SA Journal of Industrial Psychology
ISSN: (Online) 2071-0763, (Print) 0258-5200

The development and validation of a spiritual leadership scale within the South African context

Authors:
Anton Grobler[1]
Khumbulani Sibanda[1]

Affiliations:
[1]Graduate School of Business Leadership, Faculty of Leadership, University of South Africa, Midrand, South Africa

Research Project Registration:
Project Number: 90166124

Corresponding author:
Anton Grobler,
grobla@unisa.ac.za

Dates:
Received: 29 Mar. 2023
Accepted: 15 Sept. 2023
Published: 05 Apr. 2024

How to cite this article:
Grobler, A. & Sibanda, K. (2024). The development and validation of a spiritual leadership scale within the South African context. *SA Journal of Industrial Psychology/SA Tydskrif vir Bedryfsielkunde*, *50*(0), a2098. https://doi.org/10.4102/sajip.v50i0.2098

Orientation: Globalisation and the coronavirus disease 2019 (COVID-19) pandemic resulted in a change in leadership in the work environment – this necessitated a relook into classical leadership constructs, but importantly, with the consideration of contextual influences. Spiritual leadership (SpL), which is the focus of this article, has however been predominantly viewed from a Eurocentric perspective.

Research purpose: To develop and validate an instrument to measure SpL within the South African context.

Motivation for the study: It is argued that SpL is important for organisational performance, employee contentment and wellness. Albeit the theory of SpL carries academic rigour and potency, it has not yet converted into an empirically developed and tested instrument within the South African organisational context.

Research approach/design and method: This empirical study was conducted from a quantitative positivist paradigm, utilising a cross-sectional design. A total of 5308 participants completed the self-administered survey from organisations in both the public and private sectors. The analysis includes item screening, exploratory factor analysis (EFA), confirmatory factor analysis (CFA), test for common method bias (CMB), determination of convergent validity and invariance analysis (configural, metric and scalar).

Main findings: The results yielded reliable and valid SpL instrument, which is invariant with regards to the private and public sectors used in this study. The results of the study were also not influenced by CMB.

Practical/managerial implications: This study provides a validated contextualised scale that can be used to measure leadership efficiency and efficacy.

Contribution/value-add: The practical and academic value is the newly developed SpL instrument for the context of South African organisations. It can thus be used with confidence by organisational researchers and academics.

Keywords: leadership; spiritual leadership; validation; African Management Philosophies; scale; organisational; African.

Introduction

Background of and rationale for the study

Leadership in this volatile time is of the utmost importance, specifically in the post coronavirus disease 2019 (COVID-19) phase, as there is no doubt that the workplace will never be the same again. Batistic et al. (2017) (even before the pandemic) were of the view that leadership should be viewed and analysed from a multilevel perspective and from varying angles, which often relate to the context in which leadership takes place. The context in which leadership is performed is even more complicated by globalisation, which often leads to the intermingling of contextual realities. However, regardless of the context, it is argued that humble and relational focused leadership is essential in times of crisis, as it cultivates resilience, perseverance and ultimately individual wellness (Giurge et al., 2019; Zhu et al., 2019). They are of the view that the pandemic has exposed the power that leaders have on their followers. This can be seen in a negative light, but it can also have a positive outcome, specifically when leaders adopt a more subtle and humane attitude towards followers, which is important for recovery from the effects of the pandemic on the workplace.

It is against this backdrop that spiritual leadership (SpL) is proposed as an alternative leadership construct. Spiritual leadership is regarded as important under normal circumstances

(Van Der Walt & De Klerk, 2014) and even more so during a crisis (and the recovery, post the crisis). Spiritual leadership will enhance the followers' wellness because it embraces ethics and honesty and empowers followers in succeeding to achieve fulfilment, higher purpose and ultimately self-actualisation (Ferguson & Milliman, 2008).

However, according to Blasco et al. (2012), there is a grave need to develop the SpL construct that will withstand both academic and empirical scrutiny. Locally (within the South African context), the theory of SpL, which was developed by Fry (2003), has not gained a foothold in empirical research. Work has been done in Europe and America with regards to SpL, but unfortunately, the results from this research have been used to generalise its applicability in other contexts largely disregarding local realities (Jepson, 2009). The challenge with this approach is that it has not been corroborated for the African context. According to Bush (2018), contexts shape the behaviours, attitudes and values of leaders. Homogenising the applicability of SpL is a concern that is addressed by this study, specifically for the South African context.

The tendency to homogenise various contexts is common under leadership scholars, typically using instruments from Western origin, which might be problematic when used in the South African (and broader African) context (Grobler & Singh, 2018). According to Nel et al. (2012), this approach implies the exploration of the applicability of a predominantly Western construct and instrument to a culturally diverse South African context. To bridge this gap, and to silence their conscience, an approach to adapt the existing instrument to the population (also called the etic approach) is adopted, also called instrument transportality (Grobler, 2017). The problem with that is that subtle nuances and more evident realities of the construct, determined and as a result of the context, might be overlooked. These realities are unique and should be recognised and respected, because according to Slabbert and Finlayson (2008, p. 13), '[South Africa is] a unique playground where the complexities of globalisation, colonialism and racism continue to be played out in the rich diversity of languages and cultures'. Du Preez and Van Zyl (2015) are of the opinion that considerable research needs to be conducted correctly, not only to identify emic organisational leadership behaviours but also on how to measure it, taking into consideration the South African context, thus adopting an emic conceptualisation and instrument development strategy or approach. The emic conceptualisation looks at the internal elements of SpL as opposed to the external scheme of SpL, for instance, what contextual elements will motivate a leader to be kind and passionate as opposed to looking at kindness as an outcome itself.

With regards to leadership studies in South Africa, Nkomo (2011) and Kasu (2017) are of the opinion that there is a demand for academic potency and merit to contextualise Westernised classical leadership theories and a need for the development of African leadership theories (Fourie et al., 2017).

Research purpose

The main objective of the research is to develop and validate an SpL instrument, based on the work of Sibanda and Grobler (2023). The scale was developed using the information obtained through an interactive qualitative analysis (IQA) process, as developed by Northcutt and McCoy (2004).

