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Employees’ Perception of Diversity Management Practices: Scale Development and Validation

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Employees’ Perception of DM Practices

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Abstract

Scholars and practitioners are paying increasing attention to diversity management (DM). Despite this increase and an expanding literature, there is a lack of psychometrically sound scales to measure DM practices and none that capture employees’ perception of DM practices (EPDMP). This dearth in literature has thus hindered DM research. To fill the gap, in the present paper, using a qualitative study and 3 quantitative studies in a sample of 590 employees across various sectors in the UK, a 9-item unidimensional EPDMP scale is developed and validated. Results from content adequacy, reliability, convergent, discriminant, nomological and incremental predictive validity assessments provide support for the measures use in diagnostic and theory testing efforts. This paper concludes with a discussion of the implications for theory, management practice and future research.

Keywords: Diversity management practices, employees’ perception of diversity management practices, scale development and validation
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Introduction

Over the past decade, the management of workforce diversity has received increased research attention among management scholars and practitioners, as evident in the increasing number of scholarly articles on the topic (e.g., Guillaume, Dawson, Otaye-Ebede, Woods & West, 2017; Carstens & De Kock, 2016; Otaye-Ebede, 2016; Olsen & Martins, 2012; Joshi & Roh, 2009; McKay, Avery & Morris, 2008) and the adoption of diversity management programs and/or practices (DMP) (cf. Richard & Johnson, 2001) by organizations. This increased interest in the management of workforce diversity can be attributed to environmental and societal changes, including: legislation, migration, rapid internationalization, corporate ethics and organizational efforts to create and sustain competitive advantage in a globalized marketplace (Richard, Roh & Pieper, 2013; D’Netto, Shen, Chelliah & Monga, 2014). These laws (e.g., The Equality Act, 2010), together with the predicted growth of an ethnically diverse workforce, have made the effective management of workforce diversity a business imperative (Roberson & Park, 2007). However, as organizations develop policies and practices to manage their diverse workforce, they are increasingly faced with challenges, such as increased conflict, lack of team cohesiveness, etc. Accordingly, there is much scholarly interest in how to effectively manage a diverse workforce and its potential outcomes.

Consequently, multiple prior reviews and meta-analyses have examined the outcomes of workplace diversity (Guillaume et al., 2017; Joshi & Roh, 2009; Williams & O’Reilly, 1998), and these reviews have shown that the relationship between diversity and outcomes is complex and equivocal (Yang & Konrad, 2011; Jayne & Dipboye, 2004). A notable cause of these equivocal findings as explicated by diversity scholars is the lack of a reliable and valid measure of the DMP construct (c.f. Carstens & De Kock, 2016).
There are several implications of the lack of an adequately developed and validated measure of workforce DM practices, particularly when assessing it from an employee perception viewpoint. First, frequently used measures of DM practices haven’t undergone rigorous scale development and validation procedures (e.g., Richard et al., 2013; Pitts 2006, 2009). Consequently, we cannot be certain that these scales accurately measure the construct (i.e. they either lack construct validity and/or content validity). Scholars have pointed out (e.g., Smith, 2005) the importance of measuring constructs in a “valid way” (p. 396), noting that constructs can only be accepted and made more concrete if the validity of the methods used to measure them can be ascertained i.e., do they measure what they are supposed to measure? Within the diversity field, to my knowledge, aside for the DM competency measure developed by Carstens & De Kock (2016), no other measure has undergone the rigorous scale development process needed and required for measurement factors. This is detrimental to diversity research as, although establishing reliability is good, it is not sufficient for establishing valid measurement. Second, because no well-established scale exists, different measures are used across studies and some of the existing tools have mainly been developed specifically for individual studies (e.g., Downey, Werff, Thomas, & Plaut, 2015; Armstrong et al., 2010; Pitts, 2006 etc.) which limits their use in other studies. This retards scientific knowledge in the field by making it difficult to aggregate and compare research findings, thereby preventing the diversity field from developing a coherent body of actionable knowledge.

Finally, and more importantly, if organizations are to create a fairer and more inclusive workplace, they need to be able to evaluate how individual employees perceive DM practices. Extant Human resource (HR) management research has highlighted the concentration on organization, rather than employee-centred research (Godard & Delaney, 2000) as a major limitation in the development of the field. Scholars such as Truss (2001)
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have called for a more holistic approach to examining HR practices and processes, noting that exploring managerial perspective is not enough to understand the way employees experience HR practices (Nishii & Wright, 2008). It is therefore useful to consider the differentiation that is now emerging between management-centred and employee-centred HR practices. Gerhart, Wright, and McMahan (2000), Guzzo and Noonan (1994) and Meyer and Allen (1997) all noted that employees’ perceptions of ‘reality’ are likely to influence their performance more so than actual practices and formal policy documentation. Hence, I see the development of a reliable and valid measure of workforce DMP from an employee’s perspective as one of the primary challenges to (and opportunities for) advancing this line of research.

Accordingly, the objective of this study is to develop and validate a measure of employees’ perception of diversity management practices (EPDMP). By pursuing this objective, the study contributes to the literature on workforce diversity management in that the development and validation of an EPDMP scale constitutes a first step in resolving the difficulty in operationalizing and measuring the DMP construct. Utilizing qualitative in-depth interviews and a series of quantitative studies, a uni-dimensional scale that measures EPDMP which can be utilized in scientific research and managerial practices is developed. Such a scale, when used in other studies, has the potential to facilitate a synthesizing of the accumulation of findings in the diversity research stream, hence providing better opportunities for a comparison of research findings. This is because a perception-centric perspective will facilitate further academic investigation by offering a measurement instrument that can be used to research relationships between DMP and work outcomes, including performance. Second, the research makes a significant theoretical contribution by deepening the research on DMP in the UK, and also complements and extends the extant US based literature on DM. Finally, the findings of this research can guide business managers in
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evaluating, monitoring, and elevating DMP in their organizations, thereby improving employees’ work outcomes and increasing firms’ overall competitiveness.

Theory

Diversity Management

DM originated in North America and has been used as a concept to replace the stereotypical nature of affirmative action (AA) and equal employment opportunity (EEO) practices. Early scholars, drawing on Thomas (1990), conceptualized DM as a means of adopting policies to enhance the performance of organizations. For example, Jayne and Dipboye (2004) define DM as inclusion, i.e. a diversity strategy which attempts to embrace and leverage all employee differences so as to benefit the organization. Recent definitions, however, have focused on not only recognizing, but also valuing and harnessing workforce differences, such as individual characteristics, backgrounds, orientations and religious beliefs, so that individual talents are fully utilized and organizational goals are met (Shen, Chanda, D’Netto, & Monga, 2009). According to Yang and Konrad (2011), DM comprises any formalized practice intended to enhance stakeholder diversity, create a positive working relationship among diverse sets of stakeholders, and create value from diversity. It also manifests in specific policies and programs to enhance recruitment, inclusion, promotion, and retention of employees who are different from the majority of an organization’s workforce (Özbilg & Tatlı, 2008). From a HR perspective, DM has been characterized as a component of HR (Mathews, 1998) that encompasses HR strategies, policies and practices. Managing diversity from a HR perspective requires managing in a way that harnesses the best in each person (i.e. respecting culture, age, gender and lifestyle differences in the workplace, so that everyone benefits: Mathews, 1998).
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Based on extant research (such as Richard et al., 2013; Kellough & Naff, 2004; Pitts, 2006, 2009) and the above discussions, there seems to be three major views on the meaning of DM. The first is linked with AA and EEO, which seeks adequate representation of minorities in organizations, and represents a more traditional view. The second is based on the business case for diversity, which is the espoused causal relationship between effective management of diversity and improved business performance. The final view is more comprehensive, as it combines both AA/EEO and DM programs, which includes not only abiding by the law to ensure adequate representation of minority employees, but also ensuring that these employees are effectively managed so as to increase individual satisfaction and performance (cf. Shen, et al., 2009; Thomas 1990).

