

**PSYCHOLOGICAL SAFETY MEDIATES THE RELATIONSHIP
BETWEEN EMPOWERING LEADERSHIP AND WORK
ENGAGEMENT: EVIDENCE FROM UNIVERSITIES OF QUETTA-
PAKISTAN.**

RABIA QURBAN

Ph.D. Scholar Department of Management Sciences, Faculty of Management Sciences, Balochistan University of Information Technology, Engineering & Management Sciences, (BUIITEMS) Quetta 87650, Pakistan

Dr. NAGINA GUL

Assistant Professor, Department of Management Sciences, Faculty of Management Sciences, Balochistan University of Information Technology, Engineering & Management Sciences (BUIITEMS), Quetta 87650, Pakistan

MUHAMMAD DANISH

Lecturer of Institute of Management Sciences, University of Balochistan, UOB, Quetta

MUHAMMAD RIZWAN ANJUM

Lieutenant colonel, Pakistan Army

DOI 10.5281/zenodo.6553273

Abstract

The purpose of this paper is to investigate the effect of empowering leadership on work engagement. Drawing on Planned Behaviour (TPB) theory to examine the mediating roles of psychological safety between empowering leadership and work engagement. 300 self-administered questionnaires were distributed among teachers of four higher education institutes of Quetta through a proportionate and convenience sampling approach. Simple linear regression analysis and Hayes' process was used to test hypotheses. Results indicate that empowering leadership found a significant effect on psychological safety, work engagement, and proactive work behavior. Further psychological safety significantly mediates the relationship between empowering leadership and work engagement and proactive work behavior. Thus it is suggested that in higher education institutes leaders of each department must provide the training on increasing empowering practices that has more role in work engagement.

Introduction

Organizations today globally want and need employees who are emotionally connected to their work and inclined to do the entirety they can to be able to assist their companies'

satisfaction. groups are acutely aware that competitive success depends on creativity through “the production of novel and beneficial ideas by using people or groups working collectively” (Amabile & Kramer, 2011). If employees are to be creative, a management guide is essential (Ali, Wang, Soomro, & Islam, 2020; Amabile & Kramer, 2011; Shalley, Zhou, & Oldham, 2004) due to the fact leaders considerably influence workplace contexts (W. Cai, Lysova, Khapova, & Bossink, 2019). Over the past several years, instructional interest in work engagement has emerged as very famous and a topic of terrific hobby inside the subject of public administration and management. paintings engagement is related to important individual and organizational outcomes (e.g. worker health and well-being, performance).

Employee work engagement is taken into consideration to be a precious addition to the employer, as they may be committed to their organization’s desires and values (Schaufeli & Bakker, 2004) If employees are to be creative, management help are essential (Carmeli, Reiter-Palmon, & Ziv, 2010; Long et al., 2018; Qu, Janssen, & Shi, 2015; Shalley et al., 2004). Leaders considerably have an impact on the place of work contexts (H. Cai, Gan, Wang, Zhang, & Han, 2019; Mainemelis, Kark, & Epitropaki, 2015). Consequently, fine psychology has emerged as a crucial topic inside the subject of management and agency improvement. driven via the significance of labor engagement for key man or woman and organizational outcomes, which include health and well-being, performance, and protection (Halbesleben, 2010; Maxwell et al., 2015; Nahrgang, Morgeson, & Hofmann, 2011). Increasing work engagement has consequently ended up an important consideration for plenty of corporations, and in the closing decade, the field has superior towards growing and evaluating interventions. personnel with high levels of dedication perceive their work as significant and inspiring (Mäkikangas, Feldt, Kinnunen, & Mauno, 2013). Work engagement should be one of the organizational leaders’ main priorities as it is vital for organizational effectiveness, innovation, and competitiveness (Bedarkar & Pandita, 2014).

In contrast, (Abror, Patrisia, Syahrizal, Sarianti, & Dastgir, 2019; Z. W. Lee, Chan, Chong, and Thadani (2019)) suggested empowering leaders allow and inspire personnel to manipulate their very own work behaviors. consistent with (D. Li, Yang, Song, & Hospedales, 2017), empowering management that is much like participative leadership, performs a role as an effective way for leaders to advantage fans’ acceptance as true with. Participative leadership has been related to diverse wonderful employee effects which include job pride (Z. W. Lee et al., 2019), engagement (Busse & Regenber, 2019), work overall performance (Huang, Iun, Liu, & Gong, 2010). Empowering management is defined because of the situation in which a leader distributes energy, autonomy, motivation, and different job privileges unequally among followers. furthermore, empowering management is suspected will assist the individual readiness to trade, but some preceding researches showed different results. as an example, a few researchers state that empowering leadership will aid individual readiness to trade (A. Lee, Willis, & Tian, 2018; Lingard & Turner, 2015; Wu & Lee, 2017). Empowering management has been related to diverse fine employee effects such as activity satisfaction (Chan, 2019), engagement (Busse & Regenber, 2019).

Empowering management (EL) takes place when personnel understands that they are empowered (Alotaibi, Amin, & Winterton, 2020) and EL will provide employees with greater

autonomy and a supportive working environment (Cummings et al., 2010; Kim & Beehr, 2018). There is robust proof of a trickle-down impact of EL leading to fantastic outcomes for personnel (Byun, Lee, Karau, & Dai, 2020). preceding studies have confirmed that Empowering leadership mind and competencies are appreciably associated with growing empowering work environments for nurses (Greco, Laschinger, & Wong, 2006; Lucas, SPENCE LASCHINGER, & Wong, 2008), management success (Barling, Slater, & Kelloway, 2000)(Barling et al., 2000; Brown and Moshava, 2005), work engagement (Yan, Yang, Su, Luo, & Wen, 2018). According to (Al-Hussami, Hamad, Darawad, & Maharmeh, 2017; Y. Li, Castaño, & Li, 2018; Shaughnessy, Griffin, Bhattacharya, & Fitzpatrick, 2018) conclude that empowering management will make personnel experience free to determine the way to work and choose which strategies are needed to do the work properly. studies about public region leadership through Fernandez et al. (2010) shows that leader takes the role as an agent of change for organizational members as sub-agencies which has a positive effect on organizational performance.

Despite the significance of empowering leadership, only a handful of studies have assessed the effect of EL on work engagement. The focus of this present study is to address two important research questions that have been left unaddressed within the development domain. As a result, committed employees exhibit high motivation and engagement to achieve the desired outcomes. Empowering Leadership, via the openness attribute, not only shares visions and guides employees but also take responsibility if a project fails to deliver the desired results. Having that said, this study proposes that EL enhances us. The second research question probed into the mechanisms by which EL helps to attain work engagement. For this purpose, psychological safety (PS) is proposed as the mediating mechanisms through which EL increases work engagement. Similar to varied needs, employees have different preferences for their the approach towards work (Randelet al., 2018; Hollnader, 2009). As EL demonstrates openness, it offers employees timely feedback about work outcomes. Working with such leadership, employees experience Psy Safety shaped by meanings, competencies, self-determination, and feedback (Spreitzer, 1995; Javed, Abdullah, Zaffar, ulHaque and Rubab, 2019; Schermulyet al., 2013), which motivates them to bring diverse approaches to resolve performance-related issues (Shore et al., 2011; Nishii and Mayer, 2009; Hiraket al., 2012). Moreover, psychologically safety tend to exhibit high motivation and desired performance to make the work engagement (Tuuli and Rowlinson, 2009; Appelbaumet al., 2015). Thus, Psy Safety is the first mediating mechanism that mediates the correlation between EL and work engagement.

