well-positioned concerning HR competitive needs, showcasing globally satisfactory personnel and group performances. They stand out by excelling in both HPWS and DEMS. On the other hand, SMEs in Cluster C\_3 demonstrate poor HR performances, lacking the capability to effectively implement HPWS and DEMS practices.

Intriguingly, SMEs belonging to Cluster C\_2 present a unique profile with very high group performance but relatively low personnel performance. Their strategic management of DEMS practices is inferior to companies in C\_1, along with a lower utilization of HPWS practices. Notably, most companies concentrate in Cluster 3, underscoring the challenges SMEs face in implementing HPWS and DEMS practices or their lack of awareness regarding these issues. This finding aligns with discussions by other authors who have highlighted the barriers to HPWS implementation for SMEs (Della Torre and Solari, 2013; Rasheed et al., 2017).

To enhance insights into the clusters' characterization, a sub-sample of the most representative SMEs from each cluster was selected for in-depth interviews conducted by phone. The results obtained are presented below.

### 5.1. Cluster 1 – strategically HPWS oriented

This cluster encompasses medium-large SMEs (> 80 employees), most of which are part of international business groups, operating across all three considered sectors. In many cases, they are subsidiaries of foreign holding companies and stand out due to a significant presence of managers and operators from the holding company's country of origin. The distinguishing factor for these SMEs is their diversity and equality strategy, leading them to be labeled as "strategically HPWS oriented." Notably, these SMEs are the only ones experiencing consistent improvements in personnel operating performances over the last three years, coupled with high levels of group performance and personnel wellbeing.

Competing in international markets, these SMEs offer high-quality, customized products, boasting high rates of product and process innovation, which secures them a privileged position in the supply chain. Engineering phases are primarily internal, and customer participation in product configuration often necessitates reconfiguration, highlighting flexibility and rapidity as key strategic priorities.

Human resources are formally acknowledged as a key determinant of competitive success in these companies. They feature a strongly structured HR function, with HR policies consistently formalized in written strategies or included in CSR initiatives. These policies encompass talent search and selection practices, along with continuous monitoring of laws related to diversity representation. Corporate strategies specifically address the creation and management of diversity teams. Managers emphasize that diversity not only enhances creativity but also stimulates and increases staff commitment.

The HR function in these companies is fully aware of diversity and equality issues, integrating HPWS practices with DEMS. A more structured approach to HR management is reflected in the hierarchical-functional organizational structure, where the HR decision process is somewhat decentralized. Specific managerial roles are established, and employees, especially in diversity training and mentoring, are empowered with decision-making discretion. These companies are highly desirable for talent, boasting very low turnover rates.

### 5.2. Cluster 2 – reactive HR management oriented

This cluster comprises medium-large SMEs (i.e., > 80 employees) primarily operating in the mechanical sector, with many being members of national and international groups. Recognizing HR as a competitive advantage, these companies strive to maintain a comfortable yet challenging work environment through team cohesion, evidenced by the highest level of group performance. Similar to companies in Cluster 1 (C\_1), these firms internally handle the engineering of the product, emphasizing customization and flexibility. However, unlike Cluster 1, SMEs in C\_2 do not consistently have formal DEMS policies, and their HR function may not actively seek best practices in HR management. Additionally, they exhibit lower levels of communication and shared decision-making compared to C\_1 SMEs.

Diversity and equality are viewed not as opportunities but as factors to be managed to prevent conflicts within and between groups. These companies concentrate on diversity training and conflict management. Notably, their CSR statements often lack dedicated sections on diversity and equality management, even though they have similar levels of implementation of workforce management practices, diversity promotion, equality pay rates, and diversity recruitment monitoring as strategically HPWS-oriented SMEs. Despite the high implementation of HPWS practices, these practices are not strategically integrated with DEMS, reflecting a more reactive than proactive approach to diversity management.

In summary, although high levels of HPWS practices are in place, the lack of integration with DEMS practices suggests a reactive HR management approach for these organizations. This strategy allows for the survival and growth of these SMEs, but unless they embrace a more proactive stance on problematic issues, this HR management model appears somewhat fragile. The fragility is even more pronounced for SMEs competitive due to high innovation levels obtained from retained knowledge, as a low level of workplace wellbeing could lead to high turnover.

### 5.3. Cluster 3 – old-fashioned HR management

SMEs within this cluster exhibit variations in size and membership in formal business groups. They experience lower HR performance compared to SMEs oriented toward reactive HR management and those fully implementing High-Performance Work Systems (HPWS). Given the heterogeneous nature of this cluster, providing a unique and detailed characterization is challenging. Nevertheless, some common features include:

- These SMEs align more closely with the Administrative Theory of the Firm (ATO), with only a few engaged in both engineering and product manufacturing phases.
- Historically, their competitive advantage has been quick and stable delivery times due to geographical proximity to customers and the ability to dedicate a significant portion of productive capacity to a limited number of clients.
- These SMEs allocate fewer resources to recruitment and employee professional development activities than other companies. Moreover, HR predominantly handles administrative tasks, and the staff in this function lack high proficiency in HPWS or DEMS practices. Many respondents indicated that introducing HPWS practices is extremely challenging due to managerial concerns about the perceived lack of return on investment in selection, management, and training activities.

