How does servant leadership influence employees' service innovative behavior? The roles of intrinsic motivation and identification with the leader

Servant leadership and employees' service innovative behavior

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Abstract

Purpose — With the rapid development of the service industry, service innovation has gradually become a hot topic in business today. How to further improve employees' service innovative behaviors has become critical to organizations' survival and success. Servant leadership, as a leadership style characterized by serving others, is closely related to employees' service innovative behaviors. Therefore, the purpose of this study is to develop a theoretical framework to examine the influence of servant leadership on employees' service innovative behavior, the mediating role of intrinsic motivation and the moderating role of identification with the leader. **Design/methodology/approach** — To test the theoretical model, a multi-time survey method was used to collect data from 381employees from a large high-tech company in Mainland China.

Findings – The results confirm that servant leadership can promote employees' service innovative behavior and intrinsic motivation. Meanwhile, employees' intrinsic motivation partly mediates the influence of servant leadership on their service innovative behavior. Moreover, this mediating relationship is conditional on the moderating role of individual identification with the leader in the path from servant leadership to individual intrinsic motivation.

Research limitations/implications – The key limitation of this study lies in the representativeness of sample data, which is the convenience of non-probability sampling and self-reported data only from a large high-tech company in China.

Practical implications – This study not only further verified a promotion factor of individual service innovative behavior from the perspective of leader influence, but also enriched the understanding of the positive influence of servant leadership on employees.

Originality/value — This study is the first to examine the relationships among servant leadership, employees' intrinsic motivation, identification with the leader and service innovative behavior. The results may help to open the "black box" of the relationship between servant leadership and employees' service innovative

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Baltic Journal of Management Vol. 15 No. 4, 2020 pp. 571-586 Emerald Publishing Limited 1746-5265 DOI 10.1108/BJM-09-2019-0335 BJM 15,4 behavior by introducing their intrinsic motivation. The conclusions also indicate employees' identification with the leader is an important boundary condition among their relationships. Particularly, it not only moderates the relationship between servant leadership and intrinsic motivation, but also moderates the mediating role of intrinsic motivation.

Keywords Servant leadership, Intrinsic motivation, Identification with the leader, Service innovative behavior **Paper type** Research paper

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Introduction

Many studies have confirmed that service innovation, as one of the core driving forces of enterprise development, is the key factor for enterprises to obtain sustainable competitive advantage (Hu et al., 2009; Lusch and Nambisan, 2015; Bustinza et al., 2019). Therefore, how to constantly stimulate the service innovation of employees has gradually become a hot issue in academic and practical circles (Hu et al., 2009; Bowen, 2016). Service innovative behavior is defined as the new ideas and methods in the service process generated and used by employees to improve the quality of existing service (Stock, 2015). Prior studies have discussed the influencing factors of employees' service innovative behavior from the aspects of their characteristic, leadership style and organizational management system (Hu et al., 2009; Kim and Lee, 2013; Wihuda et al., 2017), and some other scholars argue that innovative behavior of employees largely depends on the leader's style (Dhar, 2016; Schuckert et al., 2018).

Servant leadership refers to the type of leadership that emphasizes "service" and puts the satisfaction of employees' needs in the first place (Van Dierendonck, 2011; Hoch *et al.*, 2018). And, they can influence their subordinates by serving and helping them develop their sense of service and behavior (Liden *et al.*, 2008; Bauer *et al.*, 2019). By providing employees with role models and necessary guidance and training, servant leaders can pass on their characteristics of "service" to employees and help them grow into service-oriented employees (Greenleaf, 1970; Lemoine *et al.*, 2019). Besides, Eva *et al.*'s (2018) meta-analysis of existing literature shows that servant leadership could effectively stimulate the employees' positive behaviors, such as organizational citizenship behavior, innovative behavior, helping behavior and voice behavior. Hence, we argue that servant leadership is likely to have a significant positive impact on employees' service innovative behavior.

