Repositório ISCTE-IUL

Deposited in Repositório ISCTE-IUL:
2021-10-20

Deposited version:
Accepted Version

Peer-review status of attached file:
Peer-reviewed

Citation for published item:

Further information on publisher's website:
10.1108/SAMPJ-11-2019-0423

Publisher's copyright statement:
This is the peer reviewed version of the following article: Ribeiro, N., Duarte, A. P., Filipe, R. & David, R. (2021). Does authentic leadership stimulate organizational citizenship behaviors?: the importance of affective commitment as a mediator. Sustainability Accounting, Management and Policy Journal. N/A, which has been published in final form at https://dx.doi.org/10.1108/SAMPJ-11-2019-0423. This article may be used for non-commercial purposes in accordance with the Publisher's Terms and Conditions for self-archiving.

Use policy

Creative Commons CC BY 4.0
The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a link is made to the metadata record in the Repository
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.
Abstract

Purpose: This study sought to examine the impact of authentic leadership on employees’ organizational citizenship behaviors by investigating the mediating effect of affective commitment.

Design/methodology/approach: Data were collected on 194 leader-follower dyads in diverse organizations, using individual surveys. Followers reported their perceptions of authentic leadership and their affective commitment, and leaders assessed each follower’s level of organizational citizenship behavior.

Findings: The results support the research hypotheses proposed, confirming that employees’ perceptions of authentic leadership are positively related to both their affective commitment and organizational citizenship behavior. Moreover, affective commitment completely mediates the relationship between authentic leadership and organizational citizenship behavior, indicating that authentic leaders increase employees’ affective bonds to their organization and, therefore, strengthen workers’ tendency to engage in organizational citizenship behaviors.

Research limitations/implications: Additional studies with larger samples are needed to clarify more fully not only authentic leadership’s influence on organizational citizenship behaviors but also other psychosocial variables affecting this relationship.

Practical implications: The findings suggest that organizations can foster employees’ affective
commitment and organizational citizenship behaviors by encouraging managers to adopt a more authentic leadership style. Authentic leaders are likely to focus the collective as they care about their teams, the wider organization, and even society’s welfare and sustainability.

**Originality/value:** This study integrated authentic leadership, affective commitment, and organizational citizenship behaviors into a single research model, thereby extending previous investigations. In addition, the data were collected from two sources (i.e., both leaders and followers in dyads) to minimize the risk of common-method variance.

**Keywords:** authentic leadership, organizational citizenship behavior, affective commitment, leader-follower dyad

**Article classification:** Research paper

1. Introduction

The leadership paradigms that are currently dominant have contributed to organizations’ ongoing sustainability crisis (Bendell *et al*., 2017; Evans, 2011). According to Bendell *et al.* (2017), many case studies in the literature on leadership assume that organizations’ main purpose is to achieve financial goals rather than objectives related to equity, democracy, and environmental sustainability. Hiller *et al.* (2011) observe that an instrumentalist approach exists within research on leadership that focuses on improving organizational performance and neglects to consider organizations’ purpose, performance issues, or impacts on stakeholders.

Leadership seems to be a key player to address this crisis, due to its ability to influence how the sustainability of an organization can connect itself to the other systems in which the organization moves and interacts (Metcalf and Benn, 2013). It seems also plausible to conclude that to satisfy the different kinds of uncertainties arising from the systems in which the organization develops its activities, the way how leadership is played may require atypical leaders’ profiles. For these reasons, when it comes to leadership meeting the goals of
sustainability, old approaches to leadership may not seem to be adequate to meet the requirements (Bendell et al., 2017). Given the existing challenges of constantly changing rules of business and growing concerns about sustainability and business ethics (Bendell et al., 2017), employees increasingly look to their leaders for authentic direction and guidance—making authentic leadership even more critical (Jensen and Luthans, 2006). Organizations thus need to be transformed through an exploration of authentic leadership values and their focus on self-development so that these entities can reduce their harmful impacts on the environment and society and increase their positive contributions.

The authentic leadership style encourages greater openness among employees, allowing them to work on deeper personal transformations that facilitate the definition of varied goals to be achieved through acts of leadership (Bendell et al., 2017). Authentic leadership is based on leaders’ moral character and concern for others, as well as congruency between ethical values and actions (Shahid, 2010). This approach to leadership can be understood as a foundational construct that promotes conditions for higher levels of trust and helps followers to build on their strengths, become more positive, broaden their thinking, and incorporate values and a sense of what is right into their decisions. This constructive workplace environment and employee characteristics then increase their organization’s performance over time (Avolio et al., 2004).

Recent research has shown that authentic leadership is an important factor contributing to positive work attitudes and behaviors among followers (Duarte et al., 2021; Ribeiro et al., 2020; Semedo et al., 2018), which lead to higher levels of job performance (Leroy et al., 2012; Ribeiro et al., 2018; Wang et al., 2014) and enhanced organizational success (Shahid, 2010). Authentic leaders encourage organizational citizenship behaviors, which can maximize the efficiency and productivity of both employees and their organizations, ultimately contributing to the latter’s effective functioning (Organ, 1988). These behaviors refer to individuals’ autonomous behaviors that go beyond prescribed formal roles and that are not directly or
explicitly recognized by formal reward systems but are known to be factors contributing to organizations’ performance (Organ, 1988).

A substantial amount of work in organizations is done through interactions among employees as they voluntarily help each other fulfill their workplace roles. Organizational citizenship behaviors thus embody a higher quality of ties between employees and between followers and leaders within organizations. Given organizational citizenship behaviors’ significant contribution to organizational success, organizations need to understand better how and why employees adopt organizational citizenship behaviors (Wat and Shaffer, 2005).

Employees working with authentic leaders who seek to create positive bonds with them also tend to develop affective commitment, that is, an emotional attachment to their organization (Meyer and Allen, 1991). Workers who have a strong affective commitment are more likely to offer extra help to their coworkers or expend additional effort to contribute to the common good (Lilius et al., 2008). Authentic leadership thus appears to promote affective commitment and organizational citizenship behaviors that contribute to and sustain a more expansive social and psychological atmosphere within organizations (Bolino et al., 2013). These behaviors can promote both individual and organizational wellbeing (Pooja et al., 2016; Sommer and Kulkarni, 2012).

