

Academics to Serve the Communities: Examining the Hierarchical Structure of a Multidimensional Servant Leadership Model in Academia

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Abstract

Although servant leadership is practiced in higher education (HE), most literature on servant leadership has utilized samples with diverse occupational backgrounds and applied single-level analytic approaches. Recognizing the association between servant leadership and community citizenship behavior, our study investigated the factorial validity of a well-developed multilevel servant leadership model, the SL-28, in the HE context. We grouped 1,864 lecturers from Malaysian institutions into 120 clusters, then estimated a seven-factor second-order servant leadership model at two levels using EQS. Results indicated that servant leadership in academic settings was a single-level five-factor second-order model rather than a hierarchical model. Of the seven hypothesized factors, empirical evidence was not found for two, *emotional healing* and *putting subordinates first*. We also investigated the model's consistency with the principles of servant leadership for HE to provide more insight. Finally, practical, theoretical, and methodological implications of the findings and future areas of research are provided.

Keywords: servant leadership for higher education, community engagement, Multilevel Structural Equation Modeling (MSEM), Bentler-Liang method, Satorra-Bentler method



Introduction

Globalization and the aspiration to become world class have led to competition and collaboration among universities worldwide, resulting in major changes in university management and culture (Kok et al., 2010). Such changes include shifts in the types of academic positions and the demand for increasing entrepreneurial activities (Webber & Rogers, 2018), as well as pressure to act more as businesses and seek competitive advantages (Kok & McDonald, 2017). As a consequence, universities in the new global environments have influenced countries' economic growth and development via technological transfer, talent development, and preparation of a skilled and empowered labor force (Wan & Morshidi, 2018a).

To engage in this tide of globalization, higher education (HE) systems around the world have formulated and implemented numerous strategies to internationalize (Duong & Chua, 2016). In general, institutions of higher learning, as organizations with an organic structure, adapt themselves to the changing demands of the environment (Ponnuswamy & Manohar, 2016). More specifically, because these institutions and their academic staff have experienced increasing pressure to be accountable while undergoing a continuous cycle of internal and external performance monitoring and quality audits (Weiherl & Frost, 2016), they appear to have become adept at strategizing and navigating in unprecedented situations. In addition, for an individual to become an academic in the current situation requires not only research competencies but also skill in time management, communication,

presentation, leadership, management, and networking skills (van der Weijden et al., 2015). These requirements imply that the present academic ecosystem is highly competitive and challenging, with extensive workloads and related duties. Moreover, requisite qualifications such as a set of high-quality research articles and teaching experience might no longer be sufficient to secure a job and be successful in an academic career (van der Weijden et al., 2015). Lecturers are now also expected and often required to fulfill leadership and management roles (Deem, 2010). Institutions of higher learning are striving for improved performance through better leadership and management, yet it is not clear exactly which behaviors, attitudes, traits, and cultures are required for high-level performance (Kok & McDonald, 2017).

This context evidences the need for a relevant leadership style in university settings to make necessary changes in the present globalization era and to ensure the achievement of organizational outcomes. Although the importance and practice of different leadership styles in academic settings have been scrutinized in previous research works (e.g., Bryman, 2007; Fullan & Scott, 2009; Ghasemy, Sufean, & Megat Ahmad Kamaluddin, 2016; Kok & McDonald, 2017; Scott & McKellar, 2012), the literature includes relatively few studies on the implementation of servant leadership (Eva et al., 2019; Greenleaf, 1970, 1977) as well as its antecedents and outcomes in university settings. Thus, to further understand types of leadership germane to the current situation, an emerging strand of research has focused on leadership types intrinsically tied to moral, prosocial, or people-oriented behaviors, and particularly on servant leadership (Eva et al., 2019). It is crucial to identify the main aspects of such leadership styles in the context of institutions of higher learning, and in this study we focus on servant leadership.

Other justifications exist for the practice of servant leadership in academic settings. Indeed, servant leadership appears particularly pertinent in today's business world because when leaders exhibit behaviors that transcend their self-interest to serve the interests of all stakeholders, employees themselves adopt a serving orientation similar to that of their leader and behave in a way that benefits the organization and its members, the surrounding community, and

beyond (Franco & Antunes, 2020). This scenario is transferable to institutions of higher learning. Specifically, one of the main roles of universities as socially responsive entities is university-community engagement (Cook & Nation, 2016; Shuib & Yew, 2017) through initiatives such as research collaboration, consulting activities, exchange of human capital, and supply of resources (Shuib & Yew, 2017). These initiatives are completely compatible with the principles and characteristics of servant leadership, such as serving first and selflessly focusing on others' needs (Panaccio et al., 2014), as well as focusing on followers' development and empowerment, altruism, empathy, sense of ethics, and community stewardship (Liden, Wayne, Zhao, & Henderson, 2008). This inclusion of surrounding parties indicates that servant leadership will encourage organization members to serve both their organization and people around them (Greenleaf, 1977).

Although the practice of servant leadership in HE has proven valuable, the organizational research literature shows a lack of agreement about the dimensions or components that distinctly mirror the servant leadership style (Grisaffe et al., 2016). In addition, from a methodological perspective, many empirical studies on servant leadership have considered neither heterogeneity within the data nor the hierarchical structure of the data in the process of data analysis. Therefore, as noted, identifying the dimensions of servant leadership in HE contexts was our other motivation for conducting this multilevel study. More specifically, we were interested in identifying the dimensions of the servant leadership style of academics who have been clustered based on their departments and previous work-relevant experience.

