The Effect of Psychological Capital on Work Engagement: Investigating the Moderating Effect of Gender and Job

Muhammad Tamar and Hillman Wirawan
Department of Psychology Universitas Hasanuddin, Makassar, Indonesia

Keywords: *PsyCap, work engagement, gender, job and moderation*

Abstract : This study aims to investigate the effect of Psychological Capital (PsyCap) on Work Engagement and examine the potential moderating effect of gender and job type. The effect of PsyCap on desired work behavior and work attitude is ubiquitous. However, little is known whether the effect is consistent across different gender and job type. This study employed a moderated multiple regression analysis to empirically test the moderating effect of gender and job on PsyCap – Work Engagement relationship controlling the effect of tenure, age and education. The data were collected from 466 participants who were registered as full-time public transportation personnel (186) and nurses (280) in Makassar city. As predicted, the results found that PsyCap contributed to employee Work Engagement (ΔR^2= .11, β= .34, p< 0.01). The findings also suggested significant cross-product of PsyCapxGender (ΔR^2= 0.02, β= .13, p< 0.01) and PsyCapxJob (ΔR^2= 0.01, β= .14, p< 0.05). This study confirmed a number of previous findings where PsyCap contributed to employee positive work attitudes. Further, this study added considerably important information about the moderating effect of gender and job type on PsyCap and its consequences. Discussion, limitation and future research direction are also included.

1 INTRODUCTION

There is growing evidence that many organizations value significant impact of positive organizational behaviors. Both private and public sectors found the desired impact of positive behaviors on employees' outcomes as well as organizational performance. One of well-known findings of the positive organization movements is the concept of work-engagement (Bakker and Demerouti, 2008; Leiter and Bakker, 2010; Schaufeli and Bakker, 2003). The positive behaviors have brought many significant changes to the way employers and business owners capture their employees. There was a great change from seeing employees as personnel or just ordinary workforce to treating employees as one of organization/ business capitals (Lepak and Snell, 2002).

Psychological Capital or PsyCap for short emerged as one of positive organizational movements. Psychological Capital was coined to refine the perception of human resources. The ordinary ideas about human resources only put much concern on workforce for organizations where employers demand high task-completions. Employees should not be treated as workers but also part of organization's capital. The idea of PsyCap has emerged to confirm that people in organizations are assets with their Psychological Capital.

Positive psychology and positive organizational behaviors have encouraged the emergence of PsyCap in organizations. Luthans, Youssef-Morgan, & Avolio (2015) argued that PsyCap is one of the most influential positive movements in the areas of business and management. The study of PsyCap identified four the most positive traits (i.e., Hope, Optimism, Resilience, and Self Efficacy) that potentially benefit positive employees' outcomes and organizational outcomes (Choi and Lee, 2014; Peterson et al., 2011). It is plausible that positive traits also drive positive employee's outcomes and help to fight negative outcomes. For instance, some of the traits (e.g., Resilience) could help employees to struggle during hard conditions and achieve better results after series of failure.

The effect of PsyCap on employees and organizational outcomes, as mentioned earlier, have been documented by some researchers. First, the effect of PsyCap benefits employee's psychological states. Youssef-Morgan & Luthans (2015) postulated that employees with higher level PsyCap

Tamar, M. and Wirawan, H.
The Effect of Psychological Capital on Work Engagement: Investigating the Moderating Effect of Gender and Job.
DOI: 10.5220/0008591705350542
In *Proceedings of the 3rd International Conference on Psychology in Health, Educational, Social, and Organizational Settings (ICP-HESOS 2018) - Improving Mental Health and Harmony in Global Community*, pages 535-542
ISBN: 978-989-758-435-0
Copyright © 2020 by SCITEPRESS – Science and Technology Publications, Lda. All rights reserved

tend to possess better well-being. The positive traits may have helped employees to cope with negative emotions. As found by Rabenu, Yaniv, & Elizur (2016), PsyCap was negatively associated with stress, and it also favored employees to cope with stress. Second, PsyCap also potentially strengthen positive attitude in organizations. To illustrate, previous findings have found the positive impact of PsyCap on employee's commitment and engagement (Simons and Buitendach, 2013; Thompson et al., 2015; De Waal and Pienaar, 2013). In addition, PsyCap also supports positive behaviors such as organizational citizenship behaviors (Pradhan, Jena and Bhattacharya, 2016), satisfaction (Azanza, Moriano and Molero, 2013), and performance (Sun et al., 2011; Vanno, Kaemkate and Wongwanich, 2014).