In addition, various scholars in the field of organizational behavior have focused on how employees’ organizational citizenship behaviors foster greater sustainability (Lee and Ha-Brookshire, 2018). According to Chowdhury (2013), the organizational outcomes linked to these behaviors makes them an appropriate latent behavioral construct for further research related to organizational sustainability. The present study’s results contribute to the literature on leadership and organizational citizenship behaviors in different ways. First, the findings highlight authentic leadership’s significant role in motivating employees to engage in organizational citizenship behaviors, making this leadership style a key predictor of these
behaviors. The results expand the literature on the antecedents of employees’ organizational citizenship behaviors and the mechanisms that strengthen these behaviors.

Second, despite affective commitment’s important role in linking authentic leadership to followers’ attitudes and behaviors (Avolio et al., 2004), affective commitment has rarely been studied as a mediator of the link between authentic leadership and organizational outcomes (Gardner et al., 2011). The current research thus sought to examine the direct relationship between employees’ perceptions of authentic leadership and their organizational citizenship behaviors, as well as affective commitment’s mediating role. The results provide significant added value in terms of the existing knowledge and help fill gaps in the literature.

This study’s findings also contribute to the discussion of the implications of affective commitment’s mediating effect on the relationship between authentic leadership and organizational citizenship behaviors. A careful review of the relevant literature failed to reveal any research that has focused on the relationships between these three variables. Notably, the recent literature on authentic leadership has increasingly called for studies considering diverse types of intermediary variables to explain the relationships between authentic leadership and various outcomes (Arda et al., 2016; Ribeiro et al., 2020).

Last, the current study’s approach expands on previous research by integrating affective commitment and organizational citizenship behaviors into leadership theories and, more specifically, authentic leadership. The results also provide information relevant to practitioners by clarifying which factors amplify this leadership style’s effects, which is important to designing appropriate intervention tools in leadership training programs. To fill the aforementioned research gaps, this research combined the selected constructs into a single conceptual model. A more rigorously empirical methodology was applied, including collecting data on predictor and criterion variables from two sources (i.e., leaders and followers in dyads), which minimized the risk of common method variance.
Most organizations have recently experienced turbulence because of the challenges they face in a world characterized by volatility, uncertainty, complexity, and ambiguity (Bennis and Nanus, 1985)—all of which has been accentuated by the coronavirus disease-19 pandemic crisis. Organizations now need more than ever employees who are good citizens and who help to allocate scarce resources more efficiently by simplifying maintenance functions and freeing up resources required for greater productivity (Borman and Motowidlo, 1993). In other words, research should contribute to a better understanding of a central task many contemporary organizations and their managers must achieve: to identify forms of using and developing human capital in ways that benefit both organizations and their employees (Rego et al., 2010). Therefore, the present study focused on how authentic leaders, as role models, can have a positive impact on followers’ attitudes (i.e., affective commitment), which in turn translates into more effective workplace behaviors (i.e., organizational citizenship behaviors).

2. Research Background and Hypotheses Development

2.1 Authentic Leadership

Authentic leadership has been defined as “a process that draws from both positive psychological capacities and a highly developed organizational context, which results in both greater self-awareness and self-regulated positive behaviors on the part of leaders and associates, [thereby] fostering positive self-development” (Luthans and Avolio, 2003, p. 243). Walumbwa et al. (2008) further identified four underlying dimensions of authentic leadership: (1) self-awareness, (2) relational transparency, (3) balanced information processing, and (4) an internalized moral perspective.

Self-awareness is related to leaders’ knowledge of their own strengths and weaknesses and understanding of their behavior’s impact on followers. Relational transparency involves personal disclosure, including openly sharing information, and expressing sincere feelings,
emotions, and thoughts to followers. Balanced processing of information refers to the ability to analyze and consider all relevant information objectively before decision making. An internalized moral perspective refers to the quality of being guided by deeply-rooted moral values and standards—even under pressure. Researchers have shown that these four components of authentic leadership together form a higher-order construct (e.g., Gardner et al., 2005; Kernis and Goldman, 2005; Leroy et al., 2012; Qiu et al., 2019; Rego et al., 2012; Rego et al., 2013; Semedo et al., 2016, 2017, 2019; Walumbwa et al., 2008; Wang et al., 2014).

Authentic leadership has been quite popular ever since this concept was first borrowed from positive psychology by researchers in multiple fields. However, various authors have objected to what they consider to be excessive positivity about leadership studies’ results (Alvesson and Einola, 2019; Banks et al., 2016). Alvesson and Einola (2019), in particular, disagree with authentic leadership enthusiasts who report that “an extraordinary amount of progress” has been made in this field (Avolio and Walumbwa, 2014, p. 352). Alvesson and Einola (2019) argue instead that authentic leadership research has not yet entered a maturity phase.

Regardless of this criticism, many studies of authentic leadership have been published in Leadership Quarterly, the field of leadership’s leading journal. A highly influential special issue dedicated to “authentic leadership development” (i.e., Volume 16, Number 3) was published in 2005. Since then, the strong stream of research on this topic has ensured authentic leadership’s emergence as a prominent, “hot” academic field of study (Avolio and Gardner, 2005; Ford and Harding, 2011). Studies on this topic are part of an overall trend toward a focus on more positive forms of leadership (Avolio and Gardner, 2005), which help leaders understand and improve how they influence their followers.

Authentic leadership goes beyond leaders’ personal authenticity to include authentic relationships with workers under their supervision. That is, leaders’ authenticity can be
transferred to followers, stimulating them to work toward common goals. According to Kapasi et al. (2016, p. 340), authenticity is to “act in accordance with one’s true self.” However, Gardiner (2013) argues that individuals ultimately define themselves through interactions with others, which raises the question of whether a “true self” can exist.

Authenticity is, therefore, a nebulous concept despite popular sayings such as “know yourself” and “act according to your true self” (Alvesson and Einola, 2019, p. 384). Lehman et al. (2019) observe that many lexical variations exist of what is meant by “authentic” in organizational research, contributing to the widespread confusion. Nonetheless, authenticity usually refers to that which is “real,” “genuine,” or “true.” Researchers generally agree that people can show different degrees of authenticity and that no one is completely authentic or inauthentic (Gardner et al., 2011). Authentic leadership theory suggests that individuals whose internal and external selves are congruent more fully express authenticity.