To do so, we focused on Malaysia, a developing country that has plans to base its tenable economy on a more knowledgeable and creative nation (Wan, Morshidi, & Dzulkifli, 2015). This country is a well-established education hub in Southeast Asia (Lee, 2014) that has been grappling with the globalization process and its consequences (Morshidi et al., 2012). Moreover, its HE system consists of public and private sectors (Wan & Morshidi, 2018a). Since the establishment of the University of Malaya in 1949, Malaysian HE has been improving steadily, thereby enhancing the roles of universities in society and their relationship with the government

(Wan, Sok, et al., 2018). Based on statistics published by the Malaysian Qualifications Agency in January 2022 (MQA, 2022) public sector comprises 20 public universities, 36 polytechnics, and 268 community colleges/institutions, and the private sector comprises 83 universities, 45 university colleges, and 396 colleges. Although the 20 public universities operate under the purview of the government (Wan & Morshidi, 2018b), private universities have been established and owned by financially sound corporations (Norzaini et al., 2011), and a number of these private institutions have some form of twinning and joint programs with Malaysian and/or foreign institutions (Wan, 2018). The Malaysian institutions offer a wide range of academic programs. Focusing on programs that are classified as services, public universities tend to focus on sports, environment-related programs, and security programs, whereas the private universities tend to offer only courses in tourism (Wan, 2018). In terms of employment, permanent positions in public universities are reserved exclusively for Malaysian citizens, but this restriction does not apply to private institutions (Wan & Morshidi, 2018b). With respect to academic leadership, Malaysia established the Higher Education Leadership Academy (AKEPT in the Malay language) in January 2008 with objectives such as strengthening the governance and organization of Malaysian higher education institutions and generating a culture of creative and innovative solutions to the critical issues on leadership in HE (Ghasemy, 2017). In addition, considerable attention has been paid to leadership in the Malaysia Education Blueprint 2015–2025 (Higher Education). Nevertheless, public universities have faced a leadership crisis in terms of positioning effective university leadership (Morshidi et al., 2012). The top five challenges faced by the academic leaders in this country have been (1) staff affairs management; (2) finance, budgeting, grants, and fundraising; (3) time management; (4) achieving goals, key performance indicators, and standards; and (5) proper workload and assignments (Ghasemy, Sufean, Megat Ahmad Kamaluddin, et al., 2018). Given that promoting soul-driven leadership in institutions of higher learning has been one of the main missions of AKEPT, servant leadership with its special ethical behaviors is an appropriate leadership choice for academic institutions. This conclusion is consistent with Wheeler (2012), who maintained that, given the challenges faced by the leaders

in academic settings, it is time for servant leadership to play a significant role in governance and administration in academic institutions.

To guide the reader, we have structured this article as follows. First, the theory and practice of servant leadership in both organizational and HE settings will be introduced. Next, methodological details of the multilevel modeling utilized and then results are presented. The article concludes with implications, limitations, and suggestions for future research.

Servant Leadership: Theory and practice

The notion of servant leadership originates with the choice to serve, which results in an aspiration to lead (Greenleaf, 1970). Therefore, the main element in servant leadership is the effort by leaders to both provide for the needs and well-being of their subjects and to inspire their development (Liden, Wayne, Zhao, & Henderson, 2008). In more succinct terms, the servant leadership style underscores the welfare of others by decreasing interpersonal conflicts and thus cultivating a sense of community (Schaubroeck et al., 2011). The emphasis of servant leadership on serving others shifts the nexus of leadership studies from solely leading to simultaneously balancing the dyad of leading and serving; this altruistic focus thereby offers a critical mechanism in the workplace to ensure ethical behavior of an organization while also fostering satisfactory performance (Saleem et al., 2020). Inasmuch as a leader's behavior affects subordinates' performance (Northouse, 2013; Yukl, 2013), the behavior of a benevolent servant leader will result in high levels of engagement and loyalty (Saleem et al., 2020), which will likely produce advantageous organizational outcomes (Harter et al., 2002). Expressed in a different way, considering its exemplary impact on organizational performance, servant leadership offers an alternative to such leadership styles as autocratic, performance-maintenance, transactional, and transformational (Melchar & Bosco, 2010).

Given its special attention to the leader's role as a servant and the importance of the followers' needs, servant leadership has attracted organizational researchers in the last decades (Liu, 2019). McNeff and Irving (2017) found that the company owners'

servant leadership attitudes and practices leave a desirable impact on employees' job satisfaction. In another study by Russell and Stone (2002), the followers' organizational performance, attitudes, and manners were viewed as the outcomes of servant leadership. Moreover, Zhao et al. (2016) observed a positive connection between servant leadership and organizational citizenship behavior of followers, which is not an unexpected finding since servant leadership encourages and promotes moral reasoning in followers, which leads to higher levels of citizenship behavior (Graham, 1995).

