

How Does Spiritual Leaders Inspire Employees' Innovative Behavior? The Role of Psychological Capital and Intrinsic Motivation

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Abstract

Spiritual leadership is an emerging type of leadership that focuses on using intrinsic motivation to help subordinates achieve spiritual enrichment and thus motivate employees to work. This study adopts the method of questionnaire to investigate 886 employees of Chinese companies in three stages, and tests the mediating effect by using the bootstrap method. Our results showed that: (1) Spiritual leadership had a positive correlation on employees' innovative behavior; (2) both psychological capital and intrinsic motivation mediated the relationship between spiritual leadership and innovative behavior; (3) we found a sequential mediating effect between spiritual leadership and followers' innovative behavior. The findings deepened our understanding of the psychological mechanisms by which the spiritual leadership inspires innovative behavior, and provide a practical reference for managers to stimulate individual innovative behavior.

Introduction

Innovation is one of most important way for each organization to creates competitive advantage (Greve & Taylor, 2000; Han et al., 1998; Li et al., 2018). Therefore, organizations always try to encourage innovative behaviors, which are defined as "the intentional creation, introduction, and application of new ideas within a work role, group or organization, in order to benefit role performance, the group or the organization" (Janssen, 2000, p. 288). Among the many ways to stimulate innovative behaviors, the role of leadership behavior cannot be ignored. Spiritual leadership is one of the most effective leadership styles (Afsar et al., 2016), which can encourage, inspire, and motivate employees to innovate (Oldham & Cummings, 1996). We increasingly find that relying solely on external systems instead, it is better to use silent internal arousal to enhance employees' enthusiasm and thus their innovative behavior. Based on the spiritual leadership theory and intrinsic motivation theory, we found that spiritual leadership strategies can inspire employees' intrinsic motivation to work harder and even reaching outside of their basic responsibilities, allowing them to coalesce to work together for the organization's common interests. In recent years, spiritual leadership has been a hot topic in both management literature and organizational behavior research (Chen et al., 2019), spirituality in the workplace and spiritual leadership with intrinsic motivation as a core tool has been gaining attention and promoted. Research has also shown that the strong inspirational and spiritual influence of spiritual leadership can motivate employees to exhibit better work attitudes and behaviors (Chen, & Yang, 2012; Fry & Slocum, 2008; Fry et al., 2017; Salehzadeh et al., 2015; Tabor et al., 2019).

While there are some studies have examined the benefits of spiritual leadership for employees, little research conducted on the psychological mechanisms linking spiritual leadership to employees' innovative behavior from inner need perspective. In order to explore how spiritual leadership improve the innovative behaviors of employees, this study drawn from spiritual leadership theory and intrinsic motivation theory to reveal the psychological mechanisms between spiritual leadership and the innovative behaviors of employees. Spiritual leadership theory is based on intrinsic motivation theory (Fry, 2003), the key element of which is that spiritual leadership is considered an effective way to develop higher levels of organizational productivity, team creativity, and organizational learning (Aydin & Ceylan, 2009; Chen &

Yang, 2012; Jurkiewicz & Giacalone, 2004). Leaders can motivate employees to work harder by satisfying their basic needs for spiritual existence, which leads to higher levels of individual output (Fry, 2003; Fry & Kriger, 2009). Whereas psychological capital and intrinsic motivation belong to the psychological needs of employees, spiritual leaders can improve the employees creative performance through their psychological capital and internal motivation. We not only presents a conceptual model on the psychological mechanisms between spiritual leadership and innovative behavior, but also intended to tap into the psychological capital and instrinsic motivation in the sequential mediating effect of spiritual leadership on individual innovative behavior. The study aims to deepen theoretical understanding of the mechanism of influence of spiritual leadership on individual innovative behaviors of employees.

Spiritual Leadership and Innovative Behavior

Workplace spirituality plays a key role in firms' creativity and innovation, it could make a positive impact on them. While spiritual leadership is one of the effective ways to develop workplace spirituality (Fry, 2008), which could promote innovative behaviors among employees as also. Spiritual leadership is a leadership style that starts with effectively meeting the spiritual needs of employees and matches them with intrinsic motivation to awaken member identification and mission (Fry, 2003), consisting of three dimensions: vision, hope and faith, and altruistic love. This means that the core essence of spiritual leadership is to motivate employees to work hard from the inside out, and the impact on organizational development and individual effectiveness is subtle. Based on the spiritual leadership theory, spiritual leaders can make employees perceive the motivation from the work itself and the organization by conveying a clear and inspiring vision, establishing positive and strong hopes and beliefs to employees. Specifically, spiritual leaders pay attention to employees' work, motivate them to go beyond their jobs, which constitutes an important background of innovative behavior (Jung et al., 2003). At the same time, spiritual leaders are selfless, the work atmosphere under the influence of spiritual leaders is harmonious and altruistic, which also gives employees more room to play, forming an intangible intrinsic motivation that helps employees improve their innovative behavior. In other words, spiritual leadership' characteristics, such as integrity, honesty, altruism, and genuine concern for others (Fry, 2003; Reave, 2005), can allow them to focus on the development of employees and can satisfy their basic psychological need for safety and make them more likely to generate new ideas and try them out (Hogan & Coote, 2014). Therefore, we hypothesize that

Hypothesis 1

Spiritual leadership is positively related to employees' innovative behavior.