In addition to the direct effect of servant leadership on employees' service innovative behavior, there may be a more complex evolution process. According to the cognitive evaluation theory, our study attempts to introduce intrinsic motivation into this influence process and points out that servant leadership first influences employees' intrinsic motivation, then affects their service innovative behavior. Bande *et al.* (2016) pointed out servant leadership could positively affect employees' intrinsic motivation. Moreover, intrinsic motivation of employees has always been considered as a key factor in influencing his/her innovative behavior (Amabile, 1988; Zhang and Bartol, 2010; Devloo *et al.*, 2015). And, employees with high intrinsic motivation have a strong motivation to pay attention to and meet the needs of customers and actively develop various new effective methods to solve problems (Liaw *et al.*, 2010; Woolley and Fishbach, 2018), so they will exhibit more service innovative behaviors. Hence, we pose that employees' intrinsic motivation can mediate the influence of servant leadership on their service innovative behavior.

To further determine the influence of servant leadership in promoting employees' intrinsic motivation, and then positively affecting their service innovative behavior, we also explore the role of employees' identification with servant leadership among these relationships. Identification with the leader, a specific form of social identity in an organizational context (Ashforth *et al.*, 2008; Sluss *et al.*, 2012), refers to the extent to which a leader is conceptualized in an employee's relationship self (Kark *et al.*, 2003; Wang and Rode, 2010). Previous

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Taken together, few studies have offered research-based explanations or empirical evidence on how and when servant leadership influences employees' positive behavior. This means that it is necessary to investigate and clarify the relationship between servant leadership and employees' service innovative behavior. Therefore, our study develops and tests a moderated mediation model of the mediating role of employees' intrinsic motivation and the moderating role of their identification with the leader in the relationship between servant leadership and their service innovative behavior. Figure 1 depicts the proposed conceptual framework.

Research background and hypotheses

Servant leadership and employees' service innovative behavior

Servant leadership refers to the style in which a leader serves others in the management process, helps subordinates to obtain development opportunities, trains subordinates to be excellent service providers and finally, benefits the organization (Greenleaf, 1970; Bande et al., 2016). For servant leadership, serving others is the top priority. They can provide career development guidance for employees and have a positive impact on employees' work attitude, behavior and performance (Graham, 1991; Van Dierendonck, 2011; Panaccio et al., 2015; Tang et al., 2016). Previous research also has verified that servant leadership has a positive impact on employee's innovative behavior (Neubert et al., 2008) and service performance (Chen et al., 2015), which is helpful for us to understand the relationship between servant leadership and employees' service innovative behavior.

According to the social learning theory, employees will regard their leaders as learning models and then imitate and learn their attitudes and behaviors. Service innovative behavior refers to the process by which employees generate new ideas and methods in the service process and use them to improve and change the existing service behavior (Stock, 2015). The important purpose of servant leadership is to serve other stakeholders (Liden et al., 2008), which can set a service example for employees and make them become a "servant employee" (Liden et al., 2015). Compared with other employees, "servant employees" usually have higher service innovation motivation and are more willing to innovate to meet customer needs and improve their service quality (Liden et al., 2014). Hence, we offer the following hypothesis:

H1. Servant leadership is positively related to employees' service innovative behavior.

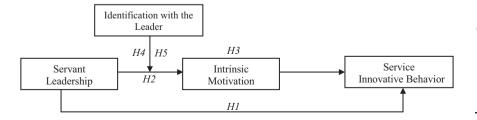


Figure 1. Conceptual framework of servant leadership, employee's service innovative behavior, intrinsic motivation and identification with the leader

Mediating roles of employees' intrinsic motivation

Intrinsic motivation refers to the motivation of individuals to complete tasks not to obtain rewards, but for their own sake or for the pure enjoyment of engaging in a specific activity (Ryan and Deci, 2000). Although intrinsic motivation usually comes from employees' positive response to the task itself (Amabile *et al.*, 1996), empirical evidence has confirmed that supportive leadership could enhance employees' intrinsic motivation, such as empowering leadership (Zhang and Bartol, 2010), ethical leadership (Tu and Lu, 2013) and transformational leadership (Shin and Zhou, 2003; Conchie, 2013). Meanwhile, some scholars point out that intrinsic motivation is positively related to creativity, and employees with high intrinsic motivation are more likely to show innovativeness and initiative than those with low intrinsic motivation (Dysvik and Kuvaas, 2013; Bande *et al.*, 2016). Hence, we introduce intrinsic motivation as a mediator to explore the influence mechanism of servant leadership on employees' service innovative behavior.