This study is based on the third viewpoint, which is premised on achieving fairness through valuing individual differences. For organizations to create an environment where diverse employees feel included and able to perform to the best of their abilities, they need to implement practices that are fair and just, hence the theory of fairness (Rawls, 2009; Otaye-Ebede, Sparrow, & Wong, 2016) According to Cropanzano and Greenberg (1997), an act is considered fair if most individuals perceive it to be so. Therefore, for DM practices to enact the organizations’ desired positive outcomes, they should be perceived to be fair by the diverse employees (cf. Schwabenland & Tomlinson, 2015), Thus, the need to develop a measure for EPDMP. Consequently, the intent of this study is to apply empirical and theoretical insights to organizational practices in order to assist managers in planning and implementing diversity specific HR practices that will be regarded as fair. As noted by Sheppard, Lewicki and Minton (1992), to ignore fairness “potentially entails costs that organizations do not wish to incur, while to act justly produces direct and indirect benefits in terms of organizational efficiency, effectiveness and quality of life” (p. 202).
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Conceptualizing DM Practices and EPDMP

The concept of DMP is complex (Yang & Konrad, 2011), and like the concepts of diversity and DM, has been defined in several ways by scholars (e.g., Carstens & De Kock, 2016; Richard et al., 2013; Yang & Konrad, 2011). According to Yang and Konrad (2011), DM practices are “the set of formalized practices developed and implemented by organizations to manage diversity effectively” (p. 8). Evidence suggests a growing number of organizations, particularly in the US and the UK, have adopted practices designed to manage workforce diversity (Peretz, Levi & Fried, 2015; Gottfredson, 1992). For example, Cox (1991) identified work arrangements, education and training, career management, and mentoring relationships as specific diversity activities in American corporations. Morrison (1992) found diversity initiatives related to accountability, career development and recruitment, while Konrad, Yang and Maurer (2016) suggest practices such as diversity training and development, selecting a diverse workforce, providing work-life flexibility etc.

Despite the increase in the implementation of DMP, which is also reflected in scholarly publications, employees’ perceptions of these practices remain largely untested in the published literature. Specifically, although there are a wide range of strategies and programmes for managing workforce diversity, little is known of diversity practices (cf. Wentling & Palma Rivas, 1998) based on how they are experienced by employees within the organization. Kossek and Pichler (2006) note the importance of assessing employees’ perceptions of formalized practices, as they assist organizations in achieving the following three goals: (a) promoting perceptions of organizational justice and inclusion; (b) reducing discrimination; and (c) improving financial competitiveness.

One of the reasons for this limited assessment of employees’ perceptions of DMP is the lack of a widely accepted measure of the concept. Existing measures as noted earlier
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either haven’t been empirically developed using standard scale development processes, or have been developed specifically for individual studies, which results in a proliferation of scales which aren’t generalizable (see Table 1 for a sample of similar existing scales).

Naff and Kellough (2003) developed a measure of DM by combining items from the National Performance Review survey on federal agency DM programs. The measure assessed five components of DM programs: diversity training; internal communications; accountability; resource commitments; and scope (in terms of demographic attributes) (Naff & Kellough, 2003). Despite their contribution to the literature, the provided little evidence of its validity.

Similarly, Pitts (2006, 2009) proposed a conceptual measure of workforce DM based on employees’ perceptions of the existence of DM in their organization. His measure of DM includes three interrelated components: recruitment and outreach; valuing differences; and pragmatic policies and programs. These components represent the three primary activities entailed in the management of diversity (Pitts, Hicklin, Hawes & Melton, 2010). Though Pitts’ definition and measure of the diversity management construct attempted to capture certain tenets of DM, like Naf and Kellough’s (2003) measure, the psychometric properties of Pitts’ measure have not been empirically demonstrated.

Mor Barak, Cherin and Berkman (1998) developed the diversity perception scale which measures employees’ views about the diversity climate in the organization, and which has been used by scholars to measure diversity climate perception (e.g., McKay et al., 2008; Gonzalez & DeNisi, 2009 etc.). Some scholars have suggested that diversity climate is the same as DM practices. This might be because, in management literature, what Arthur and Boyles (2007) call practices is often labelled psychological climate, and what they call
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climate is labelled organizational climate (Ostroff, Kinicki & Tamkins, 2003). It could also be that, due to the individual-level nature of both constructs (how-be-it contestable), there are some overlaps in definition and measures. McKay et al. (2008) define diversity climate as the degree to which a firm advocates fair HR policies and socially integrates underrepresented employees. According to Dwertmann, Nishii and van Knippenberg (2016), this definition, which is based on Mor Barak, et al. (1998), “captures the general organizational sentiment related to diversity, in particular, the extent to which the organization utilizes fair policies and socially integrates underrepresented minorities” (p. 1142). The definition along with Mor Barak’s scale, is about employees’ views on the diversity climate in the organization, and not their perceptions of the practices.

Therefore, to extend knowledge, I propose that a valid and reliable perception-centric measure of DM practices is required. To achieve this aim, this study draws on existing literature and qualitative interviews with HR managers to identify existing DMP. Drawing on the most used practices, the study proceeds to rigorously assess diverse EPDMP with the aim of developing and validating a scale to measure them.

Method

Following recommendations by Hinkin (1995) and DeVellis (2003), scale development and validation was conducted across 4 studies. In Study 1, Phase 1, an extensive literature review and a series of personal interviews with Chief Executive Officers, HR managers, and diversity managers were used to generate a pool of items (cf. MacKenzie, Podsakoff & Podsakoff, 2011). Given the nature of the study, i.e. to gain employees perceptions of these practices, it was important to first gather existing organizational DM practices from top management before evaluating how employees perceive them, hence the sample. In Phase 2 of Study 1, the items generated went through a phase of item purification
and pre-test by assessing face and content validity in preparation for Studies 2, 3 & 4, which were used to validate the newly developed scale.

**Study 1 – Instrument Development**

**Phase 1 – Item Generation**

**Literature Review**

To access the relevant literature, a manual search of the latest journal articles on: diversity; diversity management; diversity management systems, practices and programs (e.g., Carstens & De Kock, 2016; Konrad et al., 2016; Joshi & Roh, 2009; van Dijk, Engen, & Paauwe, 2012); and diversity climate (e.g., Dwertmann et al., 2016; Gonzalez & DeNisi, 2009) was conducted. To identify further studies, relevant databases (such as ISIWeb of Knowledge, PsycInfo, Web of Science and ABI/INFORM) were searched for empirical quantitative and qualitative studies that looked at the effects of workplace DM practices on individual, group and organizationa level outcomes and were published or in press in peer reviewed journals. Specifically, the terms “diversity management” and “practices”, “policies”, “systems”, “programmes” (and programs), “strategies”, “organization” (and organisation”) and “company” were searched for among the title, keywords, and abstracts of the peer-reviewed papers indexed in the databases. The search was also limited to English language publications which were published within the last 3 decades. This ‘time boundary’ was deemed adequate because, amongst other influences, the concept of DM took root from Thomas’s (1990) seminal article “From affirmative action to affirming diversity”. Categories were narrowed down to management, business, applied psychology, industrial relations, social sciences, psychology, sociology, and ethics. Qualitative journal articles were mainly reviewed to explore the conceptualization of DM, while more focus was given to quantitative
peer-reviewed journal articles to pull out existing scale measurements of similar constructs. Table 1 shows the list of similar existing scales drawn from the final list of articles.

The literature review had two purposes. First, to explore similar existing measures of DM/DMP, thereby problematizing the research (MacKenzie et al., 2011). Table 1 reflects the fact that, despite the growing interest in diversity research explicated by the number of publications on the topic, there is a disparity in findings which could be attributed partly to the lack of an empirically valid measure of DM practices. Examples shown in Table 1 indicate that most scales were either developed and used specifically for the study, therefore unique to the study, or were not empirically and statistically validated (side from a few who conducted reliability tests). Second, from the literature review, five initial categorisations (strategic recruitment; cultural awareness training; internal communication; valuing diversity; and accountability) of DM domains (Naff & Kellough, 2003; Pitts, 2006) were derived, which then aided the development and generation of questions used in the interviews.

**Interviews**

**Sample and Procedure.** Interview participants were identified by personal networking, supplemented by the snowballing technique (that utilized contacts of contacts; Mason, 1996) and were employed across the public and private sectors. In total, 26 letters were sent to HR/diversity managers, of which 10 positive responses were received (see Table 2 for demographic data of interview participants). Following these responses, interviews were arranged at a convenient time and location, mostly at their workplaces. All interviews were face-to-face and were conducted by the researcher. Interviews lasted an average of 1.5 hours. Before, during, and after the interviews, interviewees were given an opportunity to ask any questions pertaining to the research or interview. Participants were asked questions about diversity and DM within their organizations (i.e. the present state of diversity, DM and
equality), perception and understanding of these constructs, and how DM is perceived and practiced within their organizations. All interviews were tape recorded with the permission of participants and notes were also taken. The interviews were transcribed by the author, which allowed an immersion in the data more fully, so giving the researcher the opportunity to capture the full essence of the views of the participants. At this stage, company documents and artefacts, including newsletters, annual reports, and company manuals, were also collected.