This research is conducted to enrich literature reviews on the needs of increasing individual readiness to change, especially for a bureaucratic organization. Although the number of studies examining the promise of empowering leadership has been increasing lately (e.g. Ahearne et al., 2005; Srivastava et al., 2006; Zhang and Bartol, 2010), those studies largely focus on job performance (Ahearne et al., 2005; Srivastava et al., 2006). Only a few studies examine the influence of empowering leadership on aspects of the psychological state of mind

such as trust (Ahearne et al., 2005) and level of optimism (Segers et al., 2009). However, psychologically empowered personnel need not be afraid of punishment (Baer and Frese, 2003; Carmeli et al., 2009; Xu et al., 2019). Therefore, we are specifically aware of cognitive and behavioral techniques as mediators of the relationship between participative leadership and employee creativity. However, most research conceptualizes worker creativity as an outcome hence the extent to which novel and beneficial thoughts are produced (Bai et al., 2016; Jaiswal and Dhar, 2017; Kim, 2019; Ma and Jiang, 2018; Qu et al., 2015). We extensively utilized worker creativity as an outcome absorption is when employees are so engrossed in their work that they find it hard to detach themselves from work (Mäkikangas et al., 2013).

This narrative systematically evaluates goals to synthesize the growing wide variety of work engagement interventions and tell future research. Leaders, believing that glad, successful, and dedicated employees are their maximum essential aid, take steps to decorate employees' well-being and process overall performance (Walumbwa, Peterson, Avolio and Hartnell, 2010). Organizational research has focused on participative management as evoking motivational or psychological mechanisms that have direct main or moderating results on worker safety (Li et al., 2018; Newman et al., 2018). Moreover, as leaders involve employees in decision-making techniques, personnel feel greater psychological protection, so that interpersonal social interactions emerge as more salient, therefore, employees have more wants to proportion information, adopt risks (Edmondson and Lei, 2014; Hu et al., 2017) and participate in creative endeavors (Jiang and Gu, 2015).

As a result, this paper goals to make contributions related theories by the significance of empowering management in growing individual readiness to exchange through the dimension of humans (leader and member alternate, worker engagement, and intrinsic motivation to innovate) and the measurement of techniques (generation, activity layout, and innovative way of life) for you to then enhance strategic behavior. The rest of this paper is outlined as literature assessment and speculation, methods, the end result, discussion, and additionally end and concept for future studies. Our three important contributions cope with gaps within the literature. First, we amplify studies by using growing a theoretical proposition outlining participative management's oblique effects on employee creativity thru mental protection and innovative technique engagement (Lythreath et al., 2017; Miao et al., 2014). second, by using investigating chain mechanisms, we complement studies that focused on single or parallel mediations among participative leadership and employee creativity (Fatima et al., 2017; Tung and Yu, 2016) and answer Tierney's (2008) call to study dynamic, complex intervening mechanisms. third, we extend the social records processing principle related to employee creativity by means of displaying how engagement impacts collaboration that then leads to worker creativity (Li et al., 2018).

Review of the Literature

Empowering leadership

Empowerment is considered as the power of decision making as an individual movement. important decisions were made with the help of reported observers (Dansereau et al., 1995). The earlier theorist argues that empowerment being a power-sharing is not sufficient to explain the whole nature of empowerment but give authority to accomplish tasks. The further researcher argues that the key dimensions for leadership are to provide support for growth. Another perspective views leadership as psychological empowerment which is cognitive where psychological responses to difficult situations determine the quality of human being and their power to make decisions. The disciplinary domain of empowerment and leadership are different where both conceptualized separately and are having different empirical verifications.

In essence, leadership empowerment is a unique set of leaders that can enhance mental capacity and, in turn, promote diverse career outcomes (Maynard, Gillson, & Matthew, 2012). The earlier work of empowering leadership is considered as the mental and emotional state of leaders. In particular, meta-analytical work to expand the psychological capabilities of leaders namely expanding leadership: according to Siebert et al. (2011), High-Performance Management Practices, Leadership, Social Support, and Progressive Text Design Properties to Expand Psychological Opportunities. To avoid potential confusion, particular attention is given to empowering management and its results.

Psychological safety

The existing literature of positive psychology highlights one of the key factor is psychological safety, that has been conceptualized as trust in earlier studies (Avolio, Zhu, Koh, & Bhatia, 2004) and has gained little attention as an outcome of leadership theories. Psychological safety is "feeling able to show and employ one's self without fear of negative consequences to self-image, status, or career" (Kahn, 1990, p. 708). According to definition, the psychological safety is the perceived fear about the consequences of their actions at the interpersonal level and in the work environment. It has been argued that people are having less fear when they trust that the consequences of their actions are regarded by their leaders. The dimensions are based on inter personnel climate where people socialize with each other and the working environment in which employees feel secure while taking the actions. These are the environment where employees care about each other and support development. Therefore, in such a working environment, people are happy and comfortable doing safe actions. The antecedents of psychological safety in literature have been discussed as organization climate, leader personality traits, leadership style, and the perceived justice of practices. For instance, research conducted that highlight that fair practices in an organization create a trust worthy and open environment where employees feel safe and do their best job. Further research found the positive effect of leadership on psychological safety (Nembhard and Edmondson, 2006).

Employees being a catalyst role in organization development, now it has been recognized the psychological safety as important for human and social capital (Luthans, Luthans, & Luthans, 2004). According to positive psychology the psychological safety is the identification of which you are and what you can become through visualization (Luthans, Norman, Avolio, & Avey, 2008). Based on definition, the prime features of psy-safety are the self-assessment and self-confidence to take an active role in your work, strive to achieve it successfully, positive approach on flexibility in tough situations at workplace, persistent in the long term for goal, and remain positive even at the face of hurdles and challenges (Luthans, Avolio, Avey, & Norman, 2007). The earlier research found psy-cap is the high-order constructs that entail the homogeneous characteristics in successful individuals (Luthans et al., 2007; Luthans et al., 2004). Further, it is argued that psy-cap just not means to do things right as prescribed rather opt the challenging tasks at the work place that shows a positive attitude at workplace (Avolio et al., 2004). The roots of psychological safety concerning organizational dimensions, the following section describes the details and history of psychological safety (Gooty, Gavin, Johnson, Frazier, & Snow, 2009).

Work Engagement

In everyday life, the word "engagement" refers to participation, commitment, determination, and dedication. In relationships as "emotional isolation or coercion" and "existentialism". "The recruitment process was first introduced to businesses. The beginning of this era is not entirely clear, but it was first used by Gallup in the 1990s. The biggest challenge facing organizations (Wah, 1999). Traditionally, international investment firms have developed their concept of participation and research tools. According to an international news release involving various businesses, these companies make up about 20% of all employees involved in the work, while another 20% are involved in plan. The remaining 60% of the group performed well (Attridge, 2009). Also, these consulting firms assume that employee involvement is the driving force for business success.