Some studies have also found significant contributions of PsyCap on mediating the effect of leadership on positive employee's outcomes (Bouckenooghe, Zafar and Raja, 2015). Others also found that PsyCap successfully mediated the relationship between authentic leadership and employees' creativity (Zubair and Kamal, 2015). All these findings suggested that PsyCap had some important roles in organizations such as ensuring positive psychological states, supporting positive attitudes, and improve performance. It appears that most studies in this area supported that PsyCap has a significant contribution to employees and organization desired outcomes.

The positive effect of PsyCap was found to be consistent across different studies. Nevertheless, some findings indicated some variations in using PsyCap as a positive antecedent of many desired outcomes in organizations. For example, the cross-cultural PsyCap also had a positive effect on employees working in different cultures (Reichard, Dollwet and Louw-Potgieter, 2014). However, a meta-analysis found some interesting facts that PsyCap had a greater impact for US population than other population, and industry type also moderated the relationship between PsyCap and employees' performance (Avey et al., 2011). The effect of PsyCap on desired employees' outcomes was more powerful among US employees than non-western countries (Reichard, Dollwet and Louw-Potgieter, 2014). The service-based industry showed stronger correlations between PsyCap and performance and other positive employees' outcomes than the manufacture employees. Considering these findings, it is plausible to address a new direction of PsyCap study.

While many scholars consistently documented the positive effect of PsyCap, this study is intended to focus on the moderating effect of gender and job on the PsyCap - Work Engagement relationship. There were two major issues in generalizing the effect of PsyCap; first, PsyCap may have benefited more men than women as some PsyCap components were found to be stronger for men than women. In organizations, female employees were found to be higher on optimism while male employees were better at resilience (Parthi and Gupta, 2016). This empirical study confirmed a previous study where Patton, Bartrum, & Creed (2004) investigated that unlike men, women's optimism directly predicted their career goals. Second, as cited earlier, although most organizations valued the positive effect of PsyCap, some job type or industry type may benefit the PsyCap more than others. Thus, this study will also focus on the influence of job type on PsyCap.

The significant contribution of PsyCap also found to be the antecedent of employees' work engagement (Avey et al., 2011; Simons & Buitendach, 2013; Thompson et al., 2015). However, taking the previous discussions into account, the effect of PsyCap on Work Engagement could be determined by some demographic variables (e.g., gender and job type) as PsyCap functions differently under different conditions. The effect of PsyCap on Work Engagement may depend on gender or job type. Gender and job type potentially moderate the relationship between PsyCap and employees' work engagement.

The theory of Job Demand Resource (JD-R) can explain the moderating effect of gender and job type on PsyCap – Work Engagement relationship. The (JD-R) theory stated that work engagement is determined by employees' resources (i.e., job and personal resources) and job demand (Bakker and Demerouti, 2008). Moreover, job demand may vary across job type or industry type. For instance, some researchers investigated the effect of PsyCap among nurses and found the positive contribution of PsyCap (Bradbury-Jones, 2015) while others also found the different effect of PsyCap for police officers (Siu, Cheung and Lui, 2014). Male and female employees also have different perception towards job demand, and in some cases, female employees may suffer for more physical work demand than their male counterparts (Aittomäki et al., 2005).

The theoretical background and previous findings in this area direct this current study to investigate the moderating effect of gender and job type on PsyCap and Work-Engagement relationship. This study hypothesized; 1) PsyCap significantly predicts

Work-Engagement (H1), and 2) both gender and job type moderate the effect of PsyCap and Work Engagement (H2).

, and 2) both gender and job type moderate the effect of PsyCap and Work Engagement (H2).

2 METHOD

2.1 Participants and Procedure

Participants were 466 employees (Male= 35% and Female 65%). The participants worked full-time as public transport personnel (*N*= 186) in Makassar (one of the most populated cities in Indonesia) or nurses (*N*= 280) in four different public hospitals in Indonesia. These two organizations were chosen because they represented two different job types. The questionnaires were sent to the participants in sealed envelopes including the consent form and instructions on how to complete the questionnaires. This study employed a two-wave data collection technique to rule out any potential common method bias. Common method bias could be caused by collecting data from the same source at same time (MacKenzie and Podsakoff, 2012). In the first wave, the demographic data (i.e., tenure, gender, age, education) and PCQ were sent to 760 participants. These participants were asked to participate in the second wave of data collection. The second wave questionnaire consisting of Work-Engagement Scale was sent to the participants two weeks later. However, only 466 returned the questionnaire with complete responses. In this case, only participants who participated in the first and the second wave data collections were included in the analysis.

2.2 Measures

Psychological Capital Questionnaire (Luthans, Youssef-Morgan and