The cognitive evaluation theory posits that leaders who advocate autonomy provide non-controlling positive feedback and endorse other views can maintain a good relationship with their subordinates. Furthermore, leaders can cultivate their subordinates' self-determination through these mechanisms (Deci et al., 1989; Bande et al., 2016). Servant leadership, therefore, "focuses on their subordinates, strives to meet their needs, helps them freely exercise their subjectivity and autonomy" (Whetstone, 2002; Van Dierendonck, 2011) and may promote their subordinates' intrinsic motivation. Previous research has verified that supportive leadership has a positive effect on subordinates' intrinsic motivation (Jaramillo and Mulki, 2008; Oostlander et al., 2014). As for servant leadership, Hammermeister et al. (2008) confirmed that those who were guided by servant leadership exhibited higher levels of intrinsic motivation than other athletes. And, the research by Bande et al. (2016) showed that servant leadership could enhance the intrinsic motivation of salespeople. Therefore, we propose the following hypothesis:

H2. Servant leadership is positively related to employees' intrinsic motivation.

Many previous studies have acknowledged the mediating role of individual intrinsic motivation in the relationship between contextual factors and employee's creativity (Amabile et al., 1996; Shin and Zhou, 2003; Tu and Lu, 2013). Intrinsic motivation of employees has always been considered a key factor in their innovation (Woodman et al., 1993). Intrinsically motivated employees often exhibit more persistence in face of obstacles (Deci and Ryan, 2000) are more willing to search for alternative or unconventional solutions to problems (Tu and Lu, 2013) and are likely to be creative at work (Fuller et al., 2006). Regarding service innovative behavior, employees with high internal motivation often focus on their task and tend to be immersed in their service work. They regard service work as a pleasant experience rather than a heavy burden (Kim and Lee, 2013) and are more willing to actively participate in service innovation activities. Based on the above analysis, servant leadership first promotes the employees' intrinsic motivation and then exerts a positive influence on their service innovative behavior through the mediating effect of intrinsic motivation. Hence, we present the following hypothesis:

H3. Employees' intrinsic motivation mediates the relationship between servant leadership and their service innovative behavior.

Moderating role of employees' identification with the leader

Despite the expected impact on an employee's intrinsic motivation of servant leadership, we argue that other factors (i.e. identification with the leader) may act to buffer this effect. This could deepen our insight into the boundary conditions of how servant leadership motivates their employees by motivating their intrinsic motivation and thus their service innovative

behavior. Employees' identification with the leader refers to the extent to which the leader is Servant leadership included in their relational self (Kark et al., 2003; Wang and Rode, 2010) and is a specific identity relationship with the leader (Gu et al., 2015). Previous research has indicated that employees' identification with the leader could prompt them to form and share similar values with their leaders and stimulate their willingness to show consistent behaviors with leaders. further deepen the influence of leaders on employees' motivation, attitude, behavior and performance (Connaughton and Daly, 2004; Walumbwa et al., 2009; Sluss et al., 2012; Li

Employees with a strong identification with their leaders are more considerate and loyal to their leaders and organizations (Sluss et al., 2012); prefer to internalize their leaders' interests, goals and values; and even change their self-concept to make their values, beliefs and behaviors more like those of leaders (Gu et al., 2015). And indeed, several scholars have proposed that identifying with a leader could lead to a greater likelihood of being affected by the leader (Kark et al., 2003; Van Knippenberg et al., 2004; Wang and Rode, 2010). Hence, consistent with these studies, we speculate employees' identification with the leader may exaggerate servant leadership's impact on their intrinsic motivation. Employees who experience high identification with servant leadership are more likely to internalize the concept of servant leadership's "serving others" as part of their self-concept and more willing to imitate and learn the attitudes and behaviors of servant leadership, and their intrinsic motivation for service innovation will increase in this process. Thus, we offer the following hypothesis:

H4. Employees' identification with the leader moderates the relationship between servant leadership and employees' intrinsic motivation, and this relationship is stronger when employees have a higher level of identification with the leader than when employees have a lower level of identification with the leader.