Although the information used through the company transaction may appear to be different, the involvement of employees is primarily determined by (ii) conduct outside the organization (e.g. discretion to improve the efficiency of the organization). Behavior). As you can imagine, employee engagement is a combination of two ideas of thought. Thus, many consulting firms seem to have developed new medicines and bottles that have additional responsibilities involved in the old process. The first researcher considers participation in the work (1990) as a social worker, "in participation, people are employed and express themselves physically, mentally and emotionally.

In other words, dedicated employees have put a lot of effort into their work to meet it. On the other hand, according to Khan, participation is expected to produce positive outcomes at the individual level (individual growth and development) and at the organizational level (quality of performance). Work division is the opposite of fatigue. Unlike those who suffer from fatigue, the workforce considers work to be a challenge, as it has a strong and constructive relationship to the job, not to stress or need.

Thus, participation is characterized by strong, engaged, and effective behavior, which are three components of a direct illness: fatigue, depression, low self-esteem (Maslach and Leiter, 1997). From this point of view, composition and fatigue are often linked and can be determined by the same method. Instead, participation is seen as an independent and explicit issue that is negatively related to fatigue. Therefore, it is defined as an energetic attitude on value, commitment, and acceptance (Chauvelli, Salanova, Gonzalez-Rome, & Baker, 2002). When you work, vitality is considered as upstream of energy and strength that keeps inconsistent approach when different problem arises. Further commitment is mainly about your work and your understanding, enthusiasm, motivation and challenge with your work. When the mindfulness by the complete focus of attention and well-being in your business, which can be time-consuming and problematic for self-employment.

In short, Kan (1990) is a basic measure of participation, but an employee's work or activity considers participation a fence. In a business context, a reference is an organization, not a workplace or workplace. Furthermore, they both describe participation in their own rights and embody both ethical concepts, including emotional power, self-determination, and the essence of knowledge. Macei and Schneider (2008) most participated as "organizational purpose, commitment, love, light emptiness, focused effort, energy" (p. 4) when trying to integrate business and academic perspective into communication Use the type definition. The usual frameworks for observing engagement include Participation, empowerment (3) Additional actions or "commitment to action" (citizen behavior, personal motivation, role building, etc.).

Antecedents of Work Engagement

The earlier studies on work engagement are studied within the organizational settings particularly businesses and government institutions (Christian, Gaza, & Prison, 2011; Haveleben, 2010; Manu, Kei Nine, McKinners, & Felt, 2010). Sources of work indicate physical, social, and intellectual that contribute to the reduction of physiological and psychological costs associated with work requirements, help to achieve organizational goals, contribute to personnel growth (Bakker and Demerouti, 2008). These aspects help to improve resilience at the workplace help to control different issues and challenges (Hobbol, Johnson, Ennis, & Jackson, 2003). The source of the job to discuss participation may vary from company to company. Important sources of information are growth, performance feedback, autonomy, talent differentiation, change management, and support for coworkers. Finally, engagement does not correlate well with employee demands, abilities, and sensitivity. Job demands address business responsibilities such as job responsibilities, cognitive stimulation, and task performance. The job requirements model is one of the most commonly used models to describe workplace requirements (Bakker & Demerouti, 2008).

According to this model where employees demand high-level jobs, work and personal resources are more important and motivating. These conditions are so-called "active work" where employees are eager to grow through skills that are best predictors are employment resources such as aptitude for professional skills and peer evaluation (e.g., high workload, emotional interaction required by clients). Possible outcomes of engagement are associated

with a positive attitude to work, health, and well-being, abnormal behavior and work issues reduce the commitment level at the workplace that often leads to creating an intention to leave the organizations. Where the commitment is found positive shown greater well-being especially to low committed people.

Also, the highly committed and dedicated people take several initiatives alone, and together it seems that employees are competent and willing to "extra miles". As recognized by the customer, it also has fewer errors, less involved in work-related and work-related injuries, more innovative work behaviors, and the supervisory authorities' evaluations are superior in terms of work efficiency and performance than peers. The research was carried among 8000 employees of 36 enterprises was conducted where the level of involvement is related to the performance of the business unit (Hartner, Schmidt, and Haies, 2002). It shows that truly enthusiastic employees can offer the organization a competitive advantage.

State Employment Commitments Most previous studies have observed differences among individuals in terms of employment commitments, including the reasons for such differences, such as specification and resources. Nevertheless, current studies on engagement have documented that from day one increase or decrease their level of involvement in the activity. State job commitments include short-term changes within the person's internal strength, dedication, and absorption (eg, day or week, Sonnentag, Dormann and Demerouti, 2010).

Variants in engagement are usually the short term dynamics where work is of project nature and that improves employment significantly that changes over time. Although the overall employment rate is closely related to state employment, most of these differences are due to day-to-day events such as social support, colleagues, daily independence experience, and positive customer feedback. Organizations can work on improving employees' work using a human resource management strategy through well-designed work using the motivational ability of the task. Also, job rotation and job replacement can lead to an increase in the workforce, as it competes with the workforce, maintaining their motivation and stimulation as well as growth.

The literal meanings of word engagement have been noted as energy, dedication, passion, or enthusiasm (Adler, 2012). These synonyms in the academic field are considered differently because of their theoretical implications and construct measurements. Thereby no consistent definition is available. To overcome definitional issues, the definition that is highly used in academic literature was followed by engagement. Among scholars, the word engagement at the workplace has been classified as vigor, dedication, and absorption (Bakker, 2011). The word vigor means the propensity of resilience, which means when employees came across different task challenges they manage it very well and are always focused at workplace due to high tolerance of nervousness (De Lange, De Witte, & Notelaers, 2008). Further dedication means the employees show great involvement and are considered as pride and significant for life. The third absorption means employees feel work as fascinating, restrict themselves at work and a very low level of distractions show at workplace (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002).

These aspects of engagement are highly dependent on the psychological state of mind and leaders' behavior at workplace. Moreover the organizations' rules, regulations, structure, and policies also affect the work engagement level of employees (Pichler, 2009). Besides standardize rules, regulations, and policies for all employees, the leaders' behavior at the workplace erupt as a most important factor that can affect the employees' enjoyment level, pride, their resilience level, and mental state. The leaders' empowering nature improves the psychological health, and their actions of proactivity instill employees to reciprocate the proactive behavior. Thereby employees' positive outcomes at workplace are largely depending upon the leaders' behavior and mental state of employees (Eisenberger et al., 2002).

Empowering leadership and psychological safety

Leaders' they pose empowering nature entails four key characteristics that differentiate it from other styles are: project the importance and significance of work, improve confidence among employees to fulfill the task for good performance, and support followers by alleviating the bureaucratic hurdles for benefit. According to positive psychology when empowering leaders inculcate confidence, create an environment of social interaction, support their subordinates, it triggers the positive thought, emotions, and perceptions that enhance the self-worth of an individual. Aftermath, the employees consider leaders as trustworthy, supportive, transparent and that creates a strong psychological relationship with their leaders and develops a sense of fearless while taking action. Moreover, this relationship reduces the uncertainty in the work environment and facilitates the social interaction process promotes a sense of security.

The link between empowering leadership and psychological capital is based on the active participation of stakeholders rather than directive (Bass, 2000). These active participation entails the change elements in an employee's psychological state of mind and often considered as a resource. On these lines, several research has been conducted on different leadership styles and psychological capital, like authentic leadership and psychological safety. Similarly, it has been argued that empowering leadership allows employees to take active participation in their respective environment, which produces positive work attitudes at the workplace (Walumbwa, Peterson, Avolio, & Hartnell, 2010). The empowering leadership contributes to enhancing the motivation level of their employees through positive actions that enhance the positive attitude. The earlier studies have found a significant role of empowering leadership on self-efficacy, engagement, proactive work behavior.

