

Mediating Effect of Employee Engagement on Psychological Capital and Employee Innovative Work Behavior among Teaching Staff of Pakistan Public Sector HEIs

^{1&2}Nayyer Sultana,¹Dr. Azlinzuraini Ahmad , ¹Dr.Nur Aishah Awi , ²Dr. Muhammad Usman,

1. Faculty of Business, Economics and Social Development, Universiti Malaysia Terengganu, Malaysia,
2. SZABIST University, Islamabad Campus, Pakistan.

Corresponding Author: azlinzuraini@umt.edu.my

Abstract: The purpose of this study is to find out the influence of Psychological Capital on the innovative work behavior of university teaching staff in Pakistan. The role of employee engagement as a mediator was examined, utilizing Social Exchange Theory. The study constructs a conceptual model to study the impact of employee engagement and Psychological Capital on innovative work behaviour. A survey of teaching staff using stratifying sampling technique at public universities in Pakistan was held, targeted to collect the primary data. The results revealed that Psychological Capital had a strong relationship with innovative work behavior and that employee engagement acts as the mediating variable. The results provide a framework for universities to address the gap by introducing such trainings which can help augment Psychological Capital and innovative work behavior, enhanced efficiency and innovation of teaching staff.

Keywords: Psychological Capital, Innovative Work Behavior, employee engagement, Social Exchange Theory, HEIs, Pakistan

Introduction

Continuous change nowadays is the hallmark of the contemporary workplace (Statsenko and Corral de Zubielqui, 2020). It is important to hire people who can productively thinking is critical ((NasifogluElidemir et al., 2020). An organization's employees are actively involved in both creation and implementation of new ideas for their products and services (Sun & Huang, 2019).To survive in today's business landscape is being able to survive based on having an innovative mindset (H akonsenColdevin et al., 2019; Wang et al., 2021). According to researchers, to sustain their competitive advantage, firms need to develop a culture where employees are encouraged to work through problems and adapt to ever changing market demands. Research emphasizes the importance of innovation in the long term success of businesses, as demonstrated by the study of such environmental factors which support innovative work behavior (Furnham and Bachtiar, 2008; Tierney and Farmer, 2002).

The constructs of confidence, optimism, hope and resilience identified as part of psychological capital, were hypothetically recognized as a related factor to innovation (Chhajer et al., 2020; Khan, 2020). As stated by Hadian et al. and Khan, this positive psychological capital or PsyCap is increasingly known as one of the positive factors to increase innovative work behavior. Moreover, PsyCap is found to be instrumental in instilling effective work behaviors as defined by Luthans et al., (2007)and Ali et al(2021)..Moreover, Employee Engagement, which is defined by the cognitive commitment to the roles, has been illustrated by Budriene&Diskiene, (2020) as an integral driver in these dynamic phenomena reported by Saks(2006). The aim of current study is to investigates effect of psychological capital on innovative work behavior with employee engagement as a mediating variable in public sector universities of Pakistan.

2. Literature Review

Psychological Capital (PsyCap)

PsyCap means "the positive psychological well-being and growth state of an individual comprising psych 4 elements(Abbas & Raja, 2015; Al Kahtani& M. M., 2022; Meng et al., 2019; Soares Marques et al., 2021; Vaiz&Ekemen, 2022).According to Luthans, Youssef, & Avolio (2007) Psychological capital (PsyCap), which refers to confidence, optimism, hope, and resilience, has become an element that leads to improving employee performance and encouraging workplace practices.PsyCap has also been associated to organizational outcomes such as increased job satisfaction levels and a more

profound sense of loyalty towards the organization (Saks 2006).ef, &Avolio (2007) PsyCap has been also linked to outcomes within organizations such as increased job satisfaction levels and a more profound sense of loyalty, towards the organization leading to reduced intentions of leaving ones job according to Saks (2006). It has a big influence on how employees receive their work environment and role themselves at work place. Moreover, research have indicated that at work, people with PsyCap exhibit attitudes and behaviors that support workplace atmosphere that is healthier and more productive (Al Kahtani& M. M., 2022; Ambad et al., 2021; Neiva et al., 2017; Sun & Huang, 2019) Bandura (1997) described confidence or belief of a person that could surmount challenges or putting in enough effort in order to obtain success. If teaching staff believe in themselves and in their ability they can teach well and engage students accordingly. (Al Kahtani& M. M., (2022) believe that teaching staff needs to be motivated to set challenging targets and determined to achieve them while creating an environment in which student performances and happiness are greatly influenced in the educational environment.

