The validation of a human resource management professional competence model for the South African context

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Orientation: The last two decades have seen a great interest in the development of human resource management (HRM) professional competence models to advance the value-add of HR practitioners in organisations. However, empirical research on competency requirements for HR practitioners in the South African context has not been forthcoming.

Research purpose: The main objective of the present research was to validate a HRM competence measure for the assessment of professional HRM competencies in the workplace.

Motivation for the study: Competency models can assist HR professionals in supporting their organisations to achieve success and sustainability.

Research approach, design and method: A cross-sectional research approach was followed. The proposed HRM Professional Competence Model was administered to a diverse population of HR managers and practitioners ($N = 483$). Data were analysed using SPSS 22.0 for Windows.

Main findings: Exploratory factor analysis resulted in three distinguishable competency dimensions for HR professionals: *Professional behaviour and leadership* (consisting of the factors *Leadership and personal credibility*, *Solution creation*, *Interpersonal communication* and *Innovation*), *Service orientation and execution* (consisting of the factors *Talent management*, *HR risk*, *HR metrics* and *HR service delivery*) and *Business intelligence* (consisting of the factors *Strategic contribution*, *HR business knowledge*, *HR business acumen* and *HR technology*). All factors showed acceptable construct equivalence for the English and indigenous language groups.

Practical/managerial implications: Managers can utilise the validated competence measure to measure the performance of HR practitioners in the organisation.

Contribution/value-add: This research adds to the limited HR professional competence measures that currently exist.

Introduction

The development of human resources (HR) competence models has a gained a great deal of attention over the past decade, assisting organisations to adapt to ongoing changes in the business world (Abdullah, Musa & Ali, 2011). HR practitioners in organisations are expected to play a dual role by on the one hand becoming a business partner and protecting employees' interests and on the other hand managing and implementing strategies and practices that respond to economic circumstances (O'Brien & Linehan, 2014). Competence models that allow for the description of different competences can therefore assist HR professionals to support their organisations in achieving success and sustainability (Sikora & Ferris, 2014; Ulrich, Brockbank, Johnson, Sandholtz & Younger, 2008).

Empirical research on competency requirements for HR professionals in the South African context is scant. The few detailed empirical studies that were conducted in this field focused primarily on the desired roles and practices of HR practitioners in South African organisations (Coetzee, Mitonga-Monga & Swart, 2014; Magau & Roodt, 2010; Scheepers & Schuping, 2011; Schultz, 2010; Steyn, 2008; Van der Westhuizen, Van Vuuren & Visser, 2003; Van Vuuren & Eiselen, 2006; Van Wyk, 2006). Furthermore, the results of these studies illustrate the confusion regarding the roles and responsibilities of HR practitioners and their lack of competence to fulfil key roles.

Therefore, there is a need to establish and empirically validate a professional HR competence model that can be applied by HR professionals in the South African context. The South African Board for People Practices (SABPP) introduced a new competence model in 2012 to guide the professional conduct of HR professionals in South Africa. This model, however, still needs to

be empirically validated. Schutte (2015) used the SABPP's model in conjunction with other HR professional competence models to develop a competence measure as a foundation to assess a complete model that HR professionals can use in the further professionalisation of the HR profession in South Africa. The present article discusses the validation of this measure, as well as its equivalence in a culturally diverse South Africa.

This article is structured as follows. Firstly, we present a critical overview of the available measures of HR roles, responsibilities and competencies in the South African context. This is followed by a discussion of the research method employed in the present study. Thereafter, the empirical results of the research are reported. The research concludes with a discussion of the results, together with recommendations for both practice and future research.

Literature review

Human resource management assessments in the South African context

An extensive review of literature revealed three trends in assessing HR practitioners' roles, responsibilities and competencies in the South African workplace. Studies to date adopted global or consultancy measures to assess HR practitioners' roles and the application of HR practices in the workplace. Secondly, authors developed their own measurements to assess the application of global HR frameworks in the South African context. Finally, authors develop their own measures to assess specific areas of the HR field, such as competencies, ethics and professionalism. Only nine quantitative research studies could be found that focused specifically on the assessment of the roles, practices and competencies of HR practitioners in South African organisations. A critical overview of the assessment of HR roles, responsibilities and practices, as well as their applicability in the South African context, is provided hereunder.

Steyn (2008) and Walters (2006) used the Human Resource Role Assessment of Ulrich (1997) to explore the strategic role of HR professionals in the South African context. The survey consisted of 40 statements that measure four roles: strategic partner, change agent, employee champion and administrative expert, using operational phrasing and describes concepts, practices and activities of the HR function. In both studies, the measure yielded important information on the extent to which HR functions are allowed to play a strategic role in South African organisations. Although this measure is globally still the predominant measure of HR roles and competencies in the workplace, future studies should expand the measure to give an accurate reflection of the HR profession in the South African context.

Magau and Roodt (2010) developed a survey to assess the application of the Human Capital BRidge™ framework (Boudreau & Ramstad, 2007) in the South African context. The 27-item questionnaire measures operational excellence, growing the company and securing the future and representing the company's strategic themes. Although this survey yielded promising results, the authors acknowledged that the Human Capital BRidge™ framework was not applied to the fullest extent to guide the measurement solutions to assist both HR and line managers to measure the contribution of human capital towards strategic objectives.

Schultz (2010) developed a measure to assess the effectiveness of HR competencies at a merged higher education institution. This questionnaire was developed based on the HR balanced scorecard of the institution and assesses three HR competencies: business knowledge, HR practices and personal and management skills. Although this study was narrow in its scope in terms of assessing the different types of HR competencies, it provided valuable insights into the need for HR competence assessment in the South African context.

