

Advancing employee's innovative work behaviors in the workplace: The role of transformational leadership, positive psychological capital and effort-reward fairness

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ABSTRACT

Despite the mounting evidence that leadership can fuel the innovation behavior of employees, yet no study considered the psychological state of employees in such a relationship while Psychology is the primary root of human feelings and behavior. In this regard, this study uses the integrative approach of transformational leadership theory and positive psychology to uncover the pivotal role of positive psychological capital (PsyCap) and perceived effort-reward fairness in the relationship between transformational leadership (TFL) and employee's innovation behavior. Data collected from 14 banking institutions operating in Rwanda (412 total respondents) were analyzed using structural equation modeling and findings support our hypothesized model

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Introduction

Change Faced with a competitive and ever-changing business environment, most organizations have been forced to modify their products and services to meet the rapidly changing customer demands (Khalili, 2016; De Jong & Den Hartog, 2007). Innovation is a crucial factor in organizational success and as such companies need new ideas, products, and services to meet customer demands and increase their competitive advantage (Sattayaraksa & Boon-itt, 2016; Gashema & Gao, 2018). While ideas themselves may be radical and can change structures and organizations, employees require charming and charismatic leaders to trigger the implementation of those ideas in the workplace (Bass, Avolio, Jung, & Berson, 2003). In line with several studies in the literature, one strategy of achieving that is through viable transformation leadership (e.g. Jung, Bass, & Sosik, 1995; Zhao, & Begley, 2015; Bass & Steidlmeier, 1999). In the same vein, De Jong & Den Hartog, (2007) asserted that transformation and adaptability of organizations in today volatile business environment require a sharp vision and considerable attention to the driving factors of innovation. Within this context, Jung et al., (1995) suggested that human resources (HR) managers need to fully understand the leadership behavior that considers Innovative work culture of the employees to become more innovative.

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In recent years, TFL behavior is attracting a widespread interest due to its fundamental characteristics that arouse different positive behaviors among the followers. For example, Groves & LaRocca, (2012) describe TFL as a process of transforming followers from present state to an improved future state using behavioral dimensions. Yukl, (1999) define TFL as a critical determinant of organizational effectiveness through its influences on followers' behaviors in achieving goals. In the Graves's work, he underlines the TFL potential influence in provoking employee to look beyond self-interests for the good of the team and organization (Groves, 2014). According to Bass & Avolio, (1990); Afsar, Badir, & Bin Saeed, (2014), TFL behavior lifts the employee abilities for innovation. In the same view, Bass et al., (2003); Bass, (2000) argued that employees under TFL tend to exhibit more creative and innovation behaviors at the workplace. Although, within the context of these views, the arisen question was to know why and how transformational leaders reinforce innovative work behaviors among the employees. Within this in mind, this paper takes a new look at different psychological aspects that make the relationship between transformational leaders and employees innovation behaviors more operative.

Drawing from TFL theory, Bass's explanation of TFL is fully justified and provide more insights on the potentiality of transformational leaders in influencing positive organizational behaviors among employees (e.g. Bass, 2000; Khalili, 2016; Afsar et al., 2014). While it is well-known that individual behavior is largely based on psychological state, we are still having few psychological factors in mediation effect of the relationship between TFL and IWB. According to Waldman, Siegel, & Javidan, (2006), transformational leaders drive innovation behavior among the followers through inspiration and stimulation, in this regard, psychological arousal which influences how individual behave would add more strengths in the relationship between leaders and employees. However, it is vital to examine the interdisciplinarity of supervisory leadership behavior and psychological state of employees in raising innovation behavior at workplace, since this relationship is theoretically supported. Our new model that presents the joint effect of both TFL and PsyCap on employee's IWB is consistent with considerable studies in the literature. For instance, Gooty, Gavin, Johnson, Frazier, & Snow, (2009) explained the motivational impact of a transformational leader to the motivational propensity inherent in PsyCap. According to Bass & Avolio, (1990), the critical components of TFL, keep up their effect for achieving organizational targets and missions by building employee's bravery, fearlessness, self-adequacy, and confidence. In this regard, people with Self-efficacy are characterized by high self-confidence of completing the challenging tasks (Luthans, Avolio, & Avey, 2007), while people with hope are those with positive mindset of succeeding today and in the future (Luthans & Youssef, 2007). In the same vein, people who are optimistic have a strong character of perseverance and complaisance of achieving goals (Luthans et al., 2007), while those with resiliency have high confidence in their ability to rebound and even do better when facing difficulties in the workplace (Luthans & Youssef, 2007). Although, despite these interesting theoretical arguments, no one to the best of our knowledge has linked TFL and PsyCap to build-up innovative work behavior in the workplace. In this context, within the framework of these theoretical arguments, we believe that our new mechanism presents a viable intermediacy between supervisors and employees.

Along the side of the above arguments, the evidence in the literature also alludes that workplace fairness play a crucial role in employee outcomes, especially in innovative work behaviors (Janssen, 2000; Adebayo et al., 2008). In line with Janssen, (2004), perceptions of fairness in reward system make employee engage in the extra-role behaviors. Messer & White, (2006) added that, perceived fairness arouses organizational positive behavior among employees. Thus, these theoretical arguments validate the usefulness of perceived effort-reward fairness as a potential moderator in our new model. Hence, within the framework of such theoretical evidences, it is an indication that TFL would value and promote innovation at its higher level of performance if workplace fairness is assured. As indicated in previous studies, TFL fosters creativity (Jung et al., 2003), TFL increases job performance (Bass et al., 2003), TFL encourages and influences innovative behavior (Afsar et al., 2014). However, despite this interesting relationship, research to date fails to add psychological and ethical influence in this relationship. Therefore, drawing from TFL theory and previous studies this study broadens current knowledge of leadership and innovation by making three noteworthy contributions to existing literature.

First, TFL is considered one of the primary drivers of innovation outcomes (Peterson, Walumbwa, Byron, & Myrowitz, 2009), besides that, employee's PsyCap is an essential positive social contextual factor of positive results (Wojtczuk-Turek & Dariusz, 2015). Additionally, PsyCap also is evidenced to drive employees positive outcomes at the workplace. (Luthans et al., 2007). Therefore, underlying mechanism in which TFL and PsyCap collaborate to promote innovation behaviors is still missing in the literature. In the literature there seems to be no particular study that link TFL, PsyCap and employee's IWB. Thus, our model is filling such gap by adding PsyCap in mediating the linkage between TFL and employee's IWB. Second, workplace fairness is seen as the most critical issue in behavioral outcomes (Janssen, 2000). Although, it has not yet been established whether transformational leaders can strengthen Employee's IWB through workplace fairness. Thus, adding the moderation effect of perceived efforts-reward fairness in the model, would be a surmountable contribution to the existing literature and we believe that we have found an innovative and interesting approach for different HR managers and scholars. Third, the current study is responding to different calls for unfilled gaps proposed by previous studies. For instance, Avey, Rebecca, Reichard & Luthans, (2011), suggested the need for more research on PsyCap and its practical applications. De Jong & Den Hartog, (2007), proposed a further study on both leaders and organizational settings. According to Hsu & Chen, (2017), PsyCap is still in its infancy and need more future research on its relationship with employee innovativeness.