The Mediating Role of Psychological Capital

Leaders do not directly affect employees' behaviors, but indirectly through cognitive and psychological processes (Strauss, et al., 2009; Cho & Dansereau, 2010). Psychological capital, which refers to the state of positive psychological development of individuals characterized by self-efficacy, optimism, hope, and resilience (Luthans et al., 2007). According to spiritual leadership theory, spiritual leadership, as a type of

leadership that pays high attention to the feelings of followers (Yang et al., 2020), is able to build great visions for employees to aspire to, help them set goals to strive for, and have confidence in them during their work process, thus satisfying followers' spiritual existence basic needs, such as pursuing excellence, being different, and being appreciated by others, which will enhance followers' psychological capital elements such as self-efficacy and hope. Moreover, psychological capital is an important predictor of individual behavior. Studies have found that individuals' positive psychological states significantly predict their positive work behaviors (Avey et al., 2010; Luthans et al., 2010). At the same time, psychological capital plays a mediating role in leadership style and positive organizational output. For example, Gooty (2009) found that psychological capital mediates between transformational leadership and organizational citizenship behaviors. Therefore, we suggest that spiritual leadership can also influence followers' innovative behavior by enhancing their psychological capital levels and thus their innovative behavior. Hence, the following hypothesis is

Hypothesis 2

Psychological capital plays a mediating role in spiritual leadership and innovative behavior.

The Mediating Role of Intrinsic Motivation

Intrinsic motivation refers to doing something for oneself in order to experience the pleasure and satisfaction inherent in the activity (Vallerand, 1997). Based on the intrinsic motivation theory, spiritual leaders can enhance followers' intrinsic motivation to work hard for organization by communicating a clear and uplifting vision, building strong and positive hopes and beliefs. Besides, work meaningfulness is an important factor influencing employees' intrinsic motivation (Hackman and Oldham, 1976). On the one hand, spiritual leadership can motivate employees by portraying a vision of the organization that their work can make a difference to individuals, organization, and society as a whole, which can greatly enhance sense of meaningfulness and thus intrinsic motivation. On the other hand, spiritual leadership focuses on empowering their subordinates (Yaghoubi et al., 2010), which can enhance their subordinates' experienced responsibility for work outcomes and thus intrinsic motivation (Thomas, & Velthouse, 1990; Hackman, & Oldham, 1976).

Intrinsic motivation is one of the most critical factors influencing employees' innovative behaviors (Klaeijnsen et al., 2018; Devloo et al., 2015; Fischerv et al., 2019), and individuals intrinsically motivated to innovate are more likely to exhibit high levels of creativity (Kong, et al., 2019). Liu et al. (2016) meta-analysis showed that intrinsic motivation significantly and positively affects employees' creative performance (De Jesus et al., 2013; Cerasoli et al., 2014). Messman and Mulder (2014) also demonstrated empirically that employees' intrinsic motivation has a positive relationship with individual innovative behavior. Based on the intrinsic motivation theory, when individuals possess intrinsic motivation to engage in an activity, they will show greater interest, excitement, and confidence. At the same time, they will perform at a better level, have better performance, show more perseverance and unique creativity. Hence, we propose the following hypothesis:

Hypothesis 3

Intrinsic motivation plays a mediating role in spiritual leadership and innovative behavior.

The Sequential Mediating Roles of Psychological Capital and Intrinsic Motivatio

Combining the above assumptions and the spiritual leadership theory, the influences of spiritual leadership on the individual output through satisfying their basic needs for spiritual existence (Fry, 2007). Spiritual leadership can enhance employees' psychological capital by conveying hope, thus motivating them to innovate intrinsically (Sweetman et al., 2011). Employees with higher psychological capital are more confident in their work, have higher self-efficacy and higher intrinsic motivation to accomplish their goals. Individuals with intrinsic motivation show more interests and confidence than those with external motivation, which are in turn reflected on the improvement of creativity (Sheldon, Ryan, Rawsthorne, & Ilardi, 1997) and show more innovative behaviors (Devloo, Anseel, De Beuckelaer, & Salanova, 2015). Therefore, we argue that spiritual leadership can improved followers' innovative behavior by increasing the level of psychological capital of employees, which in turn activates their intrinsic level of motivation and ultimately leads to improved their innovative behaviors. Accordingly, we propose the following hypothesis:

Hypothesis 4

Psychological capital and intrinsic motivation sequentially mediate in spiritual leadership and innovative behavior.

In summary, the theoretical model is shown in Figure 1.

