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Measurement of the perceptions of human resource practices in a seemingly collectivistic culture

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Scan this QR code with your smart phone or mobile device to read online. **Orientation**: Human resources (HR) practices and specifically the perceptions thereof are not only important for organisational strategy and performance but have a direct impact on employee attitudes and behaviour. The accurate measurement of these perceptions is therefore important.

Research purpose: The goal of this study was to validate the Human Resource Practices Perceptions Questionnaire for the South African context (which is unique in terms of its apparent collectivistic nature), from an etic perspective.

Motivation for the study: The accurate measurement of employees' perception of HR practices are essential to give the organisation a competitive advantage. This study was done to validate a HR practices perceptions questionnaire in a seemingly collectivistic context.

Research approach/design and method: This study is based on a cross-sectional survey design, collecting primary data on the perceptions of HR practices from 1676 South African employees in public and private sector organisations. An exploratory (EFA) and confirmatory factor analysis (CFA) were conducted.

Main findings: The EFA and CFA yielded a slightly different permutation compared to the initial factor structure. A nine-factor structure was extracted and confirmed. A slight adjustment of the original questionnaire was required to incorporate performance evaluation with a teamwork focus and to differentiate training from development. It was further found that invariance exists when comparing the private and the public sectors.

Practical/managerial implications: It was found that the instrument had to be adjusted for the South African context to ensure an accurate measurement of employees' perceptions of HR practices.

Contribution/value-add: The instrument has been validated and can thus be used with confidence to assess the perceptions of HR practices regardless of the sector. It thus provides an accurate measurement that can be used to predict or explain other employee behavioural outcomes in relation to their perceptions of the HR practices.

Keywords: collectivism; collectivist culture; human resource practices; human resource practices perceptions; ubuntu.

Introduction

No organization can have exceptional performance without exceptional employees; and that requires exceptional human resource (HR) practices. (Enz & Sigaw, 2000:48)

The human resource (HR) function has a direct impact not only on organisational performance but also on employee behaviour and attitudes (Choudhury & Mishra, 2010). This relationship is complex and one should guard against oversimplifying the nature thereof (Bowen & Ostroff, 2004; Nishii & Wright, 2008). Human resource practices build and sustain organisational effectiveness (Enz & Sigaw, 2000) and are especially important in attracting, retaining and developing the skills and knowledge of employees (Choudhury & Mishra, 2010). Human resource practices must be deliberately chosen and used strategically to maintain strong organisational boundaries, to promote high levels of organisational and professional identity; more specifically, it encourages the retention of staff in a highly competitive industry (Choudhury & Mishra, 2010). This study is not focused on the actual effectiveness and success of HR practices or HR practices as presented in policy documents (Wright & Nishii, 2007) but rather the perceptions of employees of HR practices. Boon, Hartog, Boselie, and Paauwe (2011), the developers of the instrument investigated in this study, based their work on the premise that the perceptions of HR practices are essential for employees' experiences in an organisation. These perceptions are mainly formed through their personal interpretations and social constructions of the HR practices. It is based on the extent to which employees feel that the HR practices are indeed offered to them.

The importance of perceptions of HR practices has been confirmed empirically in relation to various employee attitudes and behaviours, such as job satisfaction, affective commitment (Gong, Law, Chang, & Xin, 2009; Takeuchi, Lepak, Wang, & Takeuchi, 2007), service-oriented citizenship behaviours, turnover (Sun, Aryee, & Law, 2007) and social exchange (Takeuchi et al., 2007).

Because of the importance of perceptions of HR practices, an accurate, reliable and valid measurement is essential, not only for academic purposes but also for HR management and HR practitioners. Various instruments were considered for the South African multicultural context, resulting in the selection of the Human Resource Practices Perceptions Questionnaire (HRPPQ), developed by Boon et al. (2011). This instrument was developed based on research by scholars such as Cable and Edwards (2004), Guest and Conway (2002), Ryan and Schmit (1996) and Ten Brink (2004). It is used to measure perceived HR practices in the Netherlands. The researchers reported strong relationships between employee perceptions of HR practices and person-organisation and person-job fit, as well as other employee outcomes. Employees within the Dutch context were the focus of all these studies.

The purpose of this study was subsequently to build on the extensive work of Boon et al. (2011), Cable and Edwards (2004), Guest and Conway (2002), Ryan and Schmit (1996) and Ten Brink (2004) but within the South African context. This study aimed to validate the HRPPQ for the South African (African) context while considering contextual realities such as collectivism (embedded in, for instance, ubuntu) and Afrocentrism. Previous research added evidence assuming that most black South Africans are representative of the collectivistic culture (Eaton & Louw, 2000; Thomas & Bendixen, 2000) and that white South Africans are mostly individualistic. This research was approached from the position that the majority of the working population in South Africa is from the black South African race group, followed by 6% white people and approximately 5% mixed race and 2% Indian. Therefore, the culture is regarded to be leaning towards collectivism, although it is acknowledged that inter- and intra-race group comparisons are much more complex. The HRPPQ was predominately tested from a Western individualistic standpoint by Boon et al. (2011). This poses contextual questions about the transferability of the instrument to a collectivistic culture, subscribing to an ubuntu relational philosophy, that has an impact on organisational leadership and organisational behaviour in

general (Grobler & Singh, in press), as well as on how HR practices are perceived by employees.

According to Mbigi (2000) and Mulemfo (2000), the ubuntu philosophy asserts a sense of community whereas Western individualism promotes differentiation, independence and self-identification (Bochner, 1994). Hofstede (2011) highlighted collectivism to be the promotion of individual integration into society and a sense of belonging, which can also be brought into the context of organisational practices and functioning. Newenham-Kahindi (2009) referred to ubuntu and collectivism interchangeably, as collectivism is regarded to be the underlying foundation of ubuntu.

The objectives of this study were as follows: firstly, to determine the construct (factorial) validity of HRPPQ (Boon et al., 2011) within the South African context; secondly, to develop a reconfigured factor structure should the original configuration yield unsatisfactory results. Thirdly, the final measurement instrument was assessed for convergent and discriminant validity, and lastly a cross-validation analysis was performed to establish whether the instrument is suitable for use in both the private and public sectors. Recommendations for future research are also made.

Literature and theoretical concepts Collectivist culture

Hofstede (2011) defined *culture* as the programming of the mind, distinguishing one group from another in varying contexts of nations, ethnicities and/or organisations. The national cultural elements are often also found in business and organisational cultures. Hofstede's model and paradigm for national cultural comparisons is regarded as relevant in the classification of the South Africa national cultural context, with specific reference to *individualism versus collectivism*. Hofstede's (2011) complete model entails other dimensions such as *power distance, uncertainty avoidance, masculinity versus femininity, long-term versus short-term orientation* and *indulgence versus restraint*.

Hofstede's *individualism versus collectivism* dimension offers the most appropriate framing and understanding of the South African cultural and organisational context (Hofstede, 1998). According to various scholars this cultural variable has an impact on organisational leadership, processes and practices as well as the attitude of employees (Bochner, 1994; Grobler & Singh, in press; Li, Zhang, Yang, & Li, 2015; Wiley, 2000; Yilmaz & Hunt, 2001).

Individualism, according to Hofstede (2011), is characterised by loose ties between individuals; Bochner (1994) iterates the prominence of individualism, autonomy and separateness to be predominately Western. In contrast, the *collectivism* approach entails an integration of people (individuals) into a group or society. It is characterised by values of 'we-consciousness', belonging, loyalty, relationships, collaboration and group decision-making. The collectivism paradigm is closely aligned to the Afrocentric philosophy articulated in the act of ubuntu (Gathogo, 2008) prevalent in South African cultural settings.

Ubuntu (humanness) means that a person is viewed in the context of the collective within a society and not as an individual (Newenham-Kahindi, 2009). This view is contrary to the Western contexts in which people are seen as autonomous, independent beings. Mabovula (2011) contended that life, including work activities, is carried out in socio-ethical settings. Largely, problem identification, solution generation and idea sharing are conducted collectively within the community settings. Ubuntu encompasses the values of solidarity, a strong sense of community, harmonious relationships, respect, hospitality and care for others in society.

Human resources practice perceptions and collectivism

Human resource practitioners need to take the employee value proposition and exchange, socio-ethical codes of the practices and the cultural context into account. Human resource practices and how they are perceived influence the activities of attracting, recruiting, engaging, retaining, developing and rewarding employees. Human resource practices by nature have ethical, legal and financial implications that largely influence the perceptions that employees have of these practices in an organisation. A study conducted by Browning (2006) added evidence that HR practices have a direct influence on performance, output quality and the behaviour of employees. Valentine, Hollingworth, and Francis (2013) view HR practitioners as the custodians and promoters of ethics in organisations. It is recommended that ethical approaches be maintained in all HR practices and programmes, influencing the organisation, community, relevant stakeholders and employees. Wiley (2000) advocates the five HR ethical codes of integrity, legality, proficiency, professionalism and confidentiality. Ubuntu prescribes social ethics and rule of conduct on how to relate to and interact with others (Gathogo, 2008). Human resource practices within an organisation need to have a strong socio-ethical fibre, aligned to the ubuntu/collectivist values of generosity, protection of human dignity, respect, benevolence, community rootedness and adherence to communal norms (Mabovula, 2011). Human resources promotes ethics through fairness, transparency, and organisational justice practices that promote employee wellbeing (Valentine et al., 2013).

Human resource practices, policies and strategies must largely refer to the national and organisational cultural contexts as culture influences application and the outcomes of HR interventions. The knowledge and understanding of the applicable cultural context leads to the appropriate application of HR practices. Based on Li et al. (2015), collectivistic HR management enables practices such as team-based performance, incentive schemes, rewards, training and development through policies and procedures that promote joint responsibility, cohesion and collaboration. The HR practices in an organisation need to be comprehensive, integrated and aligned to policies, procedures and the organisational culture. The contents of the South Africa– specific HRPPQ are briefly outlined:

Job design: Job characteristics, namely skill variety, task identity, task significance, autonomy and feedback, are closely associated with intrinsic motivation, job satisfaction, engagement and performance (Abbott, Boyd, & Miles, 2006). In designing job content aspects such as meaningfulness, a sense of responsibility and knowledge of the performance outcomes need to be considered in order to engage, motivate and enhance the quality of performance.