Another feature of empowering leadership is that it increases the resilience among employees by allowing them to participate actively and independently at their workplace that improves confidence and sense of responsibility (Luthans et al., 2007). Empower leadership to transmit the empower attitude that is reflected in positive outcomes at workplace like hope, optimism, resilience, and psychological safety (Avey, Wernsing, & Luthans, 2008). Further, the empowering leadership assist at work to improve the performance and facilitate to do the task

effectively. The earlier studies have found significant between empowering leadership and psychological safety.

Based on these, it is hypothesized that

H1: Empowering leadership has a significant role in the development of psychological safety.

Empowering leadership and work engagement

The leadership and work engagement is significant theoretical consideration because employees often do not perform the task with their core of heart (Tuckey, Bakker, & Dollard, 2012). The empowered leaders are keen to build their engaged workforce in which employees own their work, complete tasks timely and accurately, and establish a sense of belongingness. The empowered leaders encourage their employees and inculcate high energy at the work place that is reflected when employees feel their dedication to work, that is the interaction between the employees' self-orientation and their work boundaries, it is argued that when the boundaries are clear and distinctive, it fosters more engagement at workplace. The clarification of these boundaries is not enough to be a proper explanation of work engagement rather than when empowered leadership recognized the self-worth of the individual, allow to take decisions, incorporate voice in decisions and support them while performing their task that becomes more productive (Ford & Fottler, 1995).

The earlier studies found a significant impact of empowering leadership on different dimensions of work engagement that foster vigor, dedication, and absorption capacity of individuals. Further research substantiated the link between empowering leadership and work engagement where the dedication was found the most important aspect (Leiter & Bakker, 2010). It is also substantiated that when employees feel a sense of empowerment it translates into their work engagement (Walumbwa et al., 2010). Thus based on earlier theoretical and empirical verifications that empowering aspect of leadership affect the different dimensions of work engagement, thus it is hypothesized that

H2: Empowering leadership is a significant effect on work engagement.

Mediating Role of Psychological Safety

To fully understand how leaders' empowering leadership influences employees', work engagement, we should also consider the possible medaling role of employee characteristics, especially related to the individual's psychological assists. According to positive psychology when empowering leaders inculcate confidence, create an environment of social interaction, support their subordinates, it triggers the positive thought, emotions, and perceptions that enhance the self-worth of an individual (Gardner, Avolio, Luthans, May, & Walumbwa, 2005). Aftermath, the employees consider leaders as trustworthy, supportive, transparent and that creates a strong psychological relationship with their leaders and develops the sense of fearless while taking actions. Thus these fearless actions would translate intothe dedication at work and enhance the absorption capacity of workers that is reflected in work.

About empowering leadership and work engagement, the personnel characteristics of the individual positive psychological resources are a key factors in the development of work

engagement. The earlier studies have documented the relationship between empowering leadership and psy-cap and work engagement (Avey, 2014). Both dimensions are psychological but the work engagement is reflected in behavior while psy-cap remains in cognition. Therefore, the element that is reflected in behavior is considered as an outcome variable. As noted in earlier studies where psy-cap has been a key predictor of several outcomes like job performance, job satisfaction, organizational citizenship behavior, the well-being of employees, work passion, and work engagement. Moreover, the Psychological safety has been used as a mediator in many studies like job engagement and organizational citizenship behavior (Avey et al., 2008), servant leadership and engagement, workplace climate and proactive, and improved satisfaction (Walumbwa, Luthans, Avey, & Oke, 2011). Based on these findings, we hypothesized that

H3. Psychological safety mediates the relationship between empowering leadership and work engagement.

Methods

To test our hypotheses, we surveyed teachers of higher education institutes of Quetta city. The primary reason to select teachers for research because universities are structured through the department where each departmental head is considered as a leader for their remaining teachers. Due to this structure the empowered leadership and work engagement can easily be tested. Further teachers are primarily responsible to teach courses, do research work and engage in academic activities that directly contribute to the quality of education, and if teachers are not psychologically safe that it can badly lower the quality of education and long term consequences for students' life. Furthermore, teachers are of different designation and qualification that makes it more interesting to examine the empowering leadership role in work engagement and proactive behavior.

The total strength of teachers in four universities is 1494 (based on HR/Registrar office).

Table 1 shows the proportionate distribution of teacher's university wise (UOB, SBK, BUIETMS, ALHAMD). To calculate sample size, the scientific calculator developed by the survey tool is used (reference) because it helps to calculate accurately and saves time and highly rigors. The scientific criteria for sample size were used at 95% confidence interval and 5% error of margin for population 1544. The estimated sample size was 306.

To reach the targeted population the proportionate stratified technique was used because of different population strata in each selected university. For UOB the participation is 36% in the overall population, the SBK is around 21%, the BUIETMS is 36% and Alhamd is 7% contribution to the total population. To distribute the sample to each university the same proportion was allocated to each university. For distribution of sample size, UOB was allocated 110 samples, SBK was 64, BUIETMS 110, and Alhamduni was assigned 22.

To collect data from teachers, the convenience approach was applied because the exact data of each department was not provided due to confidentiality of information. Thereby each numerator visited each department of universities and handed over the questionnaire to all cadre teachers to ensure the appropriate participation.

Table 1

Name	UOB	SBKWU	BUIITEMS	ALHAMD	TOTAL
Population	550	300	544	100	1494
Percentage of population	36%	21%	36%	7%	100%
Sample Size	110	64	110	22	306

Measures

For all measures except for the demographic characteristics, we used a five-point Likert-type scale, ranging from 1 (strongly disagree) to 6 (strongly agree). The language of the instruments was English. As a result, an English version was created after some corrections for the wording and meaning of each item in cooperation with another author. Besides, two professionals with more than ten years of experience in management reviewed and confirmed the clarity and face validity of all items.

Empowering leadership ($\alpha = 0.93$). Empowering leadership was assessed by 12 items that was developed based on the conceptual work of J. A. Arnold, Arad, Rhoades, & Drasgow (2000). Sample items were: “My leader helps staff to achieve their goals”; “My leader encourages staff members to solve problems together”; “My leader treats equally to all staff members”; “My leader provides an opportunity to staff member for opinions”; and “distribute tasks to improve staff learning capacity”.

Psychological Safety ($\alpha = 0.90$). We used the Psy Safety scale developed by (Schaufeli, Salanova, González-Romá, & Bakker, 2002)

Sample items from the scale include: “I feel safe to do experiments at my work”; “I encourage others for being different”; “My skills and values are properly utilized”; and “I feel uncomfortable to ask help from other staff members”.

Work Engagement ($\alpha = .91$) One popular measure for job engagement is the Utrecht Work Engagement Scale (UWES; Schaufeli and Bakker, 2004) which measures the degree of employees’ work-related behaviors around concepts of vigor, dedication, and absorption. Thus, we measured work engagement with 9 items adapted from Edmondson (1999). Sample items include the following: “I am enthusiastic about my work”; “I find it full of meaning and purpose”; “I feel strong and vigorous”; and “I forget everything else around me”.