Literature Review

Theoretical background

This study examined the relationship between transformational leadership (TFL), positive psychological capital (PsyCap), and perceived efforts-reward fairness, and its influence on innovative behaviour of employees. In line with Bass & Avolio, (1990), we believe that some of the fundamental characteristics of transformational leaders namely; inspirational, Entertain new ideas, Proactive, share collective organizational consciousness and Ability to take the right risks would be the most suitable route for employee's innovative behaviors since innovative behavior is an outcome of interacting system between leaders and employees (Scott & Bruce, 1994). In the same vein, we also believe that such transformational leader's qualities would motive and trigger employees' positive organizational behaviors since it can stimulate the courage, ambition and inquiring minds of the followers. In another hand, Janssen, (2000) mentioned perceived fairness in rewarding system as one of the best ways to keep employees positive attitudes in the workplace. Thus, perceptions of effort-reward fairness introduced in the model set to become a vital factor in accelerating employee's innovative behavior in the workplace. The underlying theories guiding the conceptual framework of this study is interactively built on Bass's TFL theory and positive organizational behavior developed by Luthans & Youssef (2007). The construct of positive psychological capital (PsyCap) has its roots from positive organizational behavior (POB) developed by Luthans, 2002b;2002a). In these two studies, Prof. F. Luthans defined POB as

“the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace”(Luthans, 2002a; 2002b).

Drawing from positive psychology theory, Luthans, Norman, Avolio, & Avey, (2008) describes the four psychological resources that best meet positive organizational behavior (POB) (i.e. Hope, self-efficacy, resiliency, and optimism) which were termed as positive psychological capital PsyCap. According to Avey, Luthans, & Youssef, (2010), PsyCap refer to an individual's positive psychological state of development that is characterized by confidence to challenge the tasks, optimistic to make positive contribution, persevering toward goals and redirecting paths to goals when necessary. Based on Bandura (1994) social cognitive theory, people with high Self-efficacy show the positive psychological state of completing challenging tasks and having enough confidence to successfully handle issues related to the tasks (Luthans et al., 2007). Hope has two main components (1) agency and (2) pathway (Luthans & Youssef 2007). People with a positive outlook on today and future success have self- motivational in achieving defined goals (Luthans et al., 2007). With regards to optimism, optimistic employees have high dedication, endurance perseverance, and flexibility in achieving goals (Peterson et al., 2009). They also have an inner attitude of positively handling tasks (Hsu & Chen, 2017). Resilient people can rebound from misery, battle, failure and proceed with a positive mindset of progress and increased engagement (Luthans & Youssef, 2007). Luthans et al., (2007), linked Resiliency (i.e., a positive behavior of coping and adaptation when facing a significant risk) with Positive organizational behavior or positivity of employees to make an organizational change.

In positive psychology theory, where PsyCap has its ground roots (Luthans, 2002b;2002a). Seligman & Csikszentmihalyi (2000), explained positive psychology as positive individual traits characterized by perseverance, courage, spirituality, hope, future-mindedness, responsibility wisdom, creativity. In “the Broaden-and-Build Theory of Positive Emotions,” Fredrickson (2001), explained the theoretical perspective of positive emotions and also positioned this new perspective within the field of positive psychology. Drawing from “Broaden-and-Build theory,” people who are psychologically positive, are more engaged in open-minded tasks (Fredrickson, 2004), showing a high capacity of development and enhancing cognitive ability (Fredrickson, 2001). Within the framework of these theories, it stands to reason that PsyCap arouse employee's IWB. In self-efficacy theory, an individual with high efficacy tends to master the challenges of difficult tasks rather than seeing them as threats which should be avoided (Bandura 1994). In the same vein, Sweetman, Luthans, Avey, & Luthans, (2011) added that, high self-efficacy develops an aspect of fearlessness of undertaking the risky and challenging tasks of employees in the workplace.

Empirical studies

The current business environment is ever changing and thus to remain in business and be competitive, organizations should mobilize needed resources to embrace innovation and make it a permanent process. In this regard, this paper calls into question on how to make innovation a continuous process. Therefore, this study takes a new look at the new insights on the ways of Stimulating Innovation behavior in the workplace. As defined by De Jong & Den Hartog (2007), innovation behavior is one's ability to explore opportunities and generate new ideas or methods to enhance business performance. According to Scott & Bruce (1994), innovation behavior occurs when recognizing the problem and generating the ideas for solutions, either novel or adopted. Given the fact that innovation has become an essential tool to compete in today's changing global business environment (Jaiswal & Dhar, 2015), it stands to reason that the current literature on leadership and innovation needs to be extended. In this context, we tried to extend this relationship drawing

arguments from Bass's TFL theory. Several authors have attempted to define TFL in different aspects that related to follower's positive attitudes. Bass, (2000) defined TFL as a leadership where a leader works with teams to identify needed change, creating a vision to guide the change through Individualized consideration, Intellectual stimulation, Inspirational Motivation, and Idealized Influence. In accordance with such leadership practices, we found much higher values for examining the possible influence of transformational leaders to follower's innovation behaviors. TFL was evidenced in the literature as the key driver of employees' attitudes (Waldman et al., 2006). Comparing transformational and transactional leadership, Bass et al. (2003) argued that TFL relates more strongly to employees extra-effort. TFL also prompt employees self-confidence in different ways and achievements (Jung et al., 2003). Much work on the potential of PsyCap to alter different employees' behavioral outcomes has been carried out. For instance, individuals who are characterized by high PsyCap display more creative and innovative behavior in their activities (Luthans & Youssef, 2007). Although, consideration of such recent evidence on potentiality of PsyCap, enabled us to thoroughly investigate its potential mediating effect in the relationship between TFL and employee's IWB.

Fairness in the workplace is defined as the fair and transparent methods and guidelines for rewards allocation in the organizational settings (see. Niehoff & Moonman, 2007). In the context of social exchange theory (SET), Cropanzano, (2015) explained employees behavior as reciprocation to organization treatment. According to Cropanzano & Mitchell, (2005), SET is among the most influential conceptual model for understanding workplace behavior. Using SET Agarwal, (2014a) revealed that, to reciprocate to social support received, employees engage in extra-role behaviors for the sake of the organizational success. Drawing from SET, Janssen, (2000) added that when employees perceive work efforts recognition as fair, they will be motivated and ultimately increase their workplace efforts. In our view, these theoretical arguments emphasize the validity of our model. Several studies link workplace fairness with leadership effectiveness and employees' positive outcomes. For example, Leadership is effective when one shows distributive, procedural, and interactional fairness in the workplace (Knippenberg, Cremer, & Knippenberg, 2007). As mentioned by Adebayo et al., (2008), leaders should create a state of equity at a workplace where employees are not under or over-rewarded in the workplace. In such situations, employees are willing to reciprocate by exhibiting discretionary behaviors such as innovative activeness as long as their efforts are fairly recognized and rewarded in the organization (Janssen, 2000).