Participation and autonomy: In a study conducted by Han, Chiang, and Chang (2010) employee participation in decisionmaking was found to be significantly related to psychological ownership, positive work attitudes and behaviours. Swamy (2013) supported employee autonomy as the meeting of employees' motivational needs, to contribute, coordinate and control work inputs. In a study conducted by Bochner (1994) on cross-cultural difference in the self-concept, Bochner acknowledged the self (individual) to be complex, irrespective of the cultural background. Bochner (1994) further proposed that people contain qualitatively varying cognitions, in that they operate and live as private individuals, in a collective and public society. Therefore, people will place varying emphasis on cultural application for each situation. For example, each one has his or her own personal beliefs, identity, talents, skills, interests, qualities, attitudes, traits and psychological states that do not relate to other people. Being in a collectivist culture does not imply total absence of individuality and self-determination (Bochner, 1994). The aforementioned literature advocates for the incorporation of the elements related to autonomy and decision-making in job design in order to achieve job enrichment and meaningful work where employees feel that they can contribute.

Recruitment and selection: Ofori (2011) highlighted the importance of recruitment and selection practices as an entry point for skills, knowledge and competence into the business to ultimately determine success, performance and business sustainability. Recruitment and selection practices in a collectivistic organisation are likely to seek to attract potential candidates sharing similar values, with strong teamwork skills and strong cooperative work behaviours (Yilmaz, & Hunt, 2001). Recruitment decisions should foster collectivist norms and values that are supportive of the organisational culture (Yilmaz & Hunt, 2001). The collectivist approach to the recruitment of like-minded individuals may potentially limit individuality and diverse thinking in some instances.

Training and development: Training entails systematic activities aimed at improving individual, team and organisational performance, through the transfer of skills, knowledge and competence (Aguinis & Kraiger, 2009). These activities include training needs assessments, training design

and the delivery of training. Team-based and collectivist cultures will promote team-based training interventions, as well as those aimed at improving team membership skills. However, Aguinis and Kraiger (2009) differentiate development from training as the acquisition of skills and knowledge for purposes of personal and professional development. Development for career and succession planning equips individuals with adequate skills, experience and competence for future, senior and complex roles (Hills, 2009). Building internal talent capability allows the organisation to improve promotability and career mobility of employees from within, thus improving employee engagement. Collectivistic cultures will promote and progress the careers of those who work well with others (Li et al., 2015). According to Presbitero, Roxas, and Chadee (2016) organisations offering career progression and development opportunities mitigate against the risk of employee turnover.

Employment security: Perceived employment security is strongly associated with overall employee well-being (Virtanen, Vahtera, Kivimäki, Pentti, & Ferrie, 2002). Employment security is a major concern for employees; permanence thereof improves the quality of work and life because of the provision of income stability and the meeting of socio-economic needs of employees and their families (Swamy, 2013). The South African trade unions play a role in negotiating employment security for employees.

Teamwork: Teamwork is critical in collectivist cultures as the individual is absorbed and attached to a group (Bochner, 1994). Teamwork and performance are influenced by variables at both team and individual levels (Rosen et al. 2008). The multilevel approach in instilling team performance considers individual team members' skills, competence and the ability to perform the task within the organisational culture. Organisational culture must be facilitative of team cohesion, collectivist orientation, team membership skills (like dynamic interaction and communication with individuals with heterogeneous skill sets, knowledge and competence). Teamwork requires clear team performance measures and outcomes - for example, productivity, quality, sales, indicators (Scott & Einstein, 2001). Such measures hold the team accountable for monitoring performance results, identification of deficiencies and taking corrective action. Li et al. (2015) asserted that collectivistic cultures stress subordination of personal interests to the greater welfare and goals of the team and organisation.

Rewards: Literature confirms that fair remuneration inclusive of pay and benefit packages strengthens intentions to remain in organisations for longer (Presbitero et al., 2016). Interestingly, collectivistic HR practices are geared towards a team-based reward system rather than the individual (Li et al., 2015). Team-based rewards are tied to team-based performance targets.

Work–life balance: Work arrangements are found to influence the time and psychological energy shared with family, friends and participation in extramural activities

(Albertsen, Rafnsdóttir, Grimsmo, Tómasson, & Kauppinen, 2008). Extended overtime, increased work hours and shift work are associated with lower work–life balance. Haar, Russo, Sune, and Ollier-Malaterre (2014) found work–life balance to be instrumental to promoting overall employee well-being, job satisfaction and satisfaction with life in employees across various cultures.

As mentioned before, the rationale of the instrument under investigation in this study was not to measure the effectiveness and success of the HR practices as discussed above but rather to measure whether the HR practices are indeed offered to them.

Research design Research approach

This study employed a typical empirical paradigm using a cross-sectional design and quantitative analysis. Surveys were used as data generation techniques, which enabled the researchers to collect the required data at the same time.

Research participants

The participants consisted of employees of 30 organisations in South Africa, with 15 organisations being from the private sector, including the medical, engineering, retail, construction, financial, telecommunication, pharmaceutical and information technology industries. The public sector was equally represented, with 15 organisations, consisting of national and provincial departments, local government as well as state-owned enterprises. In each organisation, 60 employees were randomly selected to participate in the study. The pooled data could therefore be considered a convenience sample (because of the convenience of accessibility and availability of the respondents within the participating organisations). The fieldwork was conducted by 30 co-researchers working on a larger project; ethical clearance was granted by the institution.

The total sample consists of 1676 participants. In terms of the racial distribution, the majority of the participants were black (73%), followed by white (15.4%), mixed race (6.6%) and Indian (4.8%). The representation of the gender groups was higher for males at 51.5% compared to 48.5% for females. The racial and gender distribution of the sample seems to be relatively representative of the South African workforce in general, taking into consideration that the distribution of the workforce as indicated in Statistics South Africa (2017) was 87% black people, 6% white people (slightly overrepresented in the sample), 2% Indians and 5% mixed race people. According to the same source, the proportion of men in employment is 56% while the proportion for females stands at 44%.

The mean age of the respondents was 36.60 years (SD = 8.90), and the mean tenure in the specific organisation was 7.58 years (SD = 7.33). From these mean scores it is assumed that the respondents were on average mature and that they had the necessary exposure to the organisation and leadership to

be able to respond to the items related to leadership behaviour in their respective organisations.

Measuring instrument

The HRPPQ developed by Boon et al. (2011) was used to measure the perceptions of the HR practices and was the instrument under investigation in this study. In other words, the focus of the measurement was the extent to which employees perceived that specific HR practices were indeed offered to them.

The instrument consists of 38 items. A typical example of an item included in the instrument reads as follows: 'The organisation offers (me) ... the opportunity to develop new skills and knowledge for my current job or for possible jobs in the future'. Participants were requested to rate the degree to which they agreed with the statements made on a fivepoint Likert scale. The scale ranged from 1 indicating that they strongly disagreed with the statement to 5 indicating that they strongly agreed with the statement. The maximum score that could be recorded for the instrument was 190 and the minimum was 38.

The 38 items in the instrument are practices that form part of seven high performance factors: (1) training and development, (2) participation, autonomy and job design, (3) performance appraisal and rewards, (4) teamwork and autonomy, (5) work–life balance, (6) recruitment and selection and (7) employment security of the Cronbach's alphas reported by Boon et al. (2011) for theses, seven factors were all above 0.75. The instrument was developed and standardised using a sample from two large organisations in the Netherlands, one in retail and one in healthcare, and was administered in Dutch. It was therefore deemed necessary to investigate its transferability into the South African context.

Statistical analysis

The statistical analysis was performed by using the Statistical Package for the Social Sciences (SPSS version 24), supported by SPSS AMOS (Analysis of Moment Structures).

The dataset was cleaned via case screening followed by variable screening in order to explain why there was variation in the data. It was deemed necessary to follow this process to ensure that there were no missing values in the data set and get a feel for the data set. The dataset was further inspected for unengaged responses by running a standard deviation and inspecting cases with SD < 0.50. The variables were further screened by means of kurtosis and the central limit theorem, to gather information about the distribution of the data. From the data cleaning process, it was deduced that the missing values were very sparse, and it was therefore not considered to be a possible contributor to any bias.

The first step of the exploratory factor analysis (EFA) was to evaluate the appropriateness of the sample size. The item-to-respondent ratio of $\pm 1:20$ is regarded to be acceptable

according to Meyers, Gamst, and Guarino (2013) and Tabachnick and Fidell (2007). Secondly, the inter-correlations between items were inspected using Bartlett's test of sphericity (Hair, Black, Babin, & Anderson, 2010). With this test, the statistic generated should be significant (p < 0.05) for an EFA to be considered an appropriate technique (Hair et al., 2010). Thirdly, the Kaiser–Meyer–Olkin measure was used to quantify whether the items correlated sufficiently to determine whether a factor analysis could be performed. The minimum level set for this statistic is 0.60 (Tabachnick & Fidell, 2007).

To aid in the interpretation of the initial results, orthogonal rotation, specifically the Promax rotation, was used. The decision regarding the number of variables (factors) to be retained was based on the Guttman-Kaiser eigenvalue greater-than-one rule (K1 rule), together with the scree plot (specifically the shape of the curve) and, lastly, the Monte Carlo PCA (principal component analysis) for parallel analysis. The purpose of the Monte Carlo parallel analysis is to determine the number of factors that account for more variance than the components derived from random data. The eigenvalues obtained from the actual data are compared to the eigenvalues obtained from the random data. If the actual eigenvalues from the principal component analysis of the actual data are greater than the eigenvalues from the random data, the component (factor) is retained. Meyers et al. (2013) indicate that a guide for variance accounted for by the factors needs to meet the lower limit of 50%. The Cronbach's alpha coefficient was determined for factors of the instrument, taking into consideration that the general rule according to Nunnally and Bernstein (1994) is $\alpha > 0.70$.

To operationalise this construct definition, a higher (or secondary) order, multidimensional model of the HRPPQ was conducted by means of a confirmatory factor analysis (CFA). Confirmatory factor analysis is generally intended to examine whether a second-order factor exists and whether it explains the relationships among the lower-order factors (as identified by the EFA) with the Analysis of Moment Structures (AMOS) maximum likelihood procedure (Byrne, 2010). To assess the model fit, several fit indexes were used including the comparative fit index (CFI), the root-mean-square error of approximation (RMSEA), chi-square (χ^2) and the ratio of the differences in chi-square to the differences in degrees of freedom (χ^2/df). Given that there is no one acceptable cut-off value for what constitutes adequate fit, it was elected to evaluate each model and to recommend the model closest to the CFI value of 0.90, an RMSEA value of 0.05 and χ^2/df , a ratio of less than 5.00 or lower (Byrne, 2010).