Analyses and Results

To examine the hypothesized model, we used SPSS and structural equation modeling (SEM). To Analyze the demographic variables, the frequencies were calculated. Before proceeding to hypotheses testing, the validity of an instrument was checked through CFA because the questionnaire was adapted. The Cronbach’s alpha was used to check the reliability of data. For hypotheses testing the simple linear regression analysis and Hayes’s process was applied to check the mediation. It is noted that before testing the measurement and structural models, we averaged

items for each dimension of empowering leadership, Psy Safety, and work engagement and treated the different dimensions as separate indicators of their corresponding construct in our SEM analyses.

Factor analyses

Research involving cross-sectional data collected from a single source (e.g. employees only) is vulnerable to common method variance (CMV) (Korsgaard and Roberson, 1995). The next section in the questionnaire was comprised of different items developed to measure the variables of the study (empowering leadership, psychological safety, work engagement, proactive work behavior). The items were adapted from earlier studies and to check their validity the confirmatory factor analysis is used because whenever the items are adapted from earlier studies the CFA is an appropriate way to check validity (Hinton, 2014). The prerequisite to perform CFA is to check the sample is adequate and the matrices don't have any zero value. To find sample adequacy the KMO test is applied and for matrices, the Bartlett's test of sphericity is applied. the criteria for KMO is a value that should be nearest to 1 and the sig value of Bartlett's test should be less than .05. the following table indicates that the value of KMO is .885 which is very close to 1, hence the sample is adequate. Further, the Bartlett's test shows the sig value is .000 which is less than .05, hence the factors or matrices would not generate zero value, overall CFA is applicable for further analysis.

Table 2. TKMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.885
Bartlett's Test of Sphericity	Approx. Chi-Square	13318.625
	Df	946
	Sig.	.000

Discriminate validity

Another type of construct validity is the discriminate validity that is used to ensure the independence of variables through statistical methods. The Fornhells 1983 developed method to check the discriminant validity by comparing the square root of AVEs with the correlation values of each variable. The discrimination is established if the square root of AVEs is greater than the correlation values of variables. Table 2 shows that the square root of AVE for empowering leadership is .79 which is greater than the value of psychological safety

Table 3. Discriminate validity

Variable name	Empowering Leadership	Psychological Safety	Work Engagement	Proactive Behavior
Empowering leadership	.79	.310**	.126**	.175**
Psychological Safety		.74	.050**	.200**
Work Engagement			.76	.014**
Proactive Behavior				.80

*. Correlation is significant at the 0.01 level (2-tailed).

1) Inferential Analysis

2) Variables (Empowered leadership, psychological safety, work engagement) against Gender (male vs female)

3) The independent sample t test was applied to classify the difference of opinion of male and female towards variables of study (empowered leadership, psychological safety, work engagement and proactive work behavior). The criteria to classify the opinions is that the sig value to t-distribution should be significant (sig value < .05) and if it is significant than the difference of mean value would determine which gender is more inclined towards variables.

Table shows that sig value of t-distribution for empowering leadership is .007 less than .05, thus the empowering leadership varies between male and female. Further the males' mean value for empowering leadership is 3.91 which is greater than females' mean value 3.70, thereby male teachers were more inclined towards empowering leadership. For working engagement, the sig value of t distribution is .988 which is greater than .05, hence the work engagement is not significantly different for male and female. The sig value of t-distribution for psychological safety is .001 less than .05, thus the psychological safety varies between male and female. Further the males' mean value for psychological safety is 3.78 which is greater than females' mean value 3.58, thereby male teachers were more inclined towards psychological safety as compare to female. For pro-active work behavior the sig value of t distribution is .276 which is greater than .05, hence the proactive work behavior is not significantly different for male and female.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
emp_led	Equal variances assumed	13.726	.000	2.733	276	.007	.21250	.07776	.05942	.36558
	Equal variances not assumed			2.690	230.756	.008	.21250	.07899	.05687	.36813
wor_eng	Equal variances assumed	.067	.797	-.015	276	.988	-.00090	.06099	-.12097	.11917
	Equal variances not assumed			-.015	274.913	.988	-.00090	.06060	-.12020	.11840
psy_saf	Equal variances assumed	8.645	.004	2.351	276	.019	.20225	.08602	.03290	.37159
	Equal variances not assumed			2.369	273.565	.019	.20225	.08536	.03421	.37029

Hypotheses testing

H1: Effect of empowering leadership on psychological safety

To test the hypothesis, simple linear regression (SLR) was applied. The primary reason for applying SLR is because in hypothesis statement there is one independent variable and one dependent variable. First the sig value of F-distribution in Anova table is .03 which is less than .05 shows that the model is fit and impact of empowering leadership on psychological safety is present.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.290	1	2.290	4.443	.036 ^b
	Residual	142.233	276	.515		
	Total	144.522	277			

a. Dependent Variable: psy_saf

b. Predictors: (Constant), emp_led

To quantify the explanatory power of empowering leadership on psychological safety the value of R is .126 means there is direct and positive relationship between empowering leadership and psychological safety. For explanation the value of R-square is .01 shows only 1% change is explained in psychological safety through empowering leadership which is very less.

Model Summary^b

Model	R	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
				Square Change	F Change	df1	df2	Sig. Change	Durbin-Watson
1	.126 ^a	.016	.71787	.016	4.443	1	276	.036	1.641

a. Predictors: (Constant), emp_led

b. Dependent Variable: psy_saf

Further to trace the magnitude of empowering leadership on psychological safety the value of beta is used for interpretation. In below table the value of standardize beta coefficient is .126 that shows if 1% empowering leadership practices are increased then the 12% psychological safety among employees would be increased. Overall the regression equation for psychological safety would be $\text{psychological safety} = 3.160 + .126 (\text{empowering leadership}) + e$, hence we accept the hypothesis that empowering leadership significantly and positively affect the psychological safety among teachers of higher education institutes.

Coefficients^a

Model	Unstandardized Coefficients	Standardized Coefficients		t	Sig.	Correlations	Collinearity Statistics
		B	β				

	B	Std. Error	Beta	Zero-order	Partial	Tolerance	Partial	Tolerance	VIF
1 (Constant)	3.160	.255		12.410	.000				
emp_led	.139	.066	.126	2.1086	.036	.126	.126	.126	1.000

a. Dependent Variable: psy_saf

H2: Effect of empowering leadership on work engagement

To test the hypothesis, simple linear regression (SLR) was applied. The primary reason for applying SLR is because in hypothesis statement there is one independent variable and one dependent variable. First the sig value of F-distribution in Anova table is .000 which is less than .05 shows that the model is fit and impact of empowering leadership on work engagement is present.

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14.200	1	14.200	53.895	.000 ^b
	Residual	78.516	298	.263		
	Total	92.717	299			

a. Dependent Variable: wo_eng

b. Predictors: (Constant), eth_lead

To quantify the explanatory power of empowering leadership on work engagement the value of R is .391 means there is direct and positive relationship between empowering leadership and work engagement. For explanation the value of R-square is .15 shows only 15% change is explained in work engagement through empowering leadership which is quite sufficient.