Hypothesis development and research model

Transformational leadership and innovative work behavior

Transformational leaders let their followers think and find the best solutions from different angles and help followers achieve extraordinary success (e.g. Walumbwa et al., 2008; Khalili, 2016; Bass, 2000). More recent theoretical literature allude that TFL components generate higher levels of effort (see. Walumbwa, Lawler, Avolio, Peng Wang, & Kan Shi, 2005) and impact employee risk-taking. However, the evidence from these theoretical arguments points towards the possibility of transformational leaders to provoke innovative work behavior among employees. For further evidence about individual effects, transformational leaders possess Charismatic leadership behavior that transform followers' needs, values, preferences, and aspirations (e.g. Bass & Avolio, 1990). Additionally, TFL raises awareness of the concerns, achievements hunger and self-actualization among employees (see. Scott & Bruce, 1994). However, in line, with such extensive evidence from the literature, we thus, state our hypothesis as follows:

Hypothesis 1: TFL directly and positively influences employees' innovation behaviors

TFL and Positive psychological capital

Advancing TFL theory, Bass et al., (2003;2000) revealed that, TFL fuel employees' positivity by inspiring them to accomplish more than they initially expected and significantly more than they thought conceivable. Several studies have linked TFL components to PsyCap components, for example idealized influence creates confidence and employee's hope of achieving an optimal level of goals (Bass & Avolio, 1990; Bass, 2000). Inspirational motivation stimulates the energy to accomplish which build optimism and confidence among employees (Bass & Avolio, 1990). TFL raises employees resiliency when intellectually stimulating them to tackle problems using their ways (Bass et al. 2003; Bass, 2000) and creates self-efficacy of employees by building their self-confidence and self-esteem. TFL is also proposing to building employees' positive state of mind by using intrinsic motivation like inspiration, empowering, and pushing employees to achieve the goals (Luthans et al., 2007). In the same vein, Gupta & Singh, (2014) found a positive mediating role of PsyCap in relationship between leadership and Creative performance behaviors. According to Gooty, Gavin, Johnson, Frazier, & Snow, (2009), perceptions of TFL behavior enthuse employee's PsyCap. Therefore, looking on these arguments from the literature and TFL theory, it stands to reason that transformational leaders build the positive psychological capital of their followers and PsyCap is likely to become an important mediation mechanism between supervisory leadership styles and employees' positive behaviors in the workplace. Thus, in line with these arguments, our study hypothesis as follows:

H2: Transformational leadership positively influences employees' PsyCap.

PsyCap and innovative work behavior

The relationship of PsyCap and employee’s IWB introduced in our model is consistent with several studies in the literature. For instance Wojtczuk-Turek & Dariusz, (2015) endorsed the mediating effect of PsyCap in relationship between HR flexibility and employee’s IWB. Hsu & Chen, (2017) found a positive mediating influence of PsyCap in relationship between organizational innovation climate and employee’s IWB. Luthans, Norman, Avolio, & Avey, (2008b) studied the mediating role of PsyCap in relationship between supportive organizational climate and employee performance. Jung & Yoon, (2015) found a positive effect of PsyCap on job satisfaction and organizational citizenship behavior. However, based on the above arguments, we propose that PsyCap runs as an internal drive to employee’s IWB and as such this study hypothesizes as follows:

H3: PsyCap mediates the leadership between TFL and innovation behavior of employees.

Perceived efforts-reward fairness & innovative work behavior

Perceived efforts-reward fairness in the workplace has been cited in the literature as playing a pivotal role in employees’ extra-role behaviors in the workplace (see Janssen, 2004; Dahanayake, Rajendran, Selvarajah, & Ballantyne, 2018; Odeku, 2013; Sparr, Sonnentag, Sparr, & Sonnentag, 2008). Other studies linked fairness with positive employees’ outcomes such as satisfaction which in turn leads to creative behaviors. For instance, perceived fairness of formal rules and procedures positively influences job satisfaction of employees (Choi & Rainey, 2014). When rewards are allocated fairly according to performance, employees will be assured that formal procedures are accurately and consistently followed (Knippenberg et al., 2007), in which case employees will need to improve their organizational citizenship performance. Perceived inequity at the workplace is linked to emotional exhaustion and reduced personal accomplishment (VanYperen, 1998). Perception of equitable employee workplace treatment influence employee’s self-efficacy (VanYperen, Buunk, & Schaufeli, 1996).

Although, based on this literature, we thus, propose that:

H4: Perceived efforts-reward fairness moderates the relationship between TFL and employee’s IWB, such that, this relationship is more positive with high than with low perceptions of effort-reward fairness in organizational rewarding system.

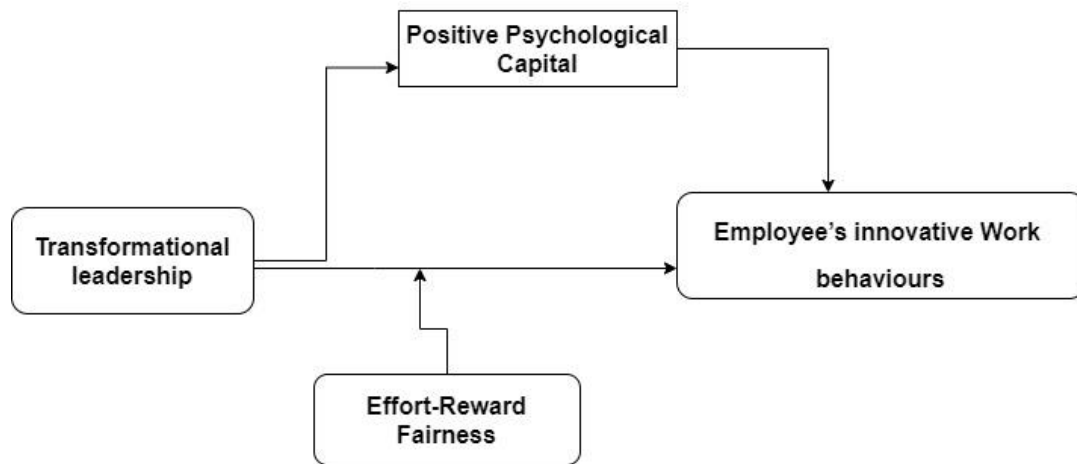


Fig.1: Conceptual model of constructs relationship

Research and Methodology

Sample and procedure of data collection

A cross-sectional study was conducted to address the hypotheses formulated in this study. The target population consisted of 4688 employees from the tactic level of management in all the 14 banking institutions operating in Rwanda. A sample of 462 respondents was selected through proportionated stratified sampling. 462 survey questionnaires were distributed to the respondents in two phases to address the possible common method bias. In the first phase, 462 questionnaires were distributed to the respondents for rating the leadership behavior of their supervisors and perceived efforts-reward fairness in their organizations. In 30 days later, another round of 462 questionnaires was distributed to the same respondents asking them to rate their innovation behavior and their level of psychological capital. After matching time-lag of data collection, we found that total 448 questionnaires for both waves were completed and returned. (96% of response rate). During the process of data entry, some questionnaires were found untrustworthy (rating the same

for all items) and insufficiency (missing information). In this regard, 36 questionnaires dropped which resulted in 412 fully completed questionnaires about 89% of the total response rate.

Measurement

To test the study hypotheses, multi-item scales adopted from prior investigations for the measurement of constructs were used. Apart from general identification of respondents, all other items were measured on a seven-point Likert-type scale where (1) strongly disagree to (7) strongly agree. **Transformational leadership** was measured by the global transformational leadership scale (GTL) developed by (Carless, Wearing, & Mann, 2000). We used this scale instead of a widely adapted Multifactor Leadership Questionnaire -Form 5 X (MLQ-5X) because GTL has regularly reported acceptable internal consistency (Carless et al. 2000); GTL has shown a high degree of convergent validity in relation to other scales (Ghadi, Fernando, & Caputi, 2012): GTL as an alternative has been found to be its quick and easy to administer. Despite Bass's MLQ being famous, it has been criticized for the lack of some essential conceptual clarity. (Stelmokiene & Endriulaitiene 2015). Finally, the high correlation of the subscales of the MLQ (Faruk Şahin, Sait Gürbüz, 2017), and the GTL brevity and clear unidimensional, leads a strong argument for using the GTL. A sample item was "My supervisor/manager gives encouragement and recognition to staff." $\alpha=.0876$, AVE=.50, CR=.85. **Innovative behavior** was measured using a six-item scale originally developed by (Scott & Bruce, 1994). Respondents were asked to rate their innovative behavior. The reasons for choosing self-rating besides supervisor rating were based on the following arguments from the literature: first, employee's cognitive representation and own innovation behavior may be subtler than those of his or her manager (Janssen, 2000); Second, the supervisor rating may omit some genuine employee innovative behaviors (Organ & Kovovsky, 1989). Third, the observer may lack the information about the distinctiveness and consistency of the actor's behavior (Jellison, 1975). A sample item is "In my job, I regularly promote and champion ideas to others." $\alpha=.91$, AVE=.59, CR=.89. **The Positive psychological capital** was measured using the PsyCap questionnaire (PCQ) developed by Luthans & Youssef (2007). The scale measures four components of PsyCap: hope, optimism, resiliency, and self-efficacy. We used a PCQ shortened version of 12 items adopted by (Chen, 2017; Wojtczuk-Turek & Dariusz, 2015). A sample item is "I feel confident analyzing a long-term problem to find a solution." $\alpha=.921$, AVE=.51, CR=.90. **Perceptions of effort-reward fairness** were measured using the Dutch scale measured by VanYperen (1998;1996) and adopted by (Janssen, 2000). A sample item is I give a great deal of time and attention to the organization, but get very little appreciation (reversed coded). $\alpha=.923$, AVE=.78, CR=.91. **The Control variables** included the demographics (i.e., age, gender, organizational tenure, and education) that have been found to be associated with IWB and PsyCap (Wojtczuk-Turek & Dariusz, 2015). However, we controlled these variables to rule out their alternative effects.