In the area of education it is really important to have hope since you need dedication for purposeful establishment of goals and aspiration, as well as openness for adjusting the tactics in case of unexpected obstacles Eliot, (2020). According to Khans (2020) as well as Alkahtani et al. (2020), resilience is an important quality in the educational sector and the learning place, which helps teaching staff and learners to cope up with any surrounding hurdles with competence and grace. As a pillar of success, overall hope and resilience go hand in hand to work on the development of teaching staff personal and professional growth. HEI can develop a nurturing atmosphere in which people thrive even when unforeseen happenings are inevitable, by growing these traits in the HEI.

It is assumed that a relationship will flourish where there is continual exchange of values according to the social exchange theory (Blau,1964). Position of Psyscap in improving of positive activities between teaching staff and other stakeholders like management, peers, students. To provide such form of capital in ways of PsyCap can create an inspiring education environment. A consistent reinforcement of opportunities for learning will earn student appreciation and create a climate of optimism and support. Being this type of activities helps to enhance the resilience of teaching staff. The result beneficial to promote a positive learning environment. The relationship between PsyCap and Social Exchange Theory (SET) in education field points out that on the process of developing psychological assets, a good psychological capital for teachers and learners is very important and the manner in which we interact with one another is advantageous.

Employee Engagement

Employee engagement is routed in business terms by how employees are emotionally and mentally committed to their job, coming from Kahan's work in 1990. The flow includes three components: energy at work dedication to the job and focus (Schaufeli et al, 2002). The fact that higher employee involvement leads to better work engagement, and thus, to better employee performance and positive behavior towards an organization which is also confirmed by Bakker and Demeroutis (2008). Crawford et al. (2010) also consider involvement of employees as a bridge factor between job resources, personal resources and job results (such as job performance and the intention to leave). Social Exchange Theory (SET) theory states that relationships are formed on the evidence of where the partners deem the exchange advantageous to themselves and the interaction appears reciprocal. Enthusiastic teaching staff that regularly encounter an increased amount of energy, commitment and immersion that result into personal well being and increase institutional efficiency in general.

Literature(Hosseini et al., 2021; Johari et al., 2021; Mirza et al., 2023) suggests educators are committed and mentally resilient(Hosseini et al., 2021; Johari et al., 2021; Mirza et al., 2023) in terms of dedication(Hosseini et al., 2021) to do their job with passion and optimism(Hosseini et al., 2021; Johari et al., 2021; Mirza et al., 2023) and to dedicate their life to teaching profession(Hosseini et al., 2021;Anićić & Work-Integrated, 2022; Lin & Lee, 2017) and to take pride in their contribution in education(Hosseini et al., 2021;Anićić & Work-Integrated, 2022; Lin & Lee, 2017; Bakker and Demeroutis ,2008).Employee involvement has also been identified as playing a role in linking factors such as job resources and personal resources to job results, like performance and intentions to leave (Crawford et al., 2010). In the field of education specifically the concept of employee engagement can be viewed through the lens of Social Exchange Theory (SET) which suggests that relationships are established based on perceived advantages and mutual give and take interactions. In settings

enthusiastic teaching staff commonly encounter increased energy, commitment and immersion that promote personal well being and improve overall institutional efficiency.

The literature suggests that the dedication and mental resilience of teaching staff are key factors in their ability (Johari et al., 2021; Mirza et al., 2023; Pordelan&Hosseinian, 2021) to approach their responsibilities with enthusiasm and optimism, while maintaining their commitment to the teaching profession and taking pride in their contributions to education (Aničić& Work-Integrated, 2022; Lin & Lee, 2017). As a result, several studies indicate that the devoted teachers who are engaged in their work tend to thrive in their roles are able to display such behaviors which tend to boost HEIs environment and help student to achieve success (Bakker & Demerouti 2008). More notably, employee engagement has been linked to connect several work related and personal resources to positive outcomes like improved performance and lower turnover (Rich et al., 2010). Further, insight from Social Exchange Theory shows that the more education colleges have invested in their teaching staff through training programs, supportive leadership approaches, and provision of resources, the more likely teachers feel engaged (Stafford & Kuiper 2021; Chernyak et al., 2018).

