

**HOW ARE LEADERSHIP, VIRTUES, HRM PRACTICES AND CITIZENSHIP RELATED
IN ORGANIZATIONS? TESTING OF MEASUREMENT AND MEDIATION MODELS**

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1. INTRODUCTION

The organizational environment and changes in the labor market pose challenges for researchers and managers, highlighting the need to broaden the understanding of human behavior and social interactions in the work context (Estivaleta, Costa, & Andrade, 2014). This perspective arises from the idea that people represent essential competencies for organizational differentiation strategies (Khan, Banik, Uddin, & Moudud-Ul-Huq, 2021). In this sense, the theoretical movement of positive organizational studies has gained prominence in the last decade, understood as an investigation track dedicated to improving organizations based on their internal strengths (Cunha, Rego, & Lopes, 2013).

Leadership significantly affects this context. In this regard, literature signalizes that the leader should serve as a model and inspiration for employees to join efforts towards achieving organizational goals (Insan & Yasin, 2021). However, the theoretical and practical framework that relates the manager as the person who uses the set of “practices to mediate their relationship with the subordinate” is still underexplored, revealing a major gap in Human Resources Management research (Bianchi, Quishida, & Foroni, 2017, p. 54). Thus, the implementation of HRM practices mainly depends on the role of the leader (Ahmed, Rehman, Ali, Ali, & Anwar, 2018; Singh, Del Giudice, Chierici, & Graziano, 2020).

In this scenario, organizational virtues (OV) positively affect an organization's performance measures, gaining an increasing attention from researchers in the context of positive psychology (Cameron, Bright, & Caza, 2004). In order to develop practices with excellence, organizational virtuosity research began to stand out in the last two decades, emphasizing positive behaviors at work (Cameron et al., 2004; Gomide Jr., Vieira, & Oliveira, 2016). In organizational terms, virtues are considered habits, desires, and actions that bring personal and social good (Cameron, Dutton, & Quinn, 2003); and positively influence the organization's ability to deal with adverse situations (Bright, Cameron, & Caza, 2006). Theoretical and empirical research related to OV is still underdeveloped (Kooshki & Zeinabadi, 2016), confirming this is a fertile field for further investigation.

In such a way, strategic human resources management arises as the rethinking of HRM strategies, policies, practices, and activities, taking into account contextual variables and the multiple actors involved (Buren, Greenwood, & Sheehan, 2011). According to these scholars, this perspective enables an internal cohesion to the HRM function, along with a strategic integration with the organization's objectives. As consequence, Buren et al. (2011) indicate facilitating the establishment of organizational plans, upgraded results, and increased resilience capacity. From the perspective of strategic HRM, practices can be strengthened to help achieve organizational goals, as they provide tools to communicate organizational goals in ways that can be more easily understood and executed by employees (Morris & Snell, 2010).

Considering the relevance of HRM practices for organizations, it seems possible to state that a set of HRM practices, synchronized with the organizational strategy, promotes the capacity to reach a higher level of development, whether the organization is public or private. In the private sphere, the emphasis is on profitability and competitiveness. In the public context, in which society and citizens are the customers, the focus lies on optimizing resources, transparency, and efficiency/speed in service.

On that basis, researchers have addressed the importance of behaviors not prescribed by the formal system, such as organizational citizenship behaviors (Janssen & Huang, 2008). For instance, Organ (2018) states that organizational citizenship behaviors represent informal ways of cooperation and contributions provided by individuals based on job satisfaction and the

perception of justice. From this angle, literature reveals that organizational citizenship behaviors promote organizational effectiveness and long-term performance (Takeuchi, Bolino, & Lin, 2015).

Based on the above contextualization, additionally to the gap identified in the literature (Demo, Costa, Coura, Miyasaki, & Fogaça, 2020), this paper intends to answer the following question: what is the relationship between leadership, organizational virtues, human resources management practices, and organizational citizenship behaviors?

Therefore, the main objective of this study is to identify the relationship between leadership, organizational virtues, human resources management practices, and organizational citizenship behaviors in a sample of employees from public and private companies. Two structural models were tested. In the first one, human resources management practices mediate the relationship between leadership and organizational citizenship behaviors. In the second one, human resources management practices mediate the relationship between organizational virtues and organizational citizenship behaviors. By testing these models, we also meet the agenda proposed by Demo et al. (2020) regarding the investigation of HRM practices as a mediating variable of organizational attitudes and behaviors.

Furthermore, we tested the measurement models of each of the research variables in the context of the general model, with the independent variables (leadership and virtues), the mediator (HRM practices), and the dependent (citizenship). Note that we explored the variables of this research at the individual level, considering the perception of employees. We understand perception as a meaningful and coherent image being a possible, apprehensible, and measurable reality to study phenomena (Endo & Roque, 2017).

Traditionally, HRM practices are studied as an antecedent or consequent variable in relational studies. Thus, by testing structural models in which HRM practices are mediating variables in unexplored relationships in the literature, such as between leadership, virtues, and citizenship, this study presents its main theoretical contribution. As practical implications, the findings serve as a diagnosis for the managers of public and private organizations to understand how such relationships happen, supporting decision-making to implement an increasingly strategic human resources management.