In sum, we propose that servant leadership is also indirectly related to employees' service innovative behavior through their intrinsic motivation. This indirect relationship is conditional on the level of employees' identification with servant leadership because of its moderating role on the links from servant leadership to their intrinsic motivation. As such, this moderated mediation model explains why and when servant leadership relates to employees' service innovative behavior. To test this model, we offer the following hypothesis:

H5. The indirect relationship between servant leadership and employees' service innovative behavior through employees' intrinsic motivation is moderated by employees' identification with the leader such that the relationship is stronger when employees have a higher level of identification with the leader than when employees have a lower level of identification with the leader.

Methods

Procedures

Our survey was conducted in a large high-tech company in Mainland China, so the relevant instruments had to be translated from English to Chinese. First, we invited two bilingual researchers (English-Chinese) to translate all items into Chinese. We then asked another bilingual scholar to translate the Chinese version into English to check for consistency and avoid cultural bias. To maintain the accuracy of the translation, we also made some modifications to the original measures and conducted a small-scale pretesting with 20 subjects to test the psychometric equivalence of the items.

To empirically test the hypotheses, we used a multi-time survey method to collect the data. Approved by senior leaders, the human resources department randomly selected 500 employees and their e-mail addresses through a computer program. Then, we e-mailed the questionnaires to employees in three batches, one month apart, and asked them to respond within a day (Tang *et al.*, 2016; Kim and Beehr, 2018). At Time 1 (*T1*), 468 completed questionnaires about their backgrounds and their rating about the level of servant leadership, and at Time 2 (*T2*), 423 employees reported their intrinsic motivation and identification with the leader. At Time 3 (*T3*), 402 employees finished questionnaires about their service innovative behavior. We also followed Peer *et al.*'s (2014) and DeSimone *et al.*'s (2015) suggestions to include several attention-checked and reverse-worded items to check the respondents' answers. After comparing and cleaning up the data, we generated the final sample of 381 employees, representing a response rate of 76.2 percent.

Participants

The final sample consisted of 161 male employees and 220 female employees. About age, most of these employees (57.0 percent) were younger than 35 years old, and only 11.0 percent were older than 55. For education, 58.3 percent of the participants had a bachelor's degree, with the remainder reporting a graduate (19.7 percent) or doctorate (14.7 percent) or high school education (7.3 percent). As far as working with this leader, 53.3 percent of the participants had been worked with this leader for less than three years, and 81.9 percent had been worked with this leader for less than six years.

Measures

All measurement scales involved in our study were adapted from the existing literature and were employed and demonstrated to have good reliability and validity by many previous studies in the Chinese context. We also conducted a small-scale pretesting with 20 subjects to ensure the clarity and construct validity of our measures. Besides, to further reduce the possible influence of common method variance (Podsakoff *et al.*, 2012), we have collected the sample data at three different times in a sequence matching the proposed theoretical model (Kim and Beehr, 2018). All multi-item measures were rated on a five-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Servant leadership (T1). For servant leadership, we used Liden et al.'s (2015) seven-item measure, which asks the employees to rate the extent to which their direct leaders exhibited behavior related to servant leadership. Sample items include "My direct leader puts my career development as the first consideration" and "If I have a personal problem, I would ask the leader for help." The Cronbach's alpha consistency in this study is 0.843.

Intrinsic motivation (T2). We used Yoon and Choi's (2010) six-item measure, which was based on the items from Baer et al.'s scale (2003), to evaluate the employee's intrinsic motivation. Sample items include "I feel a sense of achievement when I suggest new task ideas" and "When I show innovation in daily work, I feel satisfied." The Cronbach's alpha consistency in this study is 0.804.

