

An Investigation into the Mediating Effects of Organizational Commitment Between Psychological Capital and Work Engagement

- Nazim Ali** Assistant Professor, Department of Commerce and Management Sciences, University of Malakand, KP, Pakistan.
Email: nazimali100@yahoo.com
- Zahid Ali** Lecturer, Department of Commerce and Management Sciences, University of Malakand, KP, Pakistan.
- Adnan Khan** Lecturer, Department of Commerce and Management Sciences, University of Malakand, KP, Pakistan.

Abstract

The main objective of this study was to investigate not only the relationship between Psychological Capital and Work Engagement but also to test the mediating role of Organizational Commitment. A cross-sectional design was used. Data was collected from 226 nurses of the three-large hospitals of Peshawar, Pakistan. The PCQ, UWES-9 and Meyer and Allen (1991) scales were used as measuring instruments. The results of the study reveal a significant relationship between 1) Psychological Capital and Work Engagement, 2) Psychological Capital and Organizational Commitment, 3) Organizational Commitment and Work Engagement. It was also found that Organizational Commitment partially mediated the relationship between Psychological Capital and Work Engagement. The study will further contribute to the existing literature on positive organizational behavior.

Key Words

Psychological Capital,
Work Engagement,
Commitment. Nurses,
Pakistan

Introduction

Psychological Capital (PsychCap), as a part of the overall positive organizational behavior, has drawn the attention of researchers because of having unique functional standards and adding long-term value to the individual as well as to the context (Youssef-Morgan & Luthans, 2013). Being a composite construct, it has been found in a strong relationship with desired behavioral, attitudinal, and particularly performance-related results in the organization (Luthans, Youssef, & Avolio, 2015). Consistent researches have found it “positive, measurable, theory as well as research-based, open to betterment as state-like and having desired outcomes. It fulfills rigor and applicability scientific criteria, and stress on effective applications’ practical proofs. (Luthans et al., 2015).. Therefore, it is highly imperative to understand the basics of this core construct (Luthans & Avolio, 2014).

Extant literature is replete with conceptual as well as empirical evidence that supports the centrality of PsychCap in behavioral sciences. It is considered as one of the human capital’s key subsets that helps in addressing the company’s human-related problems (Shahnawaz & Jafri, 2009). “Embedding the drivers of PsychCap in the organization not only fosters happy and healthy employees but it can also play a significant role in achieving excellent job satisfaction” (Karpagavalli & Subhashini, 2017) p. 110). Practitioners’ interest in the four elements of psychological capital is pragmatic because each of these components can lead to desirable outcome for organization such as perseverance, belief in one’s own capabilities to be successful in a particular situation, positivity about the present and future, and an employee’s ability to recover from or adjust easily to misfortune or change (Karpagavalli & Subhashini, 2017).

No doubt the importance of PsyCap in the positive organizational behavior (POB) has widely been acclaimed conceptually and empirically, it does not warrant that all organizations would accrue its benefits. Public sector organizations, famous for negative connotations like stagnancy and inefficiency (Goodsell, 2003), and suffering from structural weaknesses (Costantini et al., 2017), which have been dubbed organizations with ‘human capital crisis’(Jacobson, 2011), appear to be out of the spectrum of

benefits attached with it. In countries where the public sector is more dominant, health would definitely be the public-sector domain. Within the health sector, nursing has a distinctive place and is one of its system's largest components, and playing an indispensable role in the provision of high-quality and consistent aid for patients (Nayeri, Nazari, Salsali, & Ahmadi, 2005). Those who are interested in the provision of quality services in healthcare must be serious about the positive psychology of the persons (nurses) who are entrusted with this task. Different studies have looked at the possibilities of how to improve work engagement (WE) among nurses, we believe that little research has been undertaken to observe WE of nurses in the health sector of Pakistan. Furthermore, we believe that organizational commitment (OC), being a central construct that affects employees' working behavior mediates the relationship of PsychCap to WE. In previous literature's light, there hardly exists any empirical evidence that looks at such relationships among nurses in Pakistan.