2. THEORETICAL FRAMEWORK AND RESEARCH HYPOTHESES

We build our theoretical background based on the idea that HRM practices must be established, shared, and implemented by an active leader capable of inspiring and directing the behavior of employees towards greater professional achievement and the achievement of better organizational results (Bianchi et al., 2017; Nusrat, 2018). In this study, we follow this notion along with the conceptual framework of Barney's Resource-Based View (1991). In this regard, workers who are aware of the ethical behavior of their leaders tend to present organizational citizenship behaviors, since individuals learn social behavior through the repeated observation of leadership behaviors (Nemr & Liu, 2021).

Leadership is the exercise of influence so that individual and collective efforts achieve shared goals (Yukl, 2012). Peterson and Park (2006) conceptualize organizational virtues as moral characteristics of the organization as a whole and as a permanent part of organizational culture. In its turn, HRM practices are understood as articulated proposals of the organization regarding human relations with a view to obtaining desired results (Demo, 2016). Finally, organizational citizenship behaviors are acts of social exchange offered voluntarily by workers to organizations (Bastos, Siqueira, & Gomes, 2014). With this in mind, the possibilities of the relationship between the four variables will be analyzed, formalizing the hypotheses proposition that will be tested in two original mediation models.

Leadership and Human Resources Management Practices

Considering HRM practices as core elements of organizational culture and fundamental for organizational management (Wickramasinghe & Dolamulla, 2017), the relationship between leaders and employees can be strengthened and generate greater commitment from the latter when HRM practices are aligned with the leader's behavior (Neves, Almeida, & Velez, 2018). Thus, leaders must be committed to practices focused on the workers' development while meeting the organizational performance goals (Demo, 2016; Wickramasinghe & Dolamulla, 2017). Similarly, Aktar and Pangil (2018) and Nazarian, Atkinson, Foroudi, and Soares (2021) argue that HRM practices improve the level of employee involvement if they are introduced and properly managed by a leader who seeks to contribute to a greater effective organizational environment, in an increasingly challenging global environment. On that basis, we propose the first research hypothesis:

Hypothesis 1 (H1): Leadership is positively associated with human resources management practices.

Human Resources Management Practices and Organizational Citizenship Behaviors

Lam, Chen, and Takeuchi (2009) pointed out that HRM practices related to training, development, and involvement/relationship had the greatest impact on organizational citizenship behaviors. Furthermore, research suggest that strategic HRM practices are important predictors of organizational citizenship behaviors (Lockhart, Shahani, & Bhanugopan, 2020). Corroborating these findings, evidence indicates that socially responsible HRM exerts an indirect influence on organizational citizenship behaviors, especially in contexts of higher levels of ethics and corporate social responsibility (Zhao, Zhou, He, & Jiang, 2021). Therefore, we propose the second hypothesis of this study:

Hypothesis 2 (H2): Human resources management practices are positively associated with organizational citizenship behaviors.

Leadership and Organizational Citizenship Behaviors

Leadership is an important predictor of organizational citizenship behaviors, regardless the small amount of research dedicated to this analysis (Elche, Ruiz-Palomino, & Linuesa-Langreo, 2020; Freire & Gonçalves, 2021; Voegtlin, Frisch, Walther, & Schwab, 2019). Additionally, scholars have shown that managers with a high level of leadership generate a positive influence in promoting organizational citizenship behaviors since there is a tendency for greater employee engagement when they identify with their leaders (Ali, Ahmad, & Saeed, 2018; Nemr & Liu, 2021). Furthermore, Freire and Gonçalves (2021) confirmed the relationship between leadership and organizational citizenship behaviors, with the variables perception of social responsibility and organizational identification as mediators. From these inferences, we present the third research hypothesis:

Hypothesis 3 (H3): Leadership is positively associated with organizational citizenship behaviors.

Organizational Virtues and Human Resources Management Practices

From the Positive Organizational Behavior perspective, individual behavior and organizational practices can operationalize virtuosity in organizations (Williams, Kern, & Waters, 2015). This is because organizational virtues represent the moral and virtuous aspects of the work context, contributing to HRM practices as drivers of positive behaviors at work (Pires & Nunes, 2018). Given this premise, literature indicates the possibility of positive associations between organizational virtues and HRM practices, envisioning a strategic human resources management based on programs that seek to promote ethics and virtues in organizations (Malik & Naeem, 2016). Thus, the fourth research hypothesis is proposed:

Hyphotesis 4 (H4): Organizational virtues are positively associated with human resources management practices.