Recently, efforts have been made to map the study of authenticity within the field of organizational studies. The results highlight multiple subfields and subtopics (Lehman et al., 2019) and demonstrate that authenticity research is useful especially when associated with leadership. Lehman et al. (2019) report that, overall, authentic leadership dimensions are aligned with and borrow heavily from Kernis and Goldman’s (2003) proposed conceptualization of authenticity.

The expanding theoretical interest in authentic leadership has been further stimulated by the latest ethical and financial scandals with global implications. These failures in leadership have intensified managers’ need to consider new positive leadership styles such as authentic leadership. The quest for authenticity has become especially intense with regard to more extreme situations. Being an authentic leader in this context means constantly striving to be true to oneself (Sveningsson and Alvesson, 2016), which tends to result in greater efforts to personalize management practices.
The more recent literature regards authentic leadership as an important factor in many positive employee outcomes. Effects are felt on psychological capital (Rego et al., 2012), quality leader-member exchanges (Wang et al., 2014), work engagement (Gardner et al., 2011; Giallonardo et al., 2010), job satisfaction (Hoch et al., 2018), perceived justice (Kiersch and Byrne, 2015), and voice behavior (Wong and Cummings, 2009). Other outcomes mentioned are improved creativity (Banks et al., 2016; Semedo et al., 2016, 2017), customer orientation (Ribeiro et al., 2020), individual performance (Ribeiro et al., 2018; Walumbwa et al., 2008), organizational commitment (Peus et al., 2012; Semedo et al., 2019), and organizational citizenship behaviors (Joo and Jo, 2017; Qiu et al., 2019; Valsania et al., 2012; Zaabi et al., 2016).

2.2 Authentic Leadership and Organizational Citizenship Behaviors

According to Organ (1988), organizational citizenship behaviors are considered vital to the survival of any organization. The cited author suggests five components that contribute directly to organizational citizenship behaviors: altruism, sportsmanship, conscientiousness, courtesy, and civic virtue. Altruism refers to assisting others with organizationally relevant tasks or problems. Sportsmanship comprises tolerating the inevitable inconveniences and annoyances of organizational life without complaining and filing grievances. Conscientiousness involves employee behaviors that go beyond the minimum required levels of punctuality, attendance, and efficient time and resource utilization. Courtesy refers to behavior that seeks to prevent work-related problems with others. Finally, civic virtue comprises behaviors related to participation in and contributions to organizations’ everyday life-related issues.

Employees’ perceptions of their work environment influence their behavior at work (Organ, 1988). Leadership, in turn, is a fundamental factor that shapes work environments and
organizational cultures (Bohn, 2002), as employees are likely to replicate in their behavior what their leaders emphasize. For instance, Moorman et al. (1998) point out that leaders’ respectful behavior causes employees to feel valuable and important in their organization, making them willing to exhibit organizational citizenship behaviors. Thus, authentic leadership is likely to create a positive environment that promotes employees’ pro-active attitude and willingness to engage in organizational citizenship behaviors. Recent studies have confirmed that perceived authentic leadership has a significant impact on employees’ organizational citizenship behaviors (Joo and Jo, 2017; Qiu et al., 2019; Shapira-Lishchinsky and Tsemach, 2014; Valsania et al., 2012; Walumbwa et al., 2008; Zaabi et al., 2016).

According to belongingness theory (Baumeister and Leary, 1995), authentic leadership tends to stimulate employees to adopt more organizational citizenship behaviors. The theory proposed that people are motivated to form and maintain social bonds; the feeling of being connected with others increases cooperation behaviors. Because authentic leaders tend to provide the necessary resources to their workers and encourage them to feel accepted and included in the organization, they foster followers’ emotional attachment and connection to their organization. Consequently, workers who feel a sense of belonging to their organizations engage in more organizational citizenship behaviors, thereby behaving in ways that benefit their organization and coworkers.

In addition, most employees are constantly involved in exchange relationships with their organizations (Montani et al., 2017). Social exchange theory (Blau, 1964) can be used to explain why individuals who perceive their leaders as providing support, trust, and other tangible and intangible benefits develop a feeling of obligation to “repay” these by exhibiting desirable and appropriate work attitudes and behaviors (e.g., organizational citizenship behaviors). These employees observe that their leaders are guided by moral values and standards and are self-aware of their attitudes, as well as openly sharing information and
considering all relevant information before coming to a decision (i.e., authentic leadership). Followers thus may develop a sense of obligation to their leaders and reciprocate with organizational citizenship behaviors. In view of these previous findings, the following hypothesis was proposed for the present study:

**H1:** Employees’ perceptions of authentic leadership are positively related to their organizational citizenship behaviors.

### 2.3 Authentic Leadership and Affective Commitment

Organizational commitment can be differentiated by three components: affective, continuance, and normative commitment (i.e., employees want to, ought to, or need to remain with their organization) (Meyer *et al*., 2002). The literature reports that affective commitment has more desirable outcomes for organizations than normative or continuance commitment does (Meyer *et al*., 2002). Jensen and Luthans’s (2006) research, more specifically, showed that commitment’s affective component is more strongly related to authentic leadership than to the other two components. Mercurio (2015) thus developed a conceptual framework in which affective commitment is at the core of organizational commitment. Allen and Meyer (2000), in turn, defined affective commitment as employees’ positive emotional attachment characterized by an identification and involvement with their organization.

Several researchers have sought to determine the antecedents of affective commitment (e.g., Allen and Meyer, 1996; Meyer *et al*., 2002; Rego *et al*., 2013). According to Braun *et al.* (2013), employees’ identification with and attachment to their leaders increase these followers’ affective commitment. Mayfield and Mayfield (2002) suggest that leaders’ caring behaviors toward employees encourage them to be emotionally attached to their organization, so they are willing to stay with this organization under varied conditions. Gardner *et al.* (2005) argue that, when leaders’ authenticity is perceived by employees, this improves the emotional bonds that
tie the latter to their organization. Thus, authentic leadership has been identified as an important antecedent of affective commitment (Avolio et al., 2004; Delić et al., 2017; Duarte et al., 2021; Gatling et al., 2016; Leroy et al., 2012; Peus et al., 2012; Rego et al., 2013; Semedo et al., 2016, 2019).

Authentic leaders, as role models, can have a positive effect on their followers’ attitudes, which can translate into positive emotional attachment. These leaders’ behaviors are transparent and full of integrity as they share information and avoid biased decisions. This puts authentic leaders in a better position to build high-quality relationships and facilitates positive social exchanges that promote stronger affective commitment among employees (Avolio and Gardner, 2005; Ilies et al., 2005; Qiu et al., 2019). Hence, authentic leaders develop higher quality exchanges with followers, and the latter reciprocate with stronger affective commitment (Paillé, 2010).