By definition, PsychCap shows human beings' constructive psychological conditions of evolution which are characterized by four dimensions. Hope to represent a positive stimulating condition that depends on synergetic feelings of development (1) agency (energy directed towards a goal) and (2) pathways (goal-oriented planning) (Snyder, Irving, & Anderson, 1991). Self-efficacy is the belief about one's abilities to organize the motivation, mental resources, and necessary course of action for executing particular actions within a specific circumstance (Stajkovic & Luthans, 1998). Resilience represents one's capacities of rebounding or bouncing back from adversities, failures, and conflicts or even from constructive events, increased responsibilities, and progress (Luthans, 2002). Optimism shows attributive aspects that explain positive occurrences with regard to personal, pervasive, and permanent causes while negative occurrences as temporary, situation-specific, and external (Seligman, 1998).

Each component of this definition may produce different desired outcomes, however, the whole as a composite construct has been identified as a good predictor of performance and job satisfaction (Youssef-Morgan & Luthans, 2015). Organizations concentrate on a higher level of PsychCap because it depends on personal capacities which peoples induce in their employment. And the qualitative improvement in this capital can have constructive effects on outcomes related to employment. People having PsychCap's high level have been found more energetic which helps in high achievements in life over a longer period of time, and also employees having PsychCap's high level have the ability to generate multiple solutions to the problems and respond positively to setbacks (Karpagavalli & Subhashini, 2017). Keeping the centrality of construct the concept has been explained in terms of its explanatory aspects with its high order like optimism, efficiency, hope, and resilience (Luthans et al., 2007); and its constructive traits (personality, self-evaluation, and person-job as well as organization fit). These traits have been found positive predictors of expected behaviors like organizational citizenship and negative predictors of turnover intention, counterproductive behaviors, and organizational cynicism (Avey, Luthans, & Youssef, 2010).

There is a theoretical thread that connects PsychCap's four components. Individuals have the capacity to positively appraise the work setup, and success' probability based on preserving and motivated effort (Luthans et al. 2007). This is supported by an inner sense of intentionality, control, and agency (Youssef & Luthans, 2013). Those individuals who have the capacity of consistently appraising the chances of success and perceive that these chances are within their reach and control induce a positive outlook and willingness to invest energy and resources in pursuing challenging goals even if there happens to obstacles and setbacks.

It is an area of concern because engaged employees have been found more energetic, well-connected with their assigned tasks and consider themselves to be able to manage their job's demands (Bakker & Demerouti, 2008). It is occupational health psychology's emerging concept (Wirtz, Rigotti, Otto, & Loeb, 2017). WE, being part of positive organization behavior (POB), is a state of mind of employees that help them affecting their behavior towards desirable organizational outcomes (Simons & Buitendach, 2013). Their are sufficient evidence that supports that there is a positive association between organizational outcomes and positive engagement with the organization (Donaldson & Ko, 2010). While disengaged employees lack commitment and motivation (May, Gilson, & Harter, 2004).

OC as a construct explains an individual attachment to her/his organization (Shahnawaz & Jafri, 2009). Meyer and Allen (1997), typology of its three components—normative, continuance, and affective commitment has got wide popularity and has been validated across cultures and in diverse organizations. Studies have found an association between PsychCap's four dimensions and commitment towards the organization (Lyons, Duxbury, & Higgins, 2006). Among the three components, the most researched component is an affective component (Field & Buitendach, 2011) and has been found the strongest and rational regarding desirable organizational outcomes (Simons & Buitendach, 2013; Wasti, 2003).

These are sufficient proof to support the contention that individuals and organizations are both positively affected by WE. Therefore examining WE for the purpose to disclose new methods of enhancing it, can lead to empirical implications for individuals as well as organizations, particularly in the government-related sector.