Organizational Virtues and Organizational Citizenship Behaviors

Authors such as Sun and Yoon (2020) indicate that an increase in the employees' perception concerning organizational virtues can be a way to encourage organizational citizenship behaviors. In line with this proposal, the research by Rego, Ribeiro, and Cunha (2010) showed that the perception of employees about organizational virtues was a predictor of well-being and organizational citizenship behaviors. An explanation for the relationship between virtues and organizational citizenship behaviors is also pointed out by Pires and Nunes (2018), in which organizational virtues promote positive emotions and willingness to work in favor of the organization, which may represent an affective commitment of the worker demonstrated through organizational citizenship behaviors. Furthermore, positive perceptions of organizational virtues lead to greater employee engagement, translating into organizational citizenship behaviors (Singh, David, & Mikkilineni, 2018). From there, the fifth research hypothesis is based:

Hyphotesis 5 (H5): Organizational virtues are positively associated with organizational citizenship behaviors.

Leadership, Human Resources Management Practices, and Organizational Citizenship Behaviors

The effectiveness of HRM practices in achieving organizational goals increases when practices are integrated and connected to each other (Boon, Den Hartog, & Lepak, 2019), being the role of the leadership to encourage and promote this integration (Ahmed et al., 2018; Yukl, 2012). In turn, several studies signalize a relationship between leadership and organizational citizenship behaviors, considering the effects of several mediating variables in such a relationship (Ali et al., 2018; Nembr & Liu, 2021).

Moreover, HRM practices promote benefits for both workers and the organization, since organizational citizenship behaviors can emerge when the employee feels valued and recognized for such practices (Pires & Nunes, 2018). In addition, there is a literature gap regarding the test of relational models emphasizing mediating relationships, despite the HRM practices affecting and being affected by positive psychology variables, especially the elements of organizational culture (Demo et al., 2020; Lockhart et al., 2020). Thus, the sixth hypothesis to be tested is:

Hyphotesis 6 (H6): Human resources management practices mediate the relationship between leadership and organizational citizenship behaviors.

Organizational Virtues, Human Resources Management Practices, and Organizational Citizenship Behaviors

Assuming that elements of organizational culture, such as virtues, promote HRM practices that, in turn, raise the levels of organizational citizenship behaviors, it is reasonable that virtues lead to positive behaviors, which consequently lead to better organizational results (Lockhart et al., 2020). Furthermore, Snape and Redman (2010) observed that when workers perceive that the organization's support extends beyond the performed work, HRM practices positively affect organizational citizenship behaviors. Therefore, similar studies propose investigations on the relationship between virtues and organizational citizenship behaviors considering mediating variables such as job satisfaction (Kooshki & Zeinabadi, 2016) and organizational support (Malik & Naeem, 2016).

Additionally, a significant number of studies indicate the role of HRM practices as predictors of organizational citizenship behaviors (Lam et al., 2009; Lockhart et al., 2020;

Snape & Redman, 2010; Tinti, Venelli-Costa, Vieira, & Cappelozza, 2017). On the other side, some studies relate the predictive role of organizational virtues on organizational citizenship behaviors, despite the need for further confirmation (Malik & Naeem, 2016; Pires & Nunes, 2018; Sun & Yoon, 2020). On that basis, corroborating the purpose of advancing and contributing to the recognition of the strategic role of HRM by investigating mediation relationships (Boon et al., 2019; Demo et al., 2020), as in the previous hypothesis, the bases are laid for the seventh and last hypothesis:

Hypothesis 7 (H7): Human resources management practices mediate the relationship between organizational virtues and organizational citizenship behaviors.

3. METHOD

This study reports the results of a survey with a quantitative nature and transversal time frame. The population or universe of the study were employees of public and private companies in the state of Minas Gerais, Brazil. The sample was non-probabilistic for convenience (adherence).

According to Kline (2015), to use regression analysis through Structural Equation Modeling – SEM, the average sample must range between 100 and 200 subjects, criteria met by this study. For instance, to test measurement models, Kline (2015) suggests a minimum of 20 subjects per variable. Considering that the HRM practices model is the one with the highest number of variables (32), a minimum sample of 640 participants would be ideal. We collected 362 questionnaires from public companies and 409 from private companies, reaching 771 responses.

For data treatment, we performed a frequency distribution analysis (mean, standard deviation, variance, minimum and maximum), the listwise procedure for missing values, the identification of outliers, and multicollinearity/singularity (Tabachnick & Fidell, 2013). We exclude 16 questionnaires due to missing values. Then, based on the Mahalanobis method, we removed 90 outliers. For the verification of tolerance values and variance inflation factor (VIF), we obtained numbers greater than 0.1 and less than 10.0 respectively. This means no problems of singularity and multicollinearity for the sample. Regarding the assumptions for the use of multivariate analysis, we verified linearity, homoscedasticity, and normality of data distribution, using residual graphs and normal probability graphs in the AMOS software (Hair, Babin, Anderson, & Black, 2018). No problems were detected. The final sample included 659 subjects, meeting the recommended minimum of 640 subjects.