The interviewees reported an average age of 45 and an average of 20 years’ experience of managing employees of different racial and/or ethnic backgrounds. Their experience spanned various industries including manufacturing, distribution, production, retail, banking, and education. Eighty percent of interviewees were from ethnic minority backgrounds, of which 7 were female and 3 were male. Given the exploratory nature of this phase of the research, the sample size was deemed suitable for gaining preliminary insights into the issues of interest and generating suitable items for measuring the EPDMP construct.

[Insert Table 2 about here]

Data Analytic Technique for Phase 1

**Codin process.** Following the item generation stage as discussed earlier, I embarked on a coding process as recommended by Strauss and Corbin (1998). I employed open, axial and selective coding to facilitate the task of analysis. First, I conducted ‘open coding’ using NVivo 8 to discover and identify the properties and dimensions of concepts in the data. This process involved line-by-line analysis of transcripts and the labelling of phenomena. Several recurring themes were noted in the data from all interviews regarding the meaning of diversity and the predominant DM practices in their organizations. Initially, 68 statements/items were developed to measure DM in organizations. However, these were
further reduced during iterative analysis. The iterative analysis process involved me returning to the data several times to elucidate and refine the emerging themes. Second, ‘axial coding’ was employed to link the core categories together at the level of properties and dimensions. This coding focused on exploring how each developed item related to the meaning of DM and how it was being practiced in these organizations, thus forming a more precise explanation of practices uncovered. Finally, ‘selective coding’ was used as a process of integrating and refining findings. It involved the review of analysis to gauge consistency and logic while exploring outlying cases, explaining variations, and trimming extraneous concepts. In total, 55 statements/items which fell under the broad categories of training, strategic recruitment, communication, nurturing of mentors/role models, participation, inclusion/valuing diversity, career development and accountability and job security, survived this coding process and were then used for further purification.

**Phase 2 – Face and Content Validity Assessment (Item Purification)**

Following the coding process, the remaining 55 items were subjected to an assessment of face validity According to Hardesty and Bearden (2004), while content validity assesses the spread of items and whether they represent the full proportion of a construct, face validity assesses the representation of the construct without considering the spread. A common method of assessing face validity involves employing subject matter experts (SMEs) who judge items according to the extent to which they represent the given construct (Farley, Coyne, Axtell, & Sprigg, 2016; Hardesty & Bearden, 2004). Similar to Phase 1, participants for this phase were also identified by personal networking and supplemented by the snowballing technique. It is important to note that participants in this Phase had not participated in the interviews for item generation.
Sample, Procedures and Results

Following the item generation phase, 10 HR/diversity managers in a top retail firm in the UK served as judges to evaluate the content/face validity of the 55 items. These managers were between the ages of 30 and 60, and had a minimum of 4 years work experience. The sample was deemed ideal because of the breadth of experience they had in managing diversity across the UK retail sector. In this analysis, the 10 expert judges (Churchill, 1979) were given a list of these items and asked to indicate the extent to which the items reflect DMP within their organization and any other organization in the UK. They were further given the option to suggest items which were not included in the list, but were relevant to DM. The results from this were reviewed and elimination of or rewriting of, items decided based upon different criteria. These criteria included; ease of understanding; number of similar items retained; and how commonly it had been referenced by participants (Farley et al., 2016). Items that did not receive consistency of use by the 10 judges were eliminated. A total of 12 statements were deleted in this process, resulting in 43 statements for further scale purification and analysis.

To further purify the items and establish content validity (Mackenzie et al., 2011), a second set of expert judges (Churchill, 1979) were selected to review the items. One was an academic specializing in Strategic HR management and the other a HR Director with over 30 years of HR experience. They were asked to review the items based on how well they captured the central idea (i.e. relevance of each item to intended measure), conciseness, and clarity of expression. After the review by these judges, some items were reworded or deleted, reducing the items for use in the final questionnaire to 28.
Study 1 – Discussion

The primary purpose of Study 1 was to develop a set of instruments that reflect existing theorization and practice of DM. In the first phase, inductive and deductive methods were used to create an item pool (n = 55). Initially, a deductive process of searching the DM literature was followed as the researcher independently identified 5 broad domains which were specific to managing diversity. Following this process, interviews were conducted. In the second phase, each item’s face and content validity was assessed, which resulted in the removal of 27 items. This produced a 28 item DMP measure that was subsequently incorporated into a questionnaire to assess employees’ perceptions.

Study 2 – Initial Measure Validation

Study 2 was conducted to validate the 28 item measure on a new sample of employees and to assess their perceptions of DM practices, hence validating the EPDMP scale. The study had 4 main aims: (1) to identify the underlying factor structure; (2) to assess reliability and validity; (3) to refine the scale by removing unreliable and unrepresented items; and (4) to establish the nomological network of the EPDMP scale.

Sample and Data Collection

Data for this phase was obtained from a sample of employees selected from a cross-section of public and private sector organizations generally considered leaders in DM within the UK. The participants represented various industries, including health, manufacturing, distribution, production, retail, banking, and education.

Of the 300 questionnaires distributed, 185 completed questionnaires were returned, of which 15 were incomplete, resulting in 170 usable questionnaires, yielding a response rate of 55%. This is a more than adequate sample size for scale development purposes (Spector,
Of the 170 respondents, 52% (88) were female. Respondents reported an average age of 35.70 years (s.d. = 9.76) and an average organizational tenure of 4.91 years (s.d. = 4.46). Respondents worked an average of 35.86 (s.d. = 8.96) hours per week. In terms of education, 71.9% (122) had received at least an undergraduate or a first degree. The ethnic/racial composition of participants was varied, with 45% African, 22% Indian and Asian, 12% White, British/Irish, 11% Caribbean, 2% Chinese and 8% Other.

Measures

The 28 items from Study 1 was incorporated into the questionnaire and responses were elicited on a 5 point Likert-type scale ranging from (1) ‘Not at all’ to (5) ‘To a very large extent’. In addition to these items, measures of other variables were included in the questionnaire based on their anticipated theoretical relationship and, therefore, their usefulness in the validation process to test for convergent, discriminant, and nomological validity.

Diversity Management. This was measured using a 3-item scale developed by Pitts (2009). Sample items are: “Supervisors/team leaders in this organization are committed to a workforce that is representative of all segments of the society”; and “This organization has policies and programme that promote diversity (for example recruiting minorities and women, training in awareness of diversity issues, mentoring)”. These items were measured using a 5-point scale ranging from (1) ‘Not at all’ to (5) ‘To a very large extent’. The scale’s alpha and liability in this study is .73.

Diversity Climate. This was measured using 5 of the 6 items comprising the organizational fairness factor based on Mor Barak (2005). The 5 items selected were adequate for this study as they measured employees’ perception of the diversity climate in their organizations as described by Mor Barak (2005). Sample items include: “Managers here have a track record of hiring and promoting employees objectively, regardless of their race,
gender, sexual orientation, religion, or age”; “Managers interpret human resource policies (such as sick leave) fairly for all employees”; and “Managers give assignments based on the skills and abilities of employees”. These items were measured using a 5-point scale ranging from (1) ‘Not at all accurate’ to (5) ‘Very accurate’. The scale’s alpha reliability in this study is .92.

*Organizational (Affective) Commitment.* This was measured using a 6 item scale developed by Meyer, Allen and Smith (1993). Sample items are: “I really feel as if this organization’s problem are my own”; “I would be very happy to spend the rest of my career with this organization”; and “This organization has a great deal of personal meaning for me.” These items were measured using a 5-point scale ranging from (1) ‘Strongly disagree’ to (5) ‘Strongly agree’. The scale’s alpha reliability in this study is .83.

*Perceived Overall Justice.* This was measured using a 6-item scale developed by Ambrose and Schminke (2009). Sample items include “Overall, I am treated fairly by my organization”; “For the most part, my organization treats its employees fairly”; and “Usually the way things work in this organization are not fair” (reverse-score). These items were measured using a 7-point scale ranging from (1) ‘Strongly disagree’ to (7) ‘Strongly agree’. The scale’s alpha reliability in this study is .73.