Identification with the leader (T2). We used Mael and Ashforth's (1992) six-item measure to assess the extent to which employees' identification with their direct leader. This scale was originally designed to measure employees' identification with the organization; however, in this study, items focused on the direct leader of the employee (Kark et al., 2003). An example item is "When someone criticizes my direct leader, it feels like an insult to me." The Cronbach's alpha consistency in this study is 0.865.

Service innovative behavior (T3). We used Hu et al.'s (2009) six-item measure to evaluate the service innovative behavior of the employees. Sample items include "I strive to secure the funding and resources needed to implement innovation in daily work" and "I often try to come up with my ideas and persuade others." The Cronbach's alpha consistency in this study is 0.899.

Control variable. Previous studies have confirmed that employees' gender, age, education Servant leadership and work tenure with the leader would affect individual psychological reaction and behavior choice to servant leadership (e.g., Van Dierendonck, 2011; Liden et al., 2015; Panaccio et al., 2015). Therefore, we included them as control variables in this study. Specifically, gender was coded as a dummy variable (1 = male, 2 = female). Aged was divided into five levels (1 = 23or less, 2 = 23-30 years, 3 = 31-39 years, 4 = 40-49 years, 5 = 50 years and above). Education was divided into five levels (1 = 9 years or less, 2 = 12 years, 3 = 13-14 years,4 = 15-16 years, 5 = 13 years and above). Work tenure with the leader was also divided into five levels (1 = 1 years or less, 2 = 1-3 years, 3 = 3-5 years, 4 = 5-10 years, 5 = 10 years

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Results

and above).

Preliminary analyses

In this study, we used M-plus 7.2 software to determine how well our sample data fit the proposed theoretical model (Collins et al., 2019) through the confirmatory factor analysis (CFA). The results of CFA (Table 1) indicated that the expected four-factor measurement model (with servant leadership, intrinsic motivation and identification with the leader, service innovative behavior, see Model 1 in Table 1) fitted the sample data better and more acceptable (γ^2) df = 2.058, RMSEA equaled 0.053, CFI equaled 0.931, TLI equaled 0.924, SRMR equaled 0.047) than any other alternative measurement models. According to Hu and Bentler's (1999) suggestions about adequate fit indices for CFA, we deduced that the common method variance in our data was not a major issue, and all the variables in our study could be told apart clearly by the participants.

No.	Model	χ^2	df	χ^2/df	RMSEA	TLI	CFI	SRMR
1	Four-factor model: SL, IM, IWL, SIB	553.585	269	2.058	0.053	0.924	0.931	0.047
2	Three-factor model (1): SL, IM + IWL, SIB	868.988	272	3.195	0.076	0.841	0.856	0.063
3	Three-factor model (2): $SL + IM$, IWL , SIB	900.171	272	3.309	0.078	0.833	0.849	0.066
4	Three-factor model (3): SL + IWL, IM, SIB	1,075.727	272	3.955	0.088	0.786	0.806	0.079
5	Two-factor model: $SL + IM + IWL$, SIB	1,212.215	274	4.424	0.095	0.753	0.774	0.077
6	One-factor model: SL + IM + IWL + SIB	2,119.255	275	7.706	0.127	0.515	0.556	0.115

Note(s): N = 381; SL = servant leadership; SIB = service innovative behavior; IM = intrinsic motivation; LI = identification with the leader

 $\chi^2/df < 3$; RMSEA < 0.08; TLI > 0.9; CFI > 0.9; SRMR < 0.08

Table 1. Alternative model test results

Variables	Mean	SD	α	1	2	3	4
1. Servant leadership (<i>T1</i>) 2. Intrinsic motivation (<i>T2</i>) 3. Identification with the leader (<i>T2</i>) 4. Service innovative behavior (<i>T3</i>)	2.54 2.49 2.61 3.22	0.64 0.80 0.85 1.03	0.843 0.804 0.865 0.899	1 0.452** 0.526** 0.276**	1 0.504** 0.332**	1 0.374**	1
Note(s) : $N = 381$; ** $p < 0.01$							

Table 2. Descriptive statistics and correlations Table 2 presents the mean scores, standard deviations, Cronbach's alpha values and correlations among servant leadership, intrinsic motivation, identification with the leader and the service innovative behavior. As previously noted, servant leadership is positively related to intrinsic motivation (r = 0.452, p < 0.01) and service innovative behavior (r = 0.276, p < 0.01). Intrinsic motivation is also positively related to service innovative behavior (r = 0.332, p < 0.01). Besides, the identification with the leader is positively related to three other important variables. Hence, the hypotheses of our study were preliminary supported.