The research instrument was a questionnaire composed by four scientific validated scales: the Scale of Evaluation of the Managerial Style – SEMS (Melo, 2004); the Scale of Organizational Moral Virtues Perception Scale – SOMVP (Gomide Jr et al., 2016); the Human Resource Policy and Practice Scale – HRPPS (Demo, Neiva, Nunes, & Rozzett, 2014); and the Organizational Citizenship Behaviors Scale – OCBS (Williams & Anderson, 1991). We selected these scales because they are widely used in research, as well as for their very reliable psychometric indices, as Table 1 shows.

Table 1
Psychometric indices of the scales

Scale	Factors	Number of Items	Reliability Index (Cronbach's alpha)
SEMS	Task (T)	6	0.72
	Relationship (R)	9	0.94
	Situation (S)	4	0.82
SOMVP	Organizational Goodwill (OG)	17	0.95
	Organizational Trustworthiness (OT)	7	0.92
HRPPS	Recruitment and Selection (RS)	6	0.81
	Involvement (I)	9	0.91
	Training, Development, and Education (TDE)	3	0.82
	Work Conditions (CT)	5	0.81
	Performance Evaluation and Competencies (PEC)	5	0.86
	Remuneration and Rewards (RR)	4	0.84
OCBS	Organizational citizenship behavior towards the individual (CBI)	7	0.88
	Organizational citizenship behavior towards the organization (CBO)	4	0.75

Data collection was carried out through a printed questionnaire administered in person by the researchers. To reach data reliability and to guarantee the anonymity of the respondents, we used two folders: one for the consent form and the other for the completed questionnaire deposit. Note that, according to the Sole Paragraph of Article 1 of the Resolution of the National Health Council (CNS) (2016) No. 510/16 of the CEP/CONEP system of research ethics, consultative public opinion surveys with samples composed by unidentified subjects, as is the case in this research, are exempt from ethical analysis by the Research Ethics Committees (CEP) and by the National Research Ethics Commission (CONEP).

For data analysis, we performed confirmatory factor analysis to assess the adjustment of the measurement models of the variables leadership, organizational virtues, HRM practices, and organizational citizenship behaviors in the general model. Then, to specify and estimate the mediation models, we used path analysis through structural equation modeling, using the maximum likelihood test in the SPSS and AMOS programs. As for the mediation models, the analysis of the relationships between the variables considered as independent variables leadership (L) in model 1 and organizational virtues (VO) in model 2. In both models, human resources management practices (HRMP) was the mediator, and organizational citizenship behaviors (OCB) was the dependent variable.

4. FINDINGS

4.1 General Model and Measurement Models Tests

To analyze the fit of the model, we first analyzed the modification indices (MI). We identified a correlation between errors 11 and 12 of the Performance Evaluation and Competencies (PEC) and Remuneration and Rewards (RR) factors, respectively, adding this correlation in the model to improve the fit, based on the theoretical support from the scientific literature. In this regard, the performance evaluation and the competencies must be carried out systematically, periodically, and impartially, revealing aspects that can enhance both the development and remuneration of employees (Qazi & Jeet, 2017). Additionally, when performance evaluation has the character of subsidizing an effective plan for the development of competencies that affect the remuneration and reward system, instead of being merely punitive, there is a substantial improvement in the workers' commitment, satisfaction, and productivity (Javed, Rashid, Hussain, & Ali, 2019).

According to Kline (2015), the analysis through SEM encompasses a measurement model (how the constructs are represented) and a structural model (how the constructs relate to each

other). This analysis requires at least one incremental index and one absolute index, in addition to the chi-square value and the associated degrees of freedom to determine its acceptability. Hair et al. (2018) explain that a model that presents the normed χ^2 value (CMIN/DF or NC, where CMIN is the χ^2 statistic and DF represents the degrees of freedom of the model), CFI (Comparative Fit Index), RMSEA (Root Mean Square Error of Approximation) and SRMR (Standardized Root Mean Square Residual) has enough information for its evaluation.

For Kline (2015), the satisfactory fit values for a structural model are NC (CMIN/DF) of 2.0 or 3.0 and at most up to 5.0; CFI equal to or greater than 0.90; and RMSEA and SRMR less than 0.06 or even 0.08. Table 2 presents the values for the NC, CFI, RMSEA, and SRMR values for our model, all in accordance with the parameters recommended by the literature.

Table 2
Fit indices of the confirmatory analysis of the constructs

Parameters	Literature Reference	Model
NC (χ^2/df)	< 5.00	3.53
CFI	≥ 0.90	0.97
RMSEA	< 0.10	0.06
SRMR	< 0.10	0.04

Next, to assess the internal validity of a scale or the quality of its items, we observe the factor loadings according to Comrey and Lee's (1992) classification: loads below 0.32 are poor, between 0.32 and 0.54 are reasonable, between 0.55 and 0.62 are good, between 0.63 and 0.70 are very good, and greater than 0.70 are excellent. In the confirmatory factor analysis of the scales used in this study, the factor loadings of the factors (Table 3) presented nine excellent items, two very good items, one good item, and one reasonable item, attesting the quality of the items and, consequently, the internal validity of the scales. Additionally, all variables were significant, considering the p-value <0.01 and the Critical Ratio (R.C) greater than |1.96|.