Methods

Sample and Procedure

We collected responses by a three-stage questionnaire from 6 manufacturing companies in Guangdong Province, People's Republic of China. In the first phase, we distributed questionnaires to employees and asked them to rate their perceptions of the variables of spiritual leadership and control. We received 1300 completed questionnaires, of which 1178 were valid, representing the response rate of 90.6% in the first phase. In the second phase (1 month later), we distributed questionnaires to employees which were asked to assess their psychological capital and intrinsic motivation. We received 1038 complete and valid questionnaires, for a response rate of 88.1% in the second phase. In the third phase (1 month later), we distributed questionnaires to employees which were asked to assess their innovative behaviors. We received 886 complete and valid questionnaires, for a response rate of 85.4% in the third phase. Finally, overall response rate is 68.2%. Within the sample, 47.3% were male and the mean age of the employees was 28.23 (SD=6.56).

Measures

Spiritual leadership

We assessed employees' perceptions of spiritual leadership using a 13 items scale from Fry et al (2005). Sample items are "I understand and am committed to my organization's vision". Respondents rated the extent to which they perceive their supervisors spiritual leadership based on a 7 points Likert-type scale from 1 ("strongly disagree") to 7("strongly agree"). The alpha coefficient was .90.

Psychological capital

The 12 items scale used by Luthans et al. (2007) was adopted. Sample items read "I feel confident analyzing a long-term problem to find a solution.". Respondents rated this scale based on a six points Likert-type scale ranging from 1 ("strongly disagree") to 6 ("strongly agree") Cronbach's alpha was 0.89.

Intrinsic motivation

We assessed employees' intrinsic motivation using a 5 items scale from Tierney et al. (1999). Sample items including "I enjoy finding solutions to complex problems". Respondents rated this scale based on a 6 points scale (1= "strongly disagree" to 6 = "strongly agree"). The scale's reliability was .75.

Innovative behavior

The 6 items scale adapted from Scott and Bruce (1994) were used to measure the extent to which employees show innovative behaviors. Sample items such as "I always search out new technologies, processes, techniques, and/or product ideas". Items were rated on a 5 points scale ranging from 1 ("not at all") to 5 ("to an exceptional degree"). Cronbach's alpha for this scale was .86.

Confirmatory Factor Analysis

To reduce the common method variance, we did Harman's Single-Factor Test, the explained variance of the first factor was 37.55%, which is less than 50%, and according to Harman (1976) we can assume that there is no serious common method bias. Furthermore, we conducted a validation factor analysis on four latent variables: spiritual leadership, intrinsic motivation, psychological capital, and innovative behavior. As shown in Table 1, the four-factor model provided the best fit to the data, and it was significantly better than the other alternative models, $\chi^2/df= 5.226$, RMSEA = .07, CFI = .94, IFI = .94. Therefore, the four variables designed in this study can indeed represent four different concepts, and the measurement had good discriminant validity, indicating that there is no serious homogeneous error in the data obtained in this study.

Table 1
 □ Results of confirmatory factor analysis of the measurement models. (N=886)

Measurement models	χ^2	<i>df</i>	$\Delta\chi^2$	CFI	IFI	SRMR	RMSEA
Four-factor	674.18	129		.94	.94	.04	.07
Three-factor	944.06	132	269.88(3)	.91	.91	.05	.08
Two-factor	1430.57	134	756.39 (5)	.86	.86	.06	.11
One-factor	1681.24	135	1,007.06 (6)	.84	.84	.06	.11

Note. * $p < .05$, ** $p < .01$. Cronbach's alphas are reported on the diagonal in parentheses. Three factors model is combined psychological capital and intrinsic motivation into one factor, two factors model is Two-factor (combined spiritual leadership, psychological capital and intrinsic motivation into one factor, one factor model is combined all items into one factor.

Descriptive Statistics

Table 2 shows the mean, standard deviation and correlation coefficient of each variable. The results showed that spiritual leadership had a significant positive relationship with psychological capital ($r = 0.72$, $p < 0.01$), intrinsic motivation ($r = 0.62$, $p < 0.01$) and innovative behavior ($r = 0.61$, $p < 0.01$). These results provided initial support for H1. Additionally, psychological capital was significantly positively correlated with intrinsic motivation ($r = 0.67$, $p < 0.01$). Furthermore, psychological capital and intrinsic motivation were significantly positively correlated with innovative behavior ($r = 0.74$, $p < 0.01$; $r = 0.76$, $p < 0.01$, respectively).

Table 2
 Means, standard deviations, and correlations of variables. (N=886)

	Mean	SD	1	2	3	4	5	6
1. Gender	1.53	.50						
2. Age	28.23	6.56	-.113**					
3. Spiritual leadership	4.61	.85	.02	.08*	(.90)			
4. Psychological capital	4.61	.84	-.03	.04	.72**	(.89)		
5. Intrinsic motivation	4.57	.92	-.083*	.06	.62**	.67**	(.75)	
6. Innovative behavior	4.65	.96	-.068*	-.01	.61**	.74**	.76**	(.86)

Note. * $p < .05$, ** $p < .01$. Cronbach's alphas are reported on the diagonal in parentheses.