Common Method Variance

We considered common method variance in this study based on the fact that, this study collected data for all variables in the same sample using a self-rating questionnaire. Therefore, Harman's one-factor suggested by (Organ & Kovovsky, 1989), was used to test common method bias. Harman's one-factor results indicated no common method bias in the instrument as the first factor explained 29.788% which is less than the threshold level of 50% recommended by (Organ & Kovovsky, 1989). Also, collinearity diagnostics was tested using SPSS 24 and variance inflation factor (VIF) for all constructs were found to be below 3.3 as recommended by (Kock & Lynn, 2012). Nevertheless, the above tests ensured that there was no common method bias in this study.

Findings

Procedures for Data Analysis

As recommended by Anderson & Gerbing (1988), this study applied Structural Equation Modelling (SEM), in a two-step modeling approach. In step one, we examined the measurement validity of the constructs, using the Confirmatory Factor Analysis (CFA). CFA was conducted for each of the four constructs in the study. In step two, namely the Structural Modelling, the researchers tested the relationship among all variables in the model. To examine indirect effects and direct effects among the variables, we adopted bootstrapping algorithm in Amos 23, as this approach doesn't require assumptions about the shape of the distributions of the variables (Park & Jo, 2018). We adopted a bootstrapping approach in this analysis based on the three main reasons; first, it is an evidenced approach (Hayes, 2009), to be more valid (Fairchild & MacKinnon, 2009), and impressive method for measuring the mediation effects (Hayes, 2009) explicitly. Second, in the statistical distribution of the sample, the assumption of normality is not required in this approach (Fairchild & MacKinnon, 2009). Third, the most widely used approach developed by "Baron & Kenny" has several limitations (Hayes, 2009). An example is its inability of the mediation effect disclosure especially the quantification of the magnitude of the mediation effect (Hayes 2009; Fairchild & MacKinnon, 2009).

Step one: Measurement model assessment

Confirmatory factor analysis (CFA) was conducted using AMOS 23. In assessing the model fit of these steps, we applied the most frequently used fit indices suggested by Hu & Bentler (1998). The fit indices include Normed Chi-square (χ^2/df), comparative-fit index

(CFI), Root Mean Square Error of Approximation (RMSEA), Standardized Root-Mean-Square Residual (SRMR). And Tucker-Lewis Index (TLI). For being considered as adequate fit, (Hu & Bentler 1998), suggested that cutoffs close to, or below .08 for SRMR and RMSEA indicate sufficient fit; a value higher than 0.90 for CFI & TLI and Normed Chi-square (χ^2/df) of less than 3.00 as fit. In running CFA, the standardized factor loadings of 2 items measuring psychological capital and 1 item measuring perceived effort-reward fairness were less than 0.4. These poor loadings items were eliminated from the model to avoid any

problem for further analysis as suggested by (Bagozzi 1988) and (Wieland et al., 2017). The CFA results which show the good fit is presented in Table I below.

Table 1: A summary of the fit indices for the constructs

Constructs	χ^2	df	χ^2/df	TLI	CFI	SRMR	RMSEA
Transformational leadership	16.0	5	3.205	0.96	0.99	0.02	0.07
Psychological capital	40.0	15	2.67	0.96	0.99	0.22	0.06
Innovation behavior	0.38	1	0.38	1.00	1.00	0.02	<0.01
P. effort-reward fairness	0.56	1	0.56	1.00	1.00	0.02	<0.01

Step two: Structural model assessment

The fitness of our baseline model of 4 factors named, transformational leadership, psychological capital, innovative behavior, and perceived effort-reward fairness was tested by comparing it with other alternative models. The results showed that our baseline model was a better fit compared with alternative models (see table II). We additionally performed average variance extracted (AVE) and composite reliability (CR) to establish convergent validity.

Table 2: CFA results, Comparison of measurement models

Models	χ^2	df	χ^2/df	TLI	CFI	SRMR	RMSEA
All four constructs (baseline)	835.4	300	2.78	0.92	0.93	0.07	0.06
Three constructs model ^a	1996.3	309	6.461	0.74	0.79	0.15	0.11
Two constructs model ^b	2641.3	347	8.612	0.70	0.72	0.14	0.12
One construct model ^c	2832.4	310	9.234	0.61	0.68	0.12	0.14

Notes: ^atransformational leadership and positive psychological capital were merged. ^bTransformational leadership, positive psychological capital and innovation behavior were merged. ^c all factors were merged.

Where the value above 05 for AVE and the value above 06 indicate a good fit (Fornell & Larcker 1981). We calculated CFA estimates (in excel) to get values of CR and AVE using the formula proposed by (Fornell & Larcker, 1981). The results indicated that AVE value was ranged from .50 to .68 and CR value from .87 to .91. Thus, these results suggest that convergent validity for our measurement model was adequate.

Hypotheses testing

Prior to our hypothesis, we performed descriptive and inferential statistical tests as well as Structural Equation Modelling. Firstly, Structural equation modelling results suggested that the hypothesized (baseline) model best fitted the data (see table II: $\chi^2/df=2.78$, TLI=0.92, CFI=0.93, RMSEA =0.06 & SRMR=0.07). Secondly, referring to the correlations among variables (Table III), all four hypotheses were supported. As hypothesized in this study, TFL showed a significant relationship with PsyCap ($r=0.379$; $p < 0.01$), and innovation behaviour of employees ($r=0.430$; $p < 0.01$). This indicates that leaders with high TFL behavior influence PsyCap of the followers which in turn lead them to innovation behaviors. Leaders with high TFL behavior also have a direct influence on employee innovation behavior. Thus, H1 & H2 are supported. The results also suggested that PsyCap have a strong and positive association with innovation behavior. ($r=0.575$; $p < 0.01$). It indicates that employees with high self-efficacy, resiliency, optimism, and hope, would display more innovative behaviors in the workplace. Thus, H3 is supported. In these results, perceived effort-reward fairness showed a significant relationship with the innovation behavior of employees. ($r=0.45$; $p < 0.01$). This indicates that employees will display more innovation behavior when perceived fairness in the effort-rewarding system of the organization is high, hence H4 is also supported. Among control variables, innovation behavior significantly and positively correlated with job tenure. ($r=0.36$; $p < 0.01$) implying that employees with high job experience are likely to display more innovation behavior in the workplace.