The first model was a one-factor solution (unidimensional) in which all the items identified through the EFA were indicative of one larger human resource practice perception (HRPP) factor. The second was a first-order factor model in which items were allowed to load onto their respective factors. The third was a second-order factor model in which items were loaded onto their respective factors and the factors loaded on a second-order latent HRPP factor. An elementary cross-validation assessment to determine invariance between the private and public sectors was also performed, as measurement invariance is regarded to be a prerequisite for meaningful interpretations and valid crossgroup comparisons. It is important that items and constructs are understood and interpreted in the same way across different samples; the variance in the observed score differences between groups (in this case the private and public sector) should not be a result of group membership but the construct being measured. The indexes of the CFA were used to assess the measurement invariance.

Finally, convergent validity was assessed by the composite reliability (CR) and the average variance extracted (AVE), with critical values of >0.70 and <0.50, respectively. The discriminant validity was determined by comparing the AVE with the maximum shared variance (MSV). Proof of discriminant validity would be when MSV < AVE and where the average shared variance (ASV) is less than the AVE (Hair et al., 2010).

Results

The EFA conducted was based on an adequate variableto-case ratio (44:1). The Kaiser–Meyer–Olkin measure of sampling adequacy was performed and the value was 0.94, exceeding the critical value of 0.60 (Tabachnick & Fidell, 2007), thus supporting the strategy to perform an EFA. The Bartlett's test of sphericity was also conducted and an approximate chi-square value of 25 930.71 was reported (degrees of freedom = 708). The chi-square value was further significant at a level smaller than 0.001, indicating sufficient correlation between the items to proceed with the EFA.

The Guttman–Kaiser eigenvalue greater-than-one rule (K1 rule) was used in conjunction with the scree plot to determine the number of factors. The results of Kaiser's criterion are reported in Table 1.

Ten factors reported eigenvalues larger than one, with the first factor accounting for 34% of the variance in the HRPP. The total variance accounted for by all 10 factors was close to 71%, thus exceeding the 50% guide by Meyers et al. (2013).

Cattell's scree test, which is aimed at retaining the components (factors) before the break (elbow rule), was performed on all

three studies independently. The interpretation of the scree plot depicted is problematic, as it is not clear where the elbow flattens off. The interpretation of the scree plot as well as the K1 rule are regarded by Pallant (2013) as being too conservative as measures to determine the exact number of factors. As a result, a further, more stringent technique, namely the Monte Carlo parallel analysis simulation technique, was performed. Ten components were included in the Monte Carlo parallel analysis to test the assumption of a 10-component (factor) solution, as suggested by the interpretation of the K1 rule (see Table 1). The results are reported in Table 2.

The results reported in Table 2 indicate that the first nine components have actual eigenvalues larger than the criterion value from the parallel analysis. The results of the Monte Carlo parallel analysis suggest, thus, a nine-factor model. The nine factors accounted for 68% of the total variance (see Table 1).

The descriptive statistics on item level as well as the factor loadings, communalities (h) and structure coefficients from the Promax rotation are reported in Table 3. Each item starts with 'The organisation offers (me) ...'.

The results of the EFA conducted on the HRPPQ are summarised in Table 3. A factor loading cut-off point of 0.40 for inclusion in the interpretation of a factor was used. Further, 37 of the original 38 items loaded on nine factors. The communalities are relatively high, ranging between 0.52 and 0.78. After inspection of Table 3 it is evident that the basis

TABLE 2: Results of the Monte Carlo parallel analysis.

| Component number | Actual eigenvalues from PCA | Criterion value from parallel analysis | Decision |
|---------------------|--------------------------------|-------------------------------------------|----------|
| 1 | 13.06 | 1.34 | accept |
| 2 | 2.53 | 1.30 | accept |
| 3 | 2.18 | 1.28 | accept |
| 4 | 1.70 | 1.25 | accept |
| 5 | 1.50 | 1.23 | accept |
| 6 | 1.37 | 1.21 | accept |
| 7 | 1.24 | 1.19 | accept |
| 8 | 1.18 | 1.17 | accept |
| 9 | 1.16 | 1.15 | accept |
| 10 | 1.13 | 1.14 | reject |

PCA, principal component analysis

| Number | | Initial eigenvalues | | | Extraction sums of squared loadings | | | |
|--------|-------|---------------------|--------------|-------|-------------------------------------|--------------|---------------------|--|
| | Total | % of variance | Cumulative % | Total | % of variance | Cumulative % | of squared loadings | |
| 1 | 13.06 | 34.37 | 34.37 | 13.06 | 34.37 | 34.37 | 8.68 | |
| 2 | 2.53 | 6.65 | 41.02 | 2.53 | 6.65 | 41.02 | 8.76 | |
| 3 | 2.18 | 5.75 | 46.77 | 2.18 | 5.75 | 46.77 | 9.09 | |
| 4 | 1.70 | 4.48 | 51.25 | 1.70 | 4.48 | 51.25 | 7.98 | |
| 5 | 1.50 | 3.94 | 55.18 | 1.50 | 3.94 | 55.18 | 5.36 | |
| 6 | 1.37 | 3.61 | 58.80 | 1.37 | 3.61 | 58.80 | 7.21 | |
| 7 | 1.24 | 3.06 | 61.86 | 1.24 | 3.06 | 61.86 | 5.63 | |
| 8 | 1.18 | 3.11 | 64.97 | 1.18 | 3.11 | 64.97 | 3.74 | |
| 9 | 1.16 | 3.05 | 68.02 | 1.16 | 3.05 | 68.02 | 3.07 | |
| 10 | 1.13 | 2.79 | 70.81 | 1.13 | 2.79 | 70.81 | - | |

Note: Extraction method: principal component analysis

TABLE 3: Factor loadings (Promax rotation) and descriptive statistics of items on the Human Resource Practices Perceptions Questionnaire