Hypothesis testing

We used SPSS 22.0 to test our hypotheses. First, hierarchical regression analysis was used to verify the direct influences of servant leadership on employees' service innovative behavior and intrinsic motivation, the mediating role of intrinsic motivation and the moderating role of identification with the leader (Baron and Kenny, 1986). Table 3 showed the hierarchical regression results for the control variables (including gender, age, education and work tenure), servant leadership, employees' identification with the leader and interaction term on their intrinsic motivation and service innovative behavior. Then, we ran a macro developed by Hayes (2013)(PROCESS Template 7) to test the theoretical model previously described (Preacher *et al.*, 2007). We bootstrapped with 5,000 in this study to generate bias-corrected confidence intervals of yield 95 percent. Only the confidence interval excludes 0, and the moderation of identification with the leader on the effect of servant leadership on employees' service innovative behavior via intrinsic motivation is significant.

H1 and H2 state that servant leadership is positively related to employees' service innovative behavior and intrinsic motivation. As shown in Model 5 in Table 3, after controlling the employees' demographic variables, servant leadership is significantly positively related to employees' service innovative behavior ($\beta = 0.271$, p < 0.001). Analogously, as shown in Model 2 in Table 3, there is also a significant positive correlation

Variables	Int Model 1	rinsic motiva Model 2	tion Model 3	Model 4	Service innov Model 5	ative behavio	or Model 7	
	11100001 1	11104012	11104010	11100001	11104010	11104010	1110 del 1	
Controls Gender Age Education Work tenure	0.029 -0.058 -0.023 0.156 **	0.041 -0.031 -0.039 0.118 *	0.066 -0.031 -0.028 0.114 *	0.063 -0.072 0.152*** 0.051	0.071 -0.055 0.148** 0.028	0.054 -0.52 0.160^{***} -0.001	0.060 -0.047 0.156^{***} -0.003	
Independent variable Servant leadership (SL)		0.444***	0.212***		0.271***		0.155**	
Mediator Intrinsic motivation						0.331***	0.261***	
Moderator Identification with the leader (IWL) Interaction			0.313*** 0.189**					
$(SL \times IWL)$ R^2 ΔR^2 F	0.022 2.07***	0.217 0.195 20.83****	0.342 0.125 27.71***	0.033 1.25****	0.106 0.073 8.86***	0.140 0.107 12.19***	0.159 0.053 11.78***	
Note(s) : $N = 381$; **** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$								

Table 3. Hierarchical regressions results

between servant leadership and employees' intrinsic motivation ($\beta = 0.444, p < 0.001$). Taken Servant leadership together, these results support H1 and H2.

H3 suggests that employees' intrinsic motivation will mediate the relationship between servant leadership and their service innovative behavior. So, we add employees' intrinsic motivation to the regression analysis of servant leadership and their service innovative behavior to examine the mediating effect of intrinsic motivation. As shown in Model 7 in Table 3, employees' intrinsic motivation is positively related to their service innovative behavior ($\beta = 0.261$, p < 0.001). Besides, the relationship between servant leadership and employees' service innovative behavior is significant as well ($\beta = 0.155$, p < 0.001). Hence, employees' intrinsic motivation partly mediates the relationship between servant leadership and their service innovative behavior, supporting H3.

H4 predicts that employees' identification with the leader will moderate the relationship between servant leadership and their intrinsic motivation such that the positive relationship will be strengthened as employees' identification with the leader increases. We first entered the control variables, servant leadership, then identification with the leader and the interaction (which is the cross-product of servant leadership and identification with the leader) into the regression equation. As shown in Model 3 in Table 3, servant leadership is positively related to employees' intrinsic motivation, and the moderating role of identification with the leader is significant ($\beta = 0.189$, p < 0.01), which supports H4. Accordingly, Figure 2 shows this interaction, plotting the relationship between servant leadership and employees' intrinsic motivation separately for low and high identification with the leader.