*Job Satisfaction.* This was measured using the 6-item job satisfaction index that Price and Mueller (1981) adapted from Brayfield and Rothe (1951). The items measure the extent of global satisfaction with the job and has demonstrated satisfactory levels of reliability and validity in other research (e.g., Agarwal & Sajid, 2017). Sample items include; “I am often bored with my job”, “I am satisfied with my job for the time being”, and I feel fairly well satisfied with my present job”. These items were measured using a 5-point scale ranging from (1) ‘Strongly disagree’ to (5) ‘Strongly agree’. The scale’s alpha reliability in this study is .85.
Results

Exploratory Factor Analysis (EFA) Results

The responses to the 28 survey items were factor analysed using principal axis factor extraction with VARIMAX (orthogonal) rotation (see Hinkin, 1998). To interpret the results, the scree plot, variance accounted for, and residual correlation matrices were examined in addition to the conditions for deletion. Specifically, the decision to delete an item (or not) was based on the following: (a) Communality; (b) Primary (target) factor loading; (c) Item cross-loadings; (d) Meaningful and useful membership to a factor (factor validity); and (e) Reliability (I checked the internal consistency of each factor using Cronbach’s alpha and checked alpha’s if item removed to determine whether removal of any additional items would improve reliability). In total, 13 items were subsequently dropped from further analysis.

After the removal of these items, the EFA was re-specified for the remaining 15 indicators. Results of the EFA revealed the presence of 5 components with eigenvalues exceeding 1, explaining 43.3%, 11.6%, 5.3%, 4.2% and 3.8% of the variance, respectively. An inspection of the scree plot revealed a clear break after the second component. Using Cattell’s (2010) scree test, 2 components were retained for further investigation. The 2-component solution explained a total of 68.73% of the variance, with component 1 contributing 60.69% and component 2 contributing 8.04%. To aid in the interpretation of these components, VARIMAX rotation was performed. The rotated solution revealed the presence of a simple structure, with items in both components achieving factor loadings of .50 or greater (Table 3), and all items loading substantially on either the first or second components. Furthermore, the Kaiser–Meyer–Olkin measure verified the sampling adequacy of KMO = .93, and all KMO values for individual items were above the acceptable limit of .5 (Field, 2009).
Table 3 contains the factor matrix with the item loadings for each factor. Each item clearly loaded on one of the two dimensions. The main loadings on component 1 reflected employees’ perceptions of how DM is framed within an organization, while the loadings on component 2 reflected how employees perceived the importance of an organization’s attitude towards DM practices. Effective framing of DM practices involves the organization communicating diversity in positive ways through its practices, as well as consistently communicating the role of diversity in helping the organization accomplish its diversity goals. On the other hand, the organization’s attitude towards DM practices involves the organization making a conscious effort to support diversity through its policies, practices and strategies.

[Insert Table 3 about here]

**Confirmatory Factor Analysis (CFA) Results**

Following EFA, CFA was conducted using AMOS version 23, to examine how well items measure a single factor as revealed by the EFA results (i.e. to cross-validate the EFA results). This was in line with other scholars (e.g., Brown, 2006; Hinkin, 1995; Nunnally & Bernstein, 1994; Kim, Egan, & Tolson, 2015) who suggest using both EFA and CFA together can produce a more accurate measurement and would provide evidence for a more valid instrument for assessing sound attributes.

The two factors obtained from the EFA were allowed to freely correlate and the error terms for each item, in addition to multiple fit indices, were assessed. The model was assessed using absolute and incremental fit indices (Hu & Bentler, 1999), including the chi-square statistic, the Comparative Fit Index (CFI), Incremental Fit Index (IFI), the Non-normed Fit Index (NNFI), the standardized root-mean-square residual (SRMR) and the root-mean-square error of approximation (RMSEA). The results from the CFA showed that the
two-factor model had a good fit, $x^2(87) = 181.3$, $p < .01$, $CFI = .95$, $IFI = .95$, $NNFI = .954$, $RMSR = .07$ and $RMSEA = .08$, with all indices falling within acceptable ranges (Hu & Bentler, 1995). To further validate the findings and to assess fit, the 2-factor model was compared to a 1-factor model. The results suggest that the 2-factor model fits the data better than the 1-factor model (see Table 4). However, inspection of the fit indices showed less-than-acceptable model fit (e.g. $RMSEA = 1$), indicating that scale modifications were needed.

During the scale modification process, several tests were conducted to determine whether an item was kept or discarded. Specifically, squared multiple correlations and both the lambda-X (LX) and theta delta (TD) modification indices were evaluated to determine whether an item had poor explanatory power, cross-loaded with another construct, or had high correlated errors with other items. Before any item was removed, however, I evaluated it to make sure it did not theoretically weaken the scale compromise reliability. Based on the evaluations of modification indices and face validity of the scale (i.e. examining the item content in light of the CFA results), 6 items were deleted, leaving 9 items. A rerun of the CFA showed that all items loaded on 1 factor and had a better fit than the previous models. Specifically, the CFA of the alternative 1-factor model showed a good fit, $X^2(27) = 61.75$, $p < .01$, $CFI = .98$, $IFI = .98$, $NNFI = .98$, $RMSR = .06$ and $RMSEA = .08$, with all indices falling within acceptable ranges (Hu & Bentler, 1995). The CFA fit statistics for the 1-factor model, 2-factor model and the alternative 1-factor model (the new 9 item scale) are shown in Table 4. Subsequently, a reliability test was conducted with these 9 items (see column 1, Table 5 for Final EPDMP items). The Cronbach alpha for the adjusted EPDMP scale score with 9 items was $\alpha = .93$, indicating good scale reliability (internal consistency) as it was above the 0.70 threshold (alpha estimates of between .60 and .70 are considered acceptable; Hair, Black, Babin, Anderson & Tatham, 2006, Nunnally & Bernstein, 1994).
Convergent and Discriminant Validity Assessment

Convergent Validity

Evidence of convergent validity was assessed by 3 measures: item reliability, construct reliability (Cronbach alpha), and average variance extracted (AVE; Fornell & Larcker, 1981). Item reliability was evaluated by the size of the loadings of the measures on their corresponding constructs. According to Chin (1998), most of the loadings should be at least .60 and ideally .70 or higher. This indicates that each measure is accounting for 50% or more of the variance in the underlying latent variable (Bagozzi, 1994; Fornell & Larcker, 1981; Hair et al., 2006). Given that all the items loaded highly (. > .60) on the EPDMP factor demonstrates the scale’s convergent validity (Fornell & La cker 1981). Table 5 shows the item loadings for the measurement model, indicating adequate convergent validity.

Second, as mentioned earlier, the Cronbach alpha, assessing reliability of the EPDMP measure, was .93, which is above the typical .70 cut-off (Nunnally & Bernstein, 1994). Finally, the AVE score for the EPDMP scale was .65, (see Table 5). According to Fornell and Larcker (1981), convergent validity is established if the value of the variance extracted exceeds 0.50 for a factor. Taken together, the analysis demonstrates that the newly developed EPDMP scale is uni-dimensional and has a high degree of convergent validity.

Discriminant Validity

Discriminant validity is the extent to which a measure is indeed novel and not simply a reflection of some other variables (Churchill, 1979). Hence, an assessment of discriminant validity requires a comparison with other constructs. To assess the discriminant validity of the EPDMP scale and as previously noted, data was collected on a number of variables theorized to relate to DMP. These variables are DM (Pitts, 2009) and diversity climate (Mo
Barak et al., 1998; Gonzalez & DeNisi, 2009). Accordingly, discriminant validity was assessed by Fornell and Larcker’s (1981) test. According to these authors, a construct may be considered to have adequate discriminant validity if the square root of the average variance extracted (AVE) for each construct is larger than the correlation between that construct and any other construct in the model (Chin, 1998; Fornell & Larcker, 1981). As shown in Table 6, all constructs in the estimated model fulfilled this condition of discriminant validity. The relatively high variance extracted for each factor compared to the correlations between constructs suggests evidence for discriminant validity.

Nomological Validity

Nomological validity refers to the ability of a scale to behave as expected with respect to some other constructs to which it is related (Churchill, 1995). This type of validity is based on hypothesized relationships between theoretical causes and effects of the test construct. There are well-grounded theoretical reasons to expect a positive association between DM practices and attitudinal work outcomes such as organizational commitment, job satisfaction, and perception of overall justice (e.g., Otaye-Ebede, 2016; Pitts, 2009; Magoshi & Chang, 2009). Thus, in the current context, nomological validity would be demonstrated if the EPDMP scale positively and significantly related with job satisfaction and organizational commitment. From a social exchange perspective, we can expect that an employee who perceives that the organization values DM by its implementation of practices to manage it, is more likely to reciprocate positively with attitudes such as organizational commitment (c.f. Pitts, 2009; Magoshi & Chang, 2009).