| Q*MeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMeanMea | TABLE 5. Factor loadings (| Formax foration, and descriptive statistics of items on the numar resource r | actives reivept | Uns Question | laite. | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------|-----------------|--------------|----------------|------|
| ibit descriptionibit | Q* | 'The organisation offers (me)' | Mean | SD | Factor loading | h |
| idepQnomagehensive and diverse work3.690.890.890.79HBPQn'work that gives me the opportunity to express myself3.690.870.87HBPQn'the opportunity to express myself3.601.880.690.61HBPQn'the opportunity to express myself3.611.880.690.61HBPQn'the opportunity to express myself3.631.880.680.61HBPQn'the opportunity to make my own decisions3.630.820.640.52HBPQn'the opportunity to make my own decisions3.630.820.640.52HBPQn'the opportunity to and my exponstalk3.600.820.630.82HBPQn'the opportunity to and my exponstalk3.630.720.590.720.59HBPQn'the opportunity to and my exponstalk3.601.340.820.730.730.75HBPQn'the opportunity to and my exponstalk and anomeloge for my current jobs in first further0.630.830.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.75 <t< td=""><td>Job design</td><td></td><td></td><td></td><td></td><td></td></t<> | Job design | | | | | |
| HitPpQ1Add and a point of the apportunity to express myself3.640.670.670.67Participation and automotive to express myself3.641.100.730.67Participation and excloping (transfegic) family processes3.031.130.730.75HIPPQ1peripoting to any own way3.031.510.840.55HIPPQ1the opportunity to aiser yrow ondecision3.040.220.640.52HIPPQ1the opportunity to take the responsibility for my own taks3.040.220.740.52HIPPQ1pasibilities to present my opinion on maters3.040.220.740.75HIPPQ1pasibilities to present my opinion on maters3.040.720.740.75HIPPQ1pasibilities to present my opinion on maters1.150.810.750.75HIPPQ1pasibilities to present my opinion on maters1.150.810.750.75HIPPQ1pasibilities to present my opinion on maters1.150.810.750.75HIPPQ1pasibilities to present my opinion on maters1.150.810.750.750.75HIPPQ1pasibility to my opinium on maters1.150.810.75 <td< td=""><td>HRPPQ¹</td><td>comprehensive and diverse work</td><td>3.69</td><td>0.89</td><td>0.84</td><td>0.74</td></td<> | HRPPQ ¹ | comprehensive and diverse work | 3.69 | 0.89 | 0.84 | 0.74 |
| HitPPQNackNackNackNackNackNackPerdicipation and automHampQin the opportunity to participate in decision making processes3.01.170.750.67HIMPQthe opportunity to any with in my on way3.051.810.630.62HIMPQthe opportunity to any with in my on way3.060.420.640.52HIMPQthe opportunity to any with exposibility for my our tasks3.060.420.640.52HIMPQthe opportunity to take my our decisions3.060.420.640.52HIMPQthe opportunity to take my our decisions3.060.420.640.52HIMPQselective recultance of new collagues2.601.220.910.87HIMPQselective recultance of new collagues3.521.140.800.72HIMPQselective recultance of new collagues3.521.140.810.55HIMPQselective recultance department3.641.520.650.65HIMPQselective recultance department3.641.620.650.65HIMPQselective recultance d | HRPPQ ² | challenging work | 3.69 | 0.97 | 0.87 | 0.77 |
| ParticularUnit of the second sec | HRPPQ ³ | work that gives me the opportunity to express myself | 3.46 | 1.08 | 0.49 | 0.65 |
| HiPPQ*List opticipate in decision-making processes3.201.170.750.77HRPQ*participation in developing (strategic) plass3.051.880.650.65HRPQ*the opportunity to der my work in my own way3.261.080.640.52HRPQ*the opportunity to take the responsibility form yam taks3.261.080.840.52HRPQ*call selection of new enelosies3.261.020.370.37HRPQ*call selection of new enelosies2.601.220.310.37HRPQ*call selection of new enelosies2.611.320.310.37HRPQ*call selection of new enelosies3.221.140.890.37HRPQ*the opportunity to development3.211.310.310.310.31HRPQ*supportunity to development3.211.320.510.510.51HRPQ*supportunity to development3.241.130.420.520.51HRPQ*supportunity to development3.241.130.430.520.51HRPQ*supportunity to development3.241.130.430.520.51HRPQ*supportunity to development3.241.130.430.520.52HRPQ*supportunity to development3.241.140.490.560.55HRPQ*supportunity to development3.241.130.430.750.57HRPQ*supportunity to development <t< td=""><td>Participation and autonomy</td><td>1</td><td></td><td></td><td></td><td></td></t<> | Participation and autonomy | 1 | | | | |
| HRPPQ1participation indeveloping (strategic) plans3.01.130.690.61HRPPQ1the opportunity to daw work in my own ways3.001.300.800.81HRPQ1the opportunity to lake the reponsibility for my own tasks3.000.200.700.52HRPQ1the opportunity to lake the reponsibility for my own tasks3.000.200.700.52Recutate at selection1.220.910.810.81HRPQ2stablection of new employees2.601.220.910.81HRPQ3isoportunity to follow training, course and workshops3.611.310.810.70HRPQ4stapportunity to develop new stills and inovolegie for my current job of a 1.310.810.630.81HRPQ4stapportunity to develop new stills and inovolegie for my current job of a 1.310.420.630.63HRPQ4stapportunity to develop new stills and inovolegie for my current job of a 1.310.420.630.63HRPQ4stapportunity to develop new stills and inovolegie for my current job of a 1.310.420.630.63HRPQ4stapportunity to do another job within this organisation2.921.930.630.63HRPQ4stapportunity to do another job within the organisation2.611.610.630.62HRPQ4stapportunity to do another job scutt2.621.610.620.62HRPQ4stapportunity to do another job scutt2.641.620.630.620.62HRPQ4st | HRPPQ ^₄ | the opportunity to participate in decision-making processes | 3.20 | 1.17 | 0.75 | 0.67 |
| HiPPQ ¹ He oportunity to do my work in yown yown (a)3.01.50.880.65HRPQ1the oportunity to take the responsibility for my own tasks0.800.920.810.81HRPQ1solubilites to present my opinion on matters0.800.820.810.81HRPQ1exitoties exitoties of mex employees2.601.220.910.81HRPQ1solutine to flew colleagues2.601.220.910.81HRPQ1be oportunity to follow training, courses and workhops3.621.440.890.73HRPQ1be oportunity to follow training, courses and workhops3.621.430.810.81HRPQ2soluting the future delegement3.641.830.620.810.81HRPQ3soluting the future delegement3.641.830.620.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.810.81 <td>HRPPQ⁵</td> <td>participation in developing (strategic) plans</td> <td>3.05</td> <td>1.18</td> <td>0.69</td> <td>0.61</td> | HRPPQ⁵ | participation in developing (strategic) plans | 3.05 | 1.18 | 0.69 | 0.61 |
| HiPPQ ¹ the opportunity to make my own decisions2.620.630.640.62HRPQ0the opportunity to take the responsibility for yown taks3.400.620.640.52HRPQ1solibilities to present my opinion on matters3.401.620.720.730.75HRPQ2selective recruitment of new colleagues2.601.220.930.870.75HRPQ2be opportunity to follow training, courses and workshops5.251.420.810.760.75HRPQ2be opportunity to follow training, courses and workshops5.251.430.810.760.75HRPQ2coshing that supports my development3.601.330.420.760.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750 | HRPPQ ⁶ | the opportunity to do my work in my own way | 3.30 | 1.15 | 0.88 | 0.65 |
| HisPQheppotunity to take the responsibility for my own tasks9.09.29.29.49.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.29.2 <td>HRPPQ⁷</td> <td>the opportunity to make my own decisions</td> <td>3.26</td> <td>1.08</td> <td>0.84</td> <td>0.65</td> | HRPPQ ⁷ | the opportunity to make my own decisions | 3.26 | 1.08 | 0.84 | 0.65 |
| HPPPQ*possibilities to present my opinion on matters3.401.610.770.59Retruitem of relatisation of new employeesUUUHPPQ*ortical selection of new employees2.561.210.310.87HIPPQ*de opportunity to follow training, courses and workshops5.521.140.890.73HIPPQ*de opportunity to follow training, courses and workshops3.521.140.890.73DeveloreUU0.730.750.750.75HIPPQ*construit to develop new sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to develop met sills and knowledge for my current job or of to de | HRPPQ ⁸ | the opportunity to take the responsibility for my own tasks | 3.80 | 0.92 | 0.64 | 0.52 |
| Recurrent and selectioncritical selection rew polyages0.2 6.01.220.910.87HBPPQ ¹¹ Selective recurliment of new colleagues2.601.220.910.87Taining0.890.73HBPPQ ¹¹ the opportunity to follow training, courses and workshops3.521.140.890.73HBPPQ ¹² the opportunity to develop new skills and knowledge for my current job or for3.521.130.420.65Development3.091.130.420.650.660.660.660.66HBPPQ ¹⁴ coaching that supports my development0.901.310.420.650.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.660.66 <td< td=""><td>HRPPQ⁹</td><td>possibilities to present my opinion on matters</td><td>3.40</td><td>1.05</td><td>0.77</td><td>0.59</td></td<> | HRPPQ ⁹ | possibilities to present my opinion on matters | 3.40 | 1.05 | 0.77 | 0.59 |
| HHPPQ [®] critical selection of new employees 2.60 1.22 0.91 0.87 HHPPQ [®] selective recruitment of new colleagues 2.60 1.22 0.91 0.87 HHPPQ [®] the opportunity to follow training, courses and workshops 3.52 1.14 0.89 0.73 HHPPQ [®] the opportunity to develop new skills and knowledge for my current job or for 3.52 1.14 0.89 0.73 Development | Recruitment and selection | | | | | |
| HPPQ ¹¹ selective recruitment of new colleagues 2.56 1.22 0.93 0.87 Traing | HRPPQ ¹⁰ | critical selection of new employees | 2.60 | 1.22 | 0.91 | 0.87 |
| Training | HRPPQ ¹¹ | selective recruitment of new colleagues | 2.56 | 1.22 | 0.93 | 0.87 |
| HAPPQ ¹⁰ the opportunity to develop new skills and knowledge for my current job or for basile jobs in the true1.130.890.73Development | Training | | | | | |
| HAPPQ1 bits opportunity to develop new skills and knowledge for my current job or for 3.45 1.13 0.81 0.76 Development | HRPPQ ¹² | the opportunity to follow training, courses and workshops | 3.52 | 1.14 | 0.89 | 0.73 |
| Development IIII PRPQ ¹⁴ coaching that supports my development 3.09 1.13 0.42 0.65 HRPPQ ¹⁴ support in planning my future development 3.01 1.15 0.51 0.69 HRPPQ ¹⁵ the opportunity to work for another department 2.86 1.22 0.86 0.667 HRPPQ ¹⁷ the opportunity to do another job within this organisation 2.92 1.19 0.93 0.67 HRPPQ ¹⁶ good career prospects 3.11 1.07 0.64 0.62 HRPPQ ¹⁶ increase in job responsibilities if 1 perform well at ny current tasks 3.11 1.07 0.64 0.62 HRPPQ ¹⁶ an employment contract offering job security 3.50 1.00 0.80 0.76 HRPPQ ²⁴ certainty of keeping my job 3.54 1.02 0.83 0.76 HRPPQ ²⁴ the possibility to work in a team 4.04 0.78 0.90 0.75 HRPPQ ²⁴ the possibility to work in a team 3.64 0.98 0.77 0.73 HRPPQ ²⁴ the possibility to work in a tea | HRPPQ ¹³ | the opportunity to develop new skills and knowledge for my current job or for possible jobs in the future | 3.45 | 1.13 | 0.81 | 0.76 |
| HRPPQ ¹⁴ coaching that supports my development3.091.130.420.65HRPPQ ¹⁶ support in planning my future development3.011.150.510.69HRPPQ ¹⁶ the opportunity to do another of po within this organisation2.921.190.930.67HRPPQ ¹⁶ good career prospects3.111.070.640.62HRPPQ ¹⁶ good career prospects3.111.070.640.62HRPPQ ¹⁶ the opsobility to occupy a higher position within the organisation2.921.190.650.62Employment securityet possibility to occupy a higher position within the organisation3.601.000.800.76HRPPQ ¹⁶ certainty of keeping my job3.601.000.800.760.76HRPPQ ¹⁷ an employment contract offering job security3.640.780.900.75HRPPQ ¹⁸ the possibility to work in a team4.040.780.900.75HRPPQ ¹⁹ the possibility to make decisions as a team3.640.980.770.66HRPPQ ¹⁹ periodic evaluation of my performance3.640.980.770.66HRPQ ¹⁹ abous which depends on the organisation's profit3.111.300.710.50HRPQ ¹⁹ a abous werge salary for this function3.640.950.840.72HRPQ ¹⁹ a abous werge salary for this function3.061.170.920.72HRPQ ¹⁹ a abous werge salary for this function3.06 </td <td>Development</td> <td></td> <td></td> <td></td> <td></td> <td></td> | Development | | | | | |
| HRPPQ15support in planning my future development3.011.150.510.69HRPPQ16the opportunity to work for another department2.861.220.860.66HRPPQ17the opportunity to do another job within this organisation2.911.120.930.67HRPPQ18good career prospects3.111.070.640.62HRPQ29an increase in job responsibilities if 1 perform well at my current tasks3.241.110.490.56HRPQ29the possibility to occupy a higher position within the organisation3.241.120.490.56HRPQ29certainty of keeping my job5.501.000.630.760.830.78HRPQ21an employment contract offering job security3.641.020.830.780.76HRPQ21the possibility to work in a team4.030.790.940.760.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750.750. | HRPPQ ¹⁴ | coaching that supports my development | 3.09 | 1.13 | 0.42 | 0.65 |