Potential value added by the study

The unique contribution of this study is the development and validation of an SpL instrument in the South African organisational context, through an emic approach.

Literature review

Conceptualisation of spiritual leadership

In a structured literature review by the authors, it was found that the definition of Fry (2003), who is commonly seen as the seminal author in this field, is used by most scholars (55%) studying SpL. This definition can be summarised as a person's sense of spiritual survival (by means of calling and membership) and being intrinsically motivated as a result of their values, attitudes and behaviours. According to Fry (2003), the concept of SpL typically consists of six distinct parts:

- *It is a causal theory*. The causality is dyadic and looks at the leader values, attitudes and behaviours (hope/faith, vision and altruistic love) which influence follower's needs for spiritual survival (through calling and membership), which result in organisational commitment and productivity.
- *It is developed within an intrinsic motivation theory*. Intrinsic motivation is basically defined as follows:

  > [*I*]nterest and enjoyment of an activity for its own sake and is associated with active engagement in tasks that people find interesting and fun and that, in turn, promote growth and satisfy higher order needs. (Fry, 2003, p. 699)

- *It incorporates three elements: vision, hope/faith and altruistic love*. These elements are leader-focused where vision refers to the destination or journey, hope/faith to endurance and perseverance and lastly altruistic love relates to virtues such as forgiveness, kindness, integrity, honesty and empathy.
- *It incorporates workplace spirituality*. This is manifest in an organisation that recognises the employees' 'inner life that nourishes and is nourished by meaningful work that takes place in the context of community' (Ashmos et al., 2000, p. 135). This definition captures three important spiritual needs of employees (inner life, meaningful work and community) and therefore subsumes a 'whole person' approach as postulated by Mitroff and Denton (1999).
- *It incorporates spiritual survival through calling and membership*. These are follower-focused. Calling (experience of transcendence or being called) and membership (social

connection) are two aspects of workplace spirituality (Fleischman, 1994; Maddock & Fulton, 1998) that are interlocked and essential dimensions of spiritual survival (Fry, 2003).
- *It is inclusive of the religious-and-ethics and values-based leadership approaches*. The inclusivity has been largely from Western religious theologians as posited by Fry (2003).

In the process to conceptualise SpL within the South African context, Sibanda and Grobler (2023) incorporated the concept of African Management Philosophies (AMP) into their IQA process. The IQA process generated 36 SpL affinities which were further grouped into 15 affinities through an axial coding process that used AMP thematic groups. African Management Philosophies present a diverse collection of concepts, which are not easily comparable. To simplify it, Marnewick et al. (2018) identified seven distinct behavioural elements associated with AMP, namely, *solidarity*, *compassion*, *respect*, *dignity*, *humanness*, *caring* and *sharing*. *All these are elements of SpL.* On a more societal level, Nkomo (2006) listed five distinct parts of AMP, namely *traditionalism*, *communalism*, *co-operative teamwork*, *mythology and national culture*. Traditionalism relates to adherence to accepted customs, beliefs and practices that shape accepted behaviour, morality and individual characteristics in African societies. The IQA process conducted by Sibanda and Grobler (2023) identified traditionalism as associated with SpL affinity elements such as ethics, responsibility, credibility and accountability. Communalism relates to the African belief that individuals are not alone but belong to communities. The IQA process conducted by Sibanda and Grobler (2023) identified SpL affinities such as transparency, responsibility and corrective behaviour as associated with communalism. Co-operative teamwork relates to a spirit of oneness in the African context and Sibanda and Grobler's (2023) IQA process identified that this element is linked to SpL affinities such as efficiency, communication, recognition, reward, participation and teamwork. Mythology relates to a collection of African myths, legends, folklore, folktales, folk stories and traditional stories. The IQA process conducted by Sibanda and Grobler (2023) identified creativity as an SpL affinity that is associated with this AMP element. National culture is defined by Nkomo (2011) as an AMP element that refers to a set of behaviours, norms, customs and beliefs in a sovereign nation's population. The focus group that participated in the IQA process identified that South Africa as a 'rainbow nation' embraces different cultures and beliefs, but central to national values are principles of diligence, self-awareness, self-drive and vision.

Mutabazi (2002) is of the view that AMP consists of typically two common social principles, namely *concept of life as a universal current* and *human connection to nature*. Life as a universal current relates to the idea of universal fellowship. Leaders therefore identify themselves and their followers in the never-ending cycle of life. They are thus not only worried about tasks but also acutely aware of the human element that goes with the completion of those tasks. The SpL affinities that were identified by the IQA process relating to this AMP element were compassion, empathy and trust. Connection to nature relates to the African belief that humans have a cosmic connection to nature. The SpL affinities that were identified through the IQA process conducted by Sibanda and Grobler (2023) identified nurturing and authenticity as SpL affinities related to this AMP element. An important element of AMP, linked to many of the aspects listed earlier, is the concept of Ubuntu, cited by many a scholar (Mangaliso, 2001; Masango, 2003; Mbigi, 1996; Newman, 2017; Grobler & Singh, 2018). This is defined by Mangaliso (2001) as follows:

> [*H*]umaneness-a pervasive spirit of caring and community, harmony and hospitality, respect and responsiveness-that individuals and groups display for one another. Ubuntu is the foundation for the basic values that manifest themselves in the ways African people think and behave towards each other and everyone else they encounter. (p. 24)

Moreover, Nkomo (2006, p. 13) states that 'Ubuntu is seen as an important value of African culture that can form the basis of a management truly congruent with the peoples of Africa'.

Development of the spiritual leadership instrument

Based on the work of Sibanda and Grobler (2023), an 18-item SpL instrument was developed. It is included in Table 1, with the identified SpL IQA affinities and AMP themes. This was largely through a focus group that linked through an axial coding process the various AMP elements with the SpL affinities.

Based on the results of their study (as summarised under SpL IQA affinities, and AMP themes in Table 1), Sibanda and Grobler (2023) proposed a summative definition for SpL within the South African organisational context. They define it as the values, attitudes and behaviours of leaders that capture the collective conscience of others by recognising the whole being at work through nurturing, compassion, empathy and trust. It is a causal theory that starts with connection to nature which influences life as a universal current, which influences the spirit of Ubuntu, which is also influenced by both national culture and indigenous knowledge systems. The spirit of Ubuntu influences intrinsic motivation which is influenced by traditionalism and communalism. Intrinsic motivation influences co-operative teamwork which is influenced by engagement, performance, productivity and mythology. Co-operative teamwork influences employee turnover, which finally influences employee welfare.