Scheepers and Schuping (2011) applied the Human Resources Practices Scale of Geringer, Colette and Milliman (2002) to determine the effect of HR practices on the psychological contract in a mining company. The questionnaire consisted of 50 items and measured five HRM practices, namely communication, hiring practices, training and development, performance appraisal and remuneration practices. This questionnaire was extensively validated in more than 40 countries and showed promising results for use in both developed and developing contexts. Exploratory factors analysis showed several cross-loadings between the items of the five factors (Scheepers & Schuping, 2011). Furthermore, the instrument is limited in its assessment of the full scope of HR practices in the workplace. This survey should thus be further validated in the South African context and could be expanded to include a broader scope of HR practices.

Coetzee *et al.* (2014) used an organisational culture survey of Deloitte and Touche (2009) to assess the extent to which HR practices predict the commitment of engineering staff. This survey measures 13 organisational HR practices: change, communication, diversity and transformation, HR policies and procedures, innovation, job satisfaction, leadership, management style, performance management, recognition, rewards and remuneration, training and development and values and culture. Although this survey was sufficient for the purposes of that study, its scope is rather broad; there should be more focus on the specific roles and requirements of HR professionals in the South African context.

Other researchers developed measures to assess specific areas of the HR role in the South African context. Van Wyk (2006) developed a measure to assess the extent to which HR practitioners display knowledge and apply competencies regarding social responsibility issues such as HIV/AIDS in the workplace. The findings revealed a gap in the knowledge of HR practitioners at all organisational levels on managing HIV/AIDS. Van Vuuren and Eiselen (2006) developed a measure to assess the role of HR professionals in corporate ethics. The results showed that HR practitioners generally believe that they indeed have

an ethics management competency and that they should be involved in ethics management. Van der Westhuizen *et al.* (2003) developed a measure to assess the status of HR management (HRM) as a profession in the South African context. The results of their study showed that HR practitioners do consider HRM to be a profession, but that it still needs to achieve true professional status. The above studies provided useful information on specific areas within the HR professional's function and should encourage other researchers to conduct more detailed research on other functional areas of HRM.

To summarise, it is clear from the above discussion that a holistic and accurate measure of HR competencies within the South African context is lacking. Although most of the studies discussed above developed measures to assess various areas relating the HR function, none focused on the validation of the measures. These studies, however, provided the much-needed preliminary information, which led to the development of the SABPP's South African HR Competency Model (SABPP, 2012). The SABPP identified 14 competency domains that HR professionals should be able to display in the South African workplace. These are: leadership and personal credibility, organisational capability, solution creation and implementation, interpersonal and communication skills, citizenship for the future, strategy, talent management, HR governance, risk and compliance, analytics and measurement, HR service delivery, HR and business knowledge, ethics, professionalism and duty to society.

Schutte (2015) used this model in conjunction with other models (Ulrich, 1997) as a guideline to develop an HR competency measure for HR professionals in the South African context. The measure consists of three dimensions, namely *Professional behaviour and leadership*, *Service orientation and execution* and *Business intelligence*. This survey, furthermore, measures 12 competencies associated with the three domains. The pilot study of this measure yielded promising results, with clear factor structures and high reliabilities for the three dimensions (Schutte, 2015). The present article focuses on the further validation of this measure in the South African context.

Not only is it important to establish reliable and valid methods of measurement with regard to HRM competencies, it is also important to consider the cultural diversity in a multicultural setting, such as South Africa. As the HRM Professional Competency Model is a new measure, an assessment of this nature should be concerned with construct equivalence. Assurance of measurement equivalency across different cultures is important for determining whether measures of a construct in one culture also exist in other cultures, to determine the degree of variability of the measures across several cultures and to determine whether the measures are universal or culture-specific (He & Van de Vijver, 2012). Furthermore, assessing measurement equivalence across countries and language groups provides information about the factorial invariance of an instrument

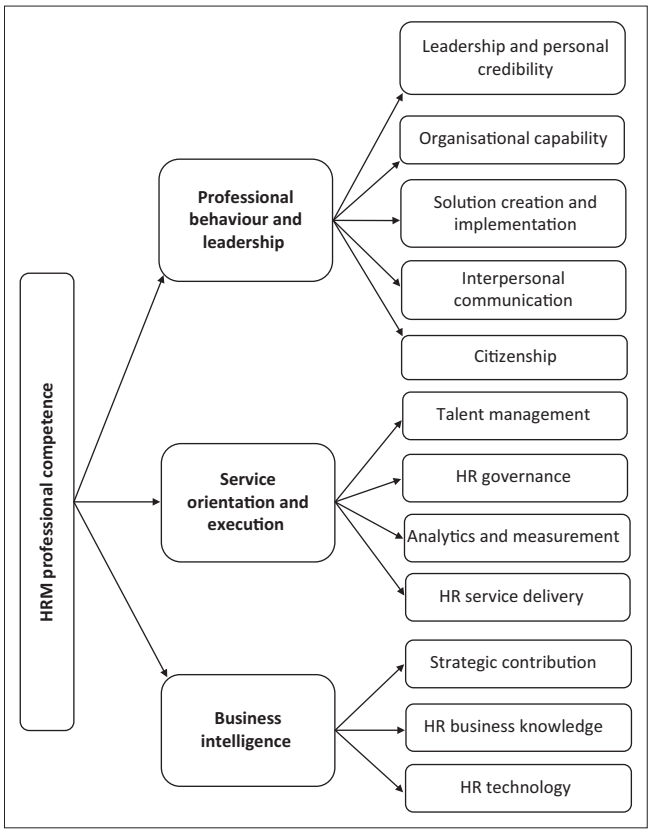

FIGURE 1: Human resource professional competence model.

and therefore allows the researcher a degree of confidence in using the instrument in two or more cultural settings (Van de Vijver & Tanzer, 2004).