Concerning DEMS practices, many companies acknowledged the importance of diversity and equality issues but reported not implementing DEMS practices. Diversity and equality matters are informally managed in a reactive manner, with managers emphasizing adherence to corporate culture and prevailing ideologies. The evident limitations in HR management for these companies include high turnover, low staff satisfaction, and diminished levels of group and individual performance. Consequently, these companies may face a decline in their competitive standing. Quotations of 60 words or longer (style Extended quotation). Quotations of 60 words or longer (style Extended quotation). Quotations of 60 words or longer (style Extended quotation). Quotations of 60 words or longer (style Extended quotation). Quotations of 60 words or longer (style Extended quotation). Quotations of 60 words or longer (style Extended quotation). Quotations of 60 words or longer (style Extended quotation). Quotations of 60 words or longer (style Extended quotation). Quotations of 60 words or longer (style Extended quotation). Quotations of 60 words or longer (style Extended quotation). Quotations of 60 words or longer (style Extended quotation).

## 6. Conclusion

Following the research framework of Armstrong et al. (2010), this paper investigates the implementation of DEMS practices in MTO SMEs. For organizations to make well-informed decisions regarding the use of Human Resources (HR) to improve performance, they must be able to compare the effects of different potential initiatives. A statistical survey was conducted, narrowing the focus to companies operating in mid-Southern Italy. This allowed for a refined research approach, including in the questionnaire only those DEMS and High-Performance Work Systems (HPWS) practices specific to the reference analysis domain. A proper contextualization of DEMS practices is recognized as one of the main issues to ensure the analysis's adequate robustness (Yadav and Lenka, 2020).

A preliminary cluster analysis, conducted on performance factors, revealed the presence of three well-defined groups of SMEs: old-fashioned HR management, adaptive human resource management-oriented, and strategically HPWS-oriented. The old-fashioned group, resembling the characteristic Administrative Theory of the Firm (ATO), does not fully exploit the potential of human resource management, nor does it focus on HPWS or DEMS practices. These decisions or shortcomings could, in the long run, undermine their competitiveness in the global marketplace, confirming the challenges SMEs face in implementing HPWS, as discussed in the literature.

Conversely, the other two clusters demonstrated a comprehensive understanding of the potential of HPWS practices. SMEs with expertise in HPWS practices have reached a high level of maturity in identifying and addressing the critical success factors for HR management. However, the cluster analysis revealed that only the strategically HPWS-oriented SMEs have achieved excellent HR performances in all areas, with positive results in both personnel performance and workplace wellbeing. The most distinguishing factor between strategically HPWS-oriented and adaptive HR management-oriented companies is the diversity and equality practices factor, emphasizing the impact of DEMS practices on personal performance in synergy with HPWS practices. In contrast to businesses characterized by old-fashioned HR management, adaptive human resource management-oriented SMEs can survive by effectively managing HR. Their business model is sustainable, albeit at risk due to the inability

to ensure a favorable work environment (with low turnover and high satisfaction) and high staff performance. Cluster 2 results on personal performance highlight that HPWS practices can lead to suboptimal levels of personal performance without effective management and support from diversity- and equality-oriented practices. Strategic diversity and equality management, translated into proactive action, enables firms to enhance both the performance of their teams and staff, optimizing their working environment.

In conclusion, the study results suggest that the strategically HPWS-oriented cluster illustrates the possibility (even for SMEs) of achieving HR performance excellence through the integration of HPWS and DEMS practices, aligning with the dominant thought in the technical literature. While it cannot be asserted that personnel operational performance is strictly dependent on DEMS practices (few cases), the analysis shows that the implementation of diversity and equality strategy could better drive the adoption of diversity workforce management practices. Other important issues include recruiting practices and pay rates. The analyzed companies do not exhibit statistically significant differences, indicating an average level of implementation of these practices. The companies follow current regulations in Italy, ensuring equal treatment and representation of minorities.

SMEs organized in business groups appear more likely to implement DEMS practices and achieve higher performance. The most interesting aspect concerns the relationship between the strategic implementation of DEMS practices and companies' membership in international groups. While membership in a formal group of companies explains the increased adoption of HPWS and DEMS practices, membership in an international group explains the shift from a reactive to a proactive approach in implementing these practices. This evidence suggests that international groups tend to exploit the full potential of human resources and manage to turn the size disadvantages of their companies into success factors.

This study provides policymakers with insights into key HR management issues. Firstly, it is crucial to highlight how SMEs can succeed in implementing HPWS proactively by leveraging the human resources function in support of management. Secondly, the results show how HPWS practices can be supported by DEMS practices to ensure high levels of individual employee welfare, enabling organizations to attract and retain talent and high-value human resources.

**Keywords;** Diversity; equality; high-performance work system; personnel management; organizational performance; small and medium enterprises.

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