Research design

Research approach

A positivistic paradigm was adopted for the purposes of this study, using a cross-sectional design, in which the data were collected through the use of a survey technique, at a single point in time, and a quantitative analysis.

TABLE 1: Eighteen-item spiritual leadership instrument, based on the spiritual leadership affinities and African Management Philosophies themes.

SpL IQA affinities	AMP theme	No.	Scale items
Kindness Humility Courtesy Respect Altruistic love Integrity	Ubuntu	SPL1	My leader cares about people in the true sense of Ubuntu.
		SPL2	My leader includes everyone when communicating.
Self-awareness Diligent Passionate Vision Self-driven	National culture	SPL3	My leader's passion for people makes him or her kind.
		SPL4	My leader has a clear vision.
		SPL5	My leader takes full responsibility for his or her actions.
Backbone Decisiveness	Indigenous knowledge systems (IKS)	SPL6	My leader's decisiveness leads to respect.
		SPL7	My leader is able to take corrective action swiftly if something goes wrong.
Compassion Empathy Trust	Life as a universal current	SPL8	My leader is self-driven.
		SPL9	My leader is trustworthy.
		SPL10	My leader makes decisions without being unduly influenced.
Nurturing Authentic	Connection to nature	SPL11	My leader shows compassion through nurturing.
Ethics Responsibility Credibility Accountability	Traditionalism	SPL12	My leader is responsible.
		SPL13	My leader encourages a team spirit.
Transparent Honest Corrective	Communalism	SPL14	My leader's ability to be transparent encourages honesty.
Efficiency Communication Recognition/reward Participation Teamwork	Co-operative teamwork	SPL15	My leader inspires others by being a co-operative team player.
		SPL16	My leader's behaviour reduces people's intent to leave the organisation.
		SPL17	My leader's engagement improves performance.
		SPL18	My leader's creativity helps improve productivity.

Source: Adapted from Sibanda K., & Grobler, A. (2023). Spiritual leadership within the ambit of African Management philosophies using interactive qualitative analysis. *Acta Commercii*, *23*(1), 1–11. a1069. https://doi.org/10.4102/ac.v23i1.1069

SpL, spiritual leadership; IQA, interactive qualitative analysis; AMP, African Management Philosophies.

Research participants

The population of the study is the South African workforce employed in organisations with 60 or more employees, across the country, without any focus on a specific province or industry. The respondents of this study were conveniently selected, in terms of access to 90 organisations, 48 from the private and 42 from the public sector, respectively, with a total of 5344 respondents. Only valid responses (without any missing values) are reported, which resulted in a final dataset of $n = 5308$.

The study was thus multisectorial, with respondents from the private sector forming 54% of the overall sample and with 46% from the public sector. The representation of the gender groups was higher for females at 53% compared to 47% for males. The mean age of the respondents was 38.50 years (standard deviation [SD] = 8.66), and the mean tenure in the specific organisation was 9.25 years (SD = 7.44). The distribution in terms of race represents the characteristics of the South African workforce in general, with the respondents from the African race group being the highest represented with 66%, followed by the white, mixed race and Indian race groups with 16%, 12% and 6%, respectively.

Forty percent of the respondents indicated that their highest qualification is that of a first degree or diploma followed by a higher degree (35%) and matric (21%). In order to provide relatively accurate opinions about their perceptions of leadership in their organisations, the sample should reflect an average age, tenure and educational level according to Grobler and Singh (2018). The sample descriptives as mentioned earlier show that the respondents, in general, are mature, experienced and educated.

Research procedure

Data were collected by means of a newly developed SpL instrument, consisting of 18 items (see items in Table 1), based on the results of the IQA process by Sibanda and Grobler (2023). Typical items read 'My leader cares about people in the true sense of Ubuntu', 'My leader shows compassion through nurturing'. A five-point Likert scale was chosen to measure the responses to each item. In line with common practice and to avoid the challenges of a neutral or undecided option, the responses to the statements formed a five-point continuum from 'strongly agree', 'agree', 'uncertain or not applicable', 'disagree' and 'strongly disagree'. The self-reporting instrument was completed by means of paper and pencil and was administered by 90 well-trained fieldworkers at the respective organisations. The fieldworkers were responsible for the capturing of the responses in a predeveloped, protected spreadsheet. The overall dataset was compiled through the consolidation of all the fieldworkers' input.

Statistical analysis

The statistical analysis was performed by using the Statistical Package for the Social Sciences (SPSS 25), supported by SPSS Amos (Analysis of Moment Structures, version 25) (IBM, 2017).

Data screening

Item and variable screening were done to ensure that there were no missing values in the dataset. Unengaged responses were also identified and eliminated by the inspection of the standard deviation of cases (SD < 0.50). From the data cleaning process, it was deducted that the missing values were very sparse (less than 7% of the cases were deleted) and they were therefore not considered a main contributor to any bias. Kurtosis and the central limit theorem were further used to screen the data and to determine the distribution of the data.

Exploratory factor analysis

The first step to evaluate the appropriateness to do an EFA was to determine the item-to-respondent ratio.

Meyers et al. (2013) consider an item to respondent ratio of ±1:20 as acceptable. Bartlett's test of sphericity (Hair et al., 2019) was used to inspect the intercorrelations between items. The value for the Bartlett's test of sphericity should be significant ($p < 0.05$) for an EFA to be considered an appropriate technique (Hair et al., 2019). A further test was applied to determine whether an EFA could be performed, namely the Kaiser-Meyer-Olkin (KMO). The rationale for this test is to determine whether the items correlated sufficiently; a minimum level of 0.60 is set for this statistic by Tabachnick and Fidell (2013).