Figure 1 presents a model of the HR competency measure for HR professionals.

In light of the preceding section, the following research hypotheses and sub-hypotheses were formulated:

H1: The *Professional behaviour and leadership* competency dimension consists of five factors, namely *Leadership and personal credibility*, *Organisational capability*, *Solution creation*, *Interpersonal communication* and *Citizenship*. All factors are reliable and show construct equivalence for English and indigenous language groups.

H2: The *Service orientation and execution* competency dimension consists of four factors, namely *Talent management*, *HR governance*, *Analytics and measurement* and *HR service delivery*. All factors are reliable and show construct equivalence for English and indigenous language groups.

H3: The *Business intelligence* competency dimension consists of three factors, namely *Strategic contribution*, *HR business knowledge* and *HR technology*. All factors are reliable and show construct equivalence for English and indigenous language groups.

Research design

Research approach

The research approach of the present study was quantitative in nature, as the aim of the research was to validate a HR

BOX 1: The DeVellis scale development process.

Description of scale development
Step 1: Application in present study Step 1a: Application of a theoretical basis to develop the items Identification of the parameters of HRM theory to be included in the measurement scale, which informed the conceptual framework for the study.
Step 2: Item generation Item generation was based on theoretical relationships between constructs gleaned from an extensive literature review and document analysis. Statements were formulated, rather than questions.
Step 3: Determining the scale and measurement format Developing format of items, using statements in a Likert-type response format (DeVellis, 1991). Additionally, checklist-style questions and open-ended questions were included.
Step 4: Conducting an item analysis to eliminate inadequate items An expert panel of 12 subject matter experts reviewed the scale; they were provided with construct definitions and asked to rate items in terms of adequacy, relevance, conciseness and potentially confusing wording.
Step 5: Selecting validation items that can be administered to developmental sample This research did not include social desirability scales. The scale does use repetition of items that measure the same construct in different sub-scales to determine if similar or different responses were provided.
Step 6: Designing and conducting a developmental study Administering of HR professional competency diagnostic items and validation items to a sample of 150–300 HR practitioners at different levels within corporate institutions in South Africa.
Step 7: Evaluating the items As advised by DeVellis (1991, pp. 82–85) item-scale correlations, item variance, item means and coefficient alphas were included when appropriate.
Step 7a: Determining construct validity of the measure This included conducting exploratory factor analysis. At a later stage, confirmatory factor analysis would be conducted, but that would require a larger sample.
Step 7b: Determining the convergent validity of the measure Convergent validity could not be determined in the current study.
Step 7c: Determining the divergent validity of the measure This entails determining whether method effects are influencing the scale findings, which may also require a criterion-related study and a larger sample than the present sample.
Step 7d: Assessing the reliability of the scale This entailed determining internal consistency reliabilities. Test-retest reliabilities could not be considered, as the respondents were anonymous. Some items would be expected to change over time, such as intention to quit or satisfaction. The alternative is to administer the scale to another sample, which would enable multiple measures of reliability to be compared.
Step 8: Optimising scale length Due to the nature of the scale (a diagnostic tool that can be used regularly) the scale needed to be short enough to avoid respondent fatigue; therefore, considerable attention was given to optimising scale length.

Source: DeVellis, R.F. (1991). *Scale development: Theory and applications* (Applied Social Research Methods Series: 26). Newbury Park, CA: Sage

competence measure. A non-experimental cross-sectional survey research strategy of inquiry was utilised in this study, based on the need for exploratory research on HR competencies in the South Africa workplace (Field, 2009).

Research method

A quantitative research approach was followed. A cross-sectional survey design was used to collect data and attain the research goals (Field, 2009). The present research mostly followed the DeVellis (1991) scale development process, as the aim was to develop and validate a diagnostic tool for HR professionals' competencies in the South African context. The steps of the DeVellis scale development process, as well as the extent to which these were applied in the present study, are indicated in Box 1.

This article reports the results relating to Steps 7 and 8 of the DeVellis (1991) scale development process. The results of the research pertaining to steps 1–6 of the scale development processes are reported elsewhere (Schutte, 2015). This article reports on the final validation of the HR professional competency measure.

Research participants

The respondents were HR officers and managers from various organisations in the public and private sector who had knowledge about HRM processes in the workplace. The study employed purposive convenience sampling, such that the respondents were chosen based on their availability to participate and to provide the desired information. A total of 800 questionnaires were distributed, of which 483 were returned. This represents a 60.38% response rate. The demographics of the respondents in this sample were as follows: 55.3% (267) were women, 70.6% (341) spoke indigenous languages, and 78.3% (378) were black Africans. Of the respondents, 29.6% (143) were aged 30–39 years, 35.8% (173) held a bachelor's degree as their highest level of educational qualification and 31.1% (150) were employed at middle management level. A total of 38.4% (184) of the respondents had 6–15 years' work experience, 83.9% (405) had a tenure of 0–10 years in their current job and 64.2% (310) had a tenure of 0–10 years with their current organisation.

Measuring instrument

The HRM Professional Competence Model (Schutte, 2015) was used as a measure of HR professional competencies in the present study. This questionnaire consists of three sections that measures three competency domains: Professional behaviour and leadership, Service orientation and excellence and Business intelligence. The *Professional behaviour and leadership* competency domain measures five sub-competencies, namely *Leadership and credibility* (13 items), *Organisational capability* (nine items), *Solution creation* (12 items), *Interpersonal communication* (seven items) and *Citizenship* (six items). The *Service orientation and execution* competency domain measures four sub-competencies: *Talent management* (15 items), *HR governance* (seven items), *Analytics and measurement* (13 items) and *HR service delivery* (six items). The *Business intelligence* competency domain measures three sub-competencies: *Strategic contribution* (20 items), *HR business knowledge* (15 items) and *HR technology* (three items).