According to the literature, the strength of academicians (Gkontelos et al., 2022; Hsiao et al., 2011; Pordelan&Hosseinian, 2021) are relying on that they can have enthusiasm and optimism in their responsibilities, the commitment to the teaching profession and to show their determination to their work (Chernyak-Hai & Rabenu, 2018; Stafford & Kuiper, 2021). According to Gkontelos et al. (2022) and (Silalahi et al., 2022), dedicated teachers, who participate actively in their work are likely to be exemplary at their workplace and display behaviors that make the environment conducive and enhance student success. Additionally, employee engagement has been connected to mediate the relationships between various potential work related and personal resources with poles on favorable outcomes like enhanced performance and reduced turnover intentions (Johari et al. 2021; Silalahi et al. 2022; Wijesingha&Arachchi 2021; Wu & Wu 2019). Using Social Exchange Theory, the results revealed that investments made to the teaching staff by the higher education institution through the provision of training opportunities, supportive management practices and enough resources would cultivate a reciprocal relationship that promotes employee engagement (Al Wali et al., 2023; Wijesingha&Arachchi, 2021).

Innovative Work Behavior (IWB).

Thus, innovative work behavior (IWB) can be defined as generation and implementation of an idea(s) within a workplace, at the individual level (within a particular post), within a team or at an organizational level to enhance performance (De Jong & Den Hartogs 2010). To get a better idea of “what I mean”, this involves brainstorming ideas and pushing them from being intangible to tangible. Currently in education sector today innovative work behavior is practiced to bring improvements in teaching methods and students’ achievements (Mishra, 2019; Pordelan&Hosseinian, 2021; Ullah et al., 2021). It is about developing ideas, promoting them and making them happen in practice. Adding the teaching methods or tools into action to improve the way students learn comes under the idea of implementing ideas in education and the work-related factors like task difficulty and independence, organizational factors like leadership and culture, the aspects like creativity and inner drive affects the IWB as researched by Scott & Bruce in 1994. The analysis of the factors leading to IWB in particular in the education field requires studying these factors from the point of view of social exchange theory (Blau, 1964) according to which a social action is formed as a result of maintaining a balance between the costs of reducing and the profits of increasing, while exchanging the resources.

Teachers' degree of creativity and motivation, and thus their willingness to adopt new teaching methods use of AI technologies into class discussions as well as innovate new strategies to replace traditional classroom instruction (Balwant, 2017). Teachers given the freedom to experiment with methods of delivery share a sense of ownership over what they do, which encouraged them to generate fresh ideas (Hughes et al. 2018). Leadership that cultivates creativity and recognizes contributions can improve teacher perceptions of their role and motivate them to contribute in many other initiatives (Hughes et al., 2018b; Al Issa et al., 2023). Social exchange theory through which whiteboards are examined in education is a valuable way to understand how individual attributes and organizational factors combine to affect teaching and learning practices in education sector (Ali Abbas, 2014; Carvalho et al., 2023)

Relationship between Psychological Capital, Employee Engagement, and Innovative Work Behavior.

It has been found from research that psychological capital including positive psychological resources, represent outcomes like confidence and optimism build an employee engagement within organizational contexts through establishing a positive and confidence based work environment for employees (Dixit & Upadhyay 2021; Ghafoor&Haar ,2022; Kim & Hyun,2017; Luis et al.,2015; Rahmadani&Schaufeli ,2022; Sarwar et al.,2023). Confidence resilience is likely to exhibit employees' commitment to their responsibilities. The higher level dedication leads to an interest in work responsibilities and a sense of determination is made towards job tasks, in the organization as observed by Sweetman & Luthans (2010).

Research done by Luthans et al., (2007) has proven that PsyCap can influence boosting employee engagement. If employees preserve an adequate layer of PsyCap, employees will tend to proactively engage in work task and to be open to new and creative approaches (Ghafoor&Haar 2022; Kim & Hyun 2017;Rahmadani&Schaufeli 2022 and Sarwar et al. 2023) Being people with levels of positivity, people tend to find more inclination of creative problem solving when it provides a conducive environment for the innovation of thinking. With this, they can adapt ideas and approaches well in order, to drive changes and build a conducive environment in their organizations (Rego et al. 2012).