Hypothesis Testing

Table 3 shows the results of the stepwise regressions. The control variables (gender and age) entered the model as the first step, and then the predictor variables entered the model. The results showed that spiritual leadership significantly and positively predicted psychological capital and intrinsic motivation, with spiritual leadership being positively related to psychological capital ($B=0.71$, $p<0.001$) and spiritual leadership being positively related to intrinsic motivation ($B=0.32$, $p<0.001$). However, the direct effect of spiritual leadership on innovative behavior was not significant, and hypothesis 1 was not supported. On the other hand, intrinsic motivation positively predicted innovative behavior, intrinsic motivation was positively correlated with innovative behavior ($B=.50$, $p<.001$), psychological capital significantly positively predicted intrinsic motivation and innovative behavior, psychological capital was positively correlated with intrinsic motivation ($B=0.50$, $p<0.001$), and psychological capital was positively correlated with innovative behavior ($B=0.47$, $p< 0.001$). Therefore, the results tentatively support H2 and H3.

Table 3
Regression path coefficients

	Psychological capital			Intrinsic motivation			Innovative behavior		
	<i>B</i>	<i>SE</i>	95% Confidence interval	<i>B</i>	<i>SE</i>	95% Confidence interval	<i>B</i>	<i>SE</i>	95% Confidence interval
Gender	-.04	.06	[-.15, .07]	-.14	.06	[-.26, -.02]	-.13	.07	[-.26, -.01]
Age	.01	.01	[-.01, .02]	.01	.01	[-.00, .02]	-.00	.00	[-.02, .01]
Spiritual leadership	.71 ^{***}	.03	[.66, .76]	.32 ^{***}	.05	[.23, .42]	.03	.04	[-.06, .11]
Psychological capital				.50 ^{***}	.05	[.40, .58]	.46 ^{***}	.04	[.38, .55]
Intrinsic motivation							.49 ^{***}	.04	[.43, .56]
<i>R</i> ²	.52 ^{***}			.49 ^{***}			.68 ^{***}		

Note. (1) ^{***} $p < .001$; (2) *B* are unstandardized regression coefficients, *SE* are standard errors.

To further test sequential mediation effects, we followed MacKinnon and Lockwood et al.'s (2004) recommendations and used the Bootstrap method and Mplus to test the significance of the mediated path, the results of the analysis were shown in Table 4. The results showed that the indirect effect of spiritual leadership through psychological capital on innovative behavior was significant, and the indirect 95% confidence interval for the effect was [0.26, 0.40], excluding zero points, thus H2 was further supported. The indirect effect of spiritual leadership on innovative behavior through intrinsic motivation was significant, with 95% confidence intervals for the indirect effect [0.11, 0.21], excluding zero points, which confirmed H3. The indirect effect of spiritual leadership on innovative behavior first through psychological capital and then through intrinsic motivation (Spiritual leadership → Psychological capital → Intrinsic motivation → Innovative behavior) was significant, with 95% confidence intervals for the indirect effect [0.13, 0.22], excluding zero, and hypothesis 4 was further supported. In addition, we compared the three indirect effects

of mediators, and found that the indirect effect mediated by psychological capital (a*b) was significantly different from the other two indirect effects ($B = 0.17, p < 0.001$; $B = 0.15, p < 0.001$), while the indirect effect mediated by intrinsic motivation were not significantly different. It indicates that psychological capital is a very important psychological mechanism that influences spiritual leadership and employees' innovative behavior.

Table 4
Total effect, direct effect, indirect effect and bootstrap test table

Model pathways	<i>B</i>	<i>SE</i>	Bootstrap 95%CI	Ratio to total effect
Direct effect	0.03	0.04	[-0.06, 0.11]	4.35%
Indirect effect a*b	0.33 ^{***}	0.03	[0.26, 0.40]	47.83%
Indirect effect d*e	0.16 ^{***}	0.03	[0.11, 0.21]	23.19%
Indirect effect a*c*e	0.17 ^{***}	0.02	[0.13, 0.22]	24.63%
Total effect	0.69 ^{***}	0.03	[0.62, 0.75]	100%
a*b-d*e	0.17 ^{***}	0.05	[0.09, 0.24]	
a*b-a*c*e	0.15 ^{***}	0.04	[0.08, 0.23]	
d*e-a*c*e	-0.014	0.04	[-0.08, 0.05]	

Note: (1) ^{***} $p < 0.001$; (2) The number of bootstrap samples used to estimate the confidence interval for the bias correction is 10,000; (3) The *B* values in the table are the unstandardized regression coefficients and the *SE* values are the standard errors; (4) The direct effect is spiritual leadership → innovative behavior; (5) The indirect effect a is spiritual leadership → psychological capital, b is psychological capital → innovative behavior, c is psychological capital → internal motivation, d is spiritual leadership → internal motivation, and e is internal motivation → innovative behavior.