Responses were measured on a five-point Likert scale, ranging from 'Not important' (*1*) to 'Critical' (*5*). The competency dimension measurements obtained acceptable reliabilities ranging from 0.90 to 0.973 in a pilot study by Schutte (2015).

Research procedure and ethical considerations

Permission was obtained from the necessary authorities prior to the administration of the questionnaire. Hard copy and electronic surveys were distributed to the relevant participants. Ethical clearance was obtained prior to the administration of the surveys. Confidentiality was maintained at all times.

Statistical analysis

Data were analysed with the aid of SPSS 22.0 for Windows. Descriptive statistics (i.e. means, frequencies, skewness

and kurtosis) were applied. Construct equivalence was determined. The motivation for the application of these techniques was to obtain a structure in each language group that could then be compared across all language groups involved. Factor analysis is the most frequently employed technique for studying construct equivalence (Van de Vijver & Leung, 1997). In the current study, both exploratory and confirmatory models could have been used. Since this is a newly developed instrument, the researcher used exploratory factor analysis.

Factors obtained in each group were compared (after target rotation). The agreement was evaluated by a factor congruence coefficient, Tucker's phi (Van de Vijver & Leung, 1997). Values above 0.90 were taken to indicate essential agreement between cultural groups, whilst values above 0.95 indicated very good agreement. A high agreement implies that the factor loadings of the lower and higher levels are equal, up to a multiplying constant.

Results

Because of the composition of the sample, it was decided to conduct the analysis in this study only on English and indigenous language groups. The KMO analysis showed the following measures of sampling adequacy for the English and indigenous language groups:

- Professional behaviour and leadership measure – English 0.945 and indigenous 0.969
- Service orientation and execution measure – English 0.949 and indigenous 0.969
- HR business intelligence measure – English 0.932 and indigenous 0.968

These results are acceptable according to the guideline of a KMO higher than 0.6 being adequate for factor analysis (Hair, Black, Babin & Anderson, 2010). The results of the factor analysis are reported next.

Factor analysis

Professional behaviour and leadership competency dimension

Exploratory factor analysis, using principal component analysis, was done on the 36 items of the *Professional behaviour and leadership* competency dimension of the questionnaire. The initial analysis revealed that four factors could be extracted, based on the eigenvalues for both language groups. Based on the results of the pilot study, a subsequent principal component factor analysis, using varimax rotation, was done to specify the four underlying factors. Varimax rotation was chosen as it resulted in the most appropriate underlying factor structure for the Professional behaviour and leadership competency dimension. The *Organisational capabilities* factor was deleted, because of problematic loadings (six items). Three more items were deleted to further refine the questionnaire. A subsequent factor analysis using varimax rotation revealed four underlying factors, which explained 82.974% of the variance for the English language group and 81.037% of the variance for the indigenous languages group. The factors for the English language group were as follows: *Innovation* (Factor 1), *Leadership and personal credibility* (Factor 2), *Interpersonal communication* (Factor 3) and *Solution creation* (Factor 4). The factors for the indigenous language group were as follows: *Leadership and personal credibility* (Factor 1), *Interpersonal communication* (Factor 2), *Innovation* (Factor 3) and *Solution creation* (Factor 4). The results revealed equivalence for both language groups in terms of the specified factors and items per factor. The original *Citizenship* factor was relabelled *Innovation*. The four factors per language groups are reported in Table 1.

The rotated component matrices of the four-factor solutions for English and indigenous language participants were then used as input for an exploratory factor analysis with target rotations. The following Tucker's phi coefficients were obtained:

- Leadership and personal credibility: 0.91
- Innovation: 0.93
- Interpersonal communication: 0.94
- Solution creation: 0.95

These coefficients compare favourably with the guideline of 0.90 and can therefore be regarded as acceptable for equivalence for both language groups.

The above results partially confirm Hypothesis 1. The factor analysis revealed four underlying factors for the *Professional behaviour and leadership* competency dimension, which is in contrast with the five factors initially specified for the measure. All factors showed acceptable Cronbach's alpha coefficients and construct equivalence for both the English and the indigenous language groups.

Service orientation and execution competency dimension

An exploratory factor analysis, using principal components analysis, was performed on the 37 items of the *Service orientation and execution* competency dimension of the questionnaire. The initial analysis revealed that four factors could be extracted, based on their eigenvalues. A subsequent principal component factor analysis, using varimax rotation, was performed to specify the four underlying factors for the two language groups. Varimax rotation was chosen as it resulted in the most appropriate underlying factor structure for the *Service orientation and execution* competency dimension. Four items were deleted, due to problematic loadings. The four factors explained 81.660% of the variance for the English language group and 79.693% of the variance for the indigenous languages group. A further 11 items were deleted to further refine the questionnaire. The four factors for the language groups were *Talent management* (Factor 1), *HR service delivery* (Factor 2), *HR metrics* (Factor 3) and *HR risk* (Factor 4). The original *HR analytics and measurement* factor was relabelled *HR metrics*. Furthermore, the original

TABLE 1: Rotated component matrix for the Professional behaviour and leadership dimension.