As shown in Table 7, EPDMP positively related to organizational commitment ($r = .35, p < 0.001$) and job satisfaction ($r = .43, p < 0.001$), suggesting evidence of nomological validity for the proposed EPDMP scale.
Study 3 – Cross Validation

The scale was cross-validated for predictive and criterion-related validity on a sample of 676 employees from a retail company based in the UK. It was expected that EPDMP will be positively related to service performance and market performance. To test this prediction, data was collected from managers and employees at two time periods approximately 6 months apart.

At Time 1, store managers were asked to rate the overall service performance of their employees and to report the market performance of their stores. Time 2, employees were asked to report their perception of DMP and demographics. Of the 676 employees, we received a total of 269 surveys from both managers and employees, representing a 40% response rate. After excluding incomplete surveys, we had 62 manager surveys and 207 employee surveys from 51 stores. Females represented 41% and participants were between the ages of 16 and 60. Most participants were White British (41%), and the rest were from other racial/ethnic background including Blacks, Asians, Chinese and Mixed. All the participants had work experience and 27% had at least a first degree. The following scales were used to measure the relevant variables.

EPDMP. The newly developed 9-item scale was used to measure EPDMP. Confirmative factor analysis again confirmed that the EDMP had a good fit: ($\chi^2(24) = 61.10$, $p < .001$, $CFI = .96$, $IFI = .96$, and $RMSEA = .08$). The alpha reliability was .77.

Service performance. Liao and Chuang’s (2004) 7-item scale was used to measure service performance. An example item is that “our employees ask good questions and listen to find out what a customer wants.” The alpha reliability in this study was .67.
**Market Performance.** Managers were asked to rate their store’s market performance relative to that of other competitors for the past 12 months, using Delaney and Huselid’s (1996) 4-item scale (marketing, sales growth, profitability, and market share on a response format ranging from: 1 = much worse to 5 = much better). The alpha reliability in this study was .42.

Results revealed that, after controlling for the confounding factors of gender, age and ethnicity, EPDMP had a positive and significant relationship with service performance: (β = .40, p < .001) and market performance (β = .37, p < .001) respectively. Overall, the findings showed that the EPDMP scale has predictive validity.

**Studies 2 and 3 – Discussion**

In Study 2, the items generated from Study 1 were evaluated based on employees’ perceptions. Results from the survey were analyzed using scale development processes to reduce items and assess reliability and validity. Findings from Study 2 resulted in a 9-item uni-dimensional EPDMP scale that reflected satisfactory content adequacy, reliability, convergent, discriminant and nomological validity, which provided support for the measures use in diagnostic and theory testing efforts. Further validation of the EPDMP scale was revealed in Study 3, where findings showed that EPDMP predicted quasi-objective outcomes of service and market performance.

**Study 4 – Incremental Predictive Validity**

Study 4 had two main aims: (1) to validate the EPDMP measure on a separate sample; and (2) to analyze whether the EPDMP measure explained additional outcomes above and beyond the predictive values of similar measures, such as diversity climate. This, according
to Antonakis and Dietz (2011), is the “litmus test for determining the utility of a new measure” (p. 409).

Previous studies have shown that diversity climate results are highly predictive of relevant outcomes such as organizational identification and turnover intention (e.g., Gonzalez & DeNisi, 2009; Cole, Jones III & Russell, 2016). Organizational identification is defined as “a cognitive connection between a person and an organization” (Bhattacharya & Elsbach, 2002, p. 26). According to the self-enhancement motive of social identity theory, individuals are more likely to identify with an organization that is perceived to be engaging in positively desired activities (Cooper & Thatcher, 2010; Chrobot-Mason & Amarovich, 2013; Lam, Liu & Loi, 2015). Thus, for the purpose of self-enhancement, individuals are more likely to identify with organizations that they perceive to have a positive diversity climate (i.e. a fair and supportive climate). Following the same argument, when employees perceive that the DM practices of their organization are ir, this is more likely to influence organizationally relevant outcomes such as identification. Thus, I predict that EPDMP will positively relate to organizational identification beyond diversity climate.

On the other hand, and underpinned by social exchange theory, scholars have noted that diversity climate is associated with employees’ intention to leave or remain (e.g., Gonzalez & DeNisi, 2009; Singh & Selvarajan, 2013; Boehm, Kunze, & Bruch, 2014). Similarly, diversity scholars have found a negative relationship between DMP and turnover intentions (e.g., Choi, 2009; Tsui, Egan, & O’Reilly III, 1992). Underpinned by social exchange theory, we can argue that employees create emotional attachments to organizations that are seen to care about them. Attesting to this notion, Eisenberger, Ameli, Rexwinkle, Lynch and Rhoades (2001) found that members perceiving that their companies are committed to them (e.g. creating a relationship through the implementation of DM practices)
will, in turn, commit to these companies (and would want to stay). Thus, I predict that EPDMP will negatively relate to turnover intention beyond diversity climate.

**Method**

**Sample and Data Collection**

Data in this study was collected from a sample of employees within organizations across the UK. A total of 191 completed questionnaires were collected in this study, giving a response rate of about 47%. Females represented 37% and participants were on average between the ages of 30 and 39. Most participants were Black/Black British (37%), and the rest were from other racial/ethnic backgrounds including Asians, Whites, Chinese and Mixed. All the participants had work experience and 59% had at least a first degree.

**Measures**

*Diversity Climate.* \(\alpha = .89\) was measured using Mor Barak’s (2005) scale as described in Study 2

*Organizational Identification.* \(\alpha = .82\) was measured using a 5-item scale based on Mael and Ashforth (1992) and used by Blader and Tyler (2009). Sample items include: “Working at my company is important to the way that I think of myself as a person”. These items were measured using a 5-point response option ranging from 1 ‘Strongly disagree’ to 5 ‘Strongly agree’.

*Turnover Intention.* \(\alpha = .81\) was measured using Wayne, Randel and Stevens’ (2006) version of Colarelli’s (1984) scale. Items were rated on a 5-point Likert-scale ranging from 1 (‘Strongly disagree’) to 5 (‘Strongly agree’). A sample item is “I frequently think about quitting my job”.

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Control Variables. To reduce confounding effects, and analogous to previous research (e.g., Triana, Garcia, & Colella, 2010; Otaye-Ebede, 2016), I controlled for the 2 demographic variables of gender and age.

Results

Results of Cross Validation

To further validate the findings in Studies 1, 2 and 3, and provide evidence of the generalizability of the newly developed EPDMP measure, cross-validation with a different sample was essential. Prior to performing the data analysis assessing incremental predictive validity, CFA was conducted. The results of the CFA showed that the EPDMP measure had a good fit – $\chi^2(27) = 59.16$, $p < .01$, CFI = .99, IFI = .98, and RMSEA = .08 – with all indices falling within acceptable ranges (Hu & Bentler 1995). Furthermore, the alpha reliability (Cronbach’s alpha) for the EPDMP measure was .93. These results provide further evidence to suggest that the scale developed and validated in Studies 1, 2 and 3 is a reliable and valid measure of EPDMP in a variety of samples.

Incremental Predictive Validity Tests

A series of hierarchical regression analyses were conducted to examine whether the newly developed EPDMP measure provides incremental predictive validity beyond diversity climate. In the first step of the regression analyses, the control variables (gender and age) were entered; in the second step, the diversity climate measure was entered; and finally, EPDMP was entered. Results show that the EPDMP measure accounted for a significant 5% variance increase ($p < .001$: see Table 8) in explaining organizational identification, after diversity climate measure effects were controlled for. In addition, EPDMP accounted for a
marginally significant 1% variance increase in explaining turnover intention (p < .10: see Table 8) after diversity climate measure was accounted for.

**Study 4 – Discussion**

Findings from Study 4 demonstrated that EPDMP predicted significant variance above and beyond diversity climate. This is strong empirical support for the test’s incremental validity. I therefore conclude that the EPDMP measure has a high explanatory value for relevant outcomes of organizational identification and turnover intention.