With respect to HE research, Aboramadan et al. (2020b) found that academics' intrinsic motivation, psychological ownership, and person-job fit fully mediate the relationship between their servant leadership style and their level of engagement with their work. In another study, empirical evidence was found for the impact of academics' servant leadership style on their affective commitment (Aboramadan et al., 2020a). Moreover, using data from a multicountry sample, servant leadership was found to positively and significantly affect both the career and life satisfaction of academics (Latif et al., 2021).

With this background, we thus focus on the seven-factor SL-28 servant leadership model (Liden, Wayne, Zhao, & Henderson, 2008). Based on this model, conceptualized

as a second-order multilevel model displayed in Figure 1, seven key dimensions constitute servant leadership: conceptual skills, putting subordinates first, helping subordinates grow and succeed, empowering, emotional healing, creating value for the community, and behaving ethically. Many studies have operationalized servant leadership using the SL-28 (e.g., Al-Asadi et al., 2019; Peterson et al., 2012; Hu & Liden, 2011). It is notable that a short version of SL-28 was later developed by Liden, Wayne, Meuser, et al. (2015), consisting of seven items (SL-7); it has been used in empirical studies such as Stollberger et al. (2019), Lemoine and Blum (2019), and Karatepe et al. (2019) as well. In our study and based on the servant leadership model developed and validated by Liden, Wayne, Zhao, & Henderson (2008), we postulate the following hypothesis to test the factorial validity of this model at two levels in HE contexts:

With respect to both the lecturer-level and the department-level model, the servant leadership scale is a multidimensional seven-factor second-order model.

It is noteworthy to highlight that, in our study, academics have been clustered at two levels based on institution name, disciplinary background, and experience relevant to HE.

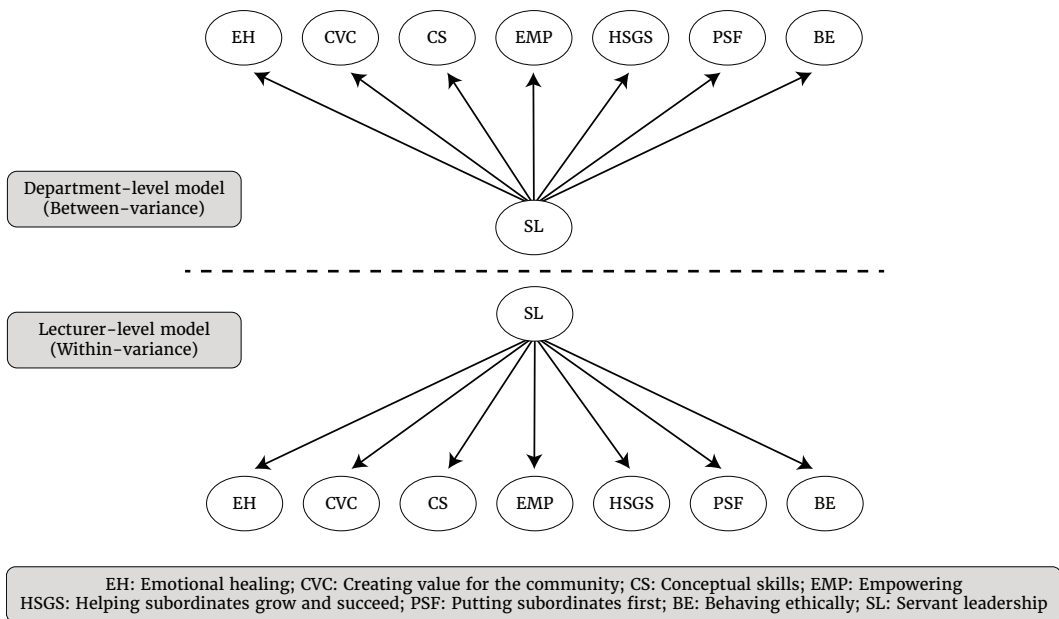


Figure 1. Seven-Factor Second-Order Multilevel CFA Model of Servant Leadership Behaviors

Method

Research Design and Analytic Procedures

The primary aim of this quantitative inquiry is to verify the factorial validity of the seven-factor second-order servant leadership model (Liden, Wayne, Zhao, & Henderson, 2008). More specifically, this assessment involves a multilevel assessment (Bentler, 2006) in which we considered both the lecturer-level and the department-level components. Given the reflective nature of the constructs in the multilevel model, we adopted the covariance-based structural equation modeling (CB-SEM) approach (Byrne, 2006) for analyzing the data. Given different procedures available in this approach to deal with clustered data (e.g., the maximum likelihood [ML] approach for structured data, Liang & Bentler, 2004), CB-SEM represents a rich methodology for analysis.

We specified and estimated the seven-factor second-order multilevel servant leadership behavior model using the EQS 6.4 (Build 120) software package (Bentler, 2006; Bentler & Wu, 2018). We chose a two-level model for servant leadership chiefly to avoid underestimating standard errors and inflating the Type I error rate that can result from disregarding the hierarchical structure of the data (Bovaird, 2007). We also made this choice because EQS is capable of ML estimation with unbalanced cluster sizes through a multilevel analysis (Byrne, 2006). More specifically, the method developed by Liang and Bentler (2004) conducts all estimation using the expectation-maximization (EM) algorithm.