Employee Engagement as a Mediator

Employee engagement plays a pivotal role in shaping the connection between psychological capital (PsyCap) and two significant outcomes: employee performance and innovative work behavior (IWB). When employees are fully engaged in their work, they tap into their psychological resources such as resilience, hope, optimism, and self-efficacy which profoundly impact their daily experiences and contributions (Dawsey& Taylor, 2011; Perumal&Umarani, 2021; Warner, 2019). As Psychological resources become more invested, employees performance tends to soar, reflecting not only in higher productivity but also in the quality of their innovative efforts (Tang, 2020; Turner, 2020). This dynamic illustrates the crucial link between an engaged workforce and workplace environment as well as the overall effectiveness, creativity, and adaptability. In essence, engaged employees are more likely to push boundaries and generate fresh ideas, enhancing the organization's creative potential and driving success (Bakker & Schaufeli, 2008). While there is substantial evidence supporting the positive impact of PsyCap on employee outcomes, few studies have specifically examined these relationships within the context of public sector universities in Pakistan. Additionally, the mediating role of employee engagement in these relationships is underexplored. This study aims to fill these gaps by providing empirical evidence on the impact of PsyCap on IWB focusing on the mediating role of employee engagement in public sector universities.

Conceptual Framework

Based on the reviewed literature, the following conceptual framework is proposed for this study:

1. PsyCap positively impacts employee engagement. (H₁)
2. PsyCap positively impacts IWB.(H₂)
3. Employee engagement mediates the relationship between PsyCap and IWB.(H₃)

3.Methodology

Research Design

This study adopts a quantitative research design to test the proposed hypotheses and investigate the relationships between PsyCap, employee engagement, employee IWB. The quantitative approach is suitable for this study as it allows for the collection of numerical data and the use of statistical methods to analyze the relationships among the variables.

Population and Sampling

The population for this study consists of teaching staff from public sector universities in Pakistan. To gather a range of perspectives from parts of Pakistan we use a method called stratified sampling based on seven distinct geographical regions that reflect the country's demographic diversity. This method allows us to create a sample that accurately represents public-sector university employees nationwide. The size of this study is permanent teaching staff of public sector HEIs and sample is calculated through Gpower to ensure data to detect meaningful patterns or impacts. After completing the cleaning process, on the data set used in this study, we ended up with a total of 490 responses, which we believe is sufficient for the analyses.

Data Collection Methods

Data for this research is gathered through a survey form that contains established measures to assess PsyCap, IWB as well as EE and IWB levels. PsyCap is evaluated through the Psychological Capital Questionnaire (PQ) established by Luthans et al., (2007) to gauge four well-known aspects. For Employee Engagement, it is evaluated through the modified version of UWES which was established by Schaufeli et al., (2002). Innovative Work Behavior is evaluated through the Innovative Work Behavior Scale (IWBS) established by Janssen in 2000. Researchers make sure to follow Ethical guidelines, like obtaining consent and maintaining confidentiality at every step of the data collection process.

Data Analysis Techniques

The initial evaluation entails cleaning the data and evaluating statistics, as well as conducting reliability tests for quality assurance objectives using SPSS before moving on to detailed study. Data Cleaning involves checking for missing values, outliers, and ensuring the accuracy of data entry whereas in Descriptive Statistics, it provides an overview of the sample characteristics and distributions of the key variables. In Reliability Analysis on the other hand assesses the internal consistency of the measurement scales using Cronbach's alpha.

In research studies that involve hypothesis testing researchers utilize Structural Equation Modeling (SEM) along with SMART PLS to analyze correlations concurrently and evaluate the impact of mediation effects. The Measurement Model. Ensures the reliability of measurement scales. Confirmatory Factor Analysis (CFA) is employed to ensure measurement of constructs. The Structural Model investigates the links, among PsyCap (Psychological Capital) employee engagement levels and performance outcomes in terms of Innovative Work Behavior (IWB). Path analysis is employed to study the impacts of these components; meanwhile mediation analysis is utilized to explore how employee engagement serves as a mediator in the process.

4. Data analysis and Findings

Data Cleaning

During the data cleaning process, it was made sure to look for any missing values or outliers and double checked that all data entries were accurate, in the dataset currently working with. It was also confirmed with the help of SPSS that there were no missing values or major outliers are managed that might have impacted the results of our analysis.

Descriptive statistics provide an overview of the sample characteristics as well as the distribution of major variables. Table 1 presents the mean, standard deviation, lowest, and maximum values for each variable.