[Insert Table 8 around here]

**General Discussion**

The changing demographic landscape has resulted in a number of organizations developing and implementing various DM practices. Concurrently, research on the topic has seen an increase over the last decade, with a substantial number of theorists focusing on the relationship between DM, including DM practices and outcomes (e.g., Otaye-Enede 2016; Armstrong, Flood, Guthrie, Liu, MacCurtain & Mkamwa 2010; Kim, Lee & Kim 2015; Konrad et. al. 2016) Despite increasing interest in the areas of diversity and DM, there exists a disparity finding. Some researchers have attributed this to the differences in conceptualization and the measurement of the DM construct (e.g., Carstens & De Kock, 2016), hence the need for a scale to measure DM practices specifically from an employee perspective.

Accordingly, the main purpose of this study was to develop and validate a measure for employees’ perception of DMP. The approach was premised on the assumption that how employees perceive DMPs within their organizations has an effect on individual-level work outcomes and in the long-run organizational performance. Using a qualitative study and 3
quantitative studies in a sample of 590 employees across various sectors in the UK, a 9-item uni-dimensional EPDMP scale was developed and validated. The psychometric properties of the newly developed measure of EPDMP were tested in Studies 3 and 4, and its relationships with diversity related outcomes and firm performance were evaluated.

Main Findings and Theoretical Implications

The EPDMP scale developed in this study represents a novel approach to understanding individual-level employee-centric perceptions of how firms manage DM through their practices. It proposes 9 items which employees deem to be most important when assessing DM within their organizations, and examine how these practices affects diversity related and firm level outcomes. Existing literature has focused on looking at DMP from an organizational perspective (e.g., Carstens & De Kock, 2016; Konrad et al., 2016; Armstrong et al., 2010). Some have assessed individual perceptions of diversity management (e.g., Pitts, 2009) or diversity climate (Dwertmann et al., 2016; Mor Barak et al., 1998), with the majority focusing on actual HR practices such as training, recruitment, and appraisal etc. (e.g., Peretz et al., 2015; Naft & Kellough, 2003). This research adds another category for measuring DM practices; that is, measuring EPDMP.

The results from the instrument development and validations stages (i.e. Studies 1 and 2) showed it possible to measure employees’ perceptions of DMP reliably and validly using the 9-item measure developed in this study. In the data, the EPDMP exhibited acceptable content, construct, and discriminant validity, hence providing a practical tool that is easily understood, is ‘face-valid’ and allows for the measurement of individuals’ assessment of organizations’ DM efforts.

Studies 3 and 4 provided results for criterion-related and incremental predictive validity. In these studies, the relationships between the EPDMP scale and organizational
identification, turnover intention, service performance and market performance were examined individually. The results suggest that when employees perceive that their organization values diversity through its implementation of employee-centric practices, they are more likely to provide high quality service to customers, which will in turn result in better market performance. This study’s results provides empirical evidence for the notion reported by scholars who have argued that employees’ perceptions and interpretations of HR practices (including DM practices), rather than the actual practices themselves, directly influence employee attitude and behavior (cf. Chaung et al., 2010; Pitts, 2009; Gerha Wright, & McMahan, 2000; Wright, Gardner, Moynihan & Allen, 2005). Further, the results suggest that EPDMP has a proximal effect on how employees identify with the organization, such that they are more likely to stay with the organization when they perceive that the DM practices are implemented fairly. This effect was over and above that associated with having a climate for diversity (Gonzalez & DeNisi, 2009; Cole et al., 2016).

The EPDMP scale advances knowledge of DM on 2 levels. First, the research shows that managers and employees have a different understanding of DMP. While managers listed what organizations were doing to manage diversity in Study 1, such as policies and programs implemented, employees were more interested in the values that were attached to these practices and how these were communicated to them (Studies 2, 3 and 4). Therefore, the EPDMP scale enables researchers and practitioners to study, measure and analyze DMP from an employee perspective, thereby narrowing down general DM practices to those that are of particular interest to employees.

Second, as noted earlier, research findings in the diversity discipline have been equivocal. Difficulties in synthesizing findings in this research stream have been partly attributed to the lack of an empirically valid measure of workforce DM. Therefore, an implication of this empirically validated measure of EPDMP is that it has the potential to aid
the diversity field in obviating these difficulties. This is because, as other researchers use or replicate this scale in their studies, it could help streamline research in the diversity field, ultimately enhancing our understanding of the performance implications of workforce DM. The current study therefore contributes to DM literature by fulfilling the need for a DMP measure that is relevant to the context of employees. Researchers can now utilize the EPDMP measure rather than using scales developed to measure other DMP constructs. The measure also provides researchers with a homogenous method of assessing EPDMP, which allows for comparisons across studies and samples.

**Practical Implications**

Research has emphasized the need for companies to establish structured and meaningful DMP metrics if they intend to realize superior business performance. However, companies have found this difficult to attain. For example, Kochan, Bezrukova, Ely, Jackson, Joshi, Jehn, Leonard, Levine and Thomas (2003) reported that none of the 20 large, and well-known, Fortune 500 companies approached for their study had systematically examined the effects of their diversity initiatives. One of the reasons for not evaluating diversity programmes is that organizations typically struggle to identify meaningful metrics to calculate the return on investment of HR practices (Kochan et al., 2003), and diversity is no exception. Accordingly, this newly developed measure of EPDMP can be used to conduct an audit of employees’ perceptions of an organization’s DMP. The audit can then be used to review the values of the organization to ensure that the needs of employees (human assets) are reflected. The parsimonious and compact nature of the 9-item EPDMP measurement instrument makes it well suited for inclusion in general questionnaires, in addition to other constructs of interest, thus enabling a quick, easy and efficient evaluation of employees’ perception of DM practices in the workplace, without sacrificing psychometric rigour.
In addition, the measure developed in this study may also serve as an assessment or diagnostic tool for understanding the degree to which employees perceive that their organization’s DM practices are fair and inclusive. Implementing such fair practices has been noted by scholars to be an important aspect for creating an inclusive work climate which could aid in the reduction of conflict amongst diverse groups (Nishii, 2013). By linking such information to individual attitudes and behavior, this tool may be useful for assessing and improving the effectiveness of DM initiatives. Further, by linking such information to individual-level outcomes (e.g., job satisfaction, organizational commitment, etc.), this tool may be useful for conducting intra-organizational comparisons on the relationships between various approaches to DM practices and individual performance.

Limitations and Future Research

The findings must be interpreted against a backdrop of the limitations of the study, which create avenues for future research. First, although the results were based on a representative sample of diverse employees working in a range of organizations in the UK, one needs to be cautious in generalizing the results because of the country-specific sample. It will therefore be useful if further analyses and testing of the scale is done in other geographical locations and cultures, to establish more definitive proof of reliability and validity, and to explore cross-cultural differences in EPDMP. Second, the sample comprised of mainly ethnic and gender diversity. Although these are two of the most researched areas of diversity, it will be useful for researchers to validate the scale using other diversity dimensions such as age, religion, etc.

Third, further validation should be based on additional sets of variables. Many outcomes of DM have been proposed and analyzed over the last decades, indicating that the effectiveness of DM can take multiple forms. Although I depicted relations of tests with
outcome variables which have been thoroughly established in earlier research (e.g., turnover intention; Choi, 2009), to provide a more holistic picture, future validation should include: possible moderators (e.g., leader-member exchange), and an enlarged set of outcome criteria (e.g., job satisfaction, commitment, organizational citizenship behavior) with data gained from multiple sources (e.g., supervisor ratings of follower behavior, objective measures of team performance). These additional variables would further strengthen arguments in favour of the test’s predictive value. Fourth, it must be considered that the study’s validation was restricted to comparably small numbers of participants. Thus, future studies should strive for an enlargement of validation samples.

Fifth, part of the sample used for assessing content validity were expert judges from a particular retail firm. This could be a possible limitation because the type of practices used in their own organization could have probably influenced their responses to DM practices. However, to counterbalance this limitation, the author was careful to include only managers who had worked extensively in other organizations. The author further went on to use 2 other expert judges to ensure methodological rigour. Sixth, the nature of the EPDMP construct might reflect a possible overlap with other similar constructs, such as diversity climate. However, conceptual discussions and methodological results in this study help to differentiate both constructs. Future studies could use different samples to test for further incremental predictive validity. Finally, future research might extend the new EPDMP measurement to other stakeholder perceptions, such as consumers.