Research Model and Hypotheses

Based on the extant literature, the researchers in the Pakistani context would propose the validation of the following model and hypotheses.



- H₁ Employees' PsychCap has a positive association with WE.
- H₂ Employees' PsychCap has a positive association with OC.
- H₃ Employees' OC has a positive association with WE.
- H₄ The association between employees' WE and PsychCap is mediated by OC.

Objectives

This study aims to

1. Find out the level of PsychCap, OC, and WE of the nurses working in public sector hospitals of KPK.
2. To investigate the relationship between WE and PsychCap.
3. To know the relationship between PsychCap and OC.
4. To find out the relationship between WE and OC.
5. To investigate OC's role as mediator between WE and PsychCap.

Research Methodology

This study aims to find out the OC's role as a mediator between WE and PsychCap. The data was collected from the nurses of three large hospitals of Peshawar. A total of three hundred questionnaires were issued for the collection of data. Among which 226 were responded with the 75% response rate. Because of the extremely busy schedule of the nurses in the hospitals, the convenient sampling technique was adopted. The data was collected from those who were conveniently present.

SPSS 20 and AMOS 18 were used for developing the structural and measurement models for testing the hypotheses and mediation effect.

Measures

PsychCap

The PCQ scale devolved by Luthans et al. (2007) was used to measure PsychCap's four dimensions (optimism, hope, resilience, and self-efficacy). PCQ comprises 24 questions. The scale has six items for PsychCap's each dimension. The example items are; self-efficacy "I feel confident analyzing a long-term problem to find a solution", hope "If I should find myself in a jam at work, I could think of many ways to get out of it", Resilience "I usually manage difficulties one way or another at work", and optimism "When things are uncertain for me at work, I usually expect the best".

WE

Based on Kahn (1990) three components model, this study used the 9-item Utrecht WE Scale (UWES-9). It comprises 9 questions, wherein three items were for each WE's dimension with a five-point Likert-type. Example item of the scale for vigor is ("At my work, I feel bursting with energy"), dedication ("I am proud of the work that I do") and absorption ("I am immersed in my work").

OC

The 18 items scale developed by Meyer and Allen (1991) was adopted for this study. This scale has six items for each dimension of OC. Example items are affective “I would be very happy to spend the rest of my career in this organization”, Continuance “Too much of my life would be disrupted if I leave my organization” and normative “This organization deserves my loyalty”.

Analysis

The mean, standard deviation, and Cronbach’s Alfa of the study are given below in Table 1.

PsychCap was the independent variable in this study which is consisted of four dimensions. The first dimension of PsychCap was self-efficacy. The Cronbach’s Alpha for PsychCap ranged from .87 to .90, OC from .88 to .91 and WE was ranged from .86 to .89. All these valued showed that the scales had internal consistency.

Table 1. Demographics

	N	Mean	Std. Deviation	Cronbach’s Alfa
SE1	226	4.0664	1.15085	.873
SE2	226	4.1062	1.16514	
SE3	226	4.0354	1.18080	
SE4	226	3.8274	1.23337	
SE5	226	3.8363	1.12139	
SE6	226	3.8540	1.19663	
OP1	226	3.8805	1.11110	.909
OP2	226	3.9779	1.08912	
OP3	226	3.9513	1.09639	
OP4	226	3.8053	1.18403	
OP5	226	3.9735	1.21077	
OP6	226	3.9292	1.22360	
R1	226	4.0221	1.11732	.902
R2	226	4.0310	1.11711	
R3	226	4.0708	1.12124	
R4	226	4.0088	1.14694	
R5	226	3.8982	1.20491	
R6	226	4.0265	1.17349	
H1	226	3.8451	1.28855	.889
H2	226	3.9292	1.21265	
H3	226	3.9469	1.18765	
H4	226	3.9469	1.13012	
H5	226	3.8850	1.10957	
H6	226	3.8142	1.12387	
V1	226	3.8451	1.17677	.866
V2	226	3.7478	1.19373	
V3	226	3.8717	1.28803	
A1	226	3.9823	1.22914	.863
A2	226	3.8319	1.22495	
A3	226	3.8142	1.22237	