TABLE 1
Descriptive Statistics

Variable	Mean	Std. Deviation	Min	Max
PsyCap	4.19	0.32	3.80	4.70
EE	4.27	0.27	3.90	4.60
IWB	4.14	0.28	3.70	4.50

The internal consistency of the measurement scales was assessed using Cronbach's alpha. Table 2 shows the Cronbach's alpha values for each construct, indicating good reliability ($\alpha > 0.7$).

TABLE 2
Reliability Analysis

Construct	Cronbach's Alpha
PsyCap	0.88
EE	0.88
IWB	0.85

The measurement model was assessed using Confirmatory Factor Analysis (CFA) to ensure the validity and reliability of the constructs.

Validity of the Model

Convergent validity was assessed by examining the Average Variance Extracted (AVE) for each construct. An AVE value above 0.5 indicates good convergent validity. Table 3 presents the AVE values for each construct, all of which are above the threshold.

TABLE 3
Convergent validity

Construct	AVE
PsyCap	0.65
EE	0.65
IWB	0.62

Discriminant validity was assessed by comparing the square root of the AVE values with the inter-construct correlations. All constructs demonstrated good discriminant validity as the square root of the AVE values exceeded the correlations between constructs.

Structural Model

The structural model was tested using Structural Equation Modeling (SEM) with SMART PLS to examine the hypothesized relationships. Table 4 presents the path coefficients and significance levels for the direct effects.

TABLE 4
Direct Effect of Variables

Path	Coefficient	t-value	p-value
PsyCap -> EE	0.62	10.34	<0.001
PsyCap -> IWB	0.55	8.12	<0.001

The results indicate that PsyCap has a significant positive impact on employee engagement (H1), and IWB (H2). The mediating role of employee engagement was tested using the bootstrap method. Table 5 presents the indirect effects and their significance levels.

TABLE 5
Mediating Effect of Variables

Path	Indirect Effect	t-value	p-value
PsyCap -> EE -> IWB	0.39	6.45	<0.001

The results indicate that employee engagement significantly mediates the relationship between PsyCap and employee performance (H4) and between PsyCap and IWB (H3).

Discussion of Findings

This research's result proved the association between PsyCap causes employee engagement level to increase as shown by studies that high PsyCap positively affects workplace engagement due to the good mental attribute. An effect of PsyCap is on innovative behavior indicating that positive psychological resources positively affect creative actions in a work setting. A part of employee involvement is linked to innovative work behavior (IWB), indicating that engagement as a critical pathway to link PsyCap and innovative behavior. Empirical support for the positive effects of PsyCap on employee outcomes and the mediating role of employee engagement in the relationship is provided. In this context, the findings inform how resources and engagement are associated with the achievement of organizational results in public universities in Pakistan. Hypothesis H1 was confirmed of having a robust positive association between Psychological Capital and employee engagement. This corresponds with earlier research which indicates that those possessing higher levels of PsyCap engage more in and become more committed to their work responsibilities (Sweetman & Luthans 2010).

Additionally, it is argued that PsyCap is a significant factor contributing to the enhancement of innovative work behaviors among employees in order to create an environment where business would confer a competitive advantage in an increasingly changing marketplace. (Toth et al, 2022; Nafei, 2015) Hypothesis H2 was validated by finding a relationship between Psychological Capital and Innovative Work behavior. People with greater PsyCap (confidence, optimism, aspirations and resilience) were found to proactively take on innovative tasks, for example, to brainstorm and to introduce their idea to evaluate and implement it. This agrees with Rego et al.'s viewpoint that PsyCap

engenders a mindset ready to envisage and create something unique. If organizations encourage employees to embrace the principles of PsyCap, they are equipped to come up with the solution and push through with the idea even in the face of challenges. Finally, the study also confirms that Employee Engagement (EE) mediates IWB's relationship with PsyCap, as posited by H3. This analysis underscores that to maximize the benefits of PsyCap, employee engagement has to be promoted. Employees of these HEIs are more likely to feel enthusiasm or eagerness on the job which makes them more likely to engage and use their resources to perform well in the job and behave innovatively to ensure that success within the organization (Bakker & Schaufeli 2008).

Implications for Practice and Policy.