Principal axis factoring with Oblimin rotation was used to aid in the interpretation of the initial results. The Guttman-Kaiser eigenvalue greater-than-one rule (K1 rule), together with the scree plot (with specific reference to the shape of the curve), as well as the Monte Carlo PCA for parallel analysis were conducted to decide on the number of variables (factors) to be 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 alpha coefficient was determined, taking into consideration that the general rule according to Nunnally and Bernstein (1994) is $\alpha > 0.70$.

Confirmatory factor analysis

A CFA was conducted to operationalise the SpL construct. Various fit indexes, including the comparative fit index (CFI), the root mean square error of approximation (RMSEA), Chi-square ($\chi 2$) and the ratio of the differences in Chi-square to the differences in degrees of freedom ($\chi 2/df$) are used to assess the model fit. Given that there is no one acceptable cutoff value for what constitutes adequate fit, it was elected to evaluate the model and to recommend the model. The CFA index values, recommended by Byrne (2016) are 0.90 for CFI value, an RMSEA value of 0.05 and in terms of the $\chi 2/df$, a ratio of less than 5.00. The option to use only these indexes is supported by Cheung and Rensvold (2002) who regard it as a suitable indication of good fit.

Validity assessment

Convergent validity of the items was assessed by the composite reliability (CR) and the average variance extracted (AVE), with critical values of > 0.70 and < 0.50, respectively. An inspection into the difference between AVE and the maximum shared variance (MSV) was conducted to assess the discriminant validity. Proof of discriminant validly would be apparent when MSV < AVE and where the average shared variance (ASV) is less than the AVE (Hair et al., 2019).

Invariance assessment

Measurement invariance implies that using the same questionnaire in different groups does measure the same construct in the same way (Davidov et al., 2014). Invariance measurement at a sector level was looked at from a configural, metric and scalar perspective.

At the configural level, we tested whether the same items measure the construct across sectors. The result of this assessment was that configural invariance was supported, as evidenced by acceptable model statistics when groups are estimated freely, that is, without constraints. Metric invariance builds upon configural invariance by requiring that in addition to the contructs being measured by the same items, the factor loadings of those items must be equivalent across administrations, often reffered to as weak invariance. The approach used to test for metric invariance as noted by Putnick and Bornstein (2016) is the alternative fit (change in fit indices). For purposes of this research, the change in deltas or alternative fit test was used to test for invariance. Scalar invariance builds upon metric invariance by requiring that the item intercepts be equal across administrations and/or sectors. Scalar invariance implies that the meaning of the construct (the factor loadings) and the levels of the underlying items (intercepts) are equal in groups. Consequently, groups can be compared on their scores on the latent variable. The approach that was adopted to assess whether the data have any scalar invariance was the alternative fit (change in fit indices) approach.

Convergent validity of construct

Convergent validity of the SpL construct, as measured by the newly developed 18-item instrument, was determined by assessing the correlation between SpL and several other cognate leadership constructs that were measured in a similar manner. It was hypothesised, supported by previous studies and literature, that SpL is related to other leadership styles that are also based on the softer humane aspects of leadership, such as Ubuntu leadership (Grobler & Singh, 2018; Powell & Grobler, 2021), servant leadership (Grobler & Flotman, 2021; Liden et al., 2015), authentic leadership (Walumbwa et al., 2008), transformational leadership (Podsakoff et al., 1990), ethical leadership (Yukl et al., 2013), and a negative relationship with transactional leadership (Avolio et al., 1999). A correlation of 0.40 is regarded to be an indication of convergence, with 0.50 and higher a clear sign of convergence (Cohen et al., 2013).

Ethical considerations

An application for ethical approval was made to UNISA School of Business Leadership Research Ethics Review Committee and ethics consent was received on 23 June 2022. The ethics approval number is (GSBL CRERC) – 2022_SBL_DBL_015_SD. Permission from each of the organisations and consent by all the participants were obtained. This research did not receive any specific grant from funding agencies in the public, commercial or non-profit sectors.

Results

The results of the statistical procedures discussed in the previous section are now discussed. The following steps were followed in the development of the SpL instrument: item screening, followed by exploratory factor analysis (EFA),

CFA for single-factor measurement model, the assessment of common method bias (CMB), invariance (configural, metric and scalar) and convergent validity, respectively.

The item screening was done with an assessment of the variation per item (mean, SD, skewness, kurtosis). As shown in Table 2 below the mean for the data ranged between 3.67 (items 3 and 18) and 3.93 (item 8). Standard deviation ranged between 0.99 (item 8) and 1.13 (item 2) – this is deemed acceptable as it shows that the data are not dispersed from the mean, as the acceptable statistical range of standard deviation is (2 ≥ or equal to SD < 2). The skewness and kurtosis values for all factors do not exceed the critical values of 2.00 and 7.00, respectively, which is also an indication that the data are normally distributed. The kurtosis values ranged from −0.80 and 0.70 (items 16 and 8, respectively) meeting the value of 2.2 or less which is regarded to be acceptable (West et al., 1995).

According to Meyers et al. (2013), the variable-to-respondent ratio of 295:1, due to the relatively large sample size, is acceptable. The strategy to conduct an EFA is supported by the results of the KMO measure of sampling adequacy and Bartlett's test of sphericity. The value of the KMO was 0.98, above the recommended value of 0.60, and Bartlett's test was significant (χ^2 [153] = 85 136, $p < 0.001$).

The Guttman-Kaiser K1 rule was used in conjunction with the scree plot to determine the number of factors. The results of the Kaiser's criterion, as determined by the principal component analysis (PCA), yielded a one-factor model, with only one factor meeting the Guttman-Kaiser K1 criteria of an eigenvalue 1. The one factor accounts for 66% of the variance in SpL, which is regarded to be acceptable, as it is above the 50% criteria set by Rietveld and Van Hout (1993). The Cattell's scree test, which is aimed at retaining the components (factors) before the break (elbow rule), also supported retaining of one factor.

The next step is to investigate the estimate communalities of the items. The communalities of all 18 items are above 0.50 (ranging from 0.75 [item 8] and 0.85 [item 15]) (Rietveld & Van Hout, 1993). This is an indication that the variables (items) are well reflected via the extracted factor and thus indicating that factor analysis is reliable.