Table 3: Descriptive statistics and inter-correlations

	M	SD	1	2	3	4	5	6	7
1. Age	3.09	0.848							
2. Gender	1.46	0.499	.36**						
3. Tenure	4.11	1.065	-.23**	-.38**					
4. Education	5.31	0.596	0.01	-.24**	.21**				
5. TFL	27.7	13.1	-.11*	-.32**	.32**	0.09			
6. PsyCap	49.06	19.2	-.32**	-.37**	.26**	.10*	.379**		
7. IWB	27.1	12.7	-0.08	-.38**	.36**	.33**	.430**	.575**	
8. PERF	23.5	11.7	-.11*	-.31**	.42**	.24**	.200*	.23**	.45**

*p < 0.05 level (2-tailed), ** p < 0.01 level (2-tailed).

Mediation test

In testing a partial mediation effect of positive psychological capital (PsyCap) as hypothesized in this study, we employed bootstrapping techniques (Hayes 2009; Fairchild & MacKinnon 2009). We adopted this technique based on the evidence by Hayes (2009), that one bootstrapping test of the indirect effect $a \times b$. With a 95% confidence interval provide all necessary analysis. In this regard, the bootstrapping procedure in AMOS 23 was performed with 5,000 resamples to examine bias-corrected (CI), and the indirect paths were included in the hypothesized structural model (Cheung & Lau, 2008). As recommended by Hayes (2009), Bootstrap Results for indirect effects determine whether the indirect effect $a \times b$ is significant and whether it is mediation or non-mediation. We then evaluated Bootstrap results in four paths namely; IV→M (a path), M→DV (b path), IV→M→ DV (c'path) and IV→DV (c path) (Park & Jo, 2018; Hayes 2009).

The bootstrapping results indicated that the indirect effect of TFL on employee’s innovation behavior as mediated by positive psychological capital IV→M→ DV (c' path) was significant ($\beta= 0.221[0.430, 0.513]$, $p<0.01$) with a 95% confidence interval (CI). The Direct effect, (X→Y) ($\beta=0.228$; $p <0.01$) and the indirect effect TFL→PsyCap→IWB (c') ($\beta=0.221$; $p <0.01$) were both significant. Subsequently, as indicated in the table above all other hypothesized paths were significant and supported. This implies that PsyCap mediated the relationship between transformational leadership and innovation behavior of employees as predicted by researchers. Additionally, the partial mediation hypothesis would only be supported if all three hypothesized paths are significant, namely: X→M($m\beta_x$), X→Y ($\beta_{yx.m}$) and M→Y ($y\beta_{m.x}$) (Mathieu & Taylor 2006). However, as indicated in table VI, positive psychological capital (PsyCap) predicted as a mediator between transformational leadership and innovation behavior of employees is supported.

Table 4: Path estimates in the structural model

Hypothesized model Paths	Path coefficients	SE	t-values	Results
TFL→PsyCap (a path)	0.430***	0.068	6.464	Supported
PsyCap→IWB (b path)	0.513***	0.045	9.031	Supported
TFL→IWB (c path)	0.247***	0.056	4.541	Supported

***=p<0.001, IWB= Innovation work behavior, TFL= transformation leadership,

PsyCap=positivepsychologicalcapital

Moderation analysis

To test the hypothesis that the transformational leadership behavior positively influences innovation behavior of employees, and more specifically whether the perception of effort-reward fairness moderate this relationship, multiple regression analysis based on Hayes’s Process Macro was conducted (Hayes, 2009). The overall model was significant and positive, $R=.5908, R^2=.3491, MSE=103.5498, F=72.9313, df1=3.0000, df2=408.0000, p=.0000$. The current model was consistent with the hypothesis that perceived effort-reward fairness in organization moderates the relationship between a leader’s transformational leadership behavior and innovation behaviors of the followers. The conditional indirect effect was that the bias-corrected bootstrap confidence intervals (CI) did not include “zero”(Hayes, 2009). The results are summarized in Hayes’s matrix provided in table V & IV. Furthermore, we plotted the interaction plot recommend by (Hayes ,2009). Figure III indicates that the relationship between transformational leadership and innovative behavior was strong when employees perceived more organizational fairness in the effort-reward system. Hence, hypothesis 4 stating that perceived-effort-reward fairness moderates’ relationship between a leader’s transformational leadership behavior and innovation behavior of employees is supported.

Table 5: Moderation analysis results using the bootstrapping technique

Constructs	Coeff.	SE	T	LLCI/95%	ULCI/95%
TFL	.3497***	.0390	8.97the 29	.2731	.4262
PERF	.4180***	.0443	9.4297	.3309	.5052
Int. Eff.	-0.109**	.0035	-3.1413	-.0177	-.0041

***= $p<0.001$, **= $p<0.005$

Table 6: Conditional moderating effects/perceived efforts-reward fairness

PERF	Coeff.	SE	T	LLCI	ULCI
-15.2210	.5158***	.0699	7.3769	.3784	.6533
5.6990	.2875***	0.412	6.9800	.2065	.3685
11.6990	.2220***	0.523	4.2480	.1193	.3247

***= $p<0.001$

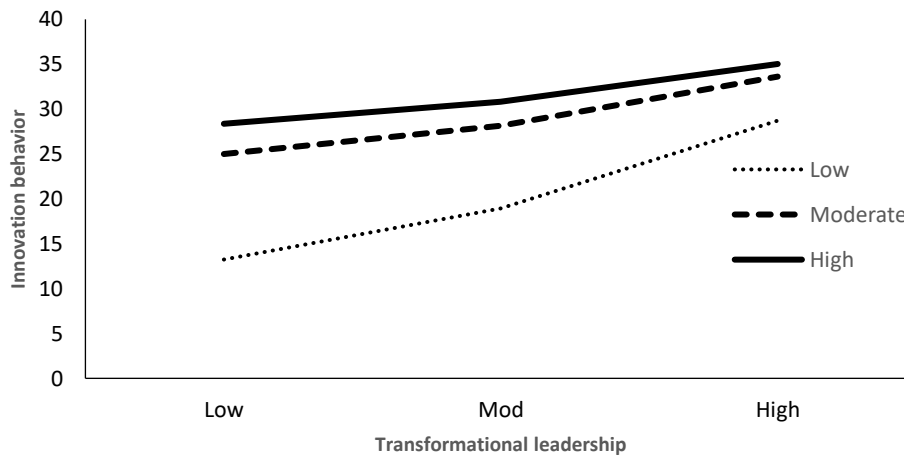


Fig. 2: Plot of moderation effect

Discussion

Innovative work behavior is increasingly being seen as integral to the organisational survival in today’s volatile market demand. In this regard, due to its fundamental characteristics, transformational leadership set to become a vital factor in advancing innovative work behavior in the workplace (e.g. Bass, 2000; Bass et al., 2003; Jung et al., 1995; Bass & Steidlmeier, 1999). Although, the main objective