According to belongingness theory (Baumeister and Leary, 1995), authentic leadership can also foster a sense of belongingness among employees and closer identification with their leaders because these leaders promote a more positive work environment that affect followers’ emotional attachment and connection to their organization. Individuals feel the need to belong to social groups and further seek to form and maintain positive interpersonal relationships, which can result in more affective commitment to their organization. The above theoretical and empirical research’s findings contributed to the second hypothesis in the present study:

**H2**: Employees’ perceptions of authentic leadership are positively related to their affective commitment.

2.4 Affective Commitment and Organizational Citizenship Behavior

Employees are expected to engage in organizational citizenship behavior when these individuals are more emotionally attached to their organizations. Many researchers have
confirmed that affective commitment has a positive impact on organizational citizenship behavior (e.g., Johnson and Chang, 2006; Meyer et al., 1993; Meyer and Herscovitch, 2001; Meyer et al., 2002; Organ and Ryan, 1995; Paillé, 2010).

In addition, Lewicki and Bunker (1996) argue that identification stimulates more cooperative behavior. When employees identify with their organizations, these individuals are more willing to engage in altruistic, spontaneous, and cooperative behaviors (Mowday et al., 1979). O'Reilly and Chatman (1986) further explain the relationship between affective commitment and organizational citizenship behavior as a psychological bond based on identification. According to Moorman and Byrne (2005), individuals who are affectively committed to their organization will be more willing to achieve organizational goals and more likely to adopt organizational citizenship behaviors.

More specifically, employees who are affectively committed are more inclined to help others (i.e., altruism) and be courteous to them (i.e., courtesy). These workers are more prone to tolerating organizational life’s inconveniences and annoyances without complaining and filing grievances (i.e., sportsmanship), as well as getting involved in organizational activities to assist and improve their organization (i.e., civic virtue). Overall, greater affective commitment makes employees more disposed to going beyond the minimum requirements when carrying out their tasks (i.e., conscientiousness) (Moorman and Byrne, 2005).

Affective commitment involves an emotional bond to the organization in question, so individuals who exhibit affective commitment are probably more motivated to make greater contributions to their organization. That is, they tend to become better organizational citizens. Jo and Joo (2011) found that affective commitment, which they call “organizational commitment” but use six items from the affective commitment scale developed by Meyer et al. (1993), is significantly related to organizational citizenship behaviors. Given these previous results, the following hypothesis was proposed for the present study:
**H3:** Employees’ affective commitment is positively related to their organizational citizenship behaviors.

### 2.5 Affective Commitment as a Mediator of the Relationship Between Authentic Leadership and Organizational Citizenship Behaviors

Authentic leaders value self-awareness, encourage transparency in their relationships with others, display an internal moral perspective, and demonstrate balanced information processing. These leaders thus influence employees’ emotional attachment to their organization (Avolio et al., 2004). In other words, employees become more affectively committed to their workplace when they perceive their leaders’ authenticity as deep-seated (Darvish and Rezaei, 2011; Leroy et al., 2012), and, in turn, these followers adopt more extra-role behaviors such as organizational citizenship behaviors (Meyer et al., 2002; Moorman and Byrne, 2005).

Leaders’ authenticity can enhance their ability to improve the quality of workplace conditions and social climates, and these leaders are more successful in establishing closer relationships with their followers. In addition, the quality of exchanges between followers and leaders is predictive of attitudinal responses such as affective commitment (Gertsner and Day, 1997). Affective commitment implies an emotional attachment to the organizations in question, through which employees enjoy being a member of their work community and identifying with organizational goals and values (Meyer and Allen, 1991). Hence, affective commitment produces a sense of belonging to their organization among employees so that they go beyond their formal roles and adopt more organizational citizenship behaviors. In summary, authentic leadership influences employees’ organizational citizenship behaviors by enhancing their level of affective commitment. The following hypothesis was thus proposed for the present research:

**H4:** Employees’ affective commitment mediates the relationship between authentic leadership and organizational citizenship behaviors.
3. Methods

3.1 Sample and Procedures

To test the research hypotheses, a cross-sectional survey design was adopted to collect quantitative data from a convenience sample of employees from diverse organizations. Collecting data on criterion, predictor, and/or mediating variables from different sources can significantly reduce common method variance (Podsakoff et al., 2003), so the questionnaire was administered to leader-follower dyads. Various organizations were contacted and invited to participate in the present study by granting access to leaders potentially willing to fill out the survey. Forty-nine organizations accepted the invitation.

Their leaders were then approached by the research team, who explained the study’s aims and the criteria for participation. After agreeing to participate, the leaders were asked to identify followers who might be interested in taking part in the survey (i.e., 1 to 6 employees per supervisor). The researchers contacted these followers and asked them to fill out the questionnaire. The voluntarily nature of participation was highlighted upon making initial contact with the respondents.

To match leaders and followers’ questionnaires while still ensuring anonymity, a standard procedure was followed. Leaders were identified using numbers (e.g., L1 or L2) and their followers were tagged with letters (e.g., L1-A and L1-B, or L2-A and L2-B). This coding scheme was shared with the participants so that they could more freely and accurately rate each other. The respondents’ name or other personal information was not registered.

Followers were asked to assess their individual affective commitment and their direct supervisors’ authentic leadership style. Direct supervisors, in turn, assessed their followers’ organizational citizenship behaviors. To reduce the risk of common method bias further, different formats and/or ranges were used for authentic leadership, affective commitment, and
organizational citizenship behaviors measures (Podsakoff et al., 2003).

Information on research goals, confidentiality of the data collected, and anonymity of respondents was provided to participants in a letter accompanying the questionnaires. The survey also included instructions explicitly stating that the questions had no right or wrong answers and that the respondents were asked to answer the questions as honestly as possible. Other instructions were provided regarding how to complete the questionnaire in order to reduce possible errors. To avoid any embarrassment, leaders and followers were asked to complete questionnaires in separate locations and, upon completion, to place the questionnaires in the envelopes provided and seal them to ensure their anonymity. Protecting participant anonymity and diminishing evaluation apprehension contribute to reducing lenient, acquiescent, and socially desirable answers (Podsakoff et al., 2003).