To analyze factor reliability, we used the Jöreskog's Rho, a more accurate measure than Cronbach's alpha for structural equation modeling, based on factor loadings and not on observed correlations between variables. Literature indicates ρ values above 0.6 as acceptable, above 0.7 as satisfactory, and above 0.8 as very satisfactory (Chin, 1998; Ursachi, Zait, & Ioana, 2015). Leadership obtained Jöreskog's Rho of $\rho=0.86$; organizational virtues $\rho=0.87$; human resources management practices $\rho=0.87$; all considered very satisfactory. Organizational citizenship behaviors, on the other hand, obtained $\rho=0.66$, being considered acceptable.

Table 3
Psychometric indices of measurement models

Dimension	Composite Reliability	Extracted Variance	Factor	Standardized Load	Standard Error	Critical Ratio	Quality of the load	R ²
L	0.86	0.68	T	0.704**	0.043	19.590	Excellent	49.6%
			R	0.930**	0.047	25.059	Excellent	86.4%
			S	0.820**	-	-	Excellent	67.2%
OV	0.87	0.77	OG	0.939**	-	-	Excellent	88.2%
			OT	0.806**	0.035	23.482	Excellent	64.9%
HRMP	0.87	0.53	RS	0.500**	0.041	13.139	Reasonable	23.9%
			I	0.916**	-	-	Excellent	83.8%
			TDE	0.786**	0.036	25.922	Excellent	61.7%
			WC	0.740**	0.041	23.169	Excellent	54.7%
			PEC	0.666**	0.041	19.444	Very good	44.4%
OCB	0.66	0.50	RR	0.700**	0.045	20.928	Very good	49.0%
			CBI	0.804**	-	-	Excellent	64.7%
			CBO	0.584**	0.106	6.721	Good	34.2%

Note. **p-value<0.01

Figure 1 illustrates the test of the general research model, obtained in the confirmatory factor analysis, with the respective parameters.

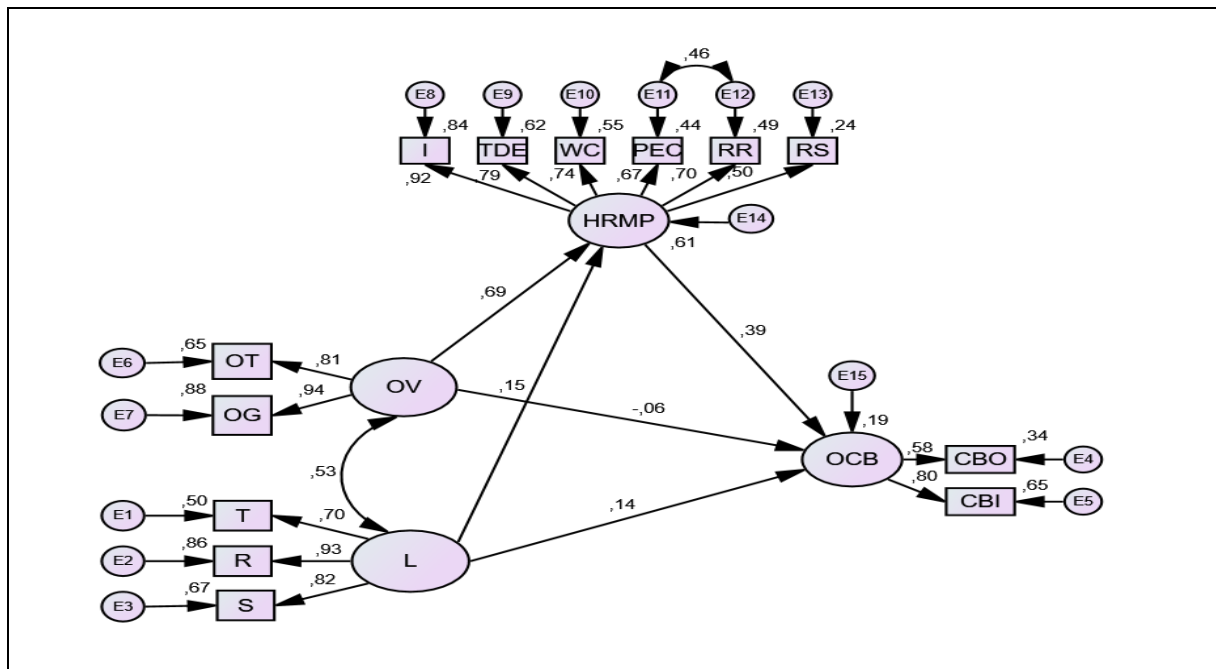


Figure 1. Test of the general research model

Note. $\chi^2(58)=204.76$; $p<0.001$; $NC=3.53$; $CFI=0.97$; $RMSEA=0.06$; $SRMR=0.04$

Next, to attest to the validity of the constructs, we evaluated convergent, divergent, and nomological validity. In this step, we verify whether the dimensions (observable variables) effectively portray the theoretical constructs (latent variables) that intend to measure leadership, HRM practices, virtues, and organizational citizenship (Hair et al., 2018). As for the convergent validity, all factors had a factor loading greater than 0.50, Jöreskog's rhos greater than 0.60, and extracted variances equal to or greater than 0.50 (Table 3). Thus, we confirm the convergent validity of the measurement models (Hair et al., 2018).