Measures

Data were collected using the servant leadership scale developed by Liden, Wayne, Zhao, & Henderson (2008). This measure contains seven subscales: emotional healing, creating value for the community, conceptual skills, empowering, helping subordinates grow and succeed, putting subordinates first, and behaving ethically. Each subscale consists of four items that are answered on a 5-point Likert scale anchored by 1 (*completely disagree*) and 5 (*completely agree*). The items of the final model and their corresponding descriptive statistics are presented in Appendix A1.

Population and Sampling Method

The target population in our study were academics in all types of Malaysian institutions of higher learning except private colleges.

To collect data, a database of 31,493 email addresses of the academics was created, and the electronic version of our survey was sent to the academics using an online survey administration platform. The mailing included a cover page that contained the guidelines to complete the survey and addressed ethical issues in our study. Overall, 2,040 surveys were received through a simple random sampling method (response rate = 6.47%), of which 76 surveys had been partially completed and were thus removed. Fewer than 5% of the values were missing per indicator in our final data; the missing values were replaced with the median of the respective indicator (Hair, Hult, et al., 2017). Given that the clustering variable in our multilevel analysis was constituted based on the academics' institution name, disciplinary background, and relevant experience, we removed another 88 cases to maintain at least four cases per cluster in our multilevel analysis. This procedure yielded a sample size of 1,876 cases for our 120 clusters. Next, to identify outliers, a seven-factor second-order confirmatory factor analysis (CFA) model of servant leadership was specified and estimated. This process resulted in detecting 12 multivariate outliers, which were also removed from the data set. As a result, our main analysis was based on a sample size of 1,864 academics. Table 1 displays the demographic profile of the sampled academics.

Although the removal of the multivariate outliers decreased the normalized multivariate kurtosis statistic from 155.69 to 123.350, this value was still greater than 5 and thus indicative of the multivariate nonnormality of the data (Bentler, 2006). Nonetheless, we did not consider this to be a major problem because our analysis was based on the likelihood ratio (LR) statistic (Liang & Bentler, 2004), which follows a chi-square distribution and is asymptotically robust for many nonnormal distributions (Yuan & Bentler, 2005).

Common Method Bias (CMB)

We next tested for common method bias (CMB) from a statistical perspective based on a CFA approach to Harman's (1960)

Table 1. Demographic information (N = 1,864)

Demographic variable	Frequency	Percent (%)
Gender		
Male	668	35.8
Female	1,196	64.2
Age		
Under 30	52	2.8
31–40	680	36.5
41–50	678	36.4
51–60	379	20.3
Above 60	75	4.0
Marital status		
Single	315	16.9
Married	1,549	83.1
Leadership position		
Yes	430	23.1
No	1,434	76.9
Disciplinary background		
Science	425	22.8
Social science	885	47.5
Engineering	328	17.6
Medical and dental	226	12.1
Institution type		
Public university	1,349	72.4
Public polytechnic	228	12.2
Community college	25	1.3
Private university	170	9.1
Private university college	63	3.4
Other public institution	29	1.6
Academic rank*		
Professor	191	10.2
Associate professor	293	15.7
Senior lecturer	819	43.9
Lecturer	457	24.5
Other	104	5.6

Note. *Percentages add up to less than 100 due to rounding

one-factor test, known as common latent factor (CLF). To run this analysis, we built a seven-factor CFA model, added a CLF to this model, set the variance of the CLF to 1, connected all the items to the CLF, and constrained the paths between the CLF and the items to be equal. Next, we estimated this model using the ML estimator. The results showed that the unstandardized factor loading of the constrained paths was 0.33; this indicated that the results were not biased since the common method variance ($0.33^2 = 0.1089$ or 10.89%) was below the threshold of 50% (Eichhorn, 2014).

Results

Examining the Multilevel Structure of the Data

In our study, to create the clustering variable we collected data for three demographic variables: work experience outside HE, institution name, and disciplinary background (sciences, social science, engineering, and medical/dental). Based on the collected demographic data and assuming that people with a particular disciplinary background work in a department closely related to that background, a clustering variable was created that could simultaneously cluster the respondents based on their university/college departments and their HE work-relevant experience. We did not consider clusters with fewer than four cases in our study, and, as mentioned earlier, our final department-experience clustering variable had 120 clusters. The clusters varied in size from 4 to 69 with a mean value of 15.53.

Upon estimation of the two-level servant leadership model based on the robust methodology introduced by Liang and Bentler (2004), we focused on evaluating the model-based intraclass correlation coefficients (ICCs). ICCs range from 0.0 to 1.0 and represent the proportion of between-group variance compared with the total variance (Byrne, 2012). As noted by Selig et al. (2008), the ICCs within the range of 0.05 to 0.15 inflate the model χ^2 and bias in estimation of both parameters and standard errors (Julian, 2001). In our analysis, the ICCs of the items ranged from 0.007 to 0.048 with a mean of 0.024, thus falling below the 0.05 threshold. Given that these ICCs were close to zero, we concluded that it is meaningless to model the within and between levels of the structure. In other words, a conventional single-level SEM analytic ap-

proach could yield reasonable and unbiased estimates (Julian, 2001). Hence, we specified the seven-factor second-order servant leadership model as a single-level model (lecturer-level model) and utilized Satorra-Bentler robust methodology (Satorra & Bentler, 1999, 2010).