Off the 247 participants who filled out questionnaires, 194 followers and 96 leaders returned completed questionnaires. The average number of followers assessed by their direct supervisor was 2.81. The data were processed as 194 leader-follower dyads. This study’s measurements and analyses thus focused on the individual level rather than the team level.

The followers were between 20 and 57 years old (mean = 31.98; standard deviation [SD] = 8.38), and 53.6% were females. The surveyed followers’ level of education was as follows: 8.6% with 6 years of schooling or less, 62.9% with between 7 and 12 years, and 28.9% with a higher education degree. Regarding job tenure, followers had been employed in their organizations for an average of 6.46 years (SD = 6.44 years; minimum = 0.25 year; maximum = 36 years). The average contact time of followers with their leaders was 4.48 years (SD = 4.54 years; minimum = 0.25 year; maximum = 31 years).

The respondents worked in different business sectors, including education and training, pharmaceuticals, public libraries, office supplies, and food and retail companies. Most of the organizations were private for-profit firms (89.8%) and small to medium sized (83.7%). Table
1 provides more details on the sample’s socio-professional characteristics.

Insert Table 1

3.2 Measures

All constructs were measured with scales adapted from the existing literature. In addition, information was collected on respondents’ demographics.

3.2.1 Authentic leadership as a predictive variable

Authentic leadership was measured using the 16-item scale from the Authentic Leadership Questionnaire developed by Walumbwa et al. (2008) and recently revisited by Avolio et al. (2018), which measures the four dimensions of authentic leadership. This questionnaire had previously been translated and back-translated into Portuguese by Rego et al. (2012). Example items are “your leader … seeks feedback to improve interactions with others” (i.e., self-awareness), “… is willing to admit mistakes when they are made” (i.e., relational transparency), “… makes decisions based on his/her core beliefs” (i.e., internalized moral perspective), and “… listens carefully to different points of view before coming to conclusions” (i.e., balanced information processing). Followers reported the frequency with which their leaders showed each behavior on a 5-point Likert response scale (i.e., ranging from 1 = “Never” to 5 = “Often, if not always”).

Confirmatory factor analysis (CFA) was conducted to test this scale’s second-order factor structure using the bootstrapping technique and SPSS Amos 26.0 software. The preliminary results indicated that the model did not fit the data well (chi-squared \( \chi^2 = 288.426 \) [100]; calculated probability \( p < 0.000 \); \( \chi^2 \)/degrees of freedom \( df = 2.884 \); confirmatory fit index \( CFI = 0.900 \); Tucker-Lewis index \( TLI = 0.880 \); root mean square error of approximation \( RMSEA = 0.099 \)). Since the RMSEA was higher than the 0.08 cutoff value
and the TLI value was lower than the 0.90 cutoff value (Hu and Bentler, 1999; Kline, 2005; Marsh et al., 2004), the standardized residuals and modification indices were analyzed to locate sources of misspecification bias. Five correlations between pairs of errors were estimated (i.e., RT1 and IMP1, RT1 and BIP3, RT3 and IMP3, RT4 and SE4, and RT5 and AC4). These results confirmed that the 16-item second-order factor model presents an adequate goodness of fit to the data ($\chi^2 = 219.276$ [95]; $p < 0.000$; $\chi^2/df = 2.308$; CFI = 0.934; TLI = 0.917; RMSEA = 0.082).

To obtain a composite authentic leadership score, the procedure suggested by Luthans et al. (2008) was followed. The average for each dimension was calculated, thereby facilitating the obtention of a composite authentic leadership score (alpha [$\alpha$] = 0.94). Higher scores represent perceptions of stronger authentic leadership style.

### 3.2.2 Affective commitment as a mediator variable

Followers’ affective commitment levels were measured using four items adapted from Meyer et al.’s (1993) scale (e.g., “this organization has great personal meaning to me” and “I feel ‘part of the family’ in my organization”). The Portuguese version used had previously been translated and back-translated by Rego et al. (2007). Followers indicated how much each item applied to them on a 7-point Likert scale (i.e., ranging from 1 = “Does not apply at all” to 7 = “Applies completely”). The CFA’s results show that the measure fits the data well ($\chi^2 = 4.091$ [2]; $p > 0.05$; $\chi^2/df = 2.045$; CFI = 0.996; TLI = 0.989; RMSEA = 0.074). To obtain a composite affective commitment score, the items’ scores were averaged ($\alpha = 0.91$). Higher scores indicate a stronger affective commitment to the relevant organization.

### 3.2.3 Organizational citizenship behaviors as a criterion variable

Followers’ organizational citizenship behaviors were measured using 5 items adapted
from Konovsky and Organ (1996), with 1 item for each dimension (e.g., “this follower … helps others who have heavy workloads” and “this follower … respects the rights and privileges of others”). The items had been previously translated and back-translated into Portuguese by Rego et al. (2010).

Leaders indicated the degree to which each statement applied to each follower on a 7-point Likert response scale (i.e., ranging from 1 = “Does not apply at all” to 5 = “Applies completely”). The CFA’s results show that the measure fits the data well ($\chi^2 = 10.956 [5]; p = 0.052; \chi^2/df = 2.191; CFI = 0.987; TLI = 0.974; RMSEA = 0.079$). To obtain a composite organizational citizenship behaviors score, the items’ scores were averaged ($\alpha = 0.870$). Higher scores represent perceptions of higher organizational citizenship behaviors.

3.3 CFA and Discriminant and Convergent Validity

CFA was conducted to assess whether the variables of interest capture distinct constructs and avoid common source effects (see Table 2). The three-factor model fit the data adequately (e.g., RMSEA = 0.079; TLI = 0.889; CFI = 0.902), while the single-factor model presented unacceptable fit statistics. These results confirm the discriminant validity of the authentic leadership, affective commitment, and organizational citizenship behaviors variables, indicating that common-method variance is not a serious problem in the proposed model.

*Insert Table 2*

All the variables’ composite reliability (CR) and average variance extracted (AVE) values were also estimated (see Table 3). CR values ranging from 0.87 to 1.00 and AVE scores ranging from 0.58 to 1.00 were obtained, thereby confirming convergent validity (Hair et al., 2010).