Discussion

With increasing work stress and anxiety among employees (Chen et al., 2019), how to motivate innovative behavior in organizations has become an increasingly important issue. Based on the spiritual leadership theory and intrinsic motivation theory, this study examines the influence of spiritual leadership on employees' innovative behavior. We tried to explore the issue of psychological mechanisms by which spiritual leadership leads to employees' innovative behaviors. The results showed that there was a significant positive relationship between spiritual leadership and employees' innovative behavior. Furthermore, both psychological capital and intrinsic motivation mediated the relationship between spiritual leadership and innovative behavior. In addition, spiritual leadership increases the level of psychological capital, which increases the level of intrinsic motivation and thus promotes innovative behavior in employees. These results have not only yielded new insight into innovative behavior but could also provide some guiding principles for the management practice of employees' innovative behavior.

Theoretical Implications

First, spiritual leadership has a positive impact on followers' innovative behaviors. Our results show that spiritual leadership has a significant positive impact on followers' innovative behavior, which is consistent with the findings of most studies. Hence, we contribute to deepen the research on the effects of spiritual leadership on individual innovative behaviors and enrich the literature on the consequences of spiritual leadership on individual outcomes.

Second, psychological capital and intrinsic motivation mediate the relationship between spiritual leadership and innovative behavior. Mediating effect is the key to understanding the psychological mechanisms by which spiritual leadership affects individual innovative behavior. Psychological capital and intrinsic motivation both exert influence from the "cognitive" perspective, which has not been fully identified in current research, so this study is a useful supplement to this perspective of spiritual leadership influencing individual innovative behavior.

Third, psychological capital and intrinsic motivation have a sequential mediating role in the relationship in spiritual leadership and individual innovative behavior. This finding can theoretically further explain the mechanisms underlying the influence of spiritual leadership on individual innovative behavior. Our study shows that in addition to the two separately mediating paths, there is also a "psychological capital - intrinsic motivation" at the theoretical level mediating path. While previous studies have generally analyzed only a single psychological mechanism, the sequential mediating psychological mechanism found in this study can better explain the transmission mechanism of spiritual leadership on individual innovation behavior from cognitive perspective.

Practical Implications

The results of this study also have some practical implications for motivating employees' innovative behavior. Firstly, this study found that spiritual leadership played a positive influential role in motivating employees' innovative behaviors. Therefore, we suggest that managers need to develop more positive leadership styles, such as spiritual leadership, which could better meet the spiritual needs of employees in the workplace, thus motivating them to be more active and creative, which in turn promotes employees to exhibit more innovative behaviors. Secondly, we reveal the mediating role of psychological capital and intrinsic motivation, therefore managers should focus on improving employees' psychological capital and intrinsic motivation. For example, increasing employees' psychological capital and intrinsic motivation by regular training, thus further enhancing their motivation, creativity and performance.

Limitations and Future Research Directions

Inevitably, our study has some limitations that need to be further explored. First, although this study adopted a multi-stage measurement method to attenuate common method bias, the variables were all self-assessed by the employees, and the leader-employees paired multiple-source method could be used in the future to avoid common method bias. Meanwhile longitudinal follow-up studies can also be added, which can better reflect the causal relationship between variables. Second, this study's sample is mainly

concentrated in South China, and the applicability of the findings to other regions is yet to be verified. Third, we focused on the underlying mechanisms of the effect of spiritual leadership on employees' innovative behaviors, but have overlooked some moderating factors that may affect the relationship between spiritual leadership and employees innovation behavior. Therefore, future research could attempt to further explore the boundary conditions under which spiritual leadership has an effect on employees' innovative behavior.

Declarations

Statements

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standard. The authors also declare that they have no conflict of interest.

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DATA AVAILABILITY

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

INFORMED CONSENT

Informed consent was obtained from all individual participants included in the study.

References

1. Afsar, B., Badir, Y., & Kiani, U. S. (2016). Linking spiritual leadership and employee pro-environmental behavior: The influence of workplace spirituality, intrinsic motivation, and environmental passion. *Journal of Environmental Psychology, 45*, 79-88. doi.org:10.1016/j.jenvp.2015.11.011
2. Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in organizational behavior, 10*(1), 123-167.
3. Amabile, T. M. (1993). Motivational synergy: Toward new conceptualizations of intrinsic and extrinsic motivation in the workplace. *Human resource management review, 3*(3), 185-201. doi: 10.1016/1053-4822(93)90012-S