CFA at a Single Level

We specified a single-level seven-factor second-order CFA model using EQS 6.4 (Build 120) statistical package (Bentler, 2006; Bentler & Wu, 2018) and estimated the model using the Satorra-Bentler methodology through which the corrected χ^2 and standard errors under nonnormality are generated (Satorra & Bentler, 1994, 2010). Then we evaluated the quality criteria with respect to the psychometrical soundness of each factor (Byrne, 2006). Specifically, factor loadings, composite reliability (CR), and average variance extracted (AVE) values were used to assess reliability and convergent validity. Notably, any items with low factor loadings should be dropped from the model to meet the validity and reliability requirements (Byrne, 2006, 2012). In addition, AVEs greater than 0.5 and CR values above 0.7 indicate convergent validity and composite reliability, respectively (Hair, Black, et al., 2014).

Following these guidelines, 10 noncontributing items were deleted from the model to meet the quality criteria for validity and reliability. The 10 items included all four items of the emotional healing factor, all four items of the putting subordinates first factor, one item from the conceptual skills factor, and one item from the empowering factor. As a result, the model became a five-factor second-order model. Also, the evaluation of the results of the Lagrange multiplier (LM) test (Bentler, 2006; Byrne, 2006) showed that the covariance between the error terms of CVC1 and CVC2—two of the items of creating value for the community factor—should be freely estimated in a subsequent run. Statistically speaking, the test that this parameter is equal to zero produced a univariate LM $\chi^2_{(1)}$ of 90.23 ($p < .001$), suggesting that this hypothesized restriction was not tenable.

Table 2 displays the standardized loadings as well as the measures of the reliability and validity of the final five-factor second-order CFA model. For other parameter estimates, see Appendix A2.

Table 2. Factor Loadings, Validity, and Reliability Measures of the Final CFA Model

Factor	Item/ Factor	B	β	Robust S.E.	Robust Z	AVE	CR
CVC	CVC1	1.000	0.666			0.551	0.831
	CVC2	1.140	0.747	0.038	30.052		
	CVC3	1.483	0.772	0.063	23.541		
	CVC4	1.454	0.780	0.063	23.239		
CS	CS2	1.000	0.749			0.535	0.775
	CS3	0.975	0.672	0.041	23.642		
	CS4	0.981	0.769	0.034	28.729		
EMP	EMP1	1.000	0.762			0.620	0.830
	EMP2	1.101	0.847	0.041	26.631		
	EMP3	0.996	0.750	0.042	23.915		
HSGS	HSGS1	1.000	0.795			0.596	0.854
	HSGS2	1.014	0.871	0.025	41.296		
	HSGS3	0.855	0.758	0.029	29.554		
	HSGS4	0.860	0.648	0.033	26.349		
BE	BE1	1.000	0.780			0.551	0.830
	BE2	1.034	0.781	0.033	30.960		
	BE3	1.073	0.662	0.040	27.137		
	BE4	0.902	0.741	0.034	26.285		
SL	CVC	0.291	0.715	0.016	18.741	0.538	0.853
	CS	0.403	0.809	0.017	23.381		
	EMP	0.350	0.711	0.019	18.187		
	HSGS	0.462	0.759	0.017	27.181		
	BE	0.326	0.667	0.016	20.443		

Note. B: unstandardized parameter; β : factor loading; S.E.: standard error; Z: Z statistic; AVE: average variance extracted; CR: composite reliability; CVC: creating value for the community; CS: conceptual skills; EMP: empowering; HSGS: helping subordinates grow and succeed; BE: behaving ethically; SL: servant leadership; $|Z| \geq 1.96$ indicates a significant parameter at 5% confidence level in a two-tailed test.

The evaluation of the psychometrical properties of the five-factor second-order CFA model was followed by an assessment of the fit of the model to the data. Focusing on the residuals, we observed that the average absolute standardized residual value was 0.031 and the average off-diagonal absolute standardized residual was 0.035. These values indicated a very good fit of the CFA model to the data. In addition, we assessed the fit indices and other related statistics based on our five-factor second-order CFA

model (Model 1), and a unidimensional CFA model (Model 2) as displayed in Table 3. The fit indices of the five-factor second-order CFA model indicated an adequate fit of the model to the data, whereas the unidimensional CFA model exhibited poor fit. In other words, the lack of fit of Model 2 provided more substantial support for the first-order factors of the second-order servant leadership model being distinct from each other based on Model 1.

Table 3. Fit Indices of the Five-Factor Second-Order and One-Factor CFA Models

Fit indices and related statistics	S-B χ^2	DF	$\Delta S-B \chi^2$ *	ΔDF	NFI	NNFI (or TLI)	CFI	IFI	MFI	RMSEA	90% CI of RMSEA
Cut-off criteria					> 0.95	> 0.95	> 0.95	> 0.95	> 0.90	< 0.06	
Model 1 ^a	509.03	129			0.951	0.956	0.962	0.963	0.903	0.040	(0.036, 0.043)
Model 2 ^b	3,748.52	134	1,189.27**	5	0.636	0.593	0.643	0.644	0.379	0.120	(0.117, 0.124)

Notes. S-B: Satorra-Bentler; DF: degrees of freedom; NFI: Bentler-Bonett normed fit index; NNFI: Bentler-Bonett non-normed fit index; TLI: Tucker-Lewis index; CFI: comparative fit index; IFI: Bollen's fit index; MFI: McDonald's fit index; RMSEA: root mean-square error of approximation; CI: confidence interval. Cut-off criteria are based on Hu and Bentler (1999).