| HRPPQ1sthe opportunity to work for another department2.861.220.860.66HRPPQ1the opportunity to do another job within this organisation2.921.190.930.67HRPPQ1good career prospects3.141.070.640.62HRPPQ2the possibility to presponsibilities if perform well at my current tasks3.141.110.490.56HRPPQ2the possibility to occupa a higher position within the organisation2.891.900.650.62Employment securitycertainty of keeping my job3.641.020.830.760.76HRPPQ1an employment contract offering job security3.641.020.830.760.75Emmorkremark1.010.770.940.760.900.75HRPPQ21the possibility to work in a team4.040.780.900.750.940.76HRPPQ23the possibility to work closely together with my colleagues6.640.980.770.730.440.770.730.440.780.910.750.540.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.560.56 <td< td=""><td>HRPPQ¹⁵</td><td>support in planning my future development</td><td>3.01</td><td>1.15</td><td>0.51</td><td>0.69</td></td<> | HRPPQ ¹⁵ | support in planning my future development | 3.01 | 1.15 | 0.51 | 0.69 |
| HRPPQ ³⁷ the opportunity to do another job within this organisation2.921.190.930.67HRPPQ ³⁷ good career prospects3.111.070.640.62HRPPQ ³⁸ an increase in job responsibilities if I perform well at my current tasks3.241.110.490.56HRPPQ ³⁷ the possibility to occupy a higher position within the organisation2.891.900.800.67Employment securitycertainty of keeping my job3.501.000.800.76HRPPQ ³¹ certainty of keeping my job3.501.000.800.76HRPPQ ³² the possibility to work in a team4.040.780.900.75HRPPQ ³⁴ the possibility to work closely together with my colleagues6.310.790.940.76HRPPQ ³⁵ the possibility to work closely together with my colleagues3.640.980.770.73HRPPQ ³⁵ the possibility to make decisions as a team3.640.980.770.66HRPPQ ³⁶ performance-related pay9.991.200.620.56HRPPQ ³⁶ a competitive salary3.640.980.710.50HRPPQ ³⁶ a fair compensation's profit3.113.000.420.56HRPPQ ³⁶ a fair compensation system2.991.550.840.72HRPQ ³⁶ a fair compensation system2.991.650.840.72HRPQ ³⁶ a fair compensation system2.991.650.840.72 <t< td=""><td>HRPPQ¹⁶</td><td>the opportunity to work for another department</td><td>2.86</td><td>1.22</td><td>0.86</td><td>0.66</td></t<> | HRPPQ ¹⁶ | the opportunity to work for another department | 2.86 | 1.22 | 0.86 | 0.66 |
| HRPPQ1³good career prospects3.111.070.640.62HRPPQ1³an increase in job responsibilities if I perform well at my current tasks3.241.110.490.56HRPPQ1³to espisibility to occupy a higher position within the organisation2.891.900.600.62Employment securitycertainty of keeping my job3.501.000.800.760.780.780.780.780.780.780.780.780.780.780.751.010.770.730.740.780.900.750.770.730.790.940.750.770.730.790.940.760.940.770.730.790.940.760.940.770.730.790.940.760.940.770.730.740.780.940.770.730.740.760.760.770.730.740.760.760.620.560.770.620.560.770.620.560.770.620.560.770.560.770.560.770.560.770.570.560.770.570.560.770.560.750.750.750.560.560.770.560.560.770.560.560.750.560.750.560.560.750.560.560.750.560.560.560.560.750.560.560.560.560.560.750.560.560.56 | HRPPQ ¹⁷ | the opportunity to do another job within this organisation | 2.92 | 1.19 | 0.93 | 0.67 |
| HRPPQ19an increase in job responsibilities if 1 perform well at my current tasks3.241.110.490.56HRPPQ29the possibility to occupy a higher position within the organisation2.891.190.650.62Employment security <t< td=""><td>HRPPQ¹⁸</td><td>good career prospects</td><td>3.11</td><td>1.07</td><td>0.64</td><td>0.62</td></t<> | HRPPQ ¹⁸ | good career prospects | 3.11 | 1.07 | 0.64 | 0.62 |
| HRPPQ ²⁸ the possibility to occupy a higher position within the organisation2.891.190.650.62Employment securityHRPPQ ²⁴ certainty of keeping my job3.501.000.800.76an employment contract offering job security3.641.000.830.78Teamwork </td <td>HRPPQ¹⁹</td> <td>an increase in job responsibilities if I perform well at my current tasks</td> <td>3.24</td> <td>1.11</td> <td>0.49</td> <td>0.56</td> | HRPPQ ¹⁹ | an increase in job responsibilities if I perform well at my current tasks | 3.24 | 1.11 | 0.49 | 0.56 |
| Employment security Action of keeping my job 3.50 1.00 0.80 0.76 HRPPQ ²¹ an employment contract offering job security 3.64 1.02 0.83 0.78 HRPPQ ²² an employment contract offering job security 3.64 1.02 0.83 0.78 Teamwork 4.04 0.78 0.90 0.75 HRPPQ ²³ the possibility to work in a team 4.04 0.78 0.90 0.75 HRPPQ ²⁴ the possibility to work closely together with my colleagues 4.03 0.79 0.94 0.76 HRPPQ ²⁵ the possibility for my team to take the responsibility for our results 3.64 0.98 0.77 0.66 HRPPQ ²⁵ periodic evaluation of my performance 3.73 1.01 0.53 0.54 HRPPQ ²⁶ performance-related pay 2.99 1.20 0.62 0.56 HRPPQ ³¹ a competitive salary 3.06 1.17 0.92 0.72 HRPPQ ³⁴ a nobus waverage salary for this function 2.76 1.05 | HRPPQ ²⁰ | the possibility to occupy a higher position within the organisation | 2.89 | 1.19 | 0.65 | 0.62 |
| HRPPQ ³¹ certainty of keeping my job3.501.000.800.76HRPPQ ³² an employment contract offering job security3.641.020.830.78 Fermwork </td <td>Employment security</td> <td></td> <td></td> <td></td> <td></td> <td></td> | Employment security | | | | | |
| HRPQ2a nemployment contract offering job security3.641.020.830.78Teamwork | HRPPQ ²¹ | certainty of keeping my job | 3.50 | 1.00 | 0.80 | 0.76 |
| Teamwork HRPPQ ²³ the possibility to work in a team 4.04 0.78 0.90 0.75 HRPPQ ²⁴ the possibility to work closely together with my colleagues 4.03 0.79 0.94 0.76 HRPPQ ²⁵ the possibility to make decisions as a team 3.67 1.01 0.77 0.73 HRPPQ ²⁵ the possibility for my team to take the responsibility for our results 3.64 0.98 0.77 0.66 HRPPQ ²⁶ periodic evaluation of my performance 3.73 1.01 0.53 0.54 Rewards stormance-related pay 2.99 1.20 0.62 0.56 HRPPQ ²⁹ performance-related pay 3.06 1.17 0.92 0.72 HRPPQ ³¹ a competitive salary 3.06 1.17 0.92 0.72 HRPPQ ³² an above average salary for this function 2.76 1.05 0.84 0.72 HRPPQ ³³ a fair compensation system 2.99 1.05 0.84 0.72 HRPPQ ³⁴ a nattractive benefit package | HRPPQ ²² | an employment contract offering job security | 3.64 | 1.02 | 0.83 | 0.78 |
| HRPPQ ²³ the possibility to work in a team 4.04 0.78 0.90 0.75 HRPPQ ²⁴ the possibility to work closely together with my colleagues 4.03 0.79 0.94 0.76 HRPPQ ²⁵ the possibility to make decisions as a team 3.67 1.01 0.77 0.73 HRPPQ ²⁶ the possibility for my team to take the responsibility for our results 3.64 0.98 0.77 0.66 HRPPQ ²⁷ periodic evaluation of my performance 3.73 1.01 0.53 0.54 Rewards science-related pay 2.99 1.20 0.62 0.56 HRPPQ ²⁹ a bonus which depends on the organisation's profit 3.11 1.30 0.71 0.50 HRPQ ¹³ a competitive salary ort this function 3.06 1.17 0.92 0.72 HRPQ ¹⁴ a nabove average salary for this function 2.90 1.05 0.84 0.72 HRPQ ¹⁴ a nattractive benefit package 3.08 1.25 0.76 0.62 HRPPQ ¹⁴ a nattractive benefit packa | Teamwork | | | | | |
| HRPPQ ²⁴ the possibility to work closely together with my colleagues 4.03 0.79 0.94 0.76 HRPPQ ²⁵ the possibility to make decisions as a team 3.67 1.01 0.77 0.73 HRPPQ ²⁶ the possibility for my team to take the responsibility for our results 3.64 0.98 0.77 0.66 HRPQ ²⁷ periodic evaluation of my performance 3.73 1.01 0.53 0.54 Rewards | HRPPQ ²³ | the possibility to work in a team | 4.04 | 0.78 | 0.90 | 0.75 |
| HRPPQ ²⁵ the possibility to make decisions as a team 3.67 1.01 0.77 0.73 HRPPQ ²⁶ the possibility for my team to take the responsibility for our results 3.64 0.98 0.77 0.66 HRPPQ ²⁷ periodic evaluation of my performance 3.73 1.01 0.53 0.54 Rewards | HRPPQ ²⁴ | the possibility to work closely together with my colleagues | 4.03 | 0.79 | 0.94 | 0.76 |
| HRPPQ ²⁶ the possibility for my team to take the responsibility for our results 3.64 0.98 0.77 0.66 HRPPQ ²⁷ periodic evaluation of my performance 3.73 1.01 0.53 0.54 Rewards 0.62 0.56 HRPPQ ²⁹ performance-related pay 2.99 1.20 0.62 0.56 HRPPQ ³⁰ a bonus which depends on the organisation's profit 3.11 1.30 0.71 0.50 HRPPQ ³¹ a competitive salary 3.06 1.17 0.92 0.72 HRPPQ ³² an above average salary for this function 2.76 1.05 0.85 0.66 HRPPQ ³⁴ a nattractive benefit package 3.00 1.16 0.77 0.68 Work-life balance 3.08 1.25 0.76 0.62 HRPPQ ³⁵ flexible working hours 3.08 1.25 0.76 0.68 HRPPQ ³⁶ policies that support working parents 2.90 1.16 < | HRPPQ ²⁵ | the possibility to make decisions as a team | 3.67 | 1.01 | 0.77 | 0.73 |
| HRPPQ ²⁷ periodic evaluation of my performance 3.73 1.01 0.53 0.54 Rewards | HRPPQ ²⁶ | the possibility for my team to take the responsibility for our results | 3.64 | 0.98 | 0.77 | 0.66 |
| Rewards 2.99 1.20 0.62 0.56 HRPPQ ²⁹ a bonus which depends on the organisation's profit 3.11 1.30 0.71 0.50 HRPPQ ³⁰ a bonus which depends on the organisation's profit 3.11 1.30 0.71 0.50 HRPPQ ³¹ a competitive salary 3.06 1.17 0.92 0.72 HRPPQ ³² an above average salary for this function 2.76 1.05 0.84 0.72 HRPPQ ³³ a fair compensation system 2.99 1.05 0.84 0.72 HRPPQ ³⁴ an attractive benefit package 3.00 1.16 0.77 0.68 Work-life balance 1.25 0.76 0.62 HRPPQ ³⁵ flexible working hours 3.08 1.25 0.76 0.68 HRPPQ ³⁶ policies that support working parents 2.90 1.16 0.76 0.68 HRPPQ ³⁷ the opportunity to work part-time if I needed to 2.18 1.11 0.66 0.62 HRPPQ ³⁸ the opportunity t | HRPPQ ²⁷ | periodic evaluation of my performance | 3.73 | 1.01 | 0.53 | 0.54 |
| HRPPQ ³⁹ performance-related pay 2.99 1.20 0.62 0.56 HRPPQ ³⁰ a bonus which depends on the organisation's profit 3.11 1.30 0.71 0.50 HRPPQ ³¹ a competitive salary 3.06 1.17 0.92 0.72 HRPPQ ³² an above average salary for this function 2.76 1.05 0.85 0.66 HRPPQ ³³ a fair compensation system 2.99 1.05 0.84 0.72 HRPPQ ³⁴ a nattractive benefit package 3.00 1.16 0.77 0.68 Vork-life balance 3.08 1.25 0.76 0.62 HRPPQ ³⁵ flexible working hours 3.08 1.25 0.76 0.62 HRPPQ ³⁶ policies that support working parents 2.90 1.16 0.76 0.68 HRPPQ ³⁷ the opportunity to work part-time if I needed to 2.18 1.11 0.66 0.62 HRPPQ ³⁸ the opportunity to arrange my work schedule so I can meet family obligations 2.73 1.24 0.79 | Rewards | | | | | |
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| HRPPQ ³³ an above average salary for this function 2.76 1.05 0.85 0.66 HRPPQ ³³ a fair compensation system 2.99 1.05 0.84 0.72 HRPPQ ³⁴ an attractive benefit package 3.00 1.16 0.77 0.68 Work-life balance HRPPQ ³⁵ flexible working hours 3.08 1.25 0.76 0.62 HRPPQ ³⁶ policies that support working parents 2.90 1.16 0.76 0.68 HRPPQ ³⁷ the opportunity to work part-time if I needed to 2.18 1.11 0.66 0.62 HRPPQ ³⁸ the opportunity to arrange my work schedule so I can meet family obligations 2.73 1.24 0.79 0.71 | HRPPQ ³¹ | a competitive salary | 3.06 | 1.17 | 0.92 | 0.72 |
| HRPPQ ³³ a fair compensation system 2.99 1.05 0.84 0.72 HRPPQ ³⁴ an attractive benefit package 3.00 1.16 0.77 0.68 Work-life balance | HRPPQ ³² | an above average salary for this function | 2.76 | 1.05 | 0.85 | 0.66 |
| HRPPQ ³⁴ an attractive benefit package 3.00 1.16 0.77 0.68 Work-life balance | HRPPQ ³³ | a fair compensation system | 2.99 | 1.05 | 0.84 | 0.72 |
| Work-life balance Since | HRPPQ ³⁴ | an attractive benefit package | 3.00 | 1.16 | 0.77 | 0.68 |
| HRPPQ ³⁵ flexible working hours 3.08 1.25 0.76 0.62 HRPPQ ³⁶ policies that support working parents 2.90 1.16 0.76 0.68 HRPPQ ³⁷ the opportunity to work part-time if I needed to 2.18 1.11 0.66 0.62 HRPPQ ³⁸ the opportunity to arrange my work schedule so I can meet family obligations 2.73 1.24 0.79 0.71 | Work-life balance | | | | | |
| HRPPQ36policies that support working parents2.901.160.760.68HRPPQ37the opportunity to work part-time if I needed to2.181.110.660.62HRPPQ38the opportunity to arrange my work schedule so I can meet family obligations2.731.240.790.71 | HRPPQ ³⁵ | flexible working hours | 3.08 | 1.25 | 0.76 | 0.62 |
| HRPPQ37the opportunity to work part-time if I needed to2.181.110.660.62HRPPQ38the opportunity to arrange my work schedule so I can meet family obligations2.731.240.790.71 | HRPPQ ³⁶ | policies that support working parents | 2.90 | 1.16 | 0.76 | 0.68 |
| HRPPQ ³⁸ the opportunity to arrange my work schedule so I can meet family obligations 2.73 1.24 0.79 0.71 | HRPPQ ³⁷ | the opportunity to work part-time if I needed to | 2.18 | 1.11 | 0.66 | 0.62 |
| | HRPPQ ³⁸ | the opportunity to arrange my work schedule so I can meet family obligations | 2.73 | 1.24 | 0.79 | 0.71 |