H5 indicates the mediating effect of intrinsic motivation on the servant leadership—employees' service innovative behavior relationship will be moderated by identification with the leader. In our study, we carry Preacher *et al.*'s (2007) suggestions to test the moderated mediation through the following procedures: (1) significant effects of servant leadership on service innovative behavior, (2) significant effects of interaction between servant leadership and identification with the leader on intrinsic motivation, (3) significant effects of intrinsic motivation on service innovative behavior and (4) different conditional indirect effects of servant leadership on employees' service innovative behavior via intrinsic motivation across high and low levels of identification with the leader.

As shown in Table 3, we can test the first three conditions. Specifically, Model 5 shows servant leadership is significantly positively related to employees' service innovative behavior, which satisfies the first condition. Model 3 shows the interaction of servant leadership and

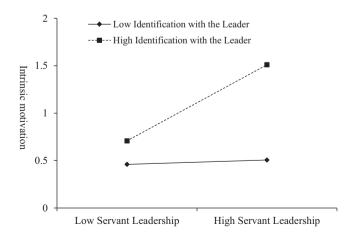


Figure 2.
Interaction of servant leadership and employees' identification with the leader on their intrinsic motivation

intrinsic motivation is also significantly positively related to service innovative behavior, which satisfies the second condition. Then, Model 6 shows intrinsic motivation is significantly positively related to employees' service innovative behavior as well, which satisfies the third condition. Finally, to test the forth condition, we applied Preacher *et al.*'s (2007) statistical procedures by PROCESS macros. The results indicate that the index value of employees' identification with the leader for moderated mediation effect is significant (index = 0.0510, SE = 0.023, 95% CI = [0.012-0.104]). In addition, the employees with a high degree of identification with the leader (index = 0.117, SE = 0.038, 95% CI = [0.056-0.205]) are more significant than those with a low degree of identification with the leader (index = 0.023, SE = 0.022, 95% CI = [0.017-0.072]), which fulfills the fourth condition. Overall, employees' identification with the leader moderates the mediating role of intrinsic motivation in the relationship between servant leadership and their service innovative behavior, supporting H5.

Discussion

The main purpose of our study is to explore how servant leadership influences employees' service innovative behavior. To that end, we tested the mediating role of intrinsic motivation and the moderating role of identification with the leader. Our conclusion showed that servant leadership is positively related to employees' intrinsic motivation and service innovative behavior. Besides, employees' intrinsic motivation partly mediates the relationship between servant leadership and their service innovative behavior. Moreover, employees' identification with the leader not only moderates the relationship between servant leadership and their intrinsic motivation, but also moderates the mediating role of intrinsic motivation, in such ways that these two effects are more obvious among the employees with higher levels of identification with the leader than lower ones.

Theoretical contributions

The theoretical contributions of our study are mainly reflected in the following three aspects. First, many organizational scholars have reported the effectiveness of servant leadership and its effect on employees' attitudes, behaviors and performances (Graham, 1991; Liden et al., 2014; Amah, 2018; Bauer et al., 2019). Our study offers new empirical evidence that servant leadership has a positive influence on employees' intrinsic motivation and service innovative behavior. These results not only help to further validate the applicability and validity of servant leadership in the Chinese context (Chen et al., 2015; Tang et al., 2016; Yang et al., 2017), but also provide a new perspective to explain the triggering factors of employees' service innovative behavior (Kim and Lee, 2013; Dhar, 2016; Wihuda et al., 2017; Schuckert et al., 2018).

Second, our results indicate that motivation of employees is an important mechanism for interpreting the influence of servant leadership on their service innovative behavior, which enriches and broadens the academic understanding of "how servant leadership influences employees' service innovative behavior." Consistent with previous studies, this conclusion further confirms the significant mediating role of individual intrinsic motivation in the relationship between contextual factors and individual behavior (Amabile *et al.*, 1996; Zhang and Bartol, 2010; Devloo *et al.*, 2015; Woolley and Fishbach, 2018). This also could be productive for further scholars to explore other potential mechanisms linking a leader's style with employees' behavioral outcomes from the perspective of individual motivation (Ostrem, 2006; Bande *et al.*, 2016; Lemoine *et al.*, 2019).