^a Multidimensional second-order servant leadership model.

^b Unidimensional first-order servant leadership model.

* $\Delta S-B \chi^2$ is not χ^2 -distributed, and to compute this statistic we followed the procedure provided by Byrne (2006, p. 219).

** $p < .001$

Table 4. A Comparison Between the Principles of Servant Leadership for HE and the Factors of the Validated Model

Servant leadership principle	Relevant factor in our model
Principle 1: "Service to others is the highest priority."	"Helping subordinates grow and succeed" & "Creating value for the community"
Principle 2: "Facilitate meeting the needs of others."	"Helping subordinates grow and succeed"
Principle 3: "Foster problem solving and taking responsibility at all levels."	"Empowering"
Principle 4: "Promote emotional healing in people and the organization."	Not empirically supported in our study
Principle 5: "The means are as important as the ends."	"Behaving ethically"
Principle 6: "Keep one eye on the present and one on the future."	"Conceptual skills"
Principle 7: "Embrace paradoxes and dilemmas."	"Conceptual skills"
Principle 8: "Leave a legacy to society."	"Creating value for the community"
Principle 9: "Model servant leadership."	"Helping subordinates grow and succeed"
Principle 10: "Develop more servant leaders."	"Helping subordinates grow and succeed"

Discussion and Conclusion

This study was undertaken in order to better understand the hierarchical structure of the multidimensional servant leadership model (Liden, Wayne, Zhao, & Henderson, 2008) in Malaysian HE contexts. In this regard, we collected data from academics in public and private institutions in Malaysia, created a clustering variable, and to avoid the problems of single-level analysis (Byrne, 2006; Selig et al., 2008), estimated the two-level seven-factor second-order servant leadership model at both the lecturer and department levels using the straight-forward robust ML-based methodology introduced by Liang and Bentler (2004). Next, we followed Julian's (2001) guidelines to evaluate the ICC values, as the proportion of between-group variance compared with total variance (Byrne, 2012), and to check whether conceptualizing the servant leadership model at the lecturer and department levels would be appropriate and meaningful. This evaluation revealed that all the ICCs were below 0.05 and, in fact, close to zero. Therefore, we concluded that the servant leadership model is a single-level model in the Malaysian HE context. Consequently, this model was specified at the lecturer level, and given the multivariate nonnormal nature of our data, we estimated it using the robust Satorra-Bentler methodology (Satorra & Bentler, 1988, 1994).

In this analysis, to fulfill reliability and validity requirements, we dropped 10 noncontributing items of the original seven-factor second-order servant leadership model, resulting in a five-factor second-order model. More specifically, our analysis revealed that *emotional healing* and *putting subordinates first* factors were not perceived by academics in Malaysia to be dimensions of servant leadership. Additionally, although we observed that all the dimensions of servant leadership were of similar importance, the conceptual skills factor was identified as the most important dimension due to its factor loading. In an unexpected finding, *behaving ethically* was the least important dimension of the servant leadership model in academic settings, although servant leadership in the literature is usually strongly related to ethical behavior.

To provide more insight about our findings, we compared and contrasted the items and the factors of our model with the 10 principles of servant leadership for HE proposed by Wheeler (2012). Although Dean

(2014) raised concerns and criticisms about the servant leadership principles for HE, Barnes (2015) has seen these principles as essential principles for HE leadership. Our comparison, as presented in Table 4, shows that except for Principle 4, the remaining principles correspond with the items of the factors in our model (see Appendix A1 for more details). Therefore, we considered this finding to be strong empirical evidence for the applicability and pertinence of these principles (at least nine principles out of 10) in academic settings since academics in this study included both those in leadership positions ($n = 430$) and those in nonleadership positions ($n = 1,434$), any of whom can practice servant leadership behaviors. Arguably, although Principle 4, which is related to the emotional healing factor, was not supported in our model, the recent applications on academics' emotions (e.g., Ghasemy, Mohajer, et al., 2020; Ghasemy, Morshidi, et al., 2021) show that affect and emotions have considerable impact on organizational outcomes.

Moreover, we compared our model with a more recent multidimensional servant leadership model developed and validated by Latif and Marimon (2019) in the Spanish HE system using data collected from 148 academics. Based on this model, servant leadership in Spanish HE contexts consists of seven dimensions: *behaving ethically*, *development*, *emotional healing*, *empowerment*, *pioneers*, *relationship building*, and *wisdom*. In contrast to our study, but in line with Wheeler (2012), the concept of emotional healing in the study by Latif and Marimon is viewed as an integral part of servant leadership. We also observed an extensive overlap between the items and factors in our model (e.g., *behaving ethically*, *empowering*, and *helping subordinates grow and succeed*) and the items and factors of their model. Nonetheless, the study by Latif and Marimon utilized a rather small sample size, so their proposed model would benefit from a revalidation with a larger sample.