These limitations notwithstanding, this manuscript and the developed instrument make an important contribution. The EPDMP constitutes a viable alternative to standard measures of DM practices, not only because of its sound psychometric properties and predictive validity above and beyond similar measures, but in particular because it considers
the contextual element of employee perception. Therefore, I highly recommend the application and further refinement of the instrument in future diversity research and practice.

**Conclusion**

This research investigates EPDMP by developing and validating a measurement scale. The primary contributions to HR theory are the development of a DMP scale that captures the views and perceptions of employees, the scale’s uni-dimensionality and its gene

The developed scale enables companies to better study and measure DMP and its implications. Specifically, this tool can help managers to assess EPDMP relative to their own performance and to identify shortcomings in DMP engagement nd/or communication. The hope is that this study will stimulate future work in this important area of HR management.

**References**


**Employees’ Perception of DM Practices**

Table 1

*Sample of DM Scales*

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Measure</th>
<th>Response Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Castens &amp; De Kock, 2016</td>
<td>Firm-level diversity management competencies: development and initial validation of a measure</td>
<td>The DMCQ was used to measure overall diversity management competency in each firm. Its 98 items are divided among 11 sub-scales, each tapping a specific diversity management competency</td>
<td>5-point Likert type scale</td>
</tr>
<tr>
<td>Kim, Lee &amp; Kim, 2015</td>
<td>The effect of workplace diversity management in a highly male-dominated culture</td>
<td>Workplace diversity management was measured using a six-item scale developed by Mor Barak et al. (1998). It measured employees’ perceptions of whether organizational policies and procedures apply fairly to all employees regardless of factors such as race, sex, age, or social background</td>
<td>5-point Likert type scale</td>
</tr>
<tr>
<td>Downey et al., 2015</td>
<td>The role of diversity practices and inclusion in promoting trust and employee engagement</td>
<td>15-items developed specifically for study to assess perceptions of diversity practices, including the extent to which one’s organization and leader supports diversity-related efforts and adheres to the organization’s recruitment and equal employment opportunity policies. Sample items include “Recruitment of diverse job candidates is a priority at [the organization]”</td>
<td>Not specified</td>
</tr>
<tr>
<td>Peretz et al., 2015</td>
<td>Organizational diversity programs across cultures: effects on absenteeism, turnover, performance and innovation</td>
<td>Diversity programs was measured by an index consisting of three items asking whether the organization had programs regarding (1) recruitment (2) training and (3) career progression</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Authors</td>
<td>Title</td>
<td>Study Description</td>
<td>Measurement of HRD</td>
</tr>
<tr>
<td>---------</td>
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</tr>
<tr>
<td>Richard, Roh &amp; Pieper, 2013</td>
<td>The link between diversity and equality management practice bundles and racial diversity in the managerial ranks: does firm size matter?</td>
<td>Two types of DEM practice bundles: minority opportunity-based DEM practices and manager accountability DEM practice. Minority opportunity-based DEM practices was the summation of several items that tapped into the presence of racial minority specific practices. Manager accountability DEM practices represented diversity practices that (1) evaluate managers on diversity-related goals and (2) tie managers’ rewards (bonuses) to racial diversity goals</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Ng &amp; Sears, 2012</td>
<td>CEO Leadership Styles and the Implementation of Organizational Diversity Practices: Moderating Effects of Social Values and Age</td>
<td>Implementation of organizational diversity practices was measured using Konrad &amp; Linnehan’s (1995) identity-conscious survey. It measured each firm’s diversity-related practices in the areas of diversity policies, recruitment, training and development, compensation, accountability</td>
<td>36 statements with Yes/No responses 10-item diversity policy with Yes/No responses Other – 3-point Likert-type scale</td>
</tr>
<tr>
<td>Martin-Martin-Alcaraz, Romero-Fernandez &amp; Sanchez-Gardey, 2012</td>
<td>Transforming Human Resource Management Systems to Cope with Diversity</td>
<td>Blau’s (1977) index of heterogeneity, used to measure and identify individual demography. (This measure has been used to measure individual demography in a number of other studies)</td>
<td>Index</td>
</tr>
<tr>
<td>Fenwick, Costa,</td>
<td>Cultural diversity management in Australian manufacturing organizations</td>
<td>Diversity management practices were measured using the same questionnaire as D’Netto &amp; Sohal</td>
<td>7-point Likert type scale</td>
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<tr>
<td>Reference</td>
<td>Title</td>
<td>Methodology</td>
<td>Measurement</td>
</tr>
<tr>
<td>----------------------------</td>
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<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Sohal &amp; D’Netto, 2011</td>
<td>(1999). It measured diversity management practices in the four HR areas of recruitment, training and development, performance appraisal and remuneration</td>
<td>40-item 4-factor scale measuring human resource diversity management</td>
<td></td>
</tr>
<tr>
<td>Armstrong et al., 2010</td>
<td>The impact of diversity and equality management on firm Performance: beyond high performance work systems</td>
<td>17-item single factor scale measuring diversity/equality management practices, focusing on policies and monitoring practices</td>
<td>standardized to a common scale using a z-score transformation</td>
</tr>
<tr>
<td>Pitts, 2009</td>
<td>Diversity Management, Job Satisfaction, and Performance: Evidence from U.S. Federal Agencies</td>
<td>3-item, single factor scale measuring individuals’ perceptions of diversity management</td>
<td>5-point Likert type scale</td>
</tr>
<tr>
<td>Magoshi &amp; Chang, 2009</td>
<td>Diversity management and the effects on employees’ organizational commitment: Evidence from Japan and Korea</td>
<td>To measure diversity management practices, HR managers were asked about their practices for the following five aspects: Compensation, Promotion, Training, Leadership and use of family friendly policies</td>
<td>Measured using differing scales and then standardized or averages to reflect the company’s diversity management index</td>
</tr>
<tr>
<td>Naff &amp; Kellough, 2003</td>
<td>Ensuring Employment Equity: Are Federal Diversity Programs Making a Difference?</td>
<td>23-item four factor scale measuring diversity programs</td>
<td>Index scores</td>
</tr>
<tr>
<td>D’Netto &amp; Sohal, 1999;</td>
<td>‘Human Resource Practices and Workforce Diversity: An Empirical Assessment’</td>
<td>HRDM questionnaire consisting of 40 items measuring Recruitment and Selection, Training and development, performance appraisal and compensation diversity management practices</td>
<td>7-point Likert type scale</td>
</tr>
<tr>
<td>Mor Barak, Cherin &amp; Berkman, 1998</td>
<td>Organizational and Personal Dimensions in Diversity Climate: Ethnic and Gender Differences in Employee Perceptions</td>
<td>16-item, 2-dimensional scale measuring diversity perceptions on the organizational and individual levels</td>
<td>6-point Likert type scale</td>
</tr>
<tr>
<td>Dagher et al., 1998</td>
<td>Managing Workforce Diversity in the Australian Manufacturing Industry</td>
<td>30-item 4-factor scale measuring human resource diversity management</td>
<td></td>
</tr>
</tbody>
</table>
Employees’ Perception of DM Practices

Table 2 (Study 1)

Demographic Data of Interview Participants

<table>
<thead>
<tr>
<th>Sector</th>
<th>Industry</th>
<th>Seniority</th>
<th>Gender</th>
<th>Ethnicity</th>
<th>Org. Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Public</td>
<td>Education</td>
<td>Senior Management</td>
<td>Female</td>
<td>White</td>
<td>Over 1000</td>
</tr>
<tr>
<td>2. Public</td>
<td>Education</td>
<td>Senior Management</td>
<td>Male</td>
<td>Non-White</td>
<td>Over 1000</td>
</tr>
<tr>
<td>3. Private</td>
<td>Consulting</td>
<td>Senior Management</td>
<td>Male</td>
<td>White</td>
<td>Over 1000</td>
</tr>
<tr>
<td>4. Private</td>
<td>Manufacturing</td>
<td>Senior Management</td>
<td>Male</td>
<td>White</td>
<td>Under 100</td>
</tr>
<tr>
<td>5. Private</td>
<td>Manufacturing</td>
<td>Senior Management</td>
<td>Female</td>
<td>White</td>
<td>Under 100</td>
</tr>
<tr>
<td>6. Public</td>
<td>Government</td>
<td>Senior Management</td>
<td>Female</td>
<td>Non-White</td>
<td>Over 500</td>
</tr>
<tr>
<td>7. Private</td>
<td>Retail</td>
<td>Senior Management</td>
<td>Male</td>
<td>Non-White</td>
<td>Over 400</td>
</tr>
<tr>
<td>8. Private</td>
<td>Distribution</td>
<td>Senior Management</td>
<td>Male</td>
<td>Non-White</td>
<td>Over 300</td>
</tr>
<tr>
<td>9. Private</td>
<td>Retail</td>
<td>Senior Management</td>
<td>Male</td>
<td>White</td>
<td>Over 300</td>
</tr>
<tr>
<td>10. Public</td>
<td>Government</td>
<td>Senior Management</td>
<td>Male</td>
<td>White</td>
<td>Over 1000</td>
</tr>
</tbody>
</table>
### Employees’ Perception of DM Practices