Model Summary

Model	R	Adjusted R Square	Std. Error of the Estimate	Change Statistics						
				R Square Change	F Change	df1	df2	Sig. Change	F	
1	.391 ^a	.153	.150	.51330	.153	53.895	1	298	.000	

a. Predictors: (Constant), eth_lead

Further to trace the magnitude of empowering leadership on work engagement the value of beta is used for interpretation. In below table the value of standardize beta coefficient is .391 that shows if 1% empowering leadership practices are increased then the 39% work engagement among employees would be increased. Overall the regression equation for work engagement would be, work engagement = 2.868 + .391 (empowering leadership) + e, hence we accept the hypothesis that empowering leadership significantly and positively affect the work engagement among teachers of higher education institutes.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta				Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	2.868	.133		21.515	.000					
	eth_lead	.269	.037	.391	7.341	.000	.391	.391	.391	1.000	1.000

a. Dependent Variable: wo_eng

Mediation Analysis

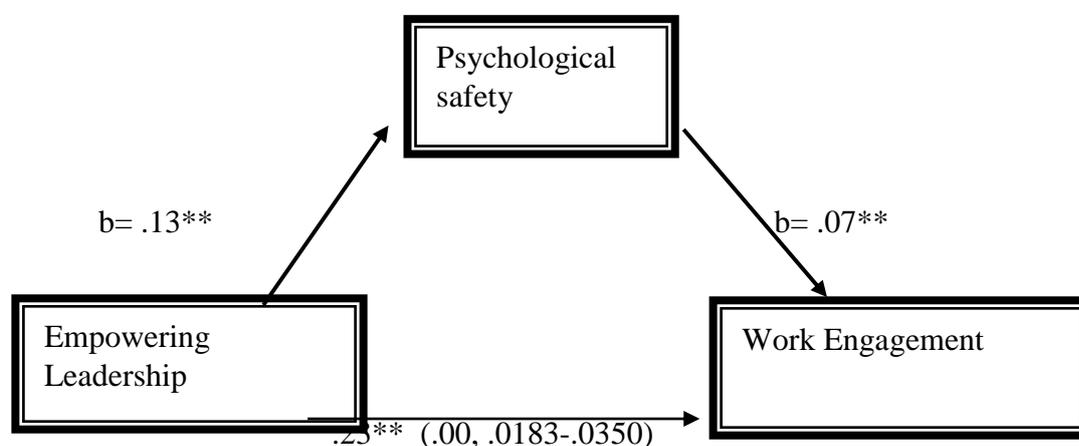
To check mediation effect of psychological safety (PS) between empowering leadership (EML) and Work engagement (WNG), and empowering leadership (EML) and Proactive work behavior (PWB) the bootstrapping approach via Haye's process was applied (MacKinnon, Lockwood, & Williams, 2004; Preacher & Hayes, 2004). To quantify the results approach of Barron and Kenny (1986) was used. There are four primary conditions to fulfil the mediation, first the IV and MV should be significant, the MV and DV should be significant, IV and DV should be significant and the relationship between IV and DV reduced or disappeared when MV is inserted in relationship.

H3: Psychological safety mediates relationship between empowering leadership and work engagement

Hayes' process was applied to check the mediation, results were obtained through 4 factor model based on Barron and Kenny (1986). Based on first condition the empowering leadership has significant impact on psychological safety (beta value is .13), second condition i.e. psychological safety has significant impact on work engagement (beta value is .07), third condition i.e. empowering leadership has significant impact on work engagement (beta value is .23), and fourth condition i.e. beta value reduced of relationship empowering leadership and work engagement (beta reduces from .23 to .002), hence the psychological safety significantly mediates the relationship between empowering leadership and work engagement.

Table 4: Mediation effect of PS between EMP and WNG.

Relationship	Coefficient (Beta)	Standard error	T	P-value	LICT	UICT	Effect
PS <--- EMP	.1388	.0658	2.1078	.0359	.0092	.2684	Significant
WNG <--- PS	.0750	.0406	.1856	.0459	.0723	.0874	Significant
WNG <--- EMP	.2387	.0447	5.3367	.0000	.1507	.3268	Significant
PS → WNG <--- EMP	.0021	.0131			.0183	.0350	Full Mediation



Discussion

The hypotheses of this study were tested which is subsequently accepted. The first hypothesis was established i.e. the empowering leadership significantly impact psychological safety because the empowering leadership responsibilities

The results verify and test the established hypotheses. The first hypothesis was established i.e. ethical leadership impact work engagement because the ethical actions stimulate the integrity, respect, and culture of harmony that force employees to perform their task well and get

engaged in their work. In higher education institutes the respect is a highly important element because teachers feel their dignity a more important factor and that force to teach, research and contribute to students' development and growth. The earlier studies of ethical leadership and work engagement among teachers have been approved and tested in which leaders' ethical concerns, contribution in teachers' development, support at the job, and their prestige are more stringent effect on employees' behavior that force employees to reciprocate behavior while showing engagement at their workplace (Organ and Colleagues (2006). Moreover, research indicates that when leaders follow ethical actions and consider themselves accountable for their actions, affect the employees' attitude towards work engagement due to reciprocity and exchange responsibility. Overall researchers have substantiated that ethical leadership has an effect on work engagement that is consistent with this research.

Another hypothesis was developed in which it is assumed that ethical leadership and work engagement is enhanced when the trust of employees in leaders and organization is increased. Theoretically, it is argued that leaders' action affects the employee's attitude and leaders' consistent ethical actions develop the trust among employees, that force them to trust all the actions conducted by leaders. Hence leaders' integrity through their consistent actions contribute to the development of trust towards the leader. The results of this study confirmed that trust has a mediating effect between ethical leadership and work engagement. Earlier studies have found similar results where ethical leadership has found a significant impact on work engagement through trust development.

Further, it is argued that psychological empowerment is a critical factor that forces employees to do the task even in the absence of ethical behavior of leaders and trust deficit. The psychologically empowered people can bear the unethical actions, and having more understanding of the nature of actions due to which employees consider leaders' unethical actions as professional attitude and still focus on their work. Thereby psychologically empowered people are more oriented towards work engagement even in absence of ethical actions and trust deficit. Results of the study indicate that psychologically empowered people show high work engagement in a low level of ethical actions, and a low level of trust as compare to low psychological empowered people. Further in presence of high ethical standards, the work engagement doesn't differ between high psychological empowered people and low psychological empowered people. Moreover, the results show that high psychological empowered people show high work engagement in presence of a low level of trust as compare to low psychological empowered people, and interestingly in presence of a high level of trust, the work engagement significantly differs between high and low psychological empowerment. Hence the psychological empowerment has the more strong moderating effect between trust and work engagement, and a moderate moderating effect between ethical leadership and work engagement. The results are consistent with earlier studies where psychological empowerment found a significant moderator between ethical leadership and work engagement (Reference).

Conclusion

The primary aim of this research was to examine the effect of empowering leadership on work engagement through the mediating role of psychological safety. This research contributes to the academic literature by integrating leadership and positive psychology linkages to explain the changes in work behavior. 278 self-administered questionnaires were collected from teachers of higher education institutes of Quetta-Pakistan through proportionate stratified sampling and convenience sampling technique. The frequency distribution for demographics and regression analysis was conducted to test the hypotheses.