*Insert Table 3*

4. Results
4.1 Means, SDs, Reliabilities, and Intercorrelations among Variables

The data were analyzed using IBM’s SPSS Amos 26.0 software. Means, SDs, and intercorrelations among the confirmed measures are listed in Table 3 above. All the main variables have positive intercorrelations. In addition, education correlates positively with organizational citizenship behaviors. Tenure in dyad and in organization both have a positive relationship with authentic leadership and affective commitment. Since these two tenure variables are strongly intercorrelated ($r_s = 0.70; p < 0.01$), only tenure in dyad was retained for subsequent analyses given its greater effect on follower-leader relational dynamics. Other socio-professional variables, namely, followers’ age and gender, are not significantly correlated with the mediator and criterion variables, so these variables were excluded from further analyses.

Given that the current study’s variables of interest could not be observed directly, the research hypotheses were tested using structural equation modeling (SEM). This method uses latent variables to account for measurement error, so SEM is suitable for analyzing relationships between constructs. As mentioned previously, the respondents’ education and tenure in dyad were designated as control variables. This procedure ensured that estimations regarding relationships between the variables of interest could take into account education and tenure in dyad’s potential effects on the main constructs.

An analysis of the proposed theoretical model’s goodness of fit confirmed an adequate fit to the data ($\chi^2 [309] = 627.390; p < 0.000; \chi^2/df = 2.030$; RMSEA = 0.073; CFI = 0.903; TLI = 0.890) (see Table 2 above). A further analysis of the estimated values (see Table 4) showed that authentic leadership has a positive, statistically significant relationship with organizational citizenship behaviors (beta $[\beta] = 0.388; p < 0.001$), thus providing empirical support for H1. The stronger workers’ perceptions of authentic leadership are, the greater their adherence to discretionary behaviors at work becomes.
Perceived authentic leadership is also positively and significantly related to employees’ affective commitment ($\beta = 0.721; p < 0.001$), indicating that, the more authentic leaders are, the more their followers are affectively committed to their organization, thereby confirming H2. In addition, affective commitment has a positive, statistically significant relationship with organizational citizenship behaviors ($\beta = 0.284; p < 0.01$), implying that organizational citizenship behaviors become more common as employees’ affective relationship with their organization grows stronger. H3 was thus also validated.

Regarding H4, the results reveal that authentic leadership’s link with organizational citizenship behaviors is no longer statistically significant when affective commitment is included in the model (i.e., direct effect) ($\beta = 0.183; \text{n.s.}$). This evidence confirms affective commitment’s full mediation of the relationship between perceived authentic leadership and organizational citizenship behaviors, thereby supporting H4 (see Table 4).

In addition, the fit indices of the full mediation model without the path between authentic leadership and organizational citizenship behaviors are similar to those of the theoretical model (see Table 2 above, Model 4). Thus, perceptions of authentic leadership appear to increase followers’ affective commitment to their organization. This commitment subsequently enhances their citizenship behaviors at work (see Figure 1).

Because 130 followers shared the same leader with other respondents (i.e. 40 leaders assessed by 2 to 6 followers), the nested data structure had the potential to bias the results, which could contribute to erroneous conclusions. To check the findings’ empirical robustness, one follower per leader was randomly selected (number = 96). The analyses were then repeated with this smaller sample. The results continue to support the four research hypotheses (see Table 4) despite a slight reduction in the model’s goodness of fit ($\chi^2 [309] = 498.067; p < 0.000; \chi^2/df$
\[ RMSEA = 0.080; CFI = 0.888; TLI = 0.873. \]

5. Discussion and Conclusions

5.1 Main Findings

This study sought to examine how authentic leadership stimulates employees to engage in organizational citizenship behaviors by exploring the mediating effect of affective commitment. According to the results, authentic leadership promotes employees’ organizational citizenship behaviors and affective commitment. These findings are consistent with other studies reporting that authentic leadership has a positive relationship with workers’ organizational citizenship behaviors (e.g., Avolio et al., 2004; Joo and Jo, 2017; Qiu et al., 2019; Zaabi et al., 2016) and affective bonds to their organization (e.g., Duarte et al., 2021; Gatling et al., 2016; Leroy et al., 2012; Rego et al., 2013; Semedo et al., 2019).

More specifically, because authentic leaders place a strong emphasis on behaving transparently and maintaining high moral and/or ethical standards (Avolio and Gardner, 2005), these leaders foster more organizational citizenship behaviors and affective commitment. Thus, when employees regard their leaders as being authentic (i.e., relationally transparent, honest, and good at balanced information processing), these workers tend to reciprocate with higher levels of organizational citizenship behaviors and affective commitment. Social exchange theory (Blau, 1964) can, therefore, be used to explain why individuals who perceive authentic leadership develop a feel of obligation to their leaders, reciprocating with positive attitudes and behaviors. In addition, according to belongingness theory (Baumeister and Leary, 1995), authentic leadership may encourage employees to engage in more cooperation behaviors, such as organizational citizenship behaviors, because they contribute to followers’ increased sense of inclusion and belongingness to the organization.

The present research provides empirical evidence that affective commitment has a
positive relationship with employees’ organizational citizenship behaviors, which confirms previous studies’ findings (e.g., Johnson and Chang, 2006; Meyer and Herscovitch, 2001; Meyer et al., 2002; Organ and Ryan, 1995; Paillé, 2010). The more individual workers are psychologically attached to their organization, the more likely they are to show organizational citizenship behaviors. This relationship can be explained by psychological bonds based on identification (O’Reilly and Chatman, 1986) because, when employees identify with their organizations, they are more willing to engage in cooperative behaviors (Lewicki and Bunker, 1996; Mowday et al., 1979).

The current findings also reveal a full mediation of affective commitment in the relationship between employees’ perceptions of authentic leadership and their organizational citizenship behaviors. In other words, perceptions of authentic leadership can stimulate employees’ affective commitment, which in turn, increases their organizational citizenship behaviors. When followers perceive certain characteristics in their leaders, such as self-awareness, relational transparency, an internal moral perspective, and a balanced management of information, these employees feel more strongly connected to their organization.

In addition, employees who exhibit affective commitment are more motivated to make a greater contribution to the organization in question. That is, they tend to become better organizational citizens. Authentic leaders thus help employees feel more affectively committed to their organization, thereby incentivizing employees to go beyond their prescribed tasks and adopt more organizational citizenship behaviors.