We also confirmed discriminant validity. According to the criterion proposed by Fornell-Larcker (1981), as shown in Table 4, the estimated extracted variance of each variable was greater than the squared value of the correlation between them (values below the diagonal), proving that the four scales effectively measure different constructs.

Table 4
Discriminant validity of scales

Factor	L	OV	HRMP	OCB
L	0.68^a			
OV	0.28	0.77^a		
HRMP	0.27	0.58	0.53^a	
OCB	0.10	0.10	0.18	0.50^a

Note. ^a extracted variance

Finally, we tested nomological validity, which checks the behavior of the scales when related to other constructs, in order to observe their conformity with literature (Hair et al., 2018). The theoretical framework built for this study listed the possible theoretical and empirical relationships between the constructs, serving as the basis for the proposition of the hypotheses. The hypotheses tests, presented in the following section, confirm the nomological validity of the measures used since all the correlations between them were positive and significant. In summary, the findings indicated that the scales have reliability, internal and construct validity,

and can be used in scientific research relational studies, as well as in managerial practice as a diagnostic tool for managers.

4.2 Hypothesis and Mediation Models Tests

In this step, we tested the predictions corresponding to hypotheses H1, H2, H3, H4, and H5. First, we verified the significances of the models. Next, we analyzed the regression coefficients (β), which indicate the magnitude and direction of the associations between the independent variables (IVs) and the dependent variable (DV). Finally, we checked the coefficient of determination (R^2), which indicates the percentage of DV variance explained by the IV, being a measure of adjustment of a linear statistical model: the higher the R^2 , the more explanatory the proposed linear model (Tabachnick & Fidell, 2013). Table 5 presents these results.

Table 5
Hypotheses Tests

Hypothesis	Relationships		β	R^2
H ₁	L	→ HRMP	0.447**	20.0%
H ₂	HRMP	→ OCB	0.336**	11.3%
H ₃	L	→ OCB	0.236**	5,6%
H ₄	OV	→ HRMP	0.629**	39.5%
H ₅	OV	→ OCB	0.241**	5.8%

Note. **p-value<0.01

The associations between the variables were all significant and positive. Regarding the regression coefficient R^2 , the prediction of organizational virtues on HRM practices (H4), above 26%, had a great effect (Cohen, 1992). The prediction of leadership in HRM practices (H1) had a medium effect (between 13 and 25%). For the other hypotheses, we verified a small effect (between 2 and 12%).

The next step was to construct the path models to test hypotheses H6 and H7 and verify whether HRM practices mediates the relationships between leadership and organizational citizenship behaviors, and between organizational virtues and organizational citizenship behaviors. In line with Baron and Kenny (1986), we tested four conditions simultaneously through structural equation modeling for each hypothesis. First, if the antecedent variable significantly predicts the mediating variable. Second, if the mediator significantly predicts the criterion variable. Third, if the antecedent variable significantly predicts the criterion variable. Fourth, if the presence of the antecedent and the mediator variables, the relationship previously found to be significant between antecedent and criterion decreases (partial mediation) or disappears (total mediation).

The first mediation model tested (H6), concerning HRM practices mediating the relationship between leadership and organizational citizenship behaviors, can be seen in Figure 2. All mediation assumptions were confirmed through the established hypotheses: H1 ($\beta = 0.447$; $R^2 = 20\%$; p-value<0.01), H2 ($\beta = 0.336$; $R^2 = 11.3\%$; p-value<0.01), and H3 ($\beta = 0.236$; $R^2 = 5.6\%$; p-value<0.01), as shown in Table 5. In the following, we calculated the indirect effect of leadership on organizational citizenship behaviors to test H6. We confirmed a partial mediation. The indirect effect was significant (p-value<0.01) and estimated at 0.128. The R^2 regression coefficient was 12.2%, that is, leadership and HRM practices explain 12.2% of the dependent variable organizational citizenship behaviors. According to Cohen (1992), this prediction reflects a small effect. Table 6 summarizes the results, with all values being significant.

The results demonstrate that the direct relationship between leadership and organizational citizenship behaviors decreases in the presence of the mediator. With this, we

confirm the last condition proposed by Baron and Kenny (1986) and the partial mediation of HRM practices in the relationship between leadership and organizational citizenship behaviors. On that basis, H6 has been confirmed.