Finally, the conclusions of our study revealed that employees' identification with the leader moderated the relationship between servant leadership and employees' intrinsic motivation and the indirect relationship between servant leadership and employees' service innovative behavior through their intrinsic motivation. These conclusions provide new

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empirical support for previous scholars' substitute models (Kerr and Jermier, 1978; Wang and Servant leadership Rode, 2010), which also shed light on an important boundary condition that strengthens the influence of servant leadership on employees' motivation and behavior. Besides, these conclusions are in line with the identification theory (Li et al., 2017; Woolley and Fishbach, 2018), which specifies that individual identification with the leader can affect the strength of relationships among leadership style, individual motivation and behavior.

Practical implications

There are also several important practical implications associated with our results.

First, servant leadership is a critical driving force for individual service innovative behavior, which provides a new idea for managers or leaders about how to improve their subordinates' service innovative behaviors. The managers need to abandon traditional top-down management and adopt a leadership strategy of "servant first" rather than "leader first." On the flip side, organizations could not only focus on servant leader selection. recruitment, development and promotion, but also help current leaders develop servant leadership through well-designed training and mentoring programs.

As for the mediating role of intrinsic motivation in the relationship between servant leadership and employees' service innovative behavior, this study also has important implications for practice. Organizations and their managers need to care more about subordinates' spiritual needs, share more power with subordinates and make subordinates more involved in decision-making, to ultimately improve confidence and motivation of subordinates to participate in service innovation activities. Besides, from the perspective of the employee, intrinsic motivation could provide a breeding ground for the promotion and cultivation of individual service innovative behavior. Hence, managers should hire more employees with high intrinsic motivation in the recruitment process.

The final practical implication is related to the role of identification with the leader. The influences of servant leadership on employees' intrinsic motivation and service innovative behavior is likely to be stronger among employees who experience high identification with their leaders. Therefore, managers should be aware of the need to recruit and develop employees with high levels of identification with them. They can also take a variety of measures, such as constructive feedback, heart-to-heart talk, personalized care, etc., to further improve subordinates' identification with themselves. At the same time, managers should pay attention to small details in daily work and respect the views and opinions of subordinates to enhance employees' identification with their leader.

Limitations and directions for future research

Our study provides a significant understanding of servant leadership, employee motivation, identification and behavior and contributes immensely to knowledge in the field of servant leadership. However, there are still some limitations that future research needs to address. Firstly, all variables in our study were reported by the employees. Although statistical results showed that there was no serious common method variance in our sample data, it could not be completely excluded. Future researchers can collect data from multiple sources. For instance, service innovative behavior of employees can be evaluated by the leaders. Secondly, our study was carried out in a large high-tech company in Mainland China, which means the generalizability of our conclusions may be limited, especially different in a western cultural context. Thus, future research could replicate and compare our findings in other industries or different cultural contexts. Finally, our results showed employees' intrinsic motivation played a partial mediating role in our model, which indicated there might be other mediating mechanisms in the relationship between servant leadership and employees' service innovative behavior. Therefore, other mediators, such as psychological capital (Yang et al., 2017), regulatory focus (Neubert et al., 2008) and leader-member exchange (Dhar, 2016; Amah, 2018), could be used from a different perspective to explore the mechanism between them in future studies.

Conclusion

Our research delved into the internal influence mechanism of servant leadership on employees' service innovative behavior. In this regard, individual intrinsic motivation partly mediates the relationship between servant leadership and service innovative behavior. Also, individuals' identification with the leader not only moderates the relationship between servant leadership and their intrinsic motivation, but also moderates the mediating role of intrinsic motivation in a main effect. Specifically speaking, for those employees with higher levels of identification with their leaders, the influence of servant leadership on employees' service innovative behavior through intrinsic motivation is more obvious than lower ones.

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