of this study was to investigate how a leader's TFL behaviors affect the positive psychological state of employees, and referring to Hsu & Chen, (2017), we sought to investigate how those two constructs collaborate to influence employees' innovation behaviors. Perceptions of effort-reward fairness construct were also added to this model as a potential moderator in this relationship. In order to analyze the relationship between hypothesized variable, we used structural equation modeling (SEM) and bootstrapping approach to analyze primary data collected from the respondents. Specifically, in our procedure we conducted CFA to test validity and reliability of measurement and also structural path of our model. Bootstrapping technique was also used to measure the potential mediation and moderation effects proposed in the model. More details can be found in methodology section in this study. Statistical significance was analyzed and support our hypothesized model. We found leader TFL behavior positively associated with employees PsyCap which in turn led to increased innovation behavior in the workplace. This demonstrates just how important is TFL in raising employee's PsyCap. We have also found that TFL behavior was directly and positively associated with employee's innovation behavior. Therefore, these results provide considerable insight into TFL- employee relationship. At the same time, the study showed that perceived effort-reward fairness is a potential moderator in the relationship between TFL and employee's IWB. Figure III shows the plot of the significant interaction effect of perceived effort-reward fairness in the relationship between TFL and employee's IWB. These results widen our knowledge of the workplace fairness and its effect on employee's behavior in the workplace. In line with these results that provide vital evidence for the usefulness of perceived effort-reward fairness in the workplace, the utility of fairness in organizational rewarding system is thus underlined. The mediating role of PsyCap in the relationship between TFL and employee's IWB is consistent with the findings of the study by (Khalili, 2016) who argued that TFL behaviors assist employees in their ways of defeating fears in the workplace and also help them in challenging the routine ways of doing their tasks, which in turn lead them to higher creativity and innovation. Wojtczuk-Turek & Dariusz (2015) also added that Innovation behavior is connected to the dimensions of PsyCap. Thus, our model validates the usefulness of PsyCap as a potential mediator in the relationship between supervisory leadership style and employees' attitudes in workplace. However, the investigation of the relationships between these four constructs has brought interesting and significant contribution to the practices of managing innovative outcomes of human capital in the workplace.

Implications

This study is a keen on examining how PsyCap and perceived reward fairness could interact as critical contextual factors in boosting employee's IWB in the workplace. Drawing from Bass's TFL theory (Bass, 2000), and Luthans's POB (Luthans, 2002a), we examine the mediating role of PsyCap as the internal strengths that enable employees to discover and promote factors allowing them to thrive in the workplace. The results of the tests revealed that there was a significant positive mediation effect of PsyCap in the relationship between TFL and employee's IWB. However, in line with the statistical results, it stands to reason that PsyCap is a vital factor lighting innovation behavior at the workplace. In this regard, we believe that our new model would lend itself well for use by organisational managers to maximize employee's behavioral outcomes in the workplace. To date, despite its strengths in driving individual positive behavior (Luthans et al., 2007), PsyCap have not been dealt with in depth in relation to innovation behavior. Although, our findings would seem to show the strengths of employee's PsyCap to enthuse employee's IWB in the workplace. Hence, our work has led us to suggest more organisational efforts in developing supervisory transformation behavior in the workplace since it can boost employee's PsyCap and lead them to innovative work behavior. In another hand, the construct of perceptions of workplace fairness received much attention in relation to employees positive outcomes (see Janssen,2000;Niehoff & Moonman,2007; Knippenberg et al., 2007). Although, we have also tested the moderating role of perceived effort-reward fairness in the relationship between TFL and Employee's IWB. The result to emerge from the data is that perception of fairness in reward system control the relationship between transformational leaders and employee's IWB in the workplace. This result has further strengthened our confidence in potential of moderating effect proposed in the model. These results also offer compelling and vital evidence that extend our understanding on the effect of workplace fairness to employee's outcomes. However within such evidence from both theory and data, we believe that our new model could be used in HR strategic plan when drawing organizational strategies. There is evidence to suggest more attention to organizational compensation and rewarding system since it can directly affect employee's outputs. According to Larson & Luthans, (2006), handling the challenge of effective human resources management requires new thinking and approaches, thus, our findings create a deeper understanding of the potential drivers of innovative work behaviors by focusing on employees and their relationship with Supervisors.

Conclusion

This study expands theoretical assumptions on TFL and employee outcomes and provides evidence that links TFL to employee's innovation behaviors by employing psycap as a mediator and perceived effort-reward fairness as a moderator which has less been documented in the previous literature. The findings show that TFL can influence Psycap among employees, which in turn promotes employee innovation behaviors. In this study, TFL have two effects on the employee's innovation behaviors, direct effect where, a transformational leader influence innovation behavior of employees were supported in the data, (0.247 $p < 0.001$), indirect effect where TFL influence state of positive psychological capital of employees, (0.430 $p < 0.001$), and positive psychological capital of employees lead them to innovation behavior at workplace. (0.513 $p < 0.001$). The results of this study also revealed that employees would display more innovation behaviors when they have high perceptions of effort-reward fairness in their organizations and fewer innovation behaviors when they have low perceptions of effort-reward fairness in their organizations. ($R = .5908$, $R^2 = .3491$, $MSE = 103.5498$, $F = 72.9313$, $df1 = 3.0000$, $df2 = 408.0000$, $p = .0000$). However, all hypothesis in the study were supported. Despite the study contributing

to theory and practice in organizational management, it has some limitations. First, being a cross-sectional study, there is a probable limitation in providing conclusions on the relationship between the variables. However, we suggest that future studies may use a longitudinal design for better explanations of the connections between the variables. Second, our study only examines the relationships between transformational leadership, positive psychological capital, perceived effort-reward fairness and innovation behaviors of employees. Thus, this study did not explore their final effects on organizational performance. However, Future studies may extend this study to final results of transformational leadership. Fourth, the data used in the current study was collected from Rwanda, examining similar studies across different countries would help to reduce concerns of limited generalizability. Therefore, to extend the existing knowledge, we suggest that future studies be carried in different countries to find out if the same findings could be replicated which will help shape the theories underlying the relationship between the variables in the study.