The data reveals about demographic variables that in this research 145 (22%) male and 133 (48%) female participated, age classification reflects that 144 (52%) were between 20-30 years' age group, 102 (37%) were from 31-40 years' age group, 26 (9%) were between 41-50 years' age group, and 6 (2%) were from above 50 years' age group. The respondents' qualification describes that master was 54 (19%), MS/Mphil qualified were 181 (65%) and Ph.D. were around 43 (16%) and from where the degree was obtained shows that 254 (91%) were locally qualified (Pakistan) and 24 (9%) were foreign qualified. The experience of respondents reflects that 114 (41%) were having less than 3 years' experience, the experience between 3-7 years was 109 (39%), the years 8-12 of experience is 34 (12%) and the experience range between 13-17 years were 2 (4%) and above 17 years were 9 (3%). The teachers' designation statistics show that lecturers were 176 (63%), Assistant professors was 85 (31%), associate professors 15 (5%), and the professor were 2 (7%). The respondents' institutions data shows that from the public university were 90 (32%), participants from the private university were 76 (27%) and the teachers' from the semi-Government institution were 112 (40%).

To obtain the difference of views about variables of study (empowering leadership, psychological safety, work engagement, and proactive work behavior) from Gender (male and female) and different age groups, the independent sample test, and ANOVA was applied. The results show that males highlighted more approaches towards empowering leadership and psychological safety and no significant difference between males and females was found for work engagement and proactive work behavior. From age-wise classification, the young age group 18-30 found a significant difference with 31-40 years, 41-50 years and above 50 years for empowering leadership, work engagement, and psychological safety.

The hypotheses examination shows that empowering leadership has a significant and positive effect on psychological safety (beta value is .126), work engagement (beta value is .391), and proactive work behavior (beta value is .175). The mediating effect of psychological safety was significant between empowering leadership and work engagement (beta reduced from .230 to .002) and between empowering leadership (beta reduced from .160 to .001).

Hereby, research concludes that empowering leadership found a positive and significant effect on work engagement, proactive work behavior, and psychological safety because the

empowering leadership shows actions that provide psychologically and workplace autonomy to employees to take a decision and accept responsibilities for their work. This empowering attitude coupled with ethical actions provide confidence and integrity at the work place that helps employees to think better for the organization, which resultantly contributes to the improvement of work engagement and proactivity. Proactivity means individuals by their conscious choice take work as pride, and try to find solutions to challenges that arise at work. This attitude at workplace is triggered when employees feel psychologically safe developed due to confidence that employees' actions are rewarded and have the autonomy to make decisions for the betterment of the organization.

Further in higher education institutes, teachers are primarily responsible for teaching, researching, and developing students' intellectual skills. To fulfill these responsibilities successfully and effectively, teachers require cognitive peace and autonomy at workplace. The empowering leaders provide autonomy, participative consultation, share responsibility, and values that enhance teachers' confidence to engage in work, and be proactive in completing their tasks. If teachers' are not appreciated and valued by leaders, that damages teachers' psychological health would affect the quality of education, students' understanding, and overall image of institutions.

The empowering leadership if coupled with positive psychological techniques can improve the psychological health of employees that would in turn increase the work engagement and proactivity at workplace. The effect of positive psychological safety doesn't only improve work behavior the long-term consequences would also contribute to the psychological health of students, their learning attitude, and confidence that would carry in students' social lives of students.

Recommendations

Based on the results of the study, the following are recommendations,

1. The higher education institutes are structured where the departmental head is considered as a leader, thereby universities are required to conduct training programs that train leaders on empowering nature to improve work engagement.
2. The leader is responsible to create an environment of participative approach and delegation of responsibilities that help to improve teachers' psychological safety and empowerment through the decision making participation.
3. Leaders' should be oriented toward positive psychological aspects, like empowering through continuous psychological therapy to improve cognitive aspects of leadership.
4. For work engagement and proactivity at workplace, leaders are required to develop open forums where teachers' can participate actively, and share their concerns.

Future Research Direction

The scope of this research was to integrate positive psychological construct into leadership theories for a better explanation of workplace behavior of employees. This research used one aspect of positive psychology i.e. psychological safety about empowering leadership for an explanation of work engagement, the future research can incorporate other constructs from

positive psychology like a psychological contract, hope, optimism, etc. moreover the other leadership traits like a servant, or ethical should also be incorporated with positive psychological aspects. This research was carried out among teachers of four higher education institutes, where the future research can be carried out among all public and private universities operating in Baluchistan Quetta. Moreover, this research didn't compare the teachers' views from the public and private universities that can be done in the future where different aspects of leadership in public and private universities could be initiated.

Limitations of Research

Every research contains limitations while conducting research, similarly, this research found a few limitations. First, the data was gathered from four universities due to the limitation of time being a master's degree, and second is the cost constraint that was required to collect data on a large scale, which was difficult to do being a student. Moreover, research was collected through a convenience approach due to the non-availability of the sampling frame, so it lacks generalizability for a large part of the community.

References

- Abror, A., Patrisia, D., Syahrizal, S., Sarianti, R., & Dastgir, S. (2019). Self-Efficacy, Employee Engagement, Remuneration and Employee Loyalty in Higher Education: The Role of Satisfaction and Ocb.
- Adler, S. (2012). Work engagement: A handbook of essential theory and research edited by Arnold B. Bakker and Michael P. Leiter. *Personnel Psychology*, 65(1), 204-207.
- Al-Hussami, M., Hamad, S., Darawad, M., & Maharmeh, M. (2017). The effects of leadership competencies and quality of work on the perceived readiness for organizational change among nurse managers. *Leadership in Health Services*.
- Ali, A., Wang, H., Soomro, M. A., & Islam, T. (2020). Shared leadership and team creativity: construction industry perspective. *Journal of Construction Engineering and Management*, 146(10), 04020122.
- Alotaibi, S. M., Amin, M., & Winterton, J. (2020). Does emotional intelligence and empowering leadership affect psychological empowerment and work engagement? *Leadership & Organization Development Journal*.
- Amabile, T., & Kramer, S. (2011). *The progress principle: Using small wins to ignite joy, engagement, and creativity at work*: Harvard Business Press.
- Avey, J. B. (2014). The left side of psychological capital: New evidence on the antecedents of PsyCap. *Journal of leadership & organizational studies*, 21(2), 141-149.
- Avey, J. B., Wernsing, T. S., & Luthans, F. (2008). Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors. *The journal of applied behavioral science*, 44(1), 48-70.

- Avolio, B. J., Zhu, W., Koh, W., & Bhatia, P. (2004). Transformational leadership and organizational commitment: Mediating role of psychological empowerment and moderating role of structural distance. *Journal of organizational behavior*, 25(8), 951-968.
- Bakker, A. B. (2011). An evidence-based model of work engagement. *Current Directions in Psychological Science*, 20(4), 265-269.
- Barling, J., Slater, F., & Kelloway, E. K. (2000). Transformational leadership and emotional intelligence: An exploratory study. *Leadership & Organization Development Journal*.
- Bedarkar, M., & Pandita, D. (2014). A study on the drivers of employee engagement impacting employee performance. *Procedia-Social and Behavioral Sciences*, 133, 106-115.
- Busse, R., & Regenber, S. (2019). Revisiting the “authoritarian versus participative” leadership style legacy: A new model of the impact of leadership inclusiveness on employee engagement. *Journal of Leadership & Organizational Studies*, 26(4), 510-525.
- Byun, G., Lee, S., Karau, S. J., & Dai, Y. (2020). The trickle-down effect of empowering leadership: a boundary condition of performance pressure. *Leadership & Organization Development Journal*.
- Cai, H., Gan, C., Wang, T., Zhang, Z., & Han, S. (2019). Once-for-all: Train one network and specialize it for efficient deployment. *arXiv preprint arXiv:1908.09791*.
- Cai, W., Lysova, E. I., Khapova, S. N., & Bossink, B. A. (2019). Does entrepreneurial leadership foster creativity among employees and teams? The mediating role of creative efficacy beliefs. *Journal of Business and Psychology*, 34(2), 203-217.
- Carmeli, A., Reiter-Palmon, R., & Ziv, E. (2010). Inclusive leadership and employee involvement in creative tasks in the workplace: The mediating role of psychological safety. *Creativity Research Journal*, 22(3), 250-260.
- Chan, S. C. (2019). Participative leadership and job satisfaction. *Leadership & Organization Development Journal*.
- Cummings, G. G., MacGregor, T., Davey, M., Lee, H., Wong, C. A., Lo, E., . . . Stafford, E. (2010). Leadership styles and outcome patterns for the nursing workforce and work environment: a systematic review. *International journal of nursing studies*, 47(3), 363-385.
- De Lange, A. H., De Witte, H., & Notelaers, G. (2008). Should I stay or should I go? Examining longitudinal relations among job resources and work engagement for stayers versus movers. *Work & Stress*, 22(3), 201-223.

- Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of applied psychology, 87*(3), 565.
- Ford, R. C., & Fottler, M. D. (1995). Empowerment: A matter of degree. *The Academy of Management Executive, 9*(3), 21-29.
- Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. (2005). "Can you see the real me?" A self-based model of authentic leader and follower development. *The leadership quarterly, 16*(3), 343-372.
- 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.
- Greco, P., Laschinger, H. K. S., & Wong, C. (2006). Leader empowering behaviours, staff nurse empowerment and work engagement/burnout. *Nursing Leadership, 19*(4), 41-56.
- Halbesleben, J. R. (2010). A meta-analysis of work engagement: Relationships with burnout, demands, resources, and consequences. *Work engagement: A handbook of essential theory and research, 8*(1), 102-117.
- Huang, X., Lun, J., Liu, A., & Gong, Y. (2010). Does participative leadership enhance work performance by inducing empowerment or trust? The differential effects on managerial and non-managerial subordinates. *Journal of Organizational Behavior, 31*(1), 122-143.
- Kim, M., & Beehr, T. A. (2018). Can empowering leaders affect subordinates' well-being and careers because they encourage subordinates' job crafting behaviors? *Journal of Leadership & Organizational Studies, 25*(2), 184-196.
- Lee, A., Willis, S., & Tian, A. W. (2018). Empowering leadership: A meta-analytic examination of incremental contribution, mediation, and moderation. *Journal of Organizational Behavior, 39*(3), 306-325.
- Lee, Z. W., Chan, T. K., Chong, A. Y.-L., & Thadani, D. R. (2019). Customer engagement through omnichannel retailing: The effects of channel integration quality. *Industrial Marketing Management, 77*, 90-101.
- Leiter, M. P., & Bakker, A. B. (2010). *Work engagement: A handbook of essential theory and research*: Psychology press.
- Li, D., Yang, Y., Song, Y.-Z., & Hospedales, T. M. (2017). Learning to generalize: Meta-learning for domain generalization. *arXiv preprint arXiv:1710.03463*.
- Li, Y., Castaño, G., & Li, Y. (2018). Linking leadership styles to work engagement. *Chinese Management Studies*.

- Lingard, H., & Turner, M. (2015). Improving the health of male, blue collar construction workers: a social ecological perspective. *Construction management and economics*, 33(1), 18-34.
- Long, H., Ge, D., Zhang, Y., Tu, S., Qu, Y., & Ma, L. (2018). Changing man-land interrelations in China's farming area under urbanization and its implications for food security. *Journal of environmental management*, 209, 440-451.
- Lucas, V., SPENCE LASCHINGER, H. K., & Wong, C. A. (2008). The impact of emotional intelligent leadership on staff nurse empowerment: the moderating effect of span of control. *Journal of nursing management*, 16(8), 964-973.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel psychology*, 60(3), 541-572.
- Luthans, F., Luthans, K. W., & Luthans, B. C. (2004). Positive psychological capital: Beyond human and social capital.
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate—employee performance relationship. *Journal of organizational behavior*, 29(2), 219-238.
- Mainemelis, C., Kark, R., & Epitropaki, O. (2015). Creative leadership: A multi-context conceptualization. *Academy of Management Annals*, 9(1), 393-482.
- Mäkikangas, A., Feldt, T., Kinnunen, U., & Mauno, S. (2013). Does personality matter? A review of individual differences in occupational well-being *Advances in positive organizational psychology*: Emerald Group Publishing Limited.
- Maxwell, S. M., Hazen, E. L., Lewison, R. L., Dunn, D. C., Bailey, H., Bograd, S. J., . . . Bennett, M. (2015). Dynamic ocean management: Defining and conceptualizing real-time management of the ocean. *Marine Policy*, 58, 42-50.
- Nahrgang, J. D., Morgeson, F. P., & Hofmann, D. A. (2011). Safety at work: a meta-analytic investigation of the link between job demands, job resources, burnout, engagement, and safety outcomes. *Journal of applied psychology*, 96(1), 71.
- Pichler, F. (2009). Determinants of work-life balance: Shortcomings in the contemporary measurement of WLB in large-scale surveys. *Social Indicators Research*, 92(3), 449.
- Qu, R., Janssen, O., & Shi, K. (2015). Transformational leadership and follower creativity: The mediating role of follower relational identification and the moderating role of leader creativity expectations. *The Leadership Quarterly*, 26(2), 286-299.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational*

Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 25(3), 293-315.

Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness studies*, 3(1), 71-92.

Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here? *Journal of management*, 30(6), 933-958.

Shaughnessy, M. K., Griffin, M. T. Q., Bhattacharya, A., & Fitzpatrick, J. J. (2018). Transformational leadership practices and work engagement among nurse leaders. *The Journal of Nursing Administration | JONA*, 48(11), 574-579.

Tuckey, M. R., Bakker, A. B., & Dollard, M. F. (2012). Empowering leaders optimize working conditions for engagement: a multilevel study. *Journal of occupational health psychology*, 17(1), 15.

Walumbwa, F. O., Luthans, F., Avey, J. B., & Oke, A. (2011). Retracted: Authentically leading groups: The mediating role of collective psychological capital and trust. *Journal of organizational behavior*, 32(1), 4-24.

Walumbwa, F. O., Peterson, S. J., Avolio, B. J., & Hartnell, C. A. (2010). An investigation of the relationships among leader and follower psychological capital, service climate, and job performance. *Personnel psychology*, 63(4), 937-963.

Wu, W.-L., & Lee, Y.-C. (2017). Empowering group leaders encourages knowledge sharing: integrating the social exchange theory and positive organizational behavior perspective. *Journal of Knowledge Management*.

Yan, X., Yang, K., Su, J., Luo, Z., & Wen, Z. (2018). Mediating role of emotional intelligence on the associations between core self-evaluations and job satisfaction, work engagement as indices of work-related well-being. *Current Psychology*, 37(3), 552-558.