These findings confirm that organizations encouraging authentic leadership stimulate long-term behaviors among workers characterized by affective bonds with their organization. In social systems, all organizations influence each other by example or competition, so authentic leadership tends to foster a system-wide environment dominated by committed workers who adopt organizational citizenship behaviors.
Encouraging organizational commitment and citizenship behaviors is a difficult challenge for contemporary organizations facing difficulties and struggling for differentiation within their society and global markets. Given that workers are a key element in productivity, performance, and desired outputs, the current results provide evidence that authentic leadership can ensure significant, positive, and long-term sustainable benefits. Organizations are not abstract or independent agents in society as they are interconnected and they share responsibility for the social systems in which they are embedded.

By stimulating authentic leadership practices, organizations can more fully contribute to society’s betterment by setting an example and linking employees’ behaviors with a solid, genuine, and long-term commitment to authentic leadership values. These strategies, in turn, ensure committed workers are supported by an organizational culture guided by solid sustainable values. The organizations in question have significantly better leverage compared to other entities without an authentic leadership orientation because the former can count on sustainable long-term commitment based on a firm structure of values anchored in their leaders’ behaviors.

5.2 Limitations and Future Research

Despite the interesting findings reported above, this study has some limitations that must be taken into account when interpreting and generalizing these findings. First, convenience sampling was used, which is a method used to choose a naturally occurring group within a population and which often requires less time and effort. However, convenience sampling limits the generalizability of results.

Second, due to the convenience sample, some dyads shared common variance as they belonged to the same workgroup with the same leader. On average, three followers came from the same workgroup, which increased inter-dyad dependence (Gooty and Yammarino, 2011)
and the chance that bias would occur due to the nested data structure. In other words, followers working in the same workgroup are more likely to perceive their leaders’ authentic leadership behaviors in similar ways. Leaders, in turn, rate the same criterion variable (i.e., organizational citizenship behaviors), and the inter-leader differences in supervisors’ ratings could affect the results (e.g., one leader tending to be more lenient than the others). The relationships between constructs were analyzed at the individual level without considering the nested data structure, which could contribute to misleading findings.

To check the findings are empirically robust, the conceptual model was again tested after one employee per supervisor (number = 96) was randomly selected from the total sample. Despite a small reduction in the model’s goodness of fit, the results regarding the hypotheses were similar to those obtained with the full sample. This outcome provides some assurance regarding the findings’ robustness. Since the dyads’ interdependence was a significant concern in this study, future research could complement the present results by adopting a team-level approach to data collection and analysis that more fully addresses the methodological complexities of dyads’ dependence (Gooty and Yammarino, 2011).

Last, the present study included only one mediating variable, but others are also plausible. For example, authentic leaders may generate more compassion, optimism, and happiness in their teams, which then stimulate organizational citizenship behaviors. Researchers could include these and other variables as mediators in further studies. In addition, contextual factors need to be analyzed in the future since individuals’ behaviors are multidetermined. For instance, organizational virtuousness and corporate social responsibility may intervene in relationships between variables and strengthen the links between them. Regardless of these limitations, the current findings contribute significantly to the field of leadership regarding the relationships between authentic leadership and employees’ attitudes and behaviors, and the results open up new avenues of research on positive organizational
behaviors.

5.3 Theoretical Contributions and Implications for Organizations and Society

Growing social pressures are being put on organizations to consider people and the planet—in addition to profits—and to respond to the concerns of multiple stakeholders from both inside and outside business operations (Galpin and Whittington, 2012). Committed workers are a critical key indicator of organizations’ internal harmony and effective development. Consequently, focusing on commitment appears to be a good way to strengthen organizations’ overall internal sustainability. Organizations can, therefore, use authentic leadership practices to develop relevant internal management procedures and influence their workers. This strategy evidently improves worker commitment, internal effectiveness, and productivity and thus provides a solid path for managers seeking to enhance favorable performance indicators and leverage their organization’s internal sustainability.

Examining authentic leadership, affective commitment, and organizational citizenship behaviors can include focusing on not only direct impacts on performance indicators within organizations but also long-term impacts on society since organizations are actors within social systems. The present study’s relevance was also increased by considering continuing benefits to society and organizations’ roles and responsibilities within these systems, as well as how authentic leadership has a positive impact on workers’ orientation toward long-term sustainability. This orientation is relatively new to the literature, consisting of a set of factors incorporated into the research model to ensure more valuable theoretical contributions to discussions about leadership and sustainability.

From a theoretical perspective, this study’s research model proposes that authentic leadership and affective commitment have a significant relationship with organizational citizenship behavior. Researchers have previously suggested that organizational citizenship
behaviors have an important impact on organizational functioning (Organ and Ryan, 1995), so organizations need to guide employees’ efforts and foster positive attitudes to stimulate good organizational citizenship conduct. However, research focused on authentic leadership as a predictor of organizational citizenship behaviors has been scarce. The findings of the present study thus contribute to the growing debate on authentic leadership and its effects on employees’ positive job-related behaviors.

This study also answered the call for more empirical research focused on understanding the mechanisms through which authentic leadership generates effective employees’ responses and on contributing to expanding the nomological network for authentic leadership (Avolio and Mhatre, 2012). In addition, the mediating role of affective commitment in the connection between authentic leadership and employees’ organizational citizenship behaviors has been underexplored in the literature. Thus, the present study addressed a significant research gap by analyzing this mediating effect.

The findings suggest that authentic leadership promotes positive relationships between leaders and their followers (George, 2003), which, in turn, are linked to more positive attitudes (i.e., affective commitment) and stimulate these individuals’ organizational citizenship behaviors. Moreover, the current results contribute to explaining more fully the connection between employees’ perceptions of authentic leadership and their affective commitment and organizational citizenship behaviors because of the more rigorously empirical methodology applied. That is, the data were collected from both leaders and followers in dyads rather than from a single source.

From a practical perspective, this study sought to contribute to business communities by identifying potential corrective actions, especially given authentic leadership’s important role in improving individual and organizational performance. The findings include that authentic, more ethical leaders “are likely to emphasize the collective as they care about their
direct reports, the workgroup, the wider organization, and even society and sustainability” (Kalshoven et al., 2013, p. 168). In other words, authentic and ethically guided leaders are more prompted to enhance the collective value rather than the individual one, by giving severe attention to the workgroup, the organization as a whole, and are also focused on providing value towards macro-level concerns such as society’s welfare and sustainability.