References

- Adebayo, D. O., Sunmola, A. M., & Udegbe, I. B. (2008). Workplace fairness and emotional exhaustion in Nigeria police : The moderating role of gender. *Anxiety, Stress, & Coping ISSN*, 21(4), 405–416. <https://doi.org/10.1080/10615800701415456>
- Afsar, B., F. Badir, Y., & Bin Saeed, B. (2014). Transformational leadership and innovative work behavior. *Industrial Management & Data Systems*, 114(8), 1270–1300. <https://doi.org/10.1108/IMDS-05-2014-0152>
- Agarwal, U. A. (2014). Examining the impact of social exchange relationships on innovative work behaviour Role of work engagement. *Team Performance Management*, 20(3/4), 102–120. <https://doi.org/10.1108/TPM-01-2013-0004>
- Agnieszka Wojtczuk & Dariusz Turek. (2015). Innovative behaviour in the workplace The role of HR flexibility , individual. *European Journal of Innovation Management*, 18(3), 397–419. <https://doi.org/10.1108/EJIM-03-2014-0027>
- Aurelija Stelmokiene & Aukse Endriulaitiene. (2015). Transformational leadership in perception of subordinates Personality traits and social identification. *Baltic Journal of Management*, 30(1), 44–68. <https://doi.org/10.1108/BJM-05-2014-0084>
- Avey, J. B., Hughes, L. W., Norman, S. M., & Luthans, K. W. (2008). Using positivity, transformational leadership and empowerment to combat employee negativity. *Leadership & Organization Development Journal*, 29(2), 110–126. <https://doi.org/10.1108/01437730810852470>
- 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. <https://doi.org/10.1177/0149206308329961>
- Bandura, A. (1994). Self-Efficacy. *Encyclopedia of Human Behavior*, 4, 71–81.
- Bass, B. M. (2000). The Future of Leadership in Learning Organizations. *Journal of Leadership Studies*, 7(3), 18–40. <https://doi.org/10.1177/107179190000700302>
- Bass, B. M., & Avolio, B. J. (1990). Developing Transformational Leadership: 1992 and Beyond. *Journal of European Industrial Training*, 14(5). <https://doi.org/10.1108/03090599010135122>
- Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, 88(2), 207–218. <https://doi.org/10.1037/0021-9010.88.2.207>
- Bass, B. M., & Steidlmeier, P. (1999). Ethics, character, and authentic transformational leadership behavior. *The Leadership Quarterly*, 10(2), 181–217. [https://doi.org/10.1016/S1048-9843\(99\)00016-8](https://doi.org/10.1016/S1048-9843(99)00016-8)
- Bruce Gashema & Yongqiang Gao. (2018). Strengthening Managerial Innovation Behavior in the SMEs : The Role of CEO Transformational Innovation Culture. *International Journal of Research in Business and Social Science*, 7(3), 36–56.
- Carless, S. A., Wearing, A. J., & Mann, L. (2000). A short measure of transformational leadership . *Journal of Business and Psychology*, 14(3). <https://doi.org/10.1023/A:1022991115523>
- Chen, S.-L. (2017). Cross-level effects of high-commitment work systems on work engagement: the mediating role of psychological capital. *Asia Pacific Journal of Human Resources*, (1), 1–18. <https://doi.org/10.1111/1744-7941.12144>
- Cheung, G. W., & Lau, R. S. (2008). and Suppression Effects. *Organizational Research Methods*, 11(852), 1–30. <https://doi.org/10.1177/1094428107300343>
- Choi, S. B., Kim, K., Ullah, S. M. E., & Kang, S. (2016). How transformational leadership facilitates innovative behavior of Korean workers. *Personnel Review*, 45(3), 459–479. <https://doi.org/10.1108/PR-03-2014-0058>
- Choi, S., & Rainey, H. G. (2014). Organizational Fairness and Diversity Management in Public Organizations : Does Fairness Matter in Managing Diversity ? *Review of Public Personnel Administration*, 34(4), 307–331. <https://doi.org/10.1177/0734371X13486489>
- Cropanzano, R. (2015). Social exchange theory: A critical review with theoretical remedies. *Academy of Management Annals*, 20(2), 1–207. <https://doi.org/10.5465/annals.2015.0099>
- Cropanzano, R., & Mitchell, M. S. (2005). Social Exchange Theory: An Interdisciplinary Review. *Journal of Management*, 31(6), 874–900. <https://doi.org/10.1177/0149206305279602>
- Dahanayake, P., Rajendran, D., Selvarajah, C., & Ballantyne, G. (2018). Justice and fairness in the workplace: a trajectory for managing diversity. *Equality, Diversity and Inclusion*, 37(5), 470–490. <https://doi.org/10.1108/EDI-11-2016-0105>
- de Jong, J. P. J., & Den Hartog, D. N. (2007). How leaders influence employees' innovative behaviour. *European Journal of Innovation Management*, 10(1), 41–64. <https://doi.org/10.1108/14601060710720546>
- Fairchild, A. J., & MacKinnon, D. P. (2009). A general model for testing mediation and moderation effects. *Prevention Science*, 10(2), 87–99. <https://doi.org/10.1007/s11121-008-0109-6>

- Faruk Şahin, Sait Gürbüz, H. Ş. (2017). Leaders' managerial assumptions and transformational leadership: the moderating role of gender. *Leadership & Organization Development Journal*, 38(1), 105–125. <https://doi.org/10.1108/LODJ-11-2015-0239>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>
- Fredrickson, B. (2001). The role of positive emotions in positive psychology. *American Psychologist*, 56(3), 218–226. <https://doi.org/10.1038/jid.2014.371>
- Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *The Royal Society*, 359(1449), 1367–1377. <https://doi.org/10.1098/rstb.2004.1512>
- Gooty, J., Gavin, M., Johnson, P. D., Frazier, M. L., & Snow, D. B. (2009). In the Eyes of the Beholder. *Journal of Leadership & Organizational Studies*, 15(4), 353–367. <https://doi.org/10.1177/1548051809332021>
- Groves, K. S. (2014). Examining Leader–Follower Congruence of Social Responsibility Values in Transformational Leadership. *Journal of Leadership & Organizational Studies*, 21(3), 227–243. <https://doi.org/10.1177/1548051813498420>
- Groves, K. S., & LaRocca, M. A. (2012). Does Transformational Leadership Facilitate Follower Beliefs in Corporate Social Responsibility? A Field Study of Leader Personal Values and Follower Outcomes. *Journal of Leadership & Organizational Studies*, 19(2), 215–229. <https://doi.org/10.1177/1548051811433852>
- Gupta, V., & Singh, S. (2014). Psychological capital as a mediator of the relationship between leadership and creative performance behaviors: Empirical evidence from the Indian R&D sector. *International Journal of Human Resource Management*. Taylor & Francis. <https://doi.org/10.1080/09585192.2013.870311>
- Gyu Park, J., Sik Kim, J., Yoon, S. W., & Joo, B.-K. (2017). The effects of empowering leadership on psychological well-being and job engagement. *Leadership & Organization Development Journal*, 38(3), 350–367. <https://doi.org/10.1108/LODJ-08-2015-0182>
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408–420. <https://doi.org/10.1080/03637750903310360>
- Hsu, M. L. A., & Chen, F. H. (2017). The Cross-Level Mediating Effect of Psychological Capital on the Organizational Innovation Climate-Employee Innovative Behavior Relationship. *The Journal of Creative Behavior*, 51(2), 128–139. <https://doi.org/10.1002/jocb.90>
- Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3(4), 424–453. <https://doi.org/10.1037/1082-989x.3.4.424>
- Jaiswal, N. K., & Dhar, R. L. (2015). Transformational leadership, innovation climate, creative self-efficacy and employee creativity: A multilevel study. *International Journal of Hospitality Management*, 51, 30–41. <https://doi.org/10.1016/j.ijhm.2015.07.002>
- James B. Avey, Rebecca J. Reichard, Fred Luthans, K. H. M. (2011). Meta-Analysis of the Impact of Positive Psychological Capital on Employee Attitudes, Behaviors, and Performance. *Human Resource Development Quarterly*, 22(2). <https://doi.org/10.1002/hrdq>
- James C. Anderson & David W. Gerbing. (1988). Structural equation modeling in practice: a review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423.
- Janssen, O. (2000). Job demands, perceptions of eVort–reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, 73, 287–302. <https://doi.org/10.1348/096317900167038>
- Janssen, O. (2004). Janssen 2004 How fairness perceptions make innovative behavior more or less stressful. *Journal of Organizational Behavior*, 215(June 2003), 201–215.
- Jellison, J. M. (1975). Arkin and shelly duval-. *Journal of Experimental Social Psychology*, 11, 427–438.
- Jung, D. I., Bass, B. M., & Sosik, J. J. (1995). Bridging Leadership and Culture: A Theoretical Consideration of Transformational Leadership and Collectivistic Cultures. *Journal of Leadership Studies*, 2(4), 3–18. <https://doi.org/10.1177/107179199500200402>
- Jung, D. I., Chow, C., & Wu, A. (2003). The role of transformational leadership in enhancing organizational innovation: Hypotheses and some preliminary findings. *Leadership Quarterly*, 14, 525–544. [https://doi.org/10.1016/S1048-9843\(03\)00050-X](https://doi.org/10.1016/S1048-9843(03)00050-X)
- Jung, H. S., & Yoon, H. H. (2015). The impact of employees' positive psychological capital on job satisfaction and organizational citizenship behaviors in the hotel. *International Journal of Contemporary Hospitality Management*, 27(6), 1135–1156. <https://doi.org/10.1108/IJCHM-01-2014-0019>
- Khalili, A. (2016). Linking transformational leadership, creativity, innovation, and innovation-supportive climate. *Management Decision*, 54(9), 2277–2293. <https://doi.org/10.1108/MD-03-2016-0196>
- Knippenberg, D. Van, Cremer, D. De, & Knippenberg, B. Van. (2007). Leadership and fairness: The state of the art Leadership and fairness: The state of the art. *European journal of work and organizational psychology*, 16(2), 113–140. <https://doi.org/10.1080/13594320701275833>
- Kock, N., & Lynn, G. S. (2012). Lateral Collinearity and Misleading Results in Variance-Based SEM: An Illustration and Recommendations. *Journal of the Association for Information Systems*, 13(7), 546–580.
- Korzilius, H., Bücker, J. J. L. E., & Beerlage, S. (2017). Multiculturalism and innovative work behavior: The mediating role of cultural intelligence. *International Journal of Intercultural Relations*, 56, 13–24. <https://doi.org/10.1016/j.ijintrel.2016.11.001>