Item	English				Indigenous languages			
	Innovation	Leadership and personal credibility	Interpersonal communication	Solution creation	Leadership and personal credibility	Interpersonal communication	Innovation	Solution creation
HRCC 1	0.352	0.631	0.491	0.229	0.692	0.283	0.398	0.286
HRCC 2	0.419	0.653	0.407	0.234	0.691	0.329	0.362	0.345
HRCC 3	0.333	0.756	0.156	0.258	0.721	0.270	0.383	0.235
HRCC 4	0.304	0.753	0.323	0.203	0.750	0.310	0.340	0.259
HRCC 5	0.142	0.749	0.152	0.407	0.657	0.244	0.270	0.416
HRCC 6	0.233	0.676	0.430	0.270	0.741	0.333	0.199	0.371
HRCC 7	0.320	0.652	0.415	0.244	0.779	0.308	0.224	0.153
HRCC 8	0.387	0.718	0.271	0.264	0.747	0.401	0.249	0.197
HRCC 29	0.467	0.325	0.358	0.602	0.344	0.364	0.322	0.640
HRCC 30	0.121	0.275	0.206	0.616	0.345	0.372	0.366	0.583
HRCC 33	0.372	0.348	0.298	0.713	0.388	0.354	0.283	0.716
HRCC 34	0.357	0.283	0.245	0.769	0.309	0.324	0.321	0.722
HRCC 35	0.289	0.500	0.546	0.435	0.330	0.707	0.356	0.178
HRCC 36	0.332	0.455	0.603	0.376	0.354	0.749	0.254	0.320
HRCC 37	0.396	0.339	0.572	0.445	0.376	0.746	0.303	0.212
HRCC 38	0.472	0.312	0.741	0.241	0.308	0.732	0.312	0.288
HRCC 39	0.471	0.346	0.722	0.267	0.302	0.723	0.348	0.326
HRCC 40	0.393	0.352	0.730	0.305	0.329	0.678	0.346	0.377
HRCC 41	0.408	0.384	0.674	0.325	0.373	0.604	0.380	0.346
HRCC 42	0.789	0.318	0.188	0.342	0.290	0.351	0.734	0.298
HRCC 43	0.804	0.271	0.295	0.295	0.304	0.357	0.729	0.284
HRCC 44	0.822	0.254	0.308	0.272	0.353	0.370	0.758	0.151
HRCC 45	0.776	0.241	0.375	0.236	0.367	0.316	0.662	0.358
HRCC 46	0.784	0.341	0.357	0.173	0.376	0.438	0.627	0.304
HRCC 47	0.778	0.375	0.322	0.164	0.376	0.288	0.625	0.407

TABLE 2: Rotated component matrix for the service orientation and execution dimension.

Item	English				Indigenous languages			
	Talent	Service	Metrics	Risk	Talent	Service	Metrics	Risk
HREC 1	0.785	0.221	0.374	0.027	0.793	0.303	0.115	0.120
HREC 2	0.759	0.288	0.332	0.160	0.802	0.268	0.137	0.177
HREC 6	0.800	0.335	0.199	0.219	0.801	0.217	0.306	0.156
HREC 9	0.786	0.325	0.237	0.281	0.751	0.252	0.300	0.261
HREC 10	0.767	0.347	0.126	0.374	0.739	0.301	0.309	0.254
HREC 11	0.746	0.377	0.158	0.340	0.742	0.268	0.328	0.244
HREC 13	0.765	0.242	0.215	0.346	0.715	0.221	0.288	0.392
HREC 14	0.695	0.328	0.161	0.497	0.705	0.199	0.252	0.436
HREC 15	0.753	0.302	0.233	0.387	0.629	0.223	0.393	0.408
HREC 18	0.382	0.264	0.389	0.588	0.425	0.318	0.408	0.569
HREC 19	0.431	0.246	0.455	0.613	0.373	0.314	0.349	0.691
HREC 20	0.411	0.304	0.254	0.696	0.352	0.354	0.296	0.678
HREC 21	0.349	0.384	0.269	0.720	0.318	0.419	0.272	0.718
HREC 22	0.247	0.129	0.457	0.718	0.246	0.425	0.344	0.674
HREC 26	0.234	0.235	0.768	0.326	0.359	0.324	0.700	0.295
HREC 27	0.143	0.286	0.713	0.412	0.321	0.359	0.642	0.405
HREC 28	0.250	0.373	0.700	0.366	0.368	0.340	0.673	0.351
HREC 29	0.328	0.469	0.561	0.161	0.285	0.449	0.640	0.260
HREC 30	0.478	0.328	0.619	0.145	0.368	0.393	0.655	0.271
HREC 31	0.451	0.479	0.566	0.255	0.348	0.436	0.612	0.312
HREC 36	0.318	0.831	0.228	0.092	0.337	0.718	0.344	0.140
HREC 37	0.324	0.784	0.275	0.183	0.285	0.760	0.312	0.273
HREC 38	0.332	0.804	0.221	0.244	0.293	0.740	0.248	0.380
HREC 39	0.291	0.786	0.210	0.336	0.312	0.773	0.226	0.302
HREC 40	0.271	0.780	0.274	0.266	0.354	0.658	0.362	0.324
HREC 41	0.337	0.741	0.333	0.200	0.246	0.662	0.357	0.336

HR governance factor was relabelled *HR risk*. The rotated component matrix is reported in Table 2.

The rotated component matrices of the four-factor solutions for the English and indigenous language groups were then used as input for an exploratory factor analysis with target rotations. The following Tucker's phi coefficients were obtained:

- Talent management: 0.97
- HR service delivery: 0.94
- HR metrics: 0.91
- HR risk: 0.96

These coefficients compare favourably with the guideline of 0.90 and can therefore be regarded as acceptable for equivalence for both language groups.

The above results confirm Hypothesis 2, namely that the *Service orientation and execution* competency dimension consists of four factors, *Talent management*, *HR risk*, *HR metrics* and *HR service delivery*. All factors showed acceptable Cronbach's alpha coefficients and construct equivalence for both the English and the indigenous languages groups.