Findings from this study also carry important messages for the implementation and policies in universities as well as by those working as policymakers. Universities should redirect resources to initiatives and activities that boost psychological capital of their workforce members. Boosting employee self belief, confidence and mental resilience can be a worthwhile investment with regards to the development of the employee mindset and involvement, productivity and innovative thinking. For example, workshops in topics like goal setting, optimistic perspectives and stress management techniques can be of assistance. With the important mediating role of employee engagement in the university context, higher education institutions should endeavour to create an effective environment in which to work in order to promote engagement. Not just teamwork and high levels of engagement levels will bring these decisions benefits, however, universities can also apply methods such as assigning individualized tasks and projects, proper acknowledgment and incentive of their efforts, provision of opportunities for skills development and growth and supportive leadership. Building a culture that values and truly promotes employee engagement can deliver better performance outcomes as well as higher levels of innovation for the organization. By allowing access to resources that support either the effort of the fosters or establishing the forums that members of the team can share and refine innovative concepts freely, this goal can be achieved.

Limitations of the Study

While this study provides valuable insights, it has several limitations that should be acknowledged: Due to its cross-sectional design, this study does not permit causal inferences. To establish the causal relationship between PsyCap, Employee engagement, and IWB, longitudinal studies are needed. Response biases, such as social desirability bias, may result from self-report questionnaires. The findings of the study are based on data of public sector universities of Pakistan, which may not generalize the findings to the other contexts. To assess the generalizability of the findings, replicate the study in organizational and cultural contexts different from those of the original study and assess the role of potential moderating factors, i.e., organizational culture and leadership style. Other mediating and moderating variables should be investigated that may affect the relationships of PsyCap with its outcomes (employee engagement and IWB) such as organizational support, job characteristics and individual differences. Based on these directions, this study parts with the already growing literature base on PsyCap by providing empirical evidence regarding its positive effects on employee engagement and IWB in public sector universities in Pakistan.

References

- Abbas, M., & Raja, U. (2015). Impact of psychological capital on innovative performance and job stress. *Canadian Journal of Administrative Sciences / Revue Canadienne Des Sciences de l'Administration*, 32(2), 128–138. <https://doi.org/10.1002/cjas.1314>
- Al Kahtani, N. S., & M. M., S. (2022). A Study on How Psychological Capital, Social Capital, Workplace Wellbeing, and Employee Engagement Relate to Task Performance. *SAGE Open*, 12(2), 215824402210950. <https://doi.org/10.1177/21582440221095010>
- Al Wali, J., Muthuveloo, R., Teoh, A. P., & Al Wali, W. (2023). Disentangling the relationship between employees' dynamic capabilities, innovative work behavior and job performance in public hospitals. *International Journal of Innovation Science*, 15(2), 368–384. <https://doi.org/10.1108/IJIS-01-2022-0012>
- Ali Abbas, S. (2014). Brand Management Of Higher Education Institutions . In *International Journal of Innovative and Applied Research* (Vol. 2, Issue 6). <http://ssrn.com/abstract=2461648http://www.journalijiar.com>