A CFA was carried out to confirm or validate the internal structure of the instrument that was produced from the reliability and EFA. The single-factor model produced by the EFA served as a theoretical or conceptual base upon which CFA was either confirmed or rejected.

The indices that were used to assess model fit using SEM (structural equation modelling) are assessed in combination and not as one index (Marsh et al., 1996). The analysis of model fit was based on the indices included in Table 3. Albeit not exhaustive, it was deemed sufficient for the purpose of this study.

The unidimensional or one-factor model (all 18 items), as determined by the EFA, reported acceptable fit with ($\chi 2/df$ [135] = 4513, CFI = 0.95, RMSEA = 0.078). Most of the other indexes (NFI, TLI and SRMR) met the required criteria. The *CMIN/df* value as well as the significance values did not meet the critical index values, due to the relatively large sample size ($n > 500$). The reported AVE value is 0.64, which is a clear indication that the SpL instrument has an acceptable level of convergent validity. The SpL instrument further shows internal consistency in terms of the items, as both the Cronbach alpha and the CR values exceed the critical value of 0.70.

Variance might, however, be the result of the method of measurement, namely self-reporting. This threatens the validity of conclusions about the association among variables (items) as a result of systematic bias by way of deflating or inflating the correlations. The data show that all correlations

TABLE 2: Item descriptive statistics.

Item	Mean		SD	Skewness		Kurtosis	
	Statistic	SE	Statistic	Statistic	SE	Statistic	SE
SpL1	3.74	0.02	1.09	-0.75	0.03	-0.03	0.07
SpL2	3.70	0.02	1.13	-0.73	0.03	-0.27	0.07
SpL3	3.67	0.02	1.07	-0.66	0.03	-0.11	0.07
SpL4	3.79	0.02	1.05	-0.81	0.03	0.24	0.07
SpL5	3.73	0.02	1.09	-0.73	0.03	-0.80	0.07
SpL6	3.73	0.02	1.05	-0.76	0.03	0.09	0.07
SpL7	3.81	0.02	1.03	-0.86	0.03	0.35	0.07
SpL8	3.93	0.02	0.99	-0.96	0.03	0.70	0.07
SpL9	3.80	0.02	1.08	-0.82	0.03	0.16	0.07
SpL10	3.60	0.02	1.08	-0.54	0.03	-0.27	0.07
SpL11	3.64	0.02	1.09	-0.64	0.03	-0.21	0.07
SpL12	3.95	0.02	0.99	-1.01	0.03	0.87	0.07
SpL13	3.88	0.02	1.06	-0.93	0.03	0.36	0.07
SpL14	3.76	0.02	1.06	-0.79	0.03	0.12	0.07
SpL15	3.77	0.02	1.07	-0.83	0.03	0.15	0.07
SpL16	3.48	0.02	1.17	-0.53	0.03	-0.49	0.07
SpL17	3.74	0.02	1.07	-0.80	0.03	0.10	0.07
SpL18	3.67	0.02	1.10	-0.72	0.03	-0.12	0.07

SpL, spiritual leadership; SD, standard deviation; SE, standard error.

between items, ranging from 0.50 (items 2 and 8) and 0.73 (items 5 and 6), are significant at the 0.01 level (two-tailed).

It is for this reason that the presence of CMB was tested using the common latent factor (CLF) and marker variable (social desirability) CFA techniques, as recommended by Eichhorn (2014). It is important to mention that the correlation between SpL and the marker variable is relatively small ($r = -0.23$) (Cohen, 1988). A new latent factor, called the common latent factor, was introduced. The paths related to this factor were constrained to be equal, and the variance of the common factor is constrained to be 1. The threshold of this method is < 0.50. The results of this analysis indicated an estimate between the common latent factor and all the variables (items) of 0.30 (*t*-value statistically significant). The square of 0.30 represents the common method variance. The result of this analysis suggests no significant common method bias in these data, as the calculated variance associated with the marker variable is 9.1% (below 50%, Eichhorn, 2014).

The next step in the scale development was to look at measurement invariance. Measurement invariance implies that using the same instrument in different groups does measure the same construct in the same way (Davidov et al., 2014). It was decided to use the two sectors, namely the private and public sectors to test for invariance, as the instrument is developed to be used within an organisational context, regardless of the sector. A random sample of $n = 500$ for each group (private and public sector) was used in analysing invariance.

Invariance measurement was looked at from a configural, metric and scalar perspective, and the results are reported in Table 4 (metric) and Table 5 (scalar).

The first assessment of invariance was conducted at configural level. The result of this assessment was that configural invariance was supported, with acceptable model statistics when groups are estimated freely, that is, without constraints. The same items thus measure the construct across sectors.

The results reported in Table 4 indicate that metric invariance is supported, as the delta values of the fit indices between unconstrained and fully constrained models for CFI, RMSEA and SRMR are meeting the recommended values.

The results of the analysis (as reported in Table 5) support the notion of scalar invariance, as the delta values of the fit

TABLE 3: Confirmatory factor analysis on the unidimensional construct – spiritual leadership (all 18 original items).

Description	Critical value	Index value	Comment
Chi-square value (*CMIN*)	-	4513	-
Degree of freedom *(df)*	-	135	-
Significance (*p*)	> 0.05	$p \leq 0.001$	The required level not achieved due to large sample size
Discrepancy divided by degree of freedom (*CMIN/df*)	< 3.0	33.44	The required level not achieved due to large sample size
Normed fit index (*NFI*)	> 0.90	0.95	The required level is achieved
Tucker-Lewis index (*TLI*)	> 0.90	0.94	The required level is achieved
Comparative fit index (*CFI*)	> 0.90	0.95	The required level is achieved – good fit
Root mean square error of approximation (*RMSEA*)	< 0.08	0.078	The required level is achieved
Standardised root mean residual (*SRMR*)	> 0.05	0.027	The required level is achieved
Average variance extracted (*AVE*)	> 0.50	0.64	The required level is achieved
Composite reliability (*CR*)	> 0.70	0.97	The required level is achieved
Cronbach alpha coefficient (α)	0.70 > α < 0.95	0.82	The required level is achieved

TABLE 4: Sector test change in fit indices for metric invariance purposes.