D1	226	3.9513	1.15943	
D2	226	3.9867	1.26660	
D3	226	3.9735	1.15824	
				.899
AC1	226	4.0487	1.10043	
AC2	226	3.9779	1.12129	
AC3	226	3.9823	1.02400	
AC4	226	3.9248	1.05772	
AC5	226	3.9956	1.15277	
AC6	226	3.9115	1.15898	
				.880
CC1	226	3.9071	1.11365	
CC2	226	3.9336	1.17000	
CC3	226	4.0177	1.10741	
CC4	226	3.9248	1.15416	
CC5	226	3.9071	1.14124	
CC6	226	3.8894	1.21515	
				.892
NC1	226	3.9381	1.17970	
NC2	226	3.9204	1.19734	
NC3	226	3.9602	1.18630	
NC4	226	4.1460	1.18168	
NC5	226	4.1106	1.17423	
NC6	226	4.2743	1.09340	
				.912

The correlations between the three variables of this study have been presented in Table 2. The r-value of .775 shows that there exists a strong and positive relationship between PsychCap and OC. The p-value is < 0.01 which further demonstrates that the relationship is significant. A significant and strong positive relationship was also found between WE and PsychCap with (r=.673, p < 0.01). The significant and strong positive association between WE and OC was also revealed as the r value was .717 and the p-value was < .01.

Table 2. Correlation between PsychCap, OC and WE

	Psychological Capital	Organizational Commitment	Work Engagement
PsychCap	1	.775**	.673**
OC	.775**	1	.717**
WE	.673**	.717**	1

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

Correlations between PsychCap, the three dimensions of WE (vigor, absorption, dedication), and OC's three dimensions (normative, continuance, and affective) has been presented in Table 3. WE's all three dimensions have positive and significant correlated with psych ap; vigor (r=.591), absorption (r=.594), and dedication (r=.626). Similarly, OC's dimensions also have positive and significant correlated with PsychCap; affective (r=.694), absorption (r=.723), and dedication (r=.713).

Table 3. Correlation between PsychCap and Dimensions of OC and WE

	PC	V	A	D	AC	CC	NC
PC	1	.591**	.594**	.626**	.694**	.723**	.713**
V	.591**	1	.732**	.664**	.619**	.520**	.551**
A	.594**	.732**	1	.727**	.642**	.565**	.604**

D	.626**	.664**	.727**	1	.629**	.578**	.603**
AC	.694**	.619**	.642**	.629**	1	.705**	.761**
CC	.723**	.520**	.565**	.578**	.705**	1	.802**
NC	.713**	.551**	.604**	.603**	.761**	.802**	1

Correlations between OC, PsychCap's four dimensions (optimism, resilience, hope, and self-efficacy) and WE's three dimensions (dedication, absorption, and vigor,) has been presented in Table 4. PsychCap's four dimensions has positive and significant correlation with OC; optimism ($r=.644$), hope ($r=.645$), self-efficacy ($r=.725$), and resilience ($r=.682$). WE's three dimensions also have positive and significant correlation with OC; vigor ($r=.614$), absorption ($r=.658$), and dedication ($r=.658$).