Leaders should adopt a leadership style based on trust, honesty, respect, and courtesy, generating greater credibility and thus increasing employees’ affective commitment, which then reinforces workers’ organizational citizenship behaviors. Leaders need to understand how significant positive relationships are to their followers since leader-follower interactions’ quality can be an essential determinant of work teams’ performance. Leaders should accept critical feedback without seeing it as a threat, and they must consider all relevant information before making decisions, as well as being open about their own ideas, feelings, and emotions and guided by moral values and standards even when under pressure.

Both organizations and leaders should seek to inspire confidence, act genuinely, and enhance ethical aspects of their relationships with employees. Authentic leadership is central to strategies fostering employees’ affective commitment and thus promoting positive organizational citizenship behaviors. These behaviors subsequently produce better outcomes for organizational performance’s triple bottom line (Lee and Ha-Brookshire, 2018). This final result indicates that employees practicing good citizenship tend to support their organizations, thereby enhancing their overall performance. To achieve sustainability, workers’ positive attitudes and behaviors must be encouraged because these individuals are the key to organizations’ success (Leana and Van Buren, 1999).

This study’s contributions extend beyond what happens inside organizations. These entities are part of social systems comprising various types of organizations and agents, so long-term benefits can be obtained from having a wide range of social actors fostering authentic
leadership practices. Organizations commonly influence each other by example—starting with nurturing authentic leadership based on similar, shared systemic values—which provides an effective way to ensure that measures focused on sustainability grow and expand within business communities.

Clear practical benefits can also be generated by leaders within organizations who seek to adopt leadership styles that encourage positive behaviors and attitudes such as commitment and citizenship behaviors. The latter are evidently connected with improved organizational performance (Lee and Ha-Brookshire, 2018). Social systems gain from having social actors with a strong, genuine orientation toward bonds with other organizations. Current global markets can be highly competitive and thus require organizations to be willing to adapt new strategies that foster sustainability through their authentic leaders and committed employees’ behaviors. This approach’s long-term results will undoubtedly have a positive impact on these organizations’ society.

References


commitment”, *International Journal Quality Service Sciences*, Vol. 9 No. 3-4, pp.441-455.


leaders associated with more virtuous, committed and potent teams?”, *The Leadership Quarterly*, Vol. 24 No. 1, pp.61-79.


Table 1: Sample characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Categories</th>
<th>%</th>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Females</td>
<td>53.6</td>
<td>Age</td>
<td>31.98</td>
<td>8.38</td>
<td>20.00</td>
<td>57.00</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td></td>
<td>Tenure in dyad</td>
<td>4.84</td>
<td>4.54</td>
<td>0.25</td>
<td>31.00</td>
</tr>
<tr>
<td></td>
<td>≤ 6 years</td>
<td>8.2</td>
<td>Tenure in organization</td>
<td>6.46</td>
<td>6.44</td>
<td>0.25</td>
<td>36.00</td>
</tr>
<tr>
<td></td>
<td>≥ Graduation</td>
<td>28.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2: Fit indices

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$ (df)</th>
<th>$\chi^2$/df</th>
<th>RMSEA</th>
<th>TLI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1 Three-correlated factors</td>
<td>581.900 (275)</td>
<td>2.204</td>
<td>0.079</td>
<td>0.889</td>
<td>0.902</td>
</tr>
<tr>
<td>Model 2 Single-factor model</td>
<td>1287.900 (275)</td>
<td>4.683</td>
<td>0.138</td>
<td>0.660</td>
<td>0.688</td>
</tr>
<tr>
<td>Model 3 Theoretical model(^1)</td>
<td>627.390 (309)</td>
<td>2.030</td>
<td>0.073</td>
<td>0.890</td>
<td>0.903</td>
</tr>
<tr>
<td>Model 4 No direct path model(^1)</td>
<td>630.133 (310)</td>
<td>2.033</td>
<td>0.073</td>
<td>0.889</td>
<td>0.902</td>
</tr>
</tbody>
</table>

Note: \(^{1}\) Employees’ education and tenure in dyad entered as control variables.
<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6 CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Education</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Tenure in dyad</td>
<td>4.84</td>
<td>4.54</td>
<td>0.04</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Tenure in organization</td>
<td>6.46</td>
<td>6.44</td>
<td>-0.08</td>
<td>0.70**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Authentic Leadership</td>
<td>3.97</td>
<td>0.74</td>
<td>0.15</td>
<td>0.17*</td>
<td>0.20**</td>
<td>(.94)</td>
<td></td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>5. Affective Commitment</td>
<td>5.33</td>
<td>1.33</td>
<td>-0.01</td>
<td>0.24**</td>
<td>0.27**</td>
<td>0.70**</td>
<td>(.91)</td>
<td>.91</td>
<td>.73</td>
</tr>
<tr>
<td>6. Organizational Citizenship Behaviors</td>
<td>5.79</td>
<td>0.92</td>
<td>0.25**</td>
<td>0.12</td>
<td>0.12</td>
<td>0.43**</td>
<td>0.43**</td>
<td>(.87)</td>
<td>.87</td>
</tr>
</tbody>
</table>

Notes: ** p < 0.01; Cronbach’s alphas in parentheses;
Table 4: SEM—hypotheses testing

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Relationships</th>
<th>N = 196</th>
<th>N = 96</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Estimate</td>
<td>P-value</td>
<td>Estimate</td>
</tr>
<tr>
<td>H1</td>
<td>AL $\rightarrow$ OCB</td>
<td>0.386</td>
<td>0.001</td>
<td>0.322</td>
</tr>
<tr>
<td>H2</td>
<td>AL $\rightarrow$ AC</td>
<td>0.743</td>
<td>0.001</td>
<td>0.725</td>
</tr>
<tr>
<td>H3</td>
<td>AC $\rightarrow$ OCB</td>
<td>0.299</td>
<td>0.01</td>
<td>0.284</td>
</tr>
<tr>
<td>H4</td>
<td>AL $\rightarrow$ AC $\rightarrow$ OCB</td>
<td>0.158</td>
<td>n.s.</td>
<td>0.036</td>
</tr>
</tbody>
</table>

Notes: AL = Authentic leadership; AC = Affective Commitment; OCB = Organizational Citizenship Behaviors
Figure 1: Structural equation modeling for organizational citizenship behaviors (standardized path coefficients)

Notes: AL = Authentic leadership; AC = affective commitment; OCB = Organizational citizenship behaviors; ** $p < 0.01$; *** $p < 0.001$. Followers’ education as tenure in dyad were set as control variables.