Index	Constrained	Unconstrained	Critical value	Delta	Comment
Chi-square value (*CMIN*)	970.86	949.25	-	-	-
Degree of freedom *(df)*	288	270	-	-	-
Significance (*p*)	$p \leq 0.001$	$p \leq 0.001$	-	-	-
Discrepancy divided by degree of freedom (*CMIN/df*)	3.37	3.52	-	-	-
Normed fit index (*NFI*)	0.88	0.89	-	-	-
Tucker-Lewis index (*TLI*)	0.91	0.90	-	-	-
Comparative fit index (*CFI*)	0.92	0.92	< 0.01	0.001	Supported
Root mean square error of approximation (*RMSEA*)	0.069	0.071	< 0.015	0.002	Supported
Standardised root mean residual (*SRMR*)	0.052	0.040	> 0.03	0.012	Supported

TABLE 5: Sector test change in fit indices for scalar invariance purposes.

Index	Constrained	Unconstrained	Critical value	Delta	Comment
Chi-square value (*CMIN*)	1009.65	949.25	-	-	-
Degree of freedom *(df)*	306	270	-	-	-
Significance (*p*)	$p \leq 0.001$	$p \leq 0.001$	-	-	-
Discrepancy divided by degree of freedom (*CMIN/df*)	3.30	3.52	-	-	-
Normed fit index (*NFI*)	0.88	0.89	-	-	-
Tucker-Lewis index (*TLI*)	0.91	0.90	-	-	-
Comparative fit index (*CFI*)	0.91	0.91	< 0.01	0.001	Supported
Root mean square error of approximation (*RMSEA*)	0.068	0.071	< 0.015	0.003	Supported
Standardised root mean residual (*SRMR*)	0.057	0.040	> 0.015	0.017	Marginally not supported

TABLE 6: Pearson correlation coefficients between spiritual leadership 18 and other cognate leadership constructs.

Leadership	*r*	*n*	Sig.	Lower CI	Upper CI
Organisational Ubuntu leadership	0.81	2553	< 0.001	0.80	0.82
Servant leadership	0.72	2553	< 0.001	0.70	0.74
Authentic leadership	0.79	2553	< 0.001	0.78	0.80
Transformational leadership	0.78	2553	< 0.001	0.76	0.79
Ethical leadership	0.71	2465	< 0.001	9	0.73
Transactional leadership	-0.11	2753	< 0.001	-0.15	-0.07

Sig., significance; CI, confidence interval.

indices between unconstrained and fully constrained models for CFI and RMSEA are meeting recommended values. Differences of 0.017 recorded for SRMR are marginally higher than the recommended norm difference of 0.015. It is argued that the results of the SRMR are marginally higher than recommended and would therefore not be the cause to claim that there is non-invariance. This approach of change in fit indices shows that there is scalar invariance in the model.

Lastly, the convergent validity of the SpL construct, as measured by the 18-item SpL instrument, was assessed. A basic correlation analysis was performed between SpL and other cognate leadership constructs, including organisational Ubuntu leadership (OUL), servant leadership, authentic leadership, transformational leadership, ethical leadership and transactional leadership. It was decided to compare the newly developed SpL with these leadership constructs as it is hypothesised that there will be a positive relationship between them because it is all leadership constructs that are, just like SpL, focusing on relationships. It is further hypothesised that SpL will have a negative relationship with transactional leadership which is focused on results or processes and less on relationships. The results are reported in Table 6.

The highest correlation in Table 6 is between SpL and organisational Ubuntu leadership (r = 0.81), which was expected as it was also mentioned and discussed in the literature section of this article. The only negative (and small) correlation was reported between SpL and transactional leadership, as expected. If Cohen's (1988) guidelines to interpret the magnitude of the correlations are applied, that is, r = 0.10–0.29 (small), r = 0.30–0.49 (medium) and r = 0.50–1.0 (large), then it is clear that all the positive correlations are with a large practical significance, which is an indication of convergent validity.

Discussion and conclusion

Leadership, and specifically SpL leadership, is extremely important, especially in times of recovery from adverse conditions, such as COVID-19. Because leadership is performed within a specific context, it is important to study it within that specific context. This is also the case with SpL, which was initially introduced by Fry (2003). Studies focusing on SpL were mainly done in Western contexts, with the assumption that findings can be generalised. Sibanda and Grobler (2023) conceptualised SpL within the South African context, also considering the contextual realities, and specifically AMP. The AMP themes used in the conceptualisation include Ubuntu, the South African culture, indigenous knowledge systems (IKS), life as a universal current, connection to nature, traditionalism, communalism, and co-operative teamwork. The SpL affinities identified through the IQA process include kindness, courtesy, respect, integrity, self-awareness, passion, decisiveness, compassion, empathy, trust, nurturing, authentic, transparent, honesty, participation and teamwork, to mention a few.

The results of the study by Sibanda and Grobler (2023) as summarised earlier were used to develop an 18-item instrument, thus from an emic perspective. The purpose of this study was to develop and validate a SpL instrument for the South African context. This is important, not only because of the value of SpL in the workplace but also because of the tendency of scholars to use instruments developed and validated for use in the United States or Europe.

The EFA yielded a one-factor solution, suggesting that SpL, as measured by the newly developed instrument, is a unidimensional construct. The one-factor solution accounts for 66% of the variance in SpL, and the items reported high communalities. This single-factor model, as a result of the EFA, was used as a theoretical or conceptual base upon which CFA was performed. The CFA yielded highly acceptable results if the fit indexes are inspected and interpreted. The instrument further reported an acceptable level of convergent validity and internal consistency if the AVE, Cronbach alpha coefficient and CR are considered.

The presence of CMB was also assessed using a common latent factor and marker variable (social desirability) CFA techniques. The result of this analysis suggested no significant CMB in these data.

Invariance measurement was assessed from a configural, metric and scalar perspective, and it was found that the SpL instrument can be used for both the private and public sectors, as it measures the same construct in the same way. The instrument can thus be used with confidence in organisations from both sectors.

The convergent validity of SpL, measured by the newly developed 18-item instrument, was further assessed by comparing it statistically to hypothesised cognate leadership constructs. This includes other leadership styles that are also based on a relational perspective, such as Ubuntu, authentic, servant, transformational and ethical leadership. High (statistically significant) correlations were reported between SpL and the other leadership measurements, suggesting convergent validity of the instrument.