Q[#], The item numbers in the original instrument by Boon et al. (2011).

HRPPQ, Human Resource Practices Perceptions Questionnaire; SD, standard deviation; h, communalities.

laid by Boon et al. (2011) has been confirmed to some extent but that the composition and the number of the factors is slightly different.

Their first factor, originally called *participation*, *autonomy and job design* (consisting of nine items) was divided into two factors, namely *job design* (three items) and *participation/ autonomy* (consisting of six items). A further adaptation is that the factor concerning *training and development* was also split into two separate factors, namely *training* (consisting of two items) and *development* with seven items. The *employment security* as well as *work–life balance* factors remained the same

as postulated by Boon et al. (2011) with two and four items, respectively.

The original *teamwork* factor had one item more, namely Item 27, which reads, 'The organisation offers (me) periodic evaluation of my performance'. This item was initially part of the *performance appraisal and rewards* factor together with Item 28, which reads, 'The organisation offers (me) fair appraisal of my performance'. Item 28 was the only item that was excluded from the new structural configuration of the HRPPQ. The initial factor of Boon et al. (2011) called *performance appraisal and* *rewards* was therefore renamed *rewards*, and it consists of six items.

The results of the correlational analysis (Pearson correlation) between the nine retained components, from here on referred to as *factors*, are reported in Table 4.

The correlations between the pairs of factors ranged between 0.17 and 0.63. Because of these high correlations, multicollinearity was tested using the variance inflation factor (VIF) and tolerance. The analysis yielded results with the highest VIF value of 2.41 and the lowest tolerance value of 0.42. These values fall within the parameters of less than 5 for the VIF value and larger than 0.10 for the tolerance value. No evidence of multicollinearity was thus found.

The descriptive statistics as well as the internal consistency of each of the adapted factors as assessed by Cronbach's alpha coefficient are reported in Table 5.

The descriptive statistics in Table 5 show that five factors, namely *job design, participation and autonomy, training, employment security, teamwork* as well as the HRPPQ total score, reported relatively high mean scores (on a five-point Likert scale). Two factors reported below-average mean scores, namely *recruitment and selection* (M = 2.58, SD = 1.15) and *work–life balance* (M = 2.72, SD = 0.95). The skewness and kurtosis values for all factors did not exceed the critical values of 2.00 and 7.00, respectively, which is an indication that the data was normally distributed (West, Finch, & Curran, 1995). All factors, except *recruitment and selection*

TABLE 4: Correlations between the extracted factors (adapted structural configuration of the Human Resource Practices Perceptions Questionnaire).

| Variable | F ₁ | F ₂ | F, | F4 | F₅ | ۴ | F, | F | F, |
|----------------|-----------------------|----------------|------|------|------|------|------|------|------|
| F.1 | 1.00 | - | - | - | - | - | - | - | - |
| F ₂ | 0.63 | 1.00 | - | - | - | - | - | - | - |
| F3 | 0.29 | 0.39 | 1.00 | - | - | - | - | - | - |
| F ₄ | 0.44 | 0.43 | 0.24 | 1.00 | - | - | - | - | - |
| F ₅ | 0.52 | 0.54 | 0.41 | 0.58 | 1.00 | - | - | - | - |
| F ₆ | 0.31 | 0.35 | 0.17 | 0.27 | 0.40 | 1.00 | - | - | - |
| F ₇ | 0.47 | 0.51 | 0.18 | 0.47 | 0.52 | 0.43 | 1.00 | - | - |
| F ₈ | 0.40 | 0.41 | 0.33 | 0.42 | 0.58 | 0.36 | 0.49 | 1.00 | - |
| F. | 0.33 | 0.38 | 0.28 | 0.38 | 0.52 | 0.26 | 0.36 | 0.50 | 1.00 |

 $\mathsf{F}_{\mathfrak{y}}$, Job design; $\mathsf{F}_{\mathfrak{y}}$, Participation and autonomy; $\mathsf{F}_{\mathfrak{y}}$, Recruitment and selection; $\mathsf{F}_{\mathfrak{g}}$, Training; $\mathsf{F}_{\mathfrak{y}}$, Development; $\mathsf{F}_{\mathfrak{g}}$, Employment security; $\mathsf{F}_{\mathfrak{y}}$, Teamwork; $\mathsf{F}_{\mathfrak{g}}$, Rewards; $\mathsf{F}_{\mathfrak{g}}$, work–life balance.

TABLE 5: Descriptive statistics, Cronbach's alpha coefficient of the factors of the Human Resource Practices Perceptions Questionnaire (adapted structural configuration).

| Variable | Mean | SD | Skewness | Kurtosis | Cronbach's alpha |
|----------------------------|------|------|----------|----------|------------------|
| Job design | 3.62 | 0.82 | -0.50 | 0.11 | 0.79 |
| Participation and autonomy | 3.34 | 0.83 | -0.33 | -0.21 | 0.85 |
| Recruitment and selection | 2.58 | 1.15 | 0.18 | -0.89 | 0.87 |
| Training | 3.49 | 1.05 | -0.52 | -0.36 | 0.82 |
| Development | 3.00 | 0.90 | -0.09 | -0.33 | 0.88 |
| Employment security | 3.57 | 0.90 | -0.67 | 0.40 | 0.76 |
| Teamwork | 3.82 | 0.73 | -0.60 | 0.89 | 0.85 |
| Rewards | 2.99 | 0.90 | -0.14 | -0.40 | 0.87 |
| Work–life balance | 2.72 | 0.95 | 0.10 | -0.54 | 0.81 |
| HRP total score | 3.24 | 0.62 | -0.12 | 0.02 | - |

HRP, human resource practices; SD, standard deviation.