Table 4. Correlation between OC and Dimensions of PsychCap and WE

	OC	SE	OP	R	H	V	A	D
OC	1	.725**	.644**	.682**	.645**	.614**	.658**	.658**
SE	.725**	1	.688**	.705**	.650**	.507**	.540**	.538**
OP	.644**	.688**	1	.699**	.628**	.472**	.503**	.533**
R	.682**	.705**	.699**	1	.666**	.590**	.564**	.601**
H	.645**	.650**	.628**	.666**	1	.485**	.458**	.503**
V	.614**	.507**	.472**	.590**	.485**	1	.732**	.664**
A	.658**	.540**	.503**	.564**	.458**	.732**	1	.727**
D	.658**	.538**	.533**	.601**	.503**	.664**	.727**	1

Correlations between WE and PsychCap's four dimensions (optimism, resilience, hope, and self-efficacy) and OC's three dimensions (normative, continuance, affective) have been presented in Table 5. PsychCap's four dimensions has positive and significant correlation with; optimism ($r=.560$), resilience ($r=.652$), hope ($r=.537$), and self-efficacy ($r=.589$). OC's three dimensions also have positive and significant correlation with WE; affective ($r=.702$), continuance ($r=.618$), and normative ($r=.653$).

Table 5. Relationship between WE and Dimensions of PsychCap and OC

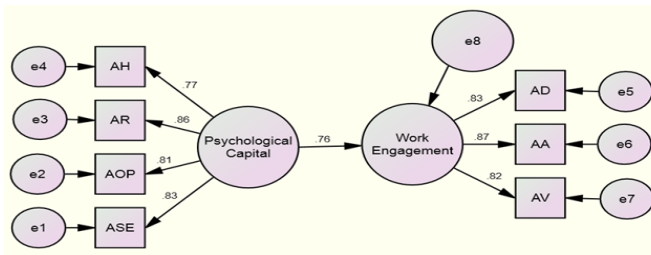
	WE	SE	OP	R	H	AC	CC	NC
WE	1	.589**	.560**	.652**	.537**	.702**	.618**	.653**
SE	.589**	1	.688**	.705**	.650**	.645**	.672**	.672**
OP	.560**	.688**	1	.699**	.628**	.550**	.607**	.608**
R	.652**	.705**	.699**	1	.666**	.641**	.631**	.604**
H	.537**	.650**	.628**	.666**	1	.575**	.602**	.594**
AC	.702**	.645**	.550**	.641**	.575**	1	.705**	.761**
CC	.618**	.672**	.607**	.631**	.602**	.705**	1	.802**
NC	.653**	.672**	.608**	.604**	.594**	.761**	.802**	1

Testing mediation through Baron and Kenny Approach

To test mediation through Baron and Kenny (1986) approach, the first step is to check the direct path from independent to dependent. It is, therefore a model that was developed to check PsychCap's impact on WE. In the first step, model fit indices were checked and they were all in the range of acceptance $\chi^2(13, n=226) = 13.956$, $\chi^2/Df=1.073$, $GFI=.983$, $CFI=.999$, and $RMSEA=.018$.

The direct path from PsychCap to WE was significant and the beta value ($\beta=.76$, $p < .01$) indicates that a strong predictor of WE is PsychCap as it is shown in model 1. It therefore, justifies the first hypothesis H_1 of the study, and the first condition for testing mediation was satisfied.

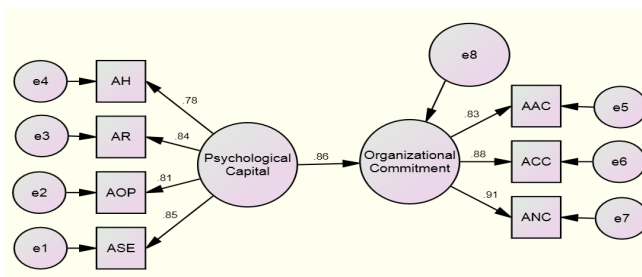
Model 1. Direct Path from PsychCap to WE



The second step in testing the mediation through Baron and Kenny (1986) is to check the path from independent to the mediator. In this regard, a second model was developed for checking the PsychCap's impact on OC. All fit indices of the model were in the required range $\chi^2(13, n=226) = 18.134$, $\chi^2/Df=1.394$, $GFI=.979$, $CFI=.996$, $RMSEA=.042$ and $RMR=.016$.