The 18-item SpL instrument was found to be reliable and valid, and it measures a construct that is defined by Sibanda and Grobler (2023) as: *The values, attitudes and behaviours of leaders that capture the collective conscience of others by recognising the whole being at work through nurturing, compassion, empathy, and trust*.

Practical/managerial implications and the contribution of the study

This study's contribution to science, practice and the community is based on the importance of the SpL construct when leading people, especially when it is viewed from an AMP perspective, which really defines the leadership philosophy in the South African (and African) context. This study further addresses the need for a reliable and valid instrument that is developed from an emic perspective, thus being context-specific and relevant. This study presents an 18-item SpL instrument that meets all the psychometric criteria and it is further suitable to be used within organisations, regardless of the sector.

Limitations of the study and suggestions for future research

The use of a cross-sectional design might be viewed as a limitation, as it might result in little knowledge in terms of how the process unfolds over time and on the direction of causality. This limitation can, however, be addressed through the use of different techniques and study designs, for instance, the use of qualitative techniques, such as IQA.

It is suggested that this instrument be applied to various organisational and industry settings within South Africa to test the invariance reported in this study. It is further recommended that the instrument be used with other organisational behaviour and industrial psychology constructs to determine possible relationships that could be used for organisational development experts for the development of interventions.

Acknowledgements

The 2021 MBL and MBA fieldworkers.

Competing interests

The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article.

Authors' contributions

K.S. contributed towards the conceptualisation, methodology, formal analysis, investigation, resources, writing original draft. A.G. contributed to the supervision, methodology selection, writing final draft.

Funding information

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Data availability

The data are available from Prof. Anton Grobler, under conditions set out in the research ethics approval.

Disclaimer

The views and opinions expressed in this article are those of the authors and are the product of professional research. It does not necessarily reflect the official policy or position of any affiliated institution, funder, agency, or that of the publisher. The authors are responsible for this article's results, findings, and content.

References

Ashmos, D.P., & Duchon, D. (2000). Spirituality at work: A conceptualisation and measure. *Journal of Management Inquiry, 9*(2), 134–145. https://doi.org/10.1177/105649260092008

Avolio, B.J., Bass, B.M., & Jung, D.I. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational and Organizational Psychology, 72*, 441–462. https://doi.org/10.1348/096317999166789

Batistic, S., Cerne, M., & Vogel, B. (2017). Just how multilevel is leadership research? A document co-citation analysis 1980–2013 on leadership constructs and outcomes. *The Leadership Quarterly, 28*(1), 86–193. https://doi.org/10.1016/j.leaqua.2016.10.007

Blasco, M., Feldt, L., & Jakobsen, M. (2012). If only cultural chameleons could fly too: A critical discussion of the concept of cultural intelligence. *International Journal of Cross-Cultural Management, 12*(2), 229–245. https://doi.org/10.1177/1470595812439872

Bush, T. (2018). Leadership and context: Why one-size does not fit all. *Educational Management Administration & Leadership, 46*(1), 3–4. https://doi.org/10.1177/1741143217739543

Byrne, B. (2016). *Structural equation modelling with AMOS: Basic concepts, applications, and programming*. Routledge.

Cheung, G.W., & Rensvold, R.B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. Structural Equation Modelling. *A Multidisciplinary Journal, 9*(2), 233–255. https://doi.org/10.1207/S15328007SEM0902_5

Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd edn.). Erlbaum.

Cohen, R.J., Swerdlik, M.E., & Sturman, E. (2013). *Psychological testing and assessment: An introduction to tests and measurement* (8th edn.). McGraw Hill.

Davidov, E., Meuleman, B., Ciecuich, J., Schimdt, P., & Billiet, J. (2014). Measurement equivalence in cross-national research *Annual Review of Sociology, 40*(1), 55–75. https://doi.org/10.1146/annurev-soc-071913-043137

Du Preez, R., & Van Zyl, L.T. (2015). Toward the development of a corporate social responsibility leadership questionnaire: An adaptation of the LBI-2. *SA Journal of Industrial Psychology, 41*(1), 1–18. https://doi.org/10.4102/sajip.v41i1.1256

Eichhorn, B. (2014). *Common method variance techniques*. Cleveland State University.

Ferguson, J., & Milliman, J. (2008). Creating Effective Core Organizational Values: A Spiritual Leadership Approach. *International Journal of Public Administration*, *31*, 439–459.

Fleischman, P. (1994). *The healing spirit: Explorations in religion and psychotherapy*. Bonne Chance Press.

Fourie, W., Van der Merwe, S.C., & Van der Merwe, B. (2017). Sixty years of research on leadership in Africa: A review of the literature. *Leadership, 13*(2), 222–251. https://doi.org/10.1177/1742715015580665

Fry, L.W. (2003). Toward a theory of spiritual leadership. *The Leadership Quarterly*, *14*(6), 693–727. https://doi.org/10.1016/j.leaqua.2003.09.001

Giurge, L.M., Van Dijke, M., Xue, Z.M., & De Cremer, D. (2019). Does power corrupt the mind? The influence of power on moral reasoning and self-interested behaviour. *Leadership Quarterly*.

Grobler, A. (2017). The measurement of ethical leadership from an et(h)ic position. *African Journal of Business and Economic Research, 12*(2/3), 177–209. https://doi.org/10.31920/1750-4562/2017/v12n2_3a6

Grobler, A., & Singh, V. (2018). Leadership in Southern Africa: A regional Afrocentric hierarchical taxonomy. *Insight on Africa, 10*(2), 1–25. https://doi.org/10.1177/0975087818772236

Grobler, A., & Flotman, A.P. (2020). The validation of the servant leadership scale. *SA Journal of Industrial Psychology/SA Tydskrif vir Bedryfsielkunde, 46*, a1754. https://doi.org/10.4102/sajip.v46i0.1754

Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2019). *Multivariate data analysis* (8th edn.). Cengage Learning.

IBM Corp. (2017). *IBM SPSS statistics for windows, Version 25.0*. IBM Corp.