Business intelligence competency dimension

The factor analysis of the *Business intelligence* competency dimension was performed on the original 38 items, as specified in the discussion of the pilot study and the *Organisational capability* factor, which originally formed part of the *Professional behaviour and leadership dimension*. An exploratory factor analysis using principal components analyses was performed on the 44 items of the *Business*

TABLE 3: Rotated component matrix for the business intelligence dimension.

Item	English				Indigenous languages			
	Strategic impact	HR business knowledge	HR business acumen	HR technology	Strategic impact	HR business knowledge	HR business acumen	HR technology
HRFC 2	0.717	0.234	0.066	0.195	0.719	0.199	0.085	0.260
HRFC 3	0.789	0.201	0.119	0.231	0.733	0.196	0.225	0.260
HRFC 4	0.812	0.176	0.169	0.185	0.794	0.176	0.216	0.182
HRFC 5	0.775	0.335	0.257	0.160	0.808	0.264	0.192	0.134
HRFC 6	0.763	0.313	0.261	0.148	0.736	0.323	0.249	0.205
HRFC 9	0.785	0.287	0.256	0.155	0.803	0.239	0.171	0.115
HRFC 10	0.832	0.307	0.225	0.068	0.782	0.225	0.223	0.138
HRFC 17	0.665	0.368	0.385	0.144	0.742	0.334	0.257	0.072
HRFC 18	0.683	0.422	0.359	0.104	0.769	0.323	0.253	0.073
HRFC 19	0.586	0.493	0.427	0.004	0.759	0.365	0.255	–0.073
HRFC 20	0.624	0.373	0.440	0.057	0.724	0.292	0.299	–0.039
HRFC 21	0.438	0.626	0.152	0.220	0.387	0.632	0.257	0.135
HRFC 24	0.409	0.690	0.252	0.230	0.317	0.769	0.221	0.068
HRFC 25	0.447	0.677	0.317	0.231	0.294	0.802	0.169	0.160
HRFC 26	0.367	0.702	0.362	0.306	0.323	0.836	0.167	0.103
HRFC 27	0.409	0.729	0.321	0.184	0.288	0.770	0.291	0.123
HRFC 28	0.334	0.735	0.294	0.296	0.253	0.810	0.179	0.190
HRFC 29	0.335	0.721	0.245	0.279	0.228	0.789	0.236	0.143
HRFC 31	0.150	0.776	0.260	0.083	0.197	0.795	0.218	0.156
HRFC 33	0.294	0.750	0.350	0.038	0.227	0.761	0.258	0.163
HRFC 34	0.293	0.804	0.109	0.290	0.237	0.783	0.233	0.056
HRFC 35	0.343	0.310	0.631	0.354	0.307	0.294	0.675	0.288
HRFC 36	0.304	0.358	0.729	0.313	0.275	0.214	0.795	0.125
HRFC 37	0.311	0.303	0.708	0.374	0.277	0.315	0.803	0.187
HRFC 38	0.334	0.343	0.749	0.291	0.274	0.273	0.832	0.144
HRFC 39	0.193	0.285	0.794	0.182	0.255	0.269	0.762	0.219
HRFC 40	0.248	0.250	0.697	0.427	0.280	0.316	0.765	0.218
HRFC 41	0.200	0.303	0.351	0.777	0.285	0.354	0.426	0.685
HRFC 42	0.225	0.350	0.314	0.776	0.264	0.347	0.430	0.701
HRFC 43	0.196	0.174	0.407	0.769	0.236	0.198	0.419	0.719

intelligence competency dimensions of the questionnaire. The initial analysis revealed that four factors could be extracted, based on the eigenvalues. A subsequent principal component factor analysis, using varimax rotation, was performed to specify the four underlying factors relating to the *Business intelligence* questionnaire. Varimax rotation was chosen as it resulted in the most appropriate underlying factor structure for the *Business intelligence* competency dimension. The four factors explained 78.535% of the variance for the English language group and 76.181% of the variance for the indigenous languages group. Fourteen items were deleted to refine the questionnaire further. The four factors for both language groups were labelled *Strategic impact* (Factor 1), *HR business knowledge* (Factor 2), *HR business acumen* (Factor 3) and *HR technology* (Factor 4). The results of the rotated component matrix are reported in Table 3.

The rotated component matrices of the four-factor solutions for the English and indigenous language groups were then used as input for an exploratory factor analysis with target rotations. The following Tucker's phi coefficients were obtained:

- Strategic impact: 0.93
- HR business knowledge: 0.95
- HR business acumen: 0.92
- HR technology: 0.96

These coefficients compare favourably with the guideline of 0.90 and can therefore be regarded as acceptable for equivalence for both language groups.

The above results partially confirm Hypothesis 3. The factor analysis revealed four underlying factors for the *Business intelligence* competency dimension, in contrast to the three factors initially specified. All factors showed acceptable Cronbach's alpha coefficients and construct equivalence for both the English and the indigenous language groups.

The descriptive statistics of the measures are reported in Table 4. The results show excellent reliabilities for the factors of all the dimensions (Field, 2009). The results further show that the dimensions are negatively skewed. The mean scores indicate that the respondents viewed all the dimensions of the HR Professional Competence Model as important, with the factors *Interpersonal communication*, *Leadership and personal credibility* and *HR business knowledge* indicated as being the most important.

Discussion

The main objective of this research was to validate the HRM Professional Competence Model for HR practitioners in the South African context. The results identified three distinguishable core competency dimensions, namely

TABLE 4: Descriptive statistics of the HR Professional Competence Model.