The path from PsychCap to OC is significant and the beta value ($\beta=.86$, $p < .01$) shows that OC's stronger predictor is PsychCap as shown in model 2. It therefore, justifies the second hypothesis H_2 of the study and the second condition for testing mediation was also satisfied.

Model 2. Direct Path from

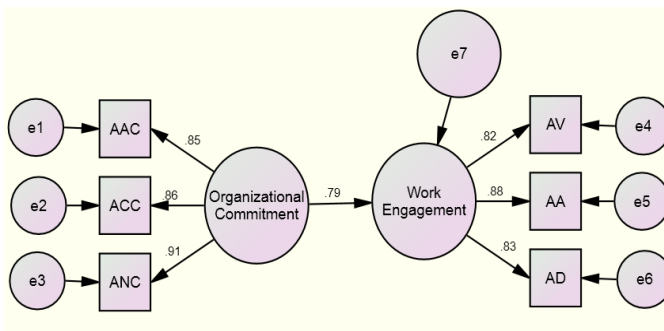


PsychCap to OC

The third step for testing the mediation effect was to check the effect of the mediator on the dependent variable. It is, therefore, a model that was developed for checking OC's impact on WE as shown in model 3. All the values of model fit were in the required range $\chi^2(8, n=226) = 18.870$, $\chi^2/Df=2.358$, $GFI=.971$, $CFI=.989$, $RMSEA=.078$ and $RMR=.030$.

OC **Error! Reference source not found.** had a significant positive impact on WE. The beta value ($\beta=.79$) shows that OC is also the strong predictor of WE. It therefore, justifies third hypothesis H_3 of the study, and the third condition for testing mediation was also met.

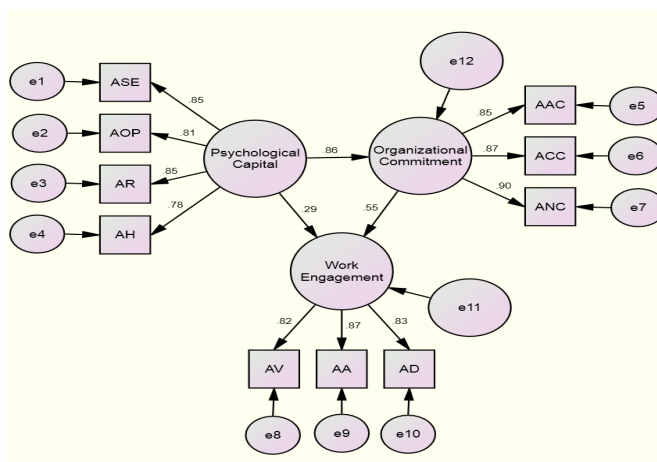
Model 3. Direct Path from OC to WE



The fourth and last step in testing the mediation effect through Baron and Kenny (1986) is to check the path from independent (predictor) to dependent (criterion) in the presence of a mediator. The new model was therefore developed to check the mediating effect of OC between PsychCap and WE as shown in model 4. All the values of model fit were in the required range $\chi^2(32, n=226) = 47.852$, $\chi^2/Df=1.495$, $GFI=.957$, $CFI=.991$, $RMSEA=.047$ and $RMR=.027$.

The path between WE and PsychCap was still significant in the presence of OC, however, the value of β was reduced from .76 to .29. As the path between WE and PsychCap was significant and the association was also still present. Therefore it is concluded that OC partially mediated the association between PsychCap and WE among the nurses. Hypothesis H₄ was also accepted.