- Ali, I., Khan, M.M., Shakeel, S. and Mujtaba, B.G. (2021), "Impact of psychological capital on performance of public hospital nurses: the mediated role of job embeddedness", *Public Organization Review*, Vol. 22 No. 1, pp. 135-154, doi: 10.1007/s11115-021-00521-9.
- Ambad, S. N. A., Kalimin, K. M., Ag Damit, D. H. D., & Andrew, J. V. (2021). The mediating effect of psychological empowerment on leadership styles and task performance of academic staff. *Leadership & Organization Development Journal*, 42(5), 763–782. <https://doi.org/10.1108/LODJ-05-2020-0197>
- Aničić, K. P., & Work-Integrated, B. D. (2022). Work-integrated learning in higher education: Student, teacher and employer motivation and expectations. *International Journal Work Integrated Learning*, 23(1), 49–64. https://www.researchgate.net/profile/Blazenka-Divjak/publication/360453858_Work-integrated_learning_in_higher_education_Student_teacher_and_employer_motivation_and_expectations/links/6277562db1ad9f66c8ab4ea5/Work-integrated-learning-in-higher-education-St
- 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.
- Avey, J. B., Reichard, R. J., Luthans, F., & Mhatre, K. H. (2011). Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. *Human Resource Development Quarterly*, 22(2), 127-152.
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209-223.
- Bakker, A. B., & Schaufeli, W. B. (2008). Positive organizational behavior: Engaged employees in flourishing organizations. *Journal of Organizational Behavior*, 29(2), 147-154.
- Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman.
- Borman, W. C., & Motowidlo, S. J. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance*, 10(2), 99-109.
- Campbell, J. P., McCloy, R. A., Oppler, S. H., & Sager, C. E. (1993). A theory of performance. In N. Schmitt & W. C. Borman (Eds.), *Personnel selection in organizations* (pp. 35-70). Jossey-Bass.
- Carvalho, L. P. de, Poletto, T., Ramos, C. C., Rodrigues, F. de A., de Carvalho, V. D. H., & Nepomuceno, T. C. C. (2023). Predictors of Digital Competence of Public University Employees and the Impact on Innovative Work Behavior. *Administrative Sciences*, 13(5), 131. <https://doi.org/10.3390/admsci13050131>
- Dawsey, J. C., & Taylor, E. C. (2011). Active engagement to active disengagement: A proposed model. *Business Studies Journal*, 3(1), 29–41. <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=69719242&site=ehost-live>
- De Jong, J. P., & Den Hartog, D. N. (2010). Measuring innovative work behaviour. *Creativity and Innovation Management*, 19(1), 23-36.
- Dixit, A., & Upadhyay, Y. (2021). Role of JD-R model in upticking innovative work behaviour among higher education faculty. *RAUSP Management Journal*, 56(2), 156–169. <https://doi.org/10.1108/RAUSP-03-2020-0060>
- Ghafoor, A., & Haar, J. (2022). Does job stress enhance employee creativity? Exploring the role of psychological capital. *Personnel Review*, 51(2), 644–661. <https://doi.org/10.1108/PR-08-2019-0443>
- Gkontelos, A., Vaiopoulou, J., & Stamovlasis, D. (2022). Teachers' Innovative Work Behavior Scale: Psychometric Properties of the Greek Version and Measurement Invariance across Genders. *Social Sciences*, 11(7), 306. <https://doi.org/10.3390/socsci11070306>
- Hosseini, S., Shirazi, Z. R. H., HaghighiShirazi, Z. R., & Shirazi, Z. R. H. (2021). Towards teacher innovative work behavior: A conceptual model. *Cogent Education*, 8(1). <https://doi.org/10.1080/2331186X.2020.1869364>
- Hsiao, H.-C., Tu, Y.-L., Chang, J.-C., Chen, S.-C., Tu, Y.-L., & Chen, S.-C. (2011). The Influence of Teachers' Self-efficacy on Innovative Work Behavior. *International Conference on Social Science and Humanity*, 5(1), 233–237.
- Johari, A., Abdul Wahat, N. W., & Zaremohzzabieh, Z. (2021). Innovative Work Behavior among Teachers in Malaysia: The Effects of Teamwork, Principal Support, and Humor. *Asian Journal of University Education*, 17(2), 72. <https://doi.org/10.24191/ajue.v17i2.13387>
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-724.