Factor	English					Indigenous languages				
	M	SD	Skewness	Kurtosis	α	M	SD	Skewness	Kurtosis	α
Professional behaviour and leadership										
Leadership and personal credibility	4.0257	0.78127	−1.171	1.746	0.955	3.9751	0.88389	−0.961	0.742	0.962
Solution creation	3.9858	0.82742	−1.013	1.260	0.881	4.1144	0.88103	−1.043	0.882	0.919
Interpersonal communication	4.0304	0.82416	−1.102	1.635	0.972	4.1445	0.84259	−1.087	1.104	0.960
Innovation	3.9586	0.85499	−1.185	1.870	0.972	4.0156	0.86456	−0.985	0.700	0.954
Service orientation and execution										
Talent management	3.9180	0.90410	−1.247	1.233	0.971	3.8051	0.95622	−0.759	−0.115	0.961
HR risk	3.9660	0.78630	−0.747	0.125	0.935	4.0657	0.91954	−0.958	0.214	0.945
HR metrics	3.8274	0.77726	−0.610	−0.172	0.930	3.9594	0.88703	−0.924	0.424	0.949
HR service delivery	3.9184	0.81883	−0.951	0.893	0.961	3.9658	0.87174	−0.846	0.308	0.948
Business intelligence measure										
Strategic impact	3.9181	0.83208	−1.026	0.972	0.962	3.9381	0.86487	−0.865	0.606	0.960
HR business knowledge	4.0582	0.77967	−1.202	1.775	0.965	4.1314	0.82197	−1.268	1.881	0.962
HR business acumen	3.9716	0.91156	−1.257	1.959	0.954	3.9951	0.96048	−1.049	0.661	0.948
HR technology	3.8723	0.84460	−1.101	1.390	0.928	3.9003	0.90703	−0.862	0.587	0.917

M, mean; SD, standard deviation; α, alpha.

Professional behaviour and leadership, *Service orientation and execution* and *Business intelligence*. Exploratory factor analysis, using varimax rotation, resulted in four factors for the *Professional behaviour and leadership* dimension: (1) *Leadership and personal credibility*, (2) *Solution creation*, (3) *Interpersonal communication* and (4) *Innovation*. These results contradict the original hypothesised model of Schutte (2015) and the competency model of the SABPP, which hold that organisational capabilities should form part of leadership and professional competencies. The results also confirm the findings of the study by Schultz (2010), who found that management skills represent an important competency for HR professionals.

Exploratory factor analysis, using varimax rotation, resulted in four factors for the *Service orientation and execution* dimension. For both participant language groups, the factors were labelled (1) *Talent management*, (2) *HR risk*, (3) *HR metrics* and (4) *HR Service delivery*. The results of the target rotations on the rotated component matrices of the four factors showed construct equivalence for both language groups. These results confirm the original hypothesised model of Schutte (2015) in terms of a four-factor solution for the *Service orientation and execution* dimension. These results also partially confirm the *HR capabilities* section of the SABPP model, except that *Strategic impact* should not form part of the *Service orientation and execution* dimension.

Exploratory factor analysis, using varimax rotation, resulted in four factors for the *Business intelligence* dimension. For both participant language groups, the four factors were labelled (1) *Strategic impact*, (2) *HR business knowledge*, (3) *HR business acumen* and (4) *HR technology*. The results of the target rotations on the rotated component matrices of the four factors showed construct equivalence for both language groups. All factors showed excellent reliabilities. These results partially confirm the original three-factor model of Schutte (2015), but add the factor *Business acumen*, resulting in a four-factor solution for the *Business intelligence* dimension. The results are also in line with the findings of

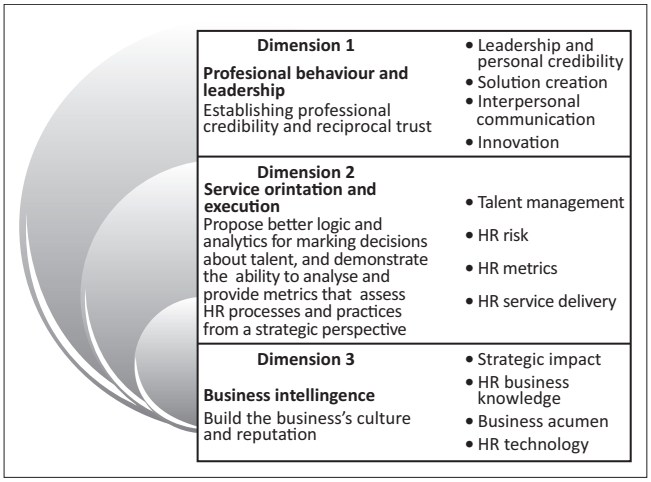

FIGURE 2: Validated human resource professional competence model.

Van Wyk (2006) and Schultz (2010), who found that business knowledge is an important HR professional competency in the South African context.

Based on the above results, the framework shown in Figure 2 is proposed for the assessment of competencies of HR professionals.

This research makes important theoretical, methodological and practical contributions. From a theoretical perspective, this research makes an important contribution towards knowledge on the importance of HR competencies in the South African workplace. This research further confirms the validity of the HRM Professional Competency Model, which can be applied in the multicultural South African setting. Finally, this research presents an HRM competence measure that can be used to detect competence levels of HRM practitioners in South African organisations, in order to take corrective measures where necessary.

This research has some limitations. Firstly, limited empirical research exists on the application of HRM competencies in South African workplaces, which made interpretation of

the results difficult. Secondly, this research was conducted in the South African context only and the results cannot be generalised to other countries.