Jepson, D. (2009). Leadership context: The importance of departments. *Leadership & Organization Development Journal*, 30(1), 36–52. https://doi.org/10.1108/01437730910927098

Kasu, E. (2017). Juxtaposing Ubuntu values, Indigenous Knowledge Systems, and entrepreneurship: Antecedents underpinning Ubuntupreneurship in communal wealth generation. *Journal of Business Sciences, 1*(1), 25–42.

Liden, R.C., Wayne, S.J., Meuser, J.D., Hu, J., Wu, J., & Liao, C. (2015). Servant leadership: Validation of a short form of the SpL -28. *Leadership Quarterly, 26*(2), 254–269. https://doi.org/10.1016/j.leaqua.2014.12.002

Maddock, R., & Fulton, R. (1998). *Motivation, emotions and leadership: The silent side of management*. Quorom Books.

Mangaliso, M. (2001). Building competitive advantage from Ubuntu: Management lessons from Ubuntu. *Academy of Management Perspectives, 15*(3), 23–33. https://doi.org/10.5465/ame.2001.5229453

Marnewick, C., Erasmus, W., & Joseph, N. (2018). Infusing African management philosophy into project management. *Acta Commercii, 18*(1), 1–14. https://doi.org/10.4102/ac.v18i1.585

Marsh, H.W., Balla, J.R., & Hau, K.T. (1996). An evaluation of incremental fit indexes: A clarification of mathematical and empirical properties. In G.A. Marcoulides, & R.E. Schumacker (eds.), *Advanced structural equation techniques* (pp. 315–353).

Masango, M.J.S. (2003). African spirituality that shapes the concept of Ubuntu. *Verbum Et Ecclesia, 27*(3), 930–943. https://doi.org/10.4102/ve.v27i3.195

Mbigi, L. (1996). *Ubuntu: The African dream in management*. Knowledge Resources.

Meyers, L., Gamst, G., & Guarino, A. (2013). *Applied multivariate research. Design and interpretation* (2nd edn.). Sage.

Mitroff, I., & Denton, E. (1999). A study of spirituality in the workplace. *Sloan Management Review, 40*(4), 83–92.

Mutabazi, E. (2002). Preparing African leaders. In C. Derr, S. Roussillon, & J. Boumais (eds.), *Cross-cultural approaches to leadership development* (pp. 202–223). Quorom Books.

Nel, J.A., Valchev, V.H., Rothmann, S., Van de Vijver, F.J.R., Meiring, D., & De Bruin, G.P. (2012). Exploring the personality structure in the 11 languages of South Africa. *Journal of Personality, 80*(4), 915–948. https://doi.org/10.1111/j.1467-6494.2011.00751.x

Newman, C. (2017). African spirituality and the slave experience in Pre-Antebellum America. In *Proceedings of the National Conference on Undergraduate Research (NCUR)* (pp. 1189–1198). NCUR.

Nkomo, S.M. (2006). *Images of African leadership and management in organisation studies: Tensions, contradictions and re-visions* (pp. 1–28). Inaugural Lecture: University of South Africa.

Nkomo, S.M. (2011). A postcolonial and anti-colonial reading of 'African' leadership and management in organization studies: Tensions, contradictions, and possibilities. *Organization, 18*(3), 365–386. https://doi.org/10.1177/1350508411398731

Northcutt, N., & Mccoy, D. (2004). *Interactive qualitative analysis: A systems method for qualitative research.* SAGE.

Nunnally, J.C., & Bernstein, I.H. (1994). *Psychometric theory* (3rd edn.). McGraw-Hill.

Podsakoff, P.M., Mackenzie, S.B., Moorman, R.H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly, I*(2), 107–142. https://doi.org/10.1016/1048-9843(90)90009-7

Powell, K., & Grobler, A. (2021). *Technical report: The development and validation of an organisational Ubuntu leadership scale*. Unpublished report. University of South Africa, Graduate School of Business Leadership, South Africa.

Putnick, D.L., & Bornstein, M.H. (2016). Measurement invariance conventions and reporting: The state of the art and future directions for psychological research. *Developmental Review, 41*, 71–90. https://doi.org/10.1016/j.dr.2016.06.004

Rietveld, T., & Van Hout, R. (1993). *Statistical techniques for the study of language and language behaviour*. Mouton de Gruyter.

Sibanda K., & Grobler, A. (2023). Spiritual leadership within the ambit of African Management philosophies using interactive qualitative analysis. *Acta Commercii, 23*(1), 1–11. a1069. https://doi.org/10.4102/ac.v23i1.1069

Slabbert, S., & Finlayson, R. (1998). Comparing Nguni and Sotho: A sociolinguistic classification. In I. Maddieson, & T.J. Hinnebusch (Eds.), *Language history and linguistic description in Africa* (pp. 289–306). Africa World Press.

Tabachnick, B.G., & Fidell, L.S. (2013). *Using multivariate statistics* (6th edn.). Pearson.

Van Der Walt, F., & De Klerk, J.J. (2014). Measuring spirituality in South Africa: Validation of instruments developed in the USA. *International Review of Psychiatry*, *26*(3), 368–378.

Walumbwa, F., Avolio, B., Gardner, W., Wernsing, T., & Peterson, S. (2008). *Authentic leadership: Development and validation of a theory-based measure*. Management Department Faculty Publications. Paper 24. Retrieved from http://digitalcommons.unl.edu/managementfacpub

West, S.G., Finch, J.F., & Curran, P.J. (1995). Structural equation models with non-normal variables: Problems and remedies, In R.H. Hoyle (Ed.), *Structural equation modelling: Concepts, issues, and applications* (pp. 159–176). Sage.

Yukl, G., Mahsud, R., Hassan, S., & Prussia, G.E. (2013). An improved measure of ethical leadership. *Journal of Leadership & Organizational Studies, 20*(1), 38–48. https://doi.org/10.1177/1548051811429352

Zhu, Y., Zhang, S., & Shen, Y. (2019). Humble leadership and employee resilience: Exploring the mediating mechanism of work-related promotion focus and perceived insider identity. *Frontiers of Psychology, 10*, 673. https://doi.org/10.3389/fpsyg.2019.00673