In conclusion, we validated the well-established servant leadership model (Liden, Wayne, Zhao, & Henderson, 2008) in the Malaysian HE context. Our analysis showed that this model is a single-level model that translates almost all the principles of servant leadership for HE (Wheeler, 2012) into actions. Therefore, given the importance of values in the current academic environment characterized by increasing complex-

ity, rapid change, and uncertainty (Dean, 2014), and in consonance with arguments made by Eddy (2010) in terms of the need for holistic approaches to HE leadership, we conclude that although a combination of leadership models is better suited to the new HE context, the principles and practice of servant leadership should be encouraged in academic settings as an essential part of a comprehensive academic leadership model.

Implications of the Findings

From a practical perspective, policymakers are advised to create and implement policies to promote servant leadership behaviors—especially the five dimensions based on our study—as this type of leadership reduces interpersonal conflicts and promotes a sense of community (Schaubroeck et al., 2011). HE literature testifies to the negative impact of interpersonal conflict on academics' emotions, which can subsequently lead to undesirable organizational outcomes (Ghasemy, Erfanian, et al., 2020).

In addition, servant leadership has been found to be associated with other desirable outcomes such as community citizenship behaviors (Ghasemy, Akbarzadeh, & Gaskin, 2021; Liden, Wayne, Zhao, & Henderson, 2008), organizational citizenship behaviors (Hunter et al., 2013; Liden, Wayne, Meuser, et al., 2015), and work engagement (Aboramadan et al., 2020b; Orazbayeva et al., 2019; Stouten & Liden, 2020). Given the impact of servant leadership on work engagement and since academics' work roles and university functions are traditionally conceptualized under the triad of teaching, research, and community service (Lawrence et al., 2012; Shuib & Yew, 2017), it is expected that the practice of servant leadership, as conceptualized in our study, will increase community engagement and service (e.g., the socioeconomic impact of universities on societies and community work) in the context of civic universities (Koekkoek et al., 2021). Importantly, de Sousa and van Dierendonck (2014) found evidence for the strong influence of servant leadership on work engagement under conditions of high uncertainty in academic settings, thereby providing more support for the relevance of servant leadership in the current unprecedented situation. Indeed, servant leadership encourages academic citizenship—which is related to serving institutions, the scientific community, and the larger society (Tagliaventi & Carli, 2019)—and thus, ser-

vant leadership uniquely combines service to people and service to the organization's goals (Greenleaf, 1970, 2002).

In addition, leadership training and development programs should be updated and modified to reflect the main servant leadership behaviors. Undeniably, while being properly trained, academics with a drive for knowledge seeking, knowledge production, knowledge sharing, collaborative research, and community engagement (Webber, 2019; Webber & Rogers, 2018) would be able to effectively achieve these objectives. Relatedly, policies should encourage the concept and direction of university–community engagement programs to attract staff, students, and alumni who wish to engage in these programs.

From a theoretical standpoint, we validated a comprehensive servant leadership model that is consistent with the proposed principles of servant leadership for HE (Wheeler, 2012). Specifically, we demonstrated that servant leadership operates on a five-factor second-order model in the Malaysian HE context, thereby enriching the HE leadership literature.

Limitations and Future Directions

In our study no support was found for emotional healing as a dimension of servant leadership, although it has been viewed as an important dimension of servant leadership (Liden, Wayne, Liao, & Meuser, 2014). Despite this finding supporting the argument made by Dean (2014) in terms of the unworkability, irrelevancy, and impracticability of this dimension of servant leadership in the HE domain, we encourage researchers to further investigate this variable in HE research for two reasons: (1) Recent HE literature (e.g., Ghasemy, Erfanian, & Gaskin, 2020; Ghasemy, Alvani, et al., 2019) has suggested the meaningfulness of academics' emotions in determining organizational outcomes in university settings, and (2) the Spanish model of servant leadership for HE (Latif & Marimon, 2019) and the principles of this leadership for HE (Wheeler, 2012) indicate the importance of emotional healing in HE contexts.

In addition, given the consistency of our model with the principles of servant leadership for HE, we invite researchers to utilize our validated model in future research studies on antecedents and consequences

of servant leadership in academic settings. on servant leadership in general (Eva et al., 2019) and in academic settings in particular, we encourage researchers to consider qualitative and mixed-methods research studies to explore this important style of leadership.

Last, given the inadequate number of qualitative and mixed-methods research studies



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Declaration of Conflicting Interests

No conflict of interested declared by the authors with respect to the research, authorship, and/or publication of this article.

Ethical issues

All procedures performed in this study were in accordance with the ethical standards of the institutional research committee of the lead author and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Data Availability Statement

Based on the final model, we have provided the sample covariance matrix of the observed data in Appendix A3.