Model 4. Indirect Path from PsychCap to WE through OC



Conclusion and Recommendation

The present study investigated OC’s impact as a mediator between WE and PsychCap of the nurses. The results of the studies show that PsychCap is highly related to WE. These results are also similar to the previous studies like Costantini et al. (2017). The study’s results further explain that OC is also related to psychological capital. This result is also in line with the previous work on the association between OC and psychological capital conducted by Lyons et al. (2006), Sinha et al. (2002), and Youssef and Luthans (2007). The relationship between OC and WE were also found, which is similar to the result of the study conducted by Agyemang and Ofei (2013). The result further explains that OC played a role as a partial mediator between WE a PsychCap.

It is, therefore required for the hospital management to work on such policies through which nurses’ PsychCap and commitment level can be increased. Because PsychCap increases employees` OC which leads to WE. While engagement further leads to other positive outcomes, such as high level of performance, job satisfaction, decreased absenteeism as well as turnover (Dajani, 2015).

There are also a few limitations of this study. For example, the data was collected from the three hospitals of KPK through a convenient sample technique. It is suggested that in future the data may be collected from a large population through a random sampling method, in order to further generalize the results. Because of job security in the public sector organizations, the commitment of the employees is normally high as compare to the private sector organizations. It is, therefore in future a comparative study shall be required to investigate the impact of OC as a mediator between PsychCap and WE in public and private sector organizations.

References

- Agyemang, C. B., & Ofei, S. B. (2013). Employee WE and OC: A comparative study of private and public sector organizations in Ghana. *European Journal of Business and Innovation Research*, 1(4), 20-33.
- Alarcon, G. M., & Lyons, J. B. (2011). The relationship of engagement and job satisfaction in working samples. *The Journal of Psychology*, 145(5), 463-480.
- Avey, J. B., Luthans, F., & Youssef, C. M. (2010). The additive value of positive PsychCap in predicting work attitudes and behaviors. *Journal of management*, 36(2), 430-452.
- Bakker, A., Demerouti, E., & Schaufeli, W. (2003). Dual processes at work in a call centre: An application of the job demands–resources model. *European Journal of work and organizational psychology*, 12(4), 393-417.
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of WE. *Career development international*, 13(3), 209-223.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173.
- Costantini, A., De Paola, F., Ceschi, A., Sartori, R., Meneghini, A. M., & Di Fabio, A. (2017). WE and PsychCap in the Italian public administration: A new resource-based intervention programme. *SA Journal of Industrial Psychology*, 43(1), 1-11.
- Dajani, M. A. Z. (2015). The impact of employee engagement on job performance and organisational commitment in the Egyptian banking sector. *Journal of Business and Management Sciences*, 3(5), 138-147.
- Donaldson, S. I., & Ko, I. (2010). Positive organizational psychology, behavior, and scholarship: A review of the emerging literature and evidence base. *The Journal of Positive Psychology*, 5(3), 177-191.
- Field, L. K., & Buitendach, J. H. (2011). Happiness, WE and organisational commitment of support staff at a tertiary education institution in South Africa. *SA Journal of Industrial Psychology*, 37(1), 01-10.
- Goodsell, C. T. (2003). *The case for bureaucracy: A public administration polemic*. Sage.
- Hallberg, U. E., & Schaufeli, W. B. (2006). "Same same" but different? Can WE be discriminated from job involvement and OC? *European psychologist*, 11(2), 119.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American psychologist*, 44(3), 513.
- Jacobson, W. S. (2011). Creating a motivated workforce: How organizations can enhance and develop public service motivation (PSM). *Public Personnel Management*, 40(3), 215-238.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of management journal*, 33(4), 692-724.
- Karpagavalli, V., & Subhashini, R. (2017). The Relationship between PsychCap and Job Satisfaction among Working Women Employees in IT/ITES Sector in Chennai.
- Liao, S.-s., Hu, D.-c., Chung, Y.-C., & Chen, L.-W. (2017). LMX and employee satisfaction: mediating effect of PsychCap. *Leadership & organization Development journal*, 38(3), 433-449.
- Luthans, F. (2002). The need for and meaning of positive organizational behavior. *Journal of organizational behavior*, 695-706.
- Luthans, F., & Avolio, B. J. (2014). Brief summary of PsychCap and introduction to the special issue: SAGE Publications Sage CA: Los Angeles, CA.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive PsychCap: Measurement and relationship with performance and satisfaction. *Personnel psychology*, 60(3), 541-572.
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2015). *PsychCap and beyond*. Oxford University Press, USA.
- Lyons, S. T., Duxbury, L. E., & Higgins, C. A. (2006). A comparison of the values and commitment of private sector, public sector, and parapublic sector employees. *Public administration review*, 66(4), 605-618.
- May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of occupational and organizational psychology*, 77(1), 11-37.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of OC. *Human resource management review*, 1(1), 61-89.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the Workplace: Theory, Research, and Application (Advanced Topics in Organizational Behavior)*. Sage Publications Thousand Oaks, CA.
- Nayeri, N. D., Nazari, A. A., Salsali, M., & Ahmadi, F. (2005). Iranian staff nurses' views of their productivity and human resource factors improving and impeding it: a qualitative study. *Human Resources for Health*, 3(1), 9.