4. Avey, J. B., Avolio, B. J., & Luthans, F. (2011). Experimentally analyzing the impact of leader positivity on follower positivity and performance. *The Leadership Quarterly*, 22(2), 282-294. doi: 10.1016/j.leaqua.2011.02.004
5. Avey, J. B., Luthans, F., & Youssef, C. M. (2010). The additive value of positive psychological capital in predicting work attitudes and behaviors. *Journal of management*, 36(2), 430-452. doi:10.1177/0149206308329961
6. Aydin, B., & Ceylan, A. (2009). The effect of spiritual leadership on organizational learning capacity. *African Journal of Business Management*, 3(5), 184. doi: 10.5897/AJBM09.015
7. Cerasoli, C. P., Nicklin, J. M., & Ford, M. T. (2014). Intrinsic motivation and extrinsic incentives jointly predict performance: A 40-year meta-analysis. *Psychological bulletin*, 140(4), 980. doi: 10.1037/a0035661
8. Chen, C. Y., & Yang, C. F. (2012). The impact of spiritual leadership on organizational citizenship behavior: A multi-sample analysis. *Journal of business ethics*, 105(1), 107-114. doi: 10.1007/s10551-011-0953-3
9. Chen, S., Jiang, W., Zhang, G., & Chu, F. (2019). Spiritual Leadership on Proactive Workplace Behavior: The Role of Organizational Identification and Psychological Safety. *Frontiers in psychology*, 10, 1206. doi: 10.3389/fpsyg.2019.01206
10. Cho, J., & Dansereau, F. (2010). Are transformational leaders fair? A multi-level study of transformational leadership, justice perceptions, and organizational citizenship behaviors. *The Leadership Quarterly*, 21(3), 409-421. doi: 10.1016/j.leaqua.2010.03.006
11. De Jesus, S. N., Rus, C. L., Lens, W., & Imaginário, S. (2013). Intrinsic motivation and creativity related to product: A meta-analysis of the studies published between 1990–2010. *Creativity Research Journal*, 25(1), 80-84. doi: 10.1080/10400419.2013.752235
12. Devloo, T., Anseel, F., De Beuckelaer, A., & Salanova, M. (2015). Keep the fire burning: Reciprocal gains of basic need satisfaction, intrinsic motivation and innovative work behaviour. *European Journal of Work and Organizational Psychology*, 24(4), 491-504. doi: 10.1080/1359432X.2014.931326
13. Fischer, C., Malycha, C. P., & Schafmann, E. (2019). The influence of intrinsic motivation and synergistic extrinsic motivators on creativity and innovation. *Frontiers in psychology*, 10, 137. doi: 10.3389/fpsyg.2019.00137
14. Ford, C. M. (1996). A theory of individual creative action in multiple social domains. *Academy of Management review*, 21(4), 1112-1142. doi: 10.5465/amr.1996.9704071865
15. Fry, L. , & Kriger, M. . (2009). Towards a theory of being-centered leadership: multiple levels of being as context for effective leadership. *Human Relations*, 62(11), 1667-1696. doi: 10.1177/0018726709346380
16. Fry, L. W. (2008). Spiritual leadership: State-of-the-art and future directions for theory, research, and practice. In *Spirituality in business* (pp. 106-124). Palgrave Macmillan, New York. doi: 10.1057/9780230611887_7

17. Fry, L. W. , Vitucci, S. , & Cedillo, M. . (2005). Spiritual leadership and army transformation: theory, measurement, and establishing a baseline. *leadership quarterly*, 16(5), 0-862. doi: 10.1016/j.leaqua.2005.07.012
18. Fry, L. W. . (2003). Toward a theory of spiritual leadership. *The Leadership Quarterly*, 14(6), 693-727. doi: 10.1016/j.leaqua.2003.09.001
19. Fry, L. W., Matherly, L. L., Whittington, J. L., & Winston, B. E. (2007). Spiritual leadership as an integrating paradigm for servant leadership. *Integrating spirituality and organizational leadership*, 70-82.
20. Gong, Y., Huang, J. C., & Farh, J. L. (2009). Employees learning orientation, transformational leadership, and employees creativity: The mediating role of employees creative self-efficacy. *Academy of management Journal*, 52(4), 765-778. doi: 10.5465/amj.2009.43670890
21. Gooty, J., Gavin, M., Johnson, P. D., Frazier, M. L., & Snow, D. B. (2009). In the eyes of the beholder: Transformational leadership, positive psychological capital, and performance. *Journal of Leadership & Organizational Studies*, 15(4), 353-367. doi:10.1177/1548051809332021
22. Greve, H. R., & Taylor, A. (2000). Innovations as catalysts for organizational change: Shifts in organizational cognition and search. *Administrative Science Quarterly*, 45(1), 54-80. doi: 10.2307/2666979
23. Hackman, J.R. and Oldham, G.R. (1976) Motivation through the Design of Work: Test of a Theory. *Organizational Behavior and Human Performance*, 16, 250-279.
24. Han, J. K., Kim, N., & Srivastava, R. K. (1998). Market orientation and organizational performance: is innovation a missing link?. *Journal of marketing*, 62(4), 30-45. doi: 10.1177/002224299806200403
25. Harman, H. H. (1976). *Modern factor analysis* (3rd ed.). Chicago, IL: University of Chicago Press.
26. Hogan, S. J., & Coote, L. V. (2014). Organizational culture, innovation, and performance: A test of Schein's model. *Journal of Business Research*, 67(8), 1609-1621. doi: 10.1016/j.jbusres.2013.09.007
27. Hou, B., Hong, J., Zhu, K., & Zhou, Y. (2019). Paternalistic leadership and innovation: the moderating effect of environmental dynamism. *European Journal of Innovation Management*. doi:10.1108/ejim-07-2018-0141
28. Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. *Journal of Occupational and organizational psychology*, 73(3), 287-302. doi: 10.1348/096317900167038
29. Janssen, O. (2001). Fairness perceptions as a moderator in the curvilinear relationships between job demands, and job performance and job satisfaction. *Academy of management journal*, 44(5), 1039-1050. doi: 10.5465/3069447
30. Jung, D. I., Chow, C., & Wu, A. (2003). The role of transformational leadership in enhancing organizational innovation: Hypotheses and some preliminary findings. *The leadership quarterly*, 14(4-5), 525-544. doi: 10.1016/S1048-9843(03)00050-X
31. Jurkiewicz, C. L., & Giacalone, R. A. (2004). A values framework for measuring the impact of workplace spirituality on organizational performance. *Journal of business ethics*, 49(2), 129-142. doi:

10.1023/B:BUSI.0000015843.22195.b9

32. Klaijnsen, A., Vermeulen, M., & Martens, R. (2018). Teachers' innovative behaviour: The importance of basic psychological need satisfaction, intrinsic motivation, and occupational self-efficacy. *Scandinavian Journal of Educational Research*, 62(5), 769-782. doi: 10.1080/00313831.2017.1306803
33. Kong, M., Xu, H., Zhou, A., & Yuan, Y. (2019). Implicit followership theory to employee creativity: The roles of leader–member exchange, self-efficacy and intrinsic motivation. *Journal of Management and Organization*, 25(1), 81-95. doi:10.1017/jmo.2017.18
34. Li, Y., Wang, M., Van Jaarsveld, D. D., Lee, G. K., & Ma, D. G. (2018). From employees-experienced high-involvement work system to innovation: An emergence-based human resource management framework. *Academy of Management Journal*, 61(5), 2000-2019. doi: 10.5465/amj.2015.1101
35. Liu, D., Jiang, K., Shalley, C. E., Keem, S., & Zhou, J. (2016). Motivational mechanisms of employees creativity: A meta-analytic examination and theoretical extension of the creativity literature. *Organizational behavior and human decision processes*, 137, 236-263. doi: 10.1016/j.obhdp.2016.08.001
36. Luthans, F., & Youssef, C. M. (2004). Human, social and now positive psychological capital management: investing in people for competitive advantage. *Organizational Dynamics*, 33(2), 143-160. doi: 10.1016/j.orgdyn.2004.01.003
37. Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological capital: An evidence-based positive approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 4, 339-366. doi: 10.1146/annurev-orgpsych-032516-113324
38. Luthans, F., Avey, J. B., Avolio, B. J., & Peterson, S. J. (2010). The development and resulting performance impact of positive psychological capital. *Human resource development quarterly*, 21(1), 41-67. doi:10.1002/hrdq.20034
39. Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate–employees performance relationship. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 29(2), 219-238. doi: 10.1002/job.507
40. Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). Psychological capital: Developing the human competitive edge.
41. Messmann, G., & Mulder, R. H. (2014). Exploring the role of target specificity in the facilitation of vocational teachers' innovative work behaviour. *Journal of occupational and organizational psychology*, 87(1), 80-101. doi: 10.1111/joop.12035
42. Newman, A., Ucbasaran, D., Zhu, F. E. I., & Hirst, G. (2014). Psychological capital: A review and synthesis. *Journal of Organizational Behavior*, 35(S1), S120-S138. doi: 10.1002/job.1916
43. Norman, S. M., Avolio, B. J., & Luthans, F. (2010). The impact of positivity and transparency on trust in leaders and their perceived effectiveness. *The Leadership Quarterly*, 21(3), 350-364. doi: 10.1016/j.leaqua.2010.03.002