For future research, it is recommended that this research be expanded to other African and international countries for further validation. This sample only tested construct equivalence between English and indigenous language groups. For future research, it is recommended that the sample be expanded to include Afrikaans-speaking individuals, to test for further equivalence. Future research can benefit from testing the interactive relationship between HR practices and key individual and organisational variables.

In conclusion, this research proved the validity of a new HR competence measure that can be used to detect the level of competencies of HR professionals in the workplace. Moreover, the results of this research also showed that HR competencies should be made more visible to younger generations in the workplace, to counteract their turnover intentions. HR practitioners and managers are therefore encouraged to assess the current levels of HR competence and professionalism, to enhance their value-add and strategic contribution to South African organisations.

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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

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References

Abdullah, A.H., Musa, R.M.F.R., & Ali, J.H. (2011). The development of human resource practitioner competency model perceived by Malaysian human resource practitioners and consultants: A structural equation modelling (SEM) approach. *International Journal of Business and Management*, *6*(11), 240–255. http://dx.doi.org/10.5539/ijbm.v6n11p240

Boudreau, J.W., & Ramstad, P.M. (2007). *Beyond HR: The new science of human capital*. Boston, MA: Harvard Business School Press.

Coetzee, M., Mitonga-Monga, J., & Swart, B. (2014). Human resource practices as predictors of engineering staff's organisational commitment. *SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur*, *12*, 1–9. http://dx.doi.org/10.4102/sajhrm.v12i1.604

Deloitte & Touche (2009). *Organizational culture survey*. Pretoria: Author.

DeVellis, R.F. (1991). *Scale development: Theory and applications* (Applied Social Research Methods Series: 26). Newbury Park, CA: Sage.

Field, A. (2009). *Discovering statistics using SPSS*. (3rd edn.). London: Sage.

Geringer, J.M., Colette, A.F., & Milliman, J.F. (2002). In search of "best practices" in international human resource management: Research design and methodology. *Human Resource Management*, *41*, 5–30. http://dx.doi.org/10.1002/hrm.10017

Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate data analysis: A global perspective*. (7th edn.). New Jersey: Pearson Education.

He, J., & Van de Vijver, F. (2012). Bias and equivalence in cross-cultural research. *Online Readings in Psychology and Culture*, *2*(2), 1–19. http://dx.doi.org/10.9707/2307-0919.1111

Magau, M.D., & Roodt, G. (2010). An evaluation of the human capital BRidge™ framework. *SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur*, *8*, 1–10. http://dx.doi.org/10.4102/sajhrm.v8i1.276

O'Brien, E., & Linehan, C. (2014). A balancing act: Emotional challenges in the HR roles. *Journal of Management Studies*, *51*, 1257–1285. http://dx.doi.org/10.1111/joms.12098

Scheepers, C.B., & Shuping, J.G. (2011). The effect of human resource practices on psychological contracts at an iron ore mining company in South Africa. *SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur*, *9*, 1–19. http://dx.doi.org/10.4102/sajhrm.v9i1.302

Schultz, C.M. (2010). HR competencies at a merged higher education institution. *SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur*, *8*, 1–8. http://dx.doi.org/10.4102/sajhrm.v8i1.225

Schutte, N.E. (2015). *The development of a human resource management competency measure: A pilot study*. Unpublished research paper.

Sikora, D.M., & Ferris, G.R. (2014). Strategic human resource practice implementation: The critical role of line management. *Human Resource Management Review*, *24*, 271–281. http://dx.doi.org/10.1016/j.hrmr.2014.03.008

South African Board for People Practices (SABPP). (2012). *National HR competency model*. Retrieved 2015, from http://sabpp.co.za/hr-competencies/

SPSS 22.0 for Windows [Computer software] (2015). Chicago, IL: SPSS Inc.

Steyn, A. (2008). The *strategic role of human resource professionals in a South African context*. Unpublished master's dissertation, University of Pretoria, Pretoria.

Ulrich, D. (1997). Measuring human resources: An overview of practice and a prescription. *HR Management*, *36*, 303–320. http://dx.doi.org/10.1002/(SICI)1099-050X(199723)36:3<303::AID-HRM3>3.0.CO;2-#

Ulrich, D., Brockbank, W., Johnson, D., Sandholtz, K., & Younger, J. (2008). *HR competencies: Mastery at the intersection of people and business*. Colorado: Society for Human Resource Management.

Van de Vijver, F., & Leung, K. (1997). *Methods and data-analysis for cross-cultural research*. Thousand Oaks, CA: Sage.

Van de Vijver, F., & Tanzer, N.K. (2004). Bias and equivalence in cross-cultural assessment: An overview. *European Review of Applied Psychology, 54*, 119–135. http://dx.doi.org/10.1016/j.erap.2003.12.004

Van der Westhuizen, C., Van Vuuren, L.J., & Visser, D. (2003). Human resource management as a profession in South Africa: Practitioner's perspectives. *SA Journal of Human Resource Management*, *1*, 1–12. http://dx.doi.org/10.4102/sajhrm.v1i2.13

Van Vuuren, L.J., & Eiselen, R.J. (2006). A role for HR in corporate ethics? South African practitioner's perspectives. *SA Journal of Human Resource Management*, *4*, 22–28. http://dx.doi.org/10.4102/sajhrm.v4i3.95

Van Wyk, C.D. (2006). Human resource practitioner's perceptions of their role and responsibility in managing HIV/AIDS in the industry. *SA Journal of Human Resource Management*, *4*, 29–35. http://dx.doi.org/10.4102/sajhrm.v4i3.101

Walters, G. (2006). *The effectiveness of a human resources functions within a public utility*. Unpublished master's dissertation, Department of Industrial Psychology, University of South Africa, Pretoria, South Africa.