#### Table 3 (Study 2)

**Exploratory Factor Analysis (EFA) of EPDMP Items**

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multicultural awareness training is part of the diversity management programme</td>
<td>.761</td>
<td>.617</td>
<td></td>
</tr>
<tr>
<td>Diversity training objectives are communicated to employees</td>
<td>.843</td>
<td>.730</td>
<td></td>
</tr>
<tr>
<td>Role models from minority ethnic backgrounds are nurtured and coached to be mentors</td>
<td>.744</td>
<td>.526</td>
<td></td>
</tr>
<tr>
<td>There are formal procedures for obtaining feedback on diversity management practices</td>
<td>.807</td>
<td>.677</td>
<td></td>
</tr>
<tr>
<td>This organization spends money and time on diversity awareness and related training</td>
<td>.851</td>
<td>.782</td>
<td></td>
</tr>
<tr>
<td>This organization evaluates the effectiveness of diversity training provided to employees</td>
<td>.838</td>
<td>.747</td>
<td></td>
</tr>
<tr>
<td>Employees normally go through training in diversity-related employment issues</td>
<td>.910</td>
<td>.752</td>
<td></td>
</tr>
<tr>
<td>Diversity management-related issues/memos are shared with employees</td>
<td>.623</td>
<td>.662</td>
<td></td>
</tr>
<tr>
<td>The formal orientation programme emphasises the need to work with employees of diverse backgrounds</td>
<td>.704</td>
<td>.700</td>
<td></td>
</tr>
<tr>
<td>Employees are adequately informed about the importance of diversity management issues</td>
<td>.675</td>
<td>.755</td>
<td></td>
</tr>
<tr>
<td>The management of this organization puts a lot of emphasis on having a diverse workforce</td>
<td>.873</td>
<td>.733</td>
<td></td>
</tr>
<tr>
<td>Cooperation among employees of diverse work groups is emphasized</td>
<td>.984</td>
<td>.731</td>
<td></td>
</tr>
<tr>
<td>Employees have access to diversity materials used in the organization</td>
<td>.604</td>
<td>.669</td>
<td></td>
</tr>
<tr>
<td>Suggestions on how to improve cooperation among this organization’s demographically diverse workforce are shared with employees</td>
<td>.579</td>
<td>.659</td>
<td></td>
</tr>
<tr>
<td>Employees have access to policy information regarding diversity management practices</td>
<td>.665</td>
<td>.569</td>
<td></td>
</tr>
<tr>
<td>Eigenvalue</td>
<td>9.10</td>
<td>1.21</td>
<td></td>
</tr>
<tr>
<td>Variance explained (%)</td>
<td>60.69</td>
<td>8.04</td>
<td></td>
</tr>
<tr>
<td>Cumulative (%)</td>
<td>60.69</td>
<td>68.73</td>
<td></td>
</tr>
</tbody>
</table>


Employees’ Perception of DM Practices

Table 4 (Study 2)

*Confirmatory Factor Analysis of EPDMP Items*

<table>
<thead>
<tr>
<th>Competing Models</th>
<th>$\chi^2(\Delta \chi^2)$</th>
<th>df($\Delta$df)</th>
<th>CFI</th>
<th>IFI</th>
<th>RMSEA</th>
<th>RMSR</th>
<th>NNFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-Factor</td>
<td>447.1(385.4)</td>
<td>90(63)</td>
<td>0.931</td>
<td>0.931</td>
<td>0.156</td>
<td>0.107</td>
<td>0.919</td>
</tr>
<tr>
<td>Two-Factor</td>
<td>234.7(173)</td>
<td>89(62)</td>
<td>0.972</td>
<td>0.972</td>
<td>0.100</td>
<td>0.087</td>
<td>0.967</td>
</tr>
<tr>
<td>Alternative One-</td>
<td>61.7(-)</td>
<td>27(-)</td>
<td>0.985</td>
<td>0.985</td>
<td>0.085</td>
<td>0.060</td>
<td>0.980</td>
</tr>
<tr>
<td>Factor Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comparison of the CFA results obtained from the EPDMP construct
### Employees’ Perception of DM Practices

#### Table 5 (Study 2)

**Convergent Validity Assessment**

<table>
<thead>
<tr>
<th>Final EPDMP Items</th>
<th>Construct items</th>
<th>Loadings</th>
<th>Average variance extracted (AVE)</th>
<th>Cronbach alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. This organization communicates diversity training objectives to employees</td>
<td>EPDMP8</td>
<td>.79</td>
<td>.65</td>
<td>.93</td>
</tr>
<tr>
<td>2. In this organization, role models from minority ethnic backgrounds are</td>
<td>EPDMP10</td>
<td>.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>nurtured and coached to be mentors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. This organization has formal procedures for obtaining feedback on diversity</td>
<td>EPDMP11</td>
<td>.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>management practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. This organization spends money and time on diversity awareness and related</td>
<td>EPDMP12</td>
<td>.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. This organization evaluates the effectiveness of diversity training provided to</td>
<td>EPDMP13</td>
<td>.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>employees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Employees of this organization normally go through training in diversity-</td>
<td>EPDMP14</td>
<td>.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>related issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. This organization shares diversity management-related issues/memos with</td>
<td>EPDMP15</td>
<td>.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>employees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. The management of this organization puts a lot of emphasis on having a</td>
<td>EPDMP18</td>
<td>.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>diverse workforce</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Employees have access to diversity materials used in this organization</td>
<td>EPDMP20</td>
<td>.71</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: n = 170.*
Table 6 (Study 2)

*Descriptive Statistics and Correlation Among Construct Scores (Discriminant Validity)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. EPDMP</td>
<td>2.55</td>
<td>1.01</td>
<td></td>
<td></td>
<td>.81</td>
</tr>
<tr>
<td>2. Diversity management</td>
<td>3.11</td>
<td>0.95</td>
<td>.47</td>
<td></td>
<td>.80</td>
</tr>
<tr>
<td>3. Diversity climate</td>
<td>3.53</td>
<td>1.03</td>
<td>.12</td>
<td>.58</td>
<td>.87</td>
</tr>
</tbody>
</table>

*Note: n= 170; √AVE in **BOLD.**
Employees’ Perception of DM Practices

Table 7 (Study 2)  
*Means, Standard Deviations, and Inter-correlations*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>α</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N = 170)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. EPDMP</td>
<td>22.91</td>
<td>9.04</td>
<td>.93</td>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2. Job satisfaction</td>
<td>19.42</td>
<td>5.33</td>
<td>.85</td>
<td>.43**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>3. Organizational commitment</td>
<td>17.83</td>
<td>5.58</td>
<td>.83</td>
<td>.35**</td>
<td>.69**</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note: n = 170. Coefficient alphas are listed in parentheses along the diagonal.  
*p < .05. **p < .01 (2-tailed).*
Employees’ Perception of DM Practices

Table 8 (Study 4)

*Hierarchical Regression Analysis of Organizational Identification and Turnover Intention on Diversity Climate and EPDMP*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Organization Identification</th>
<th>Turnover Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>ΔR²</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.13*</td>
<td>.02</td>
</tr>
<tr>
<td>Gendera</td>
<td>-.03</td>
<td></td>
</tr>
<tr>
<td>Diversity Climate</td>
<td>.16*</td>
<td>.07***</td>
</tr>
<tr>
<td>EPDMP</td>
<td>.25**</td>
<td>.05**</td>
</tr>
<tr>
<td>Total R²</td>
<td></td>
<td>.15**</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td></td>
<td>.13</td>
</tr>
</tbody>
</table>

Note: n = 191. Regression coefficients reflect the full model and standardized betas.

aGender: 1 = male and 2 = female.

*p < .05; **p < .01; ***p < .001.