- Larson, M., & Luthans, F. (2006). Potential Added Value of Psychological Capital in Predicting Work Attitudes. *Journal of Leadership & Organizational Studies*, 13(2), 75–92. <https://doi.org/10.1177/10717919070130020601>
- Li, C., Zhao, H., & Begley, T. M. (2015). Transformational leadership dimensions and employee creativity in China: A cross-level analysis. *Journal of Business Research*, 68(6), 1149–1156. <https://doi.org/10.1016/j.jbusres.2014.11.009>
- Li, V., Mitchell, R., & Boyle, B. (2016). The Divergent Effects of Transformational Leadership on Individual and Team Innovation. *Group & Organization Management*, 41(1), 66–97. <https://doi.org/10.1177/1059601115573792>
- Luthans, F. (2002a). Luthans-2002-Journal_of_Organizational_Behavior. *Journal of Organizational Behavior*, 706, 695–706. <https://doi.org/10.1002/job.165>
- Luthans, F. (2002b). Positive Organizational Behavior: Developing and Managing Psychological Strengths [and The Academy of Management Executive (1993-2005) Positive organizational behavior: Developing and managing psychological strengths. *Source: The Academy of Management Executive Academy of Management Executive*, 16(1), 57–75. <http://www.jstor.org/stable/4165814>http://www.jstor.org/stable/4165814?seq=1&cid=pdf-reference#references_tab_contents%0Ahttp://about.jstor.org/terms
- 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). <https://doi.org/10.1002/hrdq>
- Luthans, F., Avolio, B., & Avey, J. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60(3), 541–572. <https://doi.org/10.1111/j.1744-6570.2007.00083.x>
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008a). The mediating role of psychological capital in the supportive organizational climate - Employee performance relationship. *Journal of Organizational Behavior*, 29(2), 219–238. <https://doi.org/10.1002/job.507>
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008b). The mediating role of psychological capital in the supportive organizational climate — employee performance relationship The Meaning of Positive Organizational Behavior. *Journal of Organizational Behavior*, 238(March 2007), 219–238. <https://doi.org/10.1002/job>
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, 33(3), 321–349. <https://doi.org/10.1177/0149206307300814>
- Mathieu, J. E., & Taylor, S. R. (2006). Clarifying conditions and decision points for mediational type inferences in Organizational Behavior. *Journal of Organizational Behavior*, 27(8), 1031–1056. <https://doi.org/10.1002/job.406>
- Messer, B. A. E., & White, F. A. (2006). Employees' mood, perceptions of fairness, and organizational citizenship behavior. *Journal of Business and Psychology*, 21(1), 65–82. <https://doi.org/10.1007/s10869-005-9018-x>
- Niehoff, B. P., & Moorman, R. H. (2007). Exploring the relationships between top management behaviors and employee perceptions of fairness. *International Journal of Public Administration*, 19(6), 941–961. <https://doi.org/10.1080/01900699608525126>
- Odeku, K. O. (2013). Employee's Perception of Fairness of Advancement: Implications for Fair Labour Practices. *Mediterranean Journal of Social Sciences*, 4(13), 867–874. <https://doi.org/10.5901/mjss.2013.v4n13p867>
- Organ, D. W., & Kovovsky, M. (1989). Cognitive versus affective determinants of organizational citizenship behavior. *Journal of Applied Psychology*, 74(1), 157–164.
- Park, S., & Jo, S. J. (2018). The impact of proactivity, leader-member exchange, and climate for innovation on innovative behavior in the Korean government sector. *Leadership and Organization Development Journal*, 39(1), 130–149. <https://doi.org/10.1108/LODJ-09-2016-0216>
- Peterson, S. J., Walumbwa, F. O., Byron, K., & Myrowitz, J. (2009). CEO positive psychological traits, transformational leadership, and firm performance in high-technology start-up and established firms. *Journal of Management*, 35(2), 348–368. <https://doi.org/10.1177/0149206307312512>
- Richard R Bagozzi & Youjae Yi. (1988). On the Evaluation of Structural Equation Models I ~ LI. *Journal of the Academy of Marketing Science*, 16(1).
- 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. <https://doi.org/10.2307/256701>
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). *Positive psychology: An introduction*. *American Psychologist* (Vol. 55). <https://doi.org/10.1037/0003-066X.55.1.5>
- Sparr, J. L., Sonnentag, S., Sparr, J. L., & Sonnentag, S. (2008). Fairness perceptions of supervisor feedback , LMX , and employee well-being at work employee well-being at work. *European journal of work and organizational psychology*, 198–225(2). <https://doi.org/10.1080/13594320701743590>
- Sweetman, D., Luthans, F., Avey, J. B., & Luthans, B. C. (2011). Relationship between Positive Psychological Capital and Creative Performance. *Canadian Journal of Administrative Sciences*, 13(October 2010), 4–13.
- Tharnpas Sattayaraksa, Sakun Boon-itt. (2016). CEO transformational leadership and the new product development process The mediating roles of organizational. *Leadership & Organization Development Journal*, 37(6), 730–749. <https://doi.org/10.1108/LODJ-10-2014-0197>
- VanYperen, N. W. (1998). Informational support, equity and burnout: The moderating effect of self-efficacy. *Journal of Occupational and Organizational Psychology*, 71(1), 29–33. <https://doi.org/10.1111/j.2044-8325.1998.tb00660.x>

- Vanyperen, N. W., Buunk, B. P., & Schaufeli, W. B. (1996). Communal Orientation and the Burnout Syndrome Among Nurses. *Journal of Applied Social Psychology*, 22(3), 173–189. <https://doi.org/10.1111/j.1559-1816.1992.tb01534.x>
- Waldman, D. A., Siegel, D. S., & Javidan, M. (2006). Components of CEO Transformational Leadership and Corporate Social Responsibility Components of CEO Transformational Leadership. *Journal of Management Studies* -, (December 2013). <https://doi.org/10.1111/j.1467-6486.2006.00642.x>
- Walumbwa, F. O., Lawler, J. J., Avolio, B. J., Peng Wang, & Kan Shi. (2005). Transformational Leadership and Work-Related Attitudes: The Moderating Effects of Collective and Self-Efficacy Across Cultures. *Journal of Leadership & Organizational Studies*, 11(3), 2–16. <https://doi.org/10.1177/107179190501100301>
- Wieland, A., Durach, C. F., Kembro, J., Treiblmaier, H., Wieland, A., Durach, C. F., & Treiblmaier, H. (2017). Statistical and judgmental criteria for scale purification. *Supply Chain Management: An International Journal*, 22(4), 321–328. <https://doi.org/10.1108/SCM-07-2016-0230>
- Yasin Ghadi, M., Fernando, M., & Caputi, P. (2012). Transformational leadership and work engagement. *Leadership & Organization Development Journal*, 34(6), 532–550. <https://doi.org/10.1108/LODJ-10-2011-0110>