44. Oldham, G. R., & Cummings, A. (1996). Employees creativity: Personal and contextual factors at work. *Academy of management journal*, 39(3), 607-634. doi: 10.5465/256657
45. Parker, S. K., Williams, H. M., & Turner, N. (2006). Modeling the antecedents of proactive behavior at work. *Journal of applied psychology*, 91(3), 636. doi: 10.1037/0021-9010.91.3.636
46. Reave, L. (2005). Spiritual values and practices related to leadership effectiveness. *The leadership quarterly*, 16(5), 655-687. doi: 10.1016/j.leaqua.2005.07.003
47. Salehzadeh, R., Pool, J. K., Lashaki, J. K., Dolati, H., & Jamkhaneh, H. B. (2015). Studying the effect of spiritual leadership on organizational performance: an empirical study in hotel industry. *International journal of culture, tourism and hospitality Research*. doi: 10.1108/IJCTHR-03-2015-0012
48. Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of management journal*, 37(3), 580-607. doi: 10.5465/256701
49. Sheldon, K. M., Ryan, R. M., Rawsthorne, L. J., & Ilardi, B. (1997). Trait self and true self: Cross-role variation in the Big-Five personality traits and its relations with psychological authenticity and subjective well-being. *Journal of personality and social psychology*, 73(6), 1380. doi: 10.1037/0022-3514.73.6.1380
50. Shin, S. J., & Zhou, J. (2003). Transformational leadership, conservation, and creativity: Evidence from Korea. *Academy of management Journal*, 46(6), 703-714. doi: 10.5465/30040662
51. Strauss, K., Griffin, M. A., & Rafferty, A. E. (2009). Proactivity directed toward the team and organization: The role of leadership, commitment and role-breadth self-efficacy. *British Journal of Management*, 20(3), 279-291. doi: 10.1111/j.1467-8551.2008.00590.x
52. Sweetman, D., Luthans, F., Avey, J. B., & Luthans, B. C. (2011). Relationship between positive psychological capital and creative performance. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 28(1), 4-13. doi: 10.1002/cjas.175
53. Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment: An "interpretive" model of intrinsic task motivation. *Academy of management review*, 15(4), 666-681. doi: 10.5465/amr.1990.4310926
54. Tierney, P., Farmer, S. M., & Graen, G. B. (1999). An examination of leadership and employees creativity: The relevance of traits and relationships. *Personnel psychology*, 52(3), 591-620. doi: 10.1111/j.1744-6570.1999.tb00173.x
55. Vallerand, R. J. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. In *Advances in experimental social psychology* (Vol. 29, pp. 271-360). Academic Press. doi: 10.1016/S0065-2601(08)60019-2
56. Wang, M., Guo, T., Ni, Y., Shang, S., & Tang, Z. (2019). The effect of spiritual leadership on employees effectiveness: An intrinsic motivation perspective. *Frontiers in psychology*, 9, 2627. doi: 10.3389/fpsyg.2018.02627
57. Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of management review*, 18(2), 293-321. doi: 10.5465/amr.1993.3997517

58. Yaghoubi, N. M., Moloudi, J., & Banihashemi, S. A. (2010). The relationship between spirituality leadership and empowerment. *American Journal of Scientific Research*, 12, 180-186.
59. Yang, J., Chang, M., Chen, Z., Zhou, L., & Zhang, J. (2020). The chain mediation effect of spiritual leadership on employees' innovative behavior. *Leadership & Organization Development Journal*.doi:10.1108/LODJ-10-2019-044

Figures

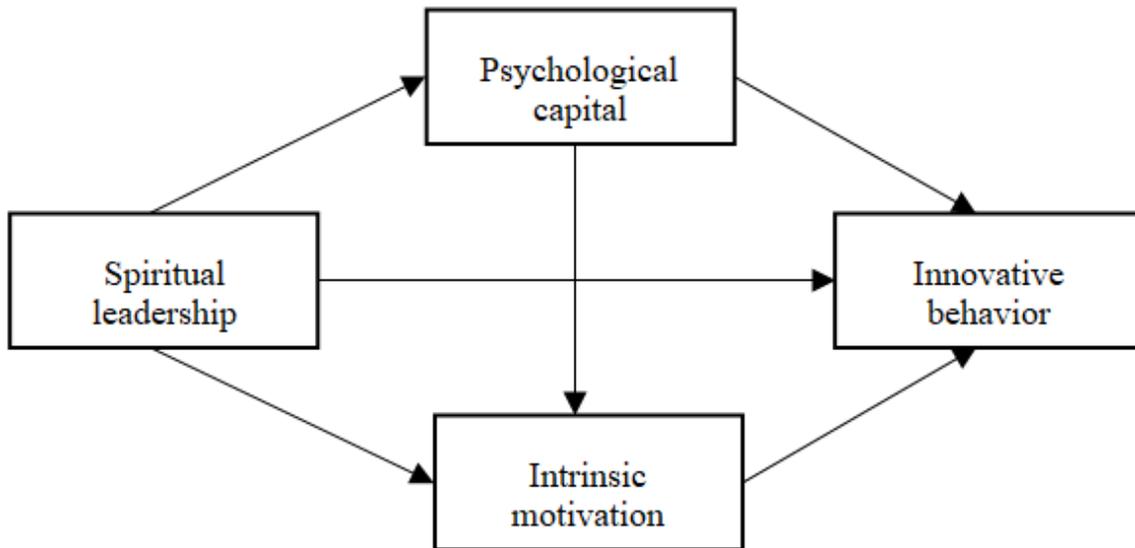


Figure 1

Conceptual research framework