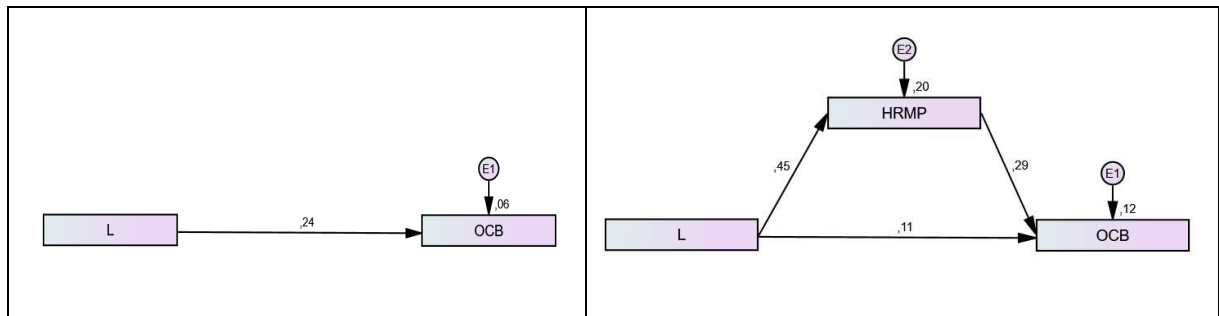


Figure 2. Mediation Model: Hypothesis 6 (H₆)

**Table 6
Mediation Model: Hypothesis 6 (H₆)**

	Standardized Estimation	p-value	Result
Total Effect	0.236	0.003	Significant Impact
Direct Effect	0.108	0.015	Significant Impact
Indirect Effect	0.128	0.003	Significant Impact

The second mediation model (H7) tested, regarding if HRM practices mediate the relationship between organizational virtues and organizational citizenship behaviors, can be seen in Figure 3. All mediation assumptions were confirmed through the established hypotheses: H4 ($\beta=0.629$; $R^2=39.5\%$; $p\text{-value}<0.01$), H2 ($\beta=0.336$; $R^2=11.3\%$; $p\text{-value}<0.01$), and H5 ($\beta=0.241$; $R^2= 5.8\%$; $p\text{-value}<0.01$), as shown in Table 5. Next, we calculated the indirect effect of organizational virtues on organizational citizenship behaviors to test H7. We confirmed a total mediation, as the direct effect of organizational virtues on organizational citizenship behaviors was not significant, attesting that the relationship between virtues and organizational citizenship behaviors only occurs through HRM practices.

Furthermore, the indirect effect was significant ($p\text{-value}<0.01$) and estimated at 0.191. The R^2 regression coefficient was 11.4%, that is, organizational virtues and HRM practices explain 11.4% of the dependent variable, organizational citizenship behaviors, with a small effect (Cohen, 1992). Table 7 summarizes the results, with all values being significant. It is also worth mentioning that, according to Baron and Kenny (1986), the results highlight that the direct relationship between organizational virtues and organizational citizenship behaviors disappeared in the presence of the mediator, confirming total mediation and thus confirming H7.

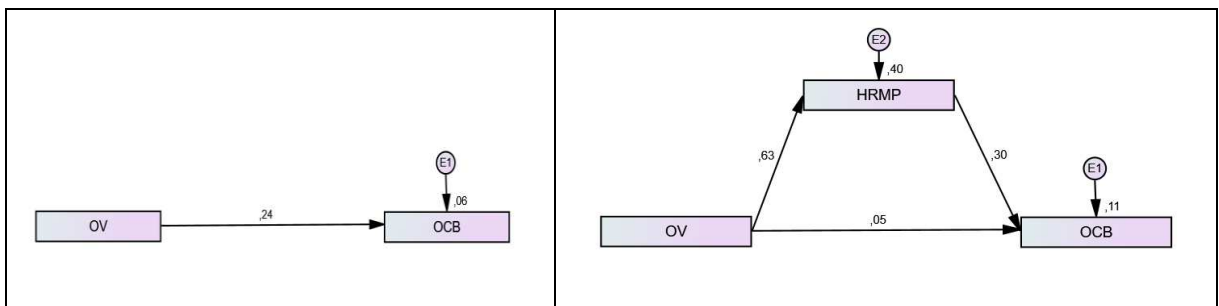


Figure 3. Mediation Model: Hypothesis 7 (H₇)

Table 7
Mediation Model: Hypothesis 7 (H₇)

	Standardized Estimation	p-value	Result
Total Effect	0.241	0.003	Significant Impact
Direct Effect	0.050	0.350	Non significant Impact
Indirect Effect	0.191	0.003	Significant Impact

5. DISCUSSION, IMPLICATIONS, LIMITATIONS AND AGENDA

The analyses of the findings confirmed the seven hypotheses of this study. Moreover, all relationships assumed in the mediation models tested were significant at the 0.01 level. Leadership indeed has a positive association with HRM practices, accounting for 20% of its explanation, corroborating the fundamental role of leadership in the perception of HRM practices (Aktar & Pangil, 2018; Nazarian et al., 2021; Wickramasinghe & Dolamulla, 2017). HRM practices were also positively related to organizational citizenship behaviors, influencing around 11% of their explanation. That is, the more HRM practices are perceived, the more organizational citizenship behaviors tend to be expressed (Lockhart et al., 2020; Zhao et al., 2021).