- Seligman, M. (1998). *Learned Optimism-How to Change your Mind and your Life* New York. NY: *Vintage books*.
- Shahnawaz, M., & Jafri, M. H. (2009). PsychCap as predictors of OC and organizational citizenship behaviour. *Journal of the Indian Academy of Applied Psychology, 35*, 78-84.
- Shimazu, A., Matsudaira, K., De Jonge, J., Tosaka, N., Watanabe, K., & Takahashi, M. (2016). Psychological detachment from work during non-work time: linear or curvilinear relations with mental health and WE? *Industrial health, 54*(3), 282-292.
- Simons, J. C., & Buitendach, J. H. (2013). PsychCap, WE and organisational commitment amongst call centre employees in South Africa. *SA Journal of Industrial Psychology, 39*(2), 1-12.
- Sinha, S., TALWAR, T., & RAJPAL, R. (2002). Correlational study of OC, self-efficacy and psychological barriers to technological change. *Psychologia, 45*(3), 176-183.
- Snyder, C., Irving, L., & Anderson, J. (1991). Hope and health-Measuring the will and ways In CR Snyder & DR Forsyth (Eds.), *Handbook of social and clinical psychology The health perspective* (pp. 285-305): Elmsford, New York: Pergamon Press.
- Stajkovic, A. D., & Luthans, F. (1998). Social cognitive theory and self-efficacy: Goin beyond traditional motivational and behavioral approaches. *Organizational dynamics, 26*(4), 62-74.
- Takawira, N., Coetzee, M., & Schreuder, D. (2014). Job embeddedness, WE and turnover intention of staff in a higher education institution: An exploratory study. *SA Journal of Human Resource Management, 12*(1), 1-10.
- Wasti, S. A. (2003). OC, turnover intentions and the influence of cultural values. *Journal of occupational and organizational psychology, 76*(3), 303-321.
- Wirtz, N., Rigotti, T., Otto, K., & Loeb, C. (2017). What about the leader? Crossover of emotional exhaustion and WE from followers to leaders. *Journal of occupational health psychology, 22*(1), 86.
- Youssef-Morgan, C. M., & Luthans, F. (2013). PsychCap theory: Toward a positive holistic model *Advances in positive organizational psychology* (pp. 145-166): Emerald Group Publishing Limited.
- Youssef-Morgan, C. M., & Luthans, F. (2015). PsychCap and well-being. *Stress and Health, 31*(3), 180-188.
- Youssef, C. M., & Luthans, F. (2007). Positive organizational behavior in the workplace: The impact of hope, optimism, and resilience. *Journal of management, 33*(5), 774-800.
- Youssef, C. M., & Luthans, F. (2013). Managing PsychCap in Organizations: Cognitive, Affective, Conative, and Social Mechanisms of Happiness *Oxford handbook of happiness*.