(which is not an HR practice that is generally utilised by employees) and *work–life balance*, reported negative values of skewness, with the skewness values ranging between -0.67 and 0.10. This is an indication that the distribution in general has relatively few small values and tails off to the left. The kurtosis value ranged from -0.89 (*recruitment and selection*) and 0.89 for *teamwork*. The Cronbach's alpha coefficients of the factors are acceptable if the guideline of a > 0.70 (Nunnally & Bernstein, 1994) is applied. It would thus appear that the factors possess acceptable levels of internal consistency with Cronbach's alpha coefficients ranging from 0.76 to 0.88.

It was further deemed necessary to inspect the factor structure of the HRPPQ for construct and specifically factorial validity by conducting a CFA. The results of the three models tested are reported in Table 6 in accordance with their respective fit indexes, more specifically the CFI, the RMSEA, chi-square (χ^2) and the ratio of the differences in chi-square to the differences in degrees of freedom ($\chi^{2/df}$).

An assessment of the best-fitting of the three models was conducted through the application of CFA. The second-order factor model (all 37 items from the original 38 items) was identified as the worst-fitting model ($\chi^{2/df}$ [598] = 3.82, CFI = 0.931, RMSEA = 0.048). By analysing the chi-square test values, it further appears that the first-order factor model is slightly better than the one-factor model. The difference in chi-square between the first-order factor and the one-factor models is 36 (i.e. 1865-1829), which is distributed as chisquare with 571-514 = 57 degrees of freedom. The best-fitting model is thus the first-order model (model_b) ($\chi^{2/df}$ [571] = 3.20, CFI = 0.949, RMSEA = 0.042), with the 37 items loading directly on their respective factors, which are in this case the factors (i.e. job design, participation and autonomy, recruitment and selection, training, development, employment security, *teamwork, rewards* and *work–life balance*).

It was further deemed necessary to conduct an elementary cross-validation analysis to assess the possibility of invariance between two sample groups, namely the private and public sectors. The sample was split into the two sectors, using 500 cases randomly selected from each sector. The results reported for the two sample groups were $\chi^{2/df}$ (571) = 2.24, CFI = 0.92, TLI = 0.90, RMSEA = 0.05, expected cross-validation index (ECVI) = 3.33 and $\chi^{2/df}$ (571) = 2.35, CFI = 0.93, TLI = 0.92, RMSEA = 0.05, ECVI = 2.59 for the private

TABLE 6: Comparison of an *a priori* nine-factor structure (the adapted factor structure of the Human Resource Practices Perceptions Questionnaire).

| Structure | χ² | df | $\chi^{2/df}$ | Δχ² | CFI | RMSEA | | |
|-------------------------------|------|-----|---------------|----------|-------|-------|--|--|
| One-factor model†¶ | 1865 | 514 | 3.629 | - | 0.945 | 0.046 | | |
| First-order factor model‡ | 1829 | 571 | 3.204 | 39†‡* | 0.949 | 0.042 | | |
| Second-order factor model§ | 2286 | 598 | 3.823 | -421†‡§* | 0.931 | 0.048 | | |

Note: All chi-square values are significant at p < 0.001; the $\Delta \chi^2$ is in relation to one-factor model.

CFI, comparative fit index; RMSEA, root-mean-square error of approximation.

Unidimensional model.

‡, Model with separate factors.

 $\boldsymbol{\xi},$ Model with factors that load onto a higher order construct.

 \P , Thirty-seven items as determined by the exploratory factor analysis;

*, *p* < 0.01 (two-tailed).

TABLE 7: Convergent and discriminant validity of the HRPPQ (adapted structural configuration)

| conn.Baracion) | | | | |
|----------------------------|------|------|------|------|
| Variable | CR | AVE | MSV | ASV |
| Job design | 0.78 | 0.56 | 0.40 | 0.17 |
| Participation and autonomy | 0.87 | 0.59 | 0.40 | 0.17 |
| Recruitment and selection | 0.92 | 0.84 | 0.40 | 0.17 |
| Training | 0.84 | 0.73 | 0.40 | 0.17 |
| Development | 0.82 | 0.49 | 0.40 | 0.17 |
| Employment security | 0.91 | 0.72 | 0.40 | 0.17 |
| Teamwork | 0.89 | 0.63 | 0.40 | 0.17 |
| Rewards | 0.87 | 0.58 | 0.40 | 0.17 |
| Work-life balance | 0.86 | 0.67 | 0.40 | 0.17 |

CR, composite reliability; AVE, average variance extracted; MSV, maximum shared variance; ASV, average shared variance.

and public sectors, respectively. The degree of invariance in terms of the likelihood ratio test was 0.11 (2.35–2.24), and the difference between the Tucker-Lewis index (TLI) values was 0.02 (0.92–0.90), which is lower than the norm of 0.05. The ECVI values for the private and public sector are 3.33 and 2.59, respectively (difference = 0.74), which is marginal. The comparison of the two sample groups by means of cross-validation lends support to the notion of invariance.

Convergent validity of the nine HRPPQ was assessed by the CR and the AVE, while the discriminant validity was determined by comparing the AVE with the MSV as well as the ASV. The results are reported in Table 7.

The HRPPQ with its nine factors met the conditions of convergent validity, with all CR values higher than the criterion of > 0.70 and the AVE value > 0.50. Evidence of discriminant validity was also found as all the AVE values were larger than the MSV value of 0.40. The ASV was also less than the AVE, which supports the notion of discriminant validity.

Discussion

The original instrument, the HRPPQ, was developed and standardised by Boon et al. (2011) but in the Netherlands, for a Dutch-speaking population. It was deemed necessary to validate the instrument within the South African context, which has a more collectivistic culture (compared to the West), which is closely related to the African relational philosophy of ubuntu. This was done from an etic perspective, with the rationale of making sure that accurate measurements could be made to enable HR managers and practitioners to design and implement interventions to improve and positively change the perceptions of the HR practices. This would have a positive impact on employee attitudes and behaviour in general.

The value of this study lies in the fact that the original conceptualisation of the HRPPQ – which originally consisted of seven factors (HR practices) – was adjusted to meet the contextual realities. The adjusted factor structure consists of nine factors or HR practices with 37 of the original 38 items. The factor originally called *participation, autonomy and job design* was divided into two factors: *job design* and *participation and autonomy*. A further adaptation is that the factor

concerning *training and development* was split into two separate factors: *training* and *development*, with the latter being more concerned with the typical career development practices such as coaching for development, career planning, job rotation, job enlargement and job enrichment, and vertical promotion.

The *employment security* as well as *work–life balance* factors remained the same as postulated by Boon et al. (2011).

The impact of the collectivistic work culture that is found in South Africa significantly influenced the terms of the original teamwork factor as well as the performance appraisal and reward factors. One significant item was added to the teamwork factor, which read, 'The organisation offers (me) periodic evaluation of my performance'. This item was initially part of the performance appraisal and rewards factor together with an item that read, 'The organisation offers (me) fair appraisal of my performance'. The latter was the only item that was excluded in the new structural configuration of the HRPPQ - performance in a more collectivistic culture is often seen in terms of a group effort and not as individual performance, as is the case in an individualistic culture. The initial factor of Boon et al. (2011) called performance appraisal and rewards was therefore renamed to rewards as it did not include any performance management items.

Another factor where the collectivistic and relational nature of ubuntu has impacted on the original factor structure, is the split of the factor related to *participation*, *autonomy and job design* into *job design*, which is considered to be more characteristic of the mechanistic factor, and the more relational side of the original factor, namely *participation and autonomy*. This factor is related to trust and respect (to allow employees to work on their own) but also to participate in decision-making and other organisational processes – which bears some resemblance to the ubuntu philosophy.

Based on the results obtained, it seems that the HRPPQ is a suitable (valid and reliable) instrument for measuring the perceptions of employees of the HR practices in their organisation. This study serves as a reference for the accurate measurement of perceptions of HR practices, as it was found to be invariant for both the private and public sectors during cross-validation analysis.

Limitations and recommendations

The limitations identified for this research are mainly in terms of the methodology. The HRPPQ is based on selfreporting, a method that may lead to method bias, and this may still be a reality, even with the assurance provided to participants during the briefing regarding anonymity as well as confidentiality. Social desirability and subsequent response bias will always remain a concern and a limitation in studies such as this one, while self-reporting may be seen as a onesided report from the respondents' side. An additional possible limitation is that the wording of the initial scale was used 'as is', without adapting it to the South African (multilingual) context. There is also a limitation associated with the use of a cross-sectional design, which might have increased the relationship between the nine components artificially.

It is recommended that a qualitative approach from an emic perspective be followed to further explore the contextual realities. A qualitative study can explore how the HRPPQ constructs can inductively be integrated with collectivism and ubuntu, thereby validating and complementing the current study through triangulation. The integration of both etic (outside) and emic (inside) approaches will result in richer findings (Morris, Leung, Ames, & Lickel, 1999), as the two methods are complementary and contradictory and will raise more questions while stimulating further inquiry. The inquiry will further explore whether South Africa is predominately a collectivistic culture or perhaps a hybrid of both individualistic and collectivistic cultures.

Conclusion

This study suggested that the collectivistic culture in the South African work context has an impact on the perceptions of HR practices, specifically in terms of performance management. A further interesting finding is the separation of the training and career development practices, which might resonate with the notion of talent management (attraction, retention, engagement and the development of employees). The study further contributed in terms of a validated factor structure, which can be used for future academic research to determine the relationship between perceived HR practices and employee and behavioural variables. It provides an accurate measurement for HR managers and practitioners to measure perceptions and to develop strategies and interventions to enhance them to the benefit, not only of the organisation in terms of performance, but of employee satisfaction, well-being and ultimately productivity.

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Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

A.G. was the project leader. S.G. assisted with the data collection and analysis. R.B.M. played a primary role in writing the literature review.

References

- Abbott, J. B., Boyd, N. G., & Miles, G. (2006). Does type of team matter? An investigation of the relationships between job characteristics and outcomes within a team-based environment. *The Journal of Social Psychology*, 146(4), 485–507. https://doi.org/10.3200/SOCP.146.4.485-507
- Albertsen, K., Rafnsdóttir, G. L., Grimsmo, A., Tómasson, K., & Kauppinen, K. (2008). Workhours and work life balance. Scandinavian Journal Work Environment and Health, 5, 14–21.

- Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *The Annual Review of Psychology, 60*, 451–74. https://doi.org/10.1146/annurev.psych.60.110707.163505
- Bochner, S. (1994). Cross-cultural differences in the self-concept: A test of Hofstede's individualism/collectivism distinction. *Journal of Cross Cultural Psychology*, 25(2), 273–283. https://doi.org/10.1177/0022022194252007
- Boon, C., Den Hartog, D. N., Boselie, P., & Paauwe, J. (2011). The relationship between perceptions of HR practices and employee outcomes: Examining the role of person-organisation and person-job fit. *The International Journal of Human Resource Management*, 22(1), 138–162. https://doi.org/10.1080/09585192.2011. 538978
- Bowen, D. E., & Ostroff, C. (2004). Understanding HRM–firm performance linkages: The role of the "strength" of the HRM system. Academy of Management Review, 29(2), 203–221.
- Browning, V. (2006). The relationship between HRM practices and service behaviour in South African service organizations. *The International Journal of Human Resource Management*, 17(7), 1321–1338. https://doi.org/10.1080/09585190 600756863
- Byrne, B. (2010). Structural equation modelling with AMOS: Basic concepts, applications, and programming. Mahwah, NJ: Lawrence Erlbaum Associates.
- Cable, D. M., & Edwards, J. R. (2004). Complementary and supplementary fit: A theoretical and empirical integration. *Journal of Applied Psychology*, 89(5), 822–834. https://doi.org/10.1037/0021-9010.89.5.822
- Choudhury, J., & Mishra, B. B. (2010). Theoretical and empirical investigation of impact of developmental HR configuration on human capital management. *International Business Research*, 3(4), 181–186. https://doi.org/10.5539/ibr. v3n4p181
- Eaton, L., & Louw, J. (2000). Culture and self in South Africa: Individualism collectivism predictions. *The Journal of Social Psychology*, 140(2), 210–217. https://doi. org/10.1080/00224540009600461
- Enz, C. A., & Sigaw, J. A. (2000). Best practices in human resources [Electronic version]. Cornell Hotel and Restaurant Administration Quarterly, 41(1), 48–61. https://doi.org/10.1177/001088040004100123
- Gathogo, J. (2008). African philosophy as expressed in the concepts of hospitality and Ubuntu. *Journal of Theology for Southern Africa, 130,* 39–53.
- Gong, Y. Law, K. S., Chang, S., & Xin, K. R. (2009). Human resources management and firm performance: The differential role of managerial affective and continuance commitment. *Journal of Applied Psychology*, 94(1), 263–273. https://doi.org/ 10.1037/a0013116
- Grobler, A., & Singh, V. (2018). Leadership in Africa An Afrocentric hierarchical taxonomy. Insight on Africa, 10(2), 1–25. https://doi.org/10.1177/097508781 8772236
- Guest, D. E., & Conway, N. (2002). Communicating the psychological contract: An employer perspective. *Human Resource Management Journal*, 12, 22–38. https:// doi.org/10.1111/j.1748-8583.2002.tb00062.x
- Haar, J. M., Russo, M., Sune, A., & Ollier-Malaterre, A. (2014). Outcomes of work life balance on job satisfaction, life satisfaction and mental health: A study across seven cultures. *Journal of Vocational Behavior, 85*, 361–373. https://doi. org/10.1016/j.jvb.2014.08.010
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis. A global perspective (7th ed.). Boston, MA: Pearson.
- Han, T. S., Chiang, H. H., & Chang, A. (2010). Employee participation in decision making, psychological ownership and knowledge sharing: Mediating role of organizational commitment in Taiwanese high-tech organizations. *The International Journal of Human Resource Management*, 21(12), 2218–2233. https://doi.org/10.1080/09585192.2010.509625
- Hills, A. (2009). Succession planning Or smart talent management? Industrial and Commercial Training, 41(1), 3–8. https://doi.org/10.1108/00197850910927697
- Hofstede, G. (1998). Identifying organizational subcultures: An empirical approach. Journal of Management Studies, 35, 1–12. Oxford: UK Blackwell Publishers Ltd. https://doi.org/10.9707/2307-0919.1014
- Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. Online Readings in Psychology and Culture, 2(1), 8. International Association for Cross-Cultural Psychology.
- Li, Y., Zhang, G., Yang, X., & Li, J. (2015). The influence of collectivist human resource management practices on team-level identification. *The International Journal of Human Resource Management*, 26(14), 1791–1806. https://doi.org/10.1080/095 85192.2014.938677
- Mabovula, N. N. (2011). The erosion of African communal values: A reappraisal of African Ubuntu philosophy. *Inkanyiso, Journal of Humanities and Social Science*, 3(1), 38–47.
- Mbigi, L. (2000). In search of the African business renaissance: An African cultural perspective. Johannesburg: Knowledge Resources.
- Meyers, L. S., Gamst, G., & Guarino, A. J. (2013). Applied multivariate research. Design and interpretation (2nd ed.). Thousand Oaks, CA: Sage.
- Morris, M. W., Leung, K., Ames, D. and Lickel, B. (1999). Views from inside and outside: Integrating Emic and Etic insights about culture and justice judgment. *The Academy of Management Review*, 24(4), 781–796. https://doi.org/10.5465/ amr.1999.2553253
- Mulemfo, M. M. (2000). Thabo Mbeki and the African Renaissance. Pretoria: Acta Press.
- Newenham-Kahindi, A. (2009). The transfer of Ubuntu and Indaba business models abroad: A case of South African multinational banks and telecommunication services in Tanzania. *International Journal of Cross Cultural Management*, 9(1), 87–108.

- Nishii, L. H., & Wright, P. (2008). Variability within organizations: Implications for strategic human resource management. In D. B. Smith (Ed.), The people make the place: Dynamic linkages between individuals and organizations (pp. 225–248). Mahwah, NY: Lawrence Erlbaum Associates.
- Nunnally, J. C., & Bernstein, I. H. (1994). Psychometric theory (3rd edition). NY: McGraw-Hill.
- Ofori, D. (2011). Recruitment and selection practices in small and medium enterprises: Perspectives from Ghana. International Journal of Business Administration, 2(3), 45–60. https://doi.org/10.5430/ijba.v2n3p45
- Pallant, J. (2013). SPSS survival manual: A step by step guide to data analysis using (4th edn.). Open University Press, McGraw-Hill.
- Presbitero, A. Roxas, B., & Chadee, D. (2016). Looking beyond HRM practices in enhancing employee retention in BPOs: Focus on employee–organisation value fit. *The International Journal of Human Resource Management*, 27(6), 635–652. https://doi.org/10.1080/09585192.2015.1035306
- Rosen, M. A., Salas, M. A. E., Wilson, K. A., King, H. B., Salisbury, M. S. M., Augenstein, J. S., ... Birnbach, D. J. (2008). Measuring team performance in simulation-based training: Adopting best practices for healthcare. *Society for Simulation in Healthcare*, 3(1), 33–41. https://doi.org/10.1097/SIH.0b013e3181626276
- Ryan, A. M., & Schmit, M. J. (1996). An assessment of organizational climate and P-E fit: A tool for organizational change. *International Journal of Organizational Analysis*, 4, 75–95. https://doi.org/10.1108/eb028842
- Scott, S. G., & Einstein, W. O. (2001). Strategic performance appraisal in team-based organizations: One size does not fit all. Academy of Management Executive, 15(2), 107–116.
- Statistics South Africa. (2017). Annual report 2016/2017. Pretoria: Statistics South Africa. Statistical Release. ISBN: 978-0-621-45440-6.
- Sun, L., Aryee, S., Law, K. S. (2007). High-performance human resource practices, citizenship behavior, and organizational performance: A relational perspective. Academy of Management Journal, 5, 558–577. https://doi.org/10.5465/amj.2007.25525821
- Swamy, N. (2013). Quality of work life of employees in private technical institutions. International Journal for Quality Research, 7(3), 3–14.

- Tabachnick, B. G., & Fidell, L. S. (2007). Using multivariate statistics. (5th ed.). Boston, MA: Pearson.
- Takeuchi, R., Lepak, D. P., Wang, H., Takeuchi, K. (2007). An empirical examination of the mechanisms mediating between high performance work systems and the performance of Japanese organizations. *Journal of Applied Psychology, 92*, 1069–1083. https://doi.org/10.1037/0021-9010.92.4.1069
- Ten Brink, B. E. H. (2004). Psychological contract: A useful concept? Vrije Universiteit Amsterdam, Faculteit der Psychologie en Pedagogiek, Kurt Lewin Instituut, University Amsterdam, Netherlands. ISBN 9076269378; 9789076269375.
- Thomas, A., & Bendixen, M. (2000). The management implication of ethnicity in South Africa. Journal of International Business Studies, 31(3), 507–519. https://doi. org/10.1057/palgrave.jibs.8490919
- Valentine, S., Hollingworth, D. Francis, C. (2013). Quality-related HR practices, organizational ethics, and positive work attitudes: Implications for HRD. *Human Resource Development Quarterly*, 24(4), 493–523. https://doi.org/10.1002/ hrdq.21169
- Virtanen, P., Vahtera, J., Kivimäki, M., Pentti, J., & Ferrie. J. (2002). Public health, policy and practice: Employment security and health. *Journal of Epidemiol Community Health*, 56, 569–574. https://doi.org/10.1136/jech.56.8.569
- West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modelling: Concepts, issues, and applications* (pp. 159–176). Thousand Oaks, CA: Sage.
- Wiley, C. (2000). Ethical standards for human resource management professionals: A comparative analysis of five major codes. *Journal of Business Ethics*, 25(2), 93–114. https://doi.org/10.1023/A:1006230214847
- Wright, P. M., & Nishii, L. H. (2007). Strategic HRM and organizational behavior: Integrating multiple levels of analysis. New York: Technical Report 07-03, CAHRS at Cornell University.
- Yilmaz, C., & Hunt, S. D. (2001). Salesperson cooperation: The influence of relational, task, organizational, and personal factors. *Journal of the Academy of Marketing Science*, 29(4), 335–357. https://doi.org/10.1177/03079450094207