Regardless of the small explanatory power (5.6%), leadership is also positively associated with organizational citizenship behaviors, revealing that strong and inspiring leadership stimulates extra-role behaviors, such as organizational citizenship (Elche et al., 2020; Freire & Gonçalves, 2021; Voegtlin et al., 2019). The greatest predictive effect found was in the relationship between organizational virtues and HRM practices (39.5%), possibly because both are elements of organizational culture. The more virtues employees perceive, the more they will perceive HRM practices (Malik & Naeem, 2016; Williams et al., 2015). Thus, managers must work on virtues and practices in an associated way. Similarly, virtues also encourage citizenship behaviors (Singh et al., 2018; Sun & Yoon, 2020), although in a more indirect or timid way, since it only contributes with approximately 6% of its explanation.

The tests of the mediation models are introduced as the main contribution of this paper, as they are unpublished. By confirming hypotheses 6 and 7, the important role of HRM practices in the relationship between leadership and organizational citizenship behaviors, as well as in the relationship between virtues and citizenship, was confirmed. In the relationship between leadership and citizenship, HRM practices were partial mediators. We understand that to foster organizational citizenship behaviors leaders must resort to integrated and structured HRM practices, as organizational citizenship behaviors emerge as the employees feel valued and recognized for such practices (Pires & Nunes, 2018). HRM practices acted as total mediators of the relationship between virtues and organizational citizenship behaviors. This means that citizenship behaviors will only be influenced by organizational virtues through effective HRM practices.

These findings support effective evidence-based management. Leaders must strive for good relationships through virtues and practices that encourage organizational citizenship behaviors, inspiring an increasingly humanized and strategic human resources management.

As theoretical contributions, our research advances to the areas of human resources management and organizational behavior by bringing an investigation of relationships still unexplored in the scientific literature, testing research hypotheses in more complex models, such as the mediation proposed here. We also emphasize the contribution to organizational studies dedicated to antecedents and consequences of the variables in question. Furthermore, we foresee a methodological contribution regarding the use of diversified advanced statistical techniques, which brought evidence of validity and reliability to the proposed measurement and mediation models.

As managerial implications, the study provides a diagnosis to managers of the organizations surveyed about how leadership, virtues, HRM practices, and citizenship relate to

the work context. These findings support the search for continuous improvements in the management of these variables. This diagnosis contributes to implementing an increasingly strategic human resources management area, in which virtues and citizenship behaviors are encouraged. In a complementary way, strong leadership tends to associate organizational virtues and HRM practices to inspire organizational citizenship behaviors to strengthen both the core of the organizational culture and the relationships of trust between members in the quest for greater personal and professional achievement, joining efforts to achieve superior results.

We also envisage a social contribution for this study since the promotion of more positive work environments can result, in the context of public organizations, in public employees more committed to effectively serving well, with diligence, speed, and transparency. This also applies to the private context, in which the service to the final customer in the relationship chain depends primarily on well-trained employees who are motivated to deliver superior quality products and services. In other words, investments in healthier work environments unveils a more humanized management, centered not only on results at the organizational level but also on individual and team levels. From this, we foresee fairer and more harmonious relationships within organizations, which will be reflected in more excellent service to customers, citizens, and society.

Regarding limitations, we highlight the quantitative nature of the study, precluding a deeper understanding of the phenomena beyond its measurement. Based on this, as the first agenda for further studies, we encourage research with multimethod design and triangulation strategies, bringing light to different nuances and perspectives to approach the studied constructs and their relationships. Additionally, the cross-section and the convenience sample are limiting, as the engendered results are restricted to the researched sample, preventing any possibility of generalization and causal inferences. Thus, longitudinal and time-series studies are welcome to shedding light on how the relationships between variables occur over time. Furthermore, the cross-sectional nature, as well as self-report as a single source of data, can lead to common-method variance problems. However, although not portrayed in this article, the unifactorial structures of the measurement models did not present good fit indices, so we conclude that the common-method variance alone does not explain the results.

Another suggestion for future research lies in multilevel investigations that address perceptions not only of employees but also of managers and peers, which would provide a less biased view of the studied variables. Finally, we encourage further studies to improve the models tested so far, adding other variables of organizational behavior, such as well-being, commitment, identity, resilience, and justice in the workplace, seeking to investigate different relationships of prediction, mediation, and moderation.

6. CONCLUSION

Our study achieved the proposed general objective since the seven research hypotheses were confirmed. Our work represents an initial effort to investigate the still unexplored relationships between leadership, organizational virtues, human resources management practices, and organizational citizenship behaviors. We also proposed structural models of mediation between the variables, with the opportunity to inspire new studies that make progress in testing associations between different variables of positive psychology.

In organizational contexts in which we experience challenges and uncertainties, virtues need to be encouraged, and people need to be well cared through practices to achieve their professional goals, collaborate to achieve organizational goals, and feel motivated to express citizenship behaviors. Given the importance of individual psychological well-being, especially in times of crisis and change, promoting healthy workplaces should be a priority for organizations.

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