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Appendix A1

Table A1. Items of the Final Five-Factor Second-Order Model

Code	Item	Mean	SD	Skewness	Kurtosis
CVC1	I emphasize the importance of giving back to the community.	4.33	0.612	-0.508	0.352
CVC2	I am always interested in helping people in the community.	4.30	0.623	-0.48	0.318
CVC3	I am involved in community activities.	4.02	0.783	-0.698	0.707
CVC4	I encourage others to volunteer in the community.	4.04	0.760	-0.586	0.434
CS2	I am able to think through complex problems.	3.96	0.664	-0.560	1.078
CS3	I have a thorough understanding of the organization and its goals.	3.97	0.722	-0.596	0.727
CS4	I can solve work problems with new or creative ideas.	3.96	0.635	-0.407	0.836
EMP1	I give others the responsibility to make important decisions about their own jobs.	4.03	0.645	-0.602	1.520
EMP2	I encourage others to handle important work decisions on their own.	4.05	0.639	-0.612	1.563
EMP3	I give others the freedom to handle difficult situations in the way they feel is best.	4.04	0.653	-0.602	1.423
HSGS1	I make others' career development a priority.	3.81	0.766	-0.412	0.289
HSGS2	I am interested in making sure others reach their career goals.	3.99	0.709	-0.495	0.661
HSGS3	I provide others with work experiences that enable them to develop new skills.	4.02	0.686	-0.599	1.095
HSGS4	I want to know about others' career goals.	3.70	0.808	-0.573	0.604
BE1	I hold high ethical standards.	4.28	0.627	-0.436	0.143
BE2	I am always honest.	4.28	0.647	-0.503	0.149
BE3	I would not compromise ethical principles in order to meet success.	4.28	0.792	-1.438	3.128
BE4	I value honesty more than profits.	4.28	0.595	-0.851	0.827

Note. SD: Standard deviation. The standard error of skewness is 0.057 and the standard error of the kurtosis is 0.113.

Appendix A2

**Table A2. Variances and Covariances
Based on the Final Model**

Variances/ Covariances	Estimate	Robust S.E.	Robust Z
SL (SL)*	1.000		
E23 (CVC1)	0.208	0.009	21.995
E24 (CVC2)	0.171	0.010	17.795
E25 (CVC3)	0.248	0.014	17.266
E26 (CVC4)	0.227	0.015	15.219
E28 (CS2)	0.193	0.011	17.987
E29 (CS3)	0.286	0.016	17.379
E30 (CS4)	0.165	0.010	17.068
E31 (EMP1)	0.174	0.011	15.776
E32 (EMP2)	0.115	0.014	8.299
E33 (EMP3)	0.186	0.013	14.467
E35 (HSGS1)	0.216	0.013	16.568
E36 (HSGS2)	0.122	0.008	14.854
E37 (HSGS3)	0.200	0.011	18.905
E38 (HSGS4)	0.379	0.017	21.810
E43 (BE1)	0.154	0.009	16.552
E44 (BE2)	0.163	0.010	16.166
E45 (BE3)	0.353	0.033	10.706
E46 (BE4)	0.160	0.008	19.517
D2 (CVC)	0.081	0.007	11.114
D3 (CS)	0.086	0.009	9.468
D4 (EMP)	0.120	0.010	12.228
D5 (HSGS)	0.157	0.014	11.353
D7 (BE)	0.132	0.009	14.254
E23, E24 (CVC1, CVC2)**	0.068	0.008	8.616

Note. * The variance of SL is fixed to 1.

** The correlation between the error terms is 0.359.

Appendix A3

Table A3. Sample Covariance Matrix Table

Item	CVC1	CVC2	CVC3	CVC4	CS2	CS3	CS4	EMP1	EMP2	EMP3	HSGS1	HSGS2	HSGS3	HSGS4	BE1	BE2	BE3	BE4
CVC1	0.375																	
CVC2	0.258	0.388																
CVC3	0.233	0.285	0.613															
CVC4	0.241	0.265	0.372	0.578														
CS2	0.130	0.135	0.166	0.146	0.441													
CS3	0.128	0.137	0.166	0.164	0.237	0.522												
CS4	0.123	0.133	0.164	0.153	0.251	0.229	0.403											
EMP1	0.118	0.117	0.140	0.146	0.157	0.177	0.168	0.416										
EMP2	0.093	0.121	0.138	0.134	0.135	0.145	0.144	0.264	0.408									
EMP3	0.099	0.118	0.125	0.134	0.121	0.137	0.126	0.227	0.275	0.426								
HSGS1	0.138	0.147	0.176	0.205	0.171	0.192	0.167	0.196	0.187	0.171	0.586							
HSGS2	0.152	0.163	0.180	0.214	0.153	0.197	0.165	0.190	0.182	0.170	0.391	0.503						
HSGS3	0.147	0.157	0.180	0.207	0.182	0.189	0.181	0.199	0.182	0.172	0.295	0.314	0.471					
HSGS4	0.112	0.115	0.161	0.186	0.148	0.188	0.148	0.155	0.140	0.124	0.312	0.321	0.294	0.653				
BE1	0.137	0.135	0.134	0.146	0.163	0.158	0.143	0.145	0.120	0.120	0.140	0.135	0.148	0.102	0.393			
BE2	0.136	0.145	0.151	0.153	0.151	0.157	0.142	0.125	0.112	0.105	0.135	0.132	0.138	0.093	0.252	0.419		
BE3	0.145	0.135	0.138	0.118	0.154	0.142	0.125	0.124	0.116	0.096	0.129	0.131	0.137	0.098	0.248	0.255	0.628	
BE4	0.136	0.134	0.122	0.134	0.117	0.110	0.105	0.098	0.092	0.089	0.121	0.118	0.107	0.078	0.207	0.221	0.260	0.354