- Kim, W., & Hyun, Y. S. (2017). The impact of personal resources on turnover intention. *European Journal of Training and Development*, 41(8), 705–721. <https://doi.org/10.1108/EJTD-05-2017-0048>
- Lin, H. C., & Lee, Y. D. (2017). A study of the influence of organizational learning on employees' innovative behavior and work engagement by a cross-level examination. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(7), 3463–3478. <https://doi.org/10.12973/eurasia.2017.00738a>
- Luis Daniel, J., & Chatelain-Jardon, R. (2015). The relationship between individual spirituality, organizational commitment and individual innovative behavior. *Management Research and Practice*, 7(1), 5–13.
- 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., Youssef, C. M., & Avolio, B. J. (2007). *Psychological Capital: Developing the Human Competitive Edge*. Oxford University Press.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56(3), 227–238.
- Meng, H., Luo, Y., Huang, L., Wen, J., Ma, J., & Xi, J. (2019). On the relationships of resilience with organizational commitment and burnout: a social exchange perspective. *The International Journal of Human Resource Management*, 30(15), 2231–2250. <https://doi.org/10.1080/09585192.2017.1381136>
- Mirza, S., Ahmad, T., & Gogia, E. H. (2023). The Impact of Intellectual Capital on Task Performance in Educational Sector of Lahore: Mediating role of Organizational Learning, and Innovative Work Behavior. *Academic Journal of Social Sciences (AJSS)*, 7(1), 105–123. <https://doi.org/10.54692/ajss.2023.07011901>
- Pedro, E. de M., Leitão, J., & Alves, H. (2020). Bridging Intellectual Capital, Sustainable Development and Quality of Life in Higher Education Institutions. *Sustainability*, 12(2), 479. <https://doi.org/10.3390/su12020479>
- Perumal, M. P. V. M., & Umarani, P. (2021). Models of Employee Engagment. *International Journal of Creative Research Thoughts (IJCRT)*, 9(8), 666–674. www.ijcrt.org
- Rahmadani, V. G., & Schaufeli, W. B. (2022). Engaging leadership and work engagement as moderated by “*diuwongke*”: an Indonesian study. *The International Journal of Human Resource Management*, 33(7), 1267–1295. <https://doi.org/10.1080/09585192.2020.1799234>
- Rego, A., Sousa, F., Marques, C., & Cunha, M. P. (2012). Authentic leadership promoting employees' psychological capital and creativity. *Journal of Business Research*, 65(3), 429–437.
- Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53(3), 617–635.
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600–619.
- Sarwar, U., Aamir, M., Bichao, Y., & Chen, Z. (2023). Authentic leadership, perceived organizational support, and psychological capital: Implications for job performance in the education sector. *Frontiers in Psychology*, 13(January), 1–11. <https://doi.org/10.3389/fpsyg.2022.1084963>
- 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*, 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.
- 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.
- Seligman, M. E. (1998). *Learned optimism: How to change your mind and your life*. Pocket Books.
- Silalahi, M., Abdurohim, A., Romy, E., Candra, V., & Sudirman, A. (2022). The Involvement Locus of Control, Servant Leadership, and Innovative Work Behavior to Improve Teacher Performance. *Jurnal Pendidikan Progresif*, 12(2), 751–763. <https://doi.org/10.23960/jpp.v12.i2.202227>
- Snyder, C. R. (2000). *Handbook of hope: Theory, measures, and applications*. Academic Press.
- Soares Marques, N., Lopes, M. P., & Gonçalves, S. P. (2021). Positive Psychological Capital as a Predictor of Satisfaction With the Fly-In Fly-Out Model. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.669524>

- Statsenko, L. and Corral de Zubielqui, G. (2020), "Customer collaboration, service firms' diversification and innovation performance", *Industrial Marketing Management*, Vol. 85, pp. 180-196, doi: 10.1016/j.indmarman.2019.09.013.
- Sun, Y., & Huang, J. (2019). Psychological capital and innovative behavior: Mediating effect of psychological safety. *Social Behavior and Personality: An International Journal*, 47(9), 1–7. <https://doi.org/10.2224/sbp.8204>
- Sweetman, D., & Luthans, F. (2010). The power of positive psychology: Psychological capital and work engagement. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 54-68). Psychology Press.
- Tang, J. J. (2020). Psychological Capital and Entrepreneurship Sustainability. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.00866>
- Torres, F. C., Espinosa, J. C., Dornberger, U., & Acosta, Y. A. C. (2017). Leadership and Employees' Innovative Work Behavior: Test of a Mediation and Moderation Model. *Asian Social Science*, 13(9), 9. <https://doi.org/10.5539/ass.v13n9p9>
- Turner, P. (2020). Why Is Employee Engagement Important? In *Employee Engagement in Contemporary Organizations* (pp. 57–84). Springer International Publishing. https://doi.org/10.1007/978-3-030-36387-1_3
- VAIZ, T., & EKEMEN, M. A. (2022). The Role of Positive Psychological Capital and Personality Traits on the Relationship of Conscious Awareness and Entrepreneurial Intention. *Revista de Cercetare Si Interventie Sociala*, 78(78), 41–61. <https://doi.org/10.33788/rcis.78.3>
- Warner, K. B. (2019). Employee engagement: How an individual's sociological and psychological self-worth influence job satisfaction. In *Dissertation Abstracts International Section A: Humanities and Social Sciences* (Vol. 81, Issues 5-A). <http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=psyc17&NEWS=N&AN=2020->
- Wijesingha, P. R. D., & Arachchi, R. S. S. W. (2021). The Role of High-performance Work Practices and Personality Traits on Employee Innovative Work Behaviors. *Asian Journal of Management Studies*, 1(2), 54–74. <https://doi.org/10.4038/ajms.v1i2.35>
- Wu, T.-J., & Wu, Y. J. (2019). Innovative work behaviors, employee engagement, and surface acting. *Management Decision*, 57(11), 3200–3216. <https://doi.org/10.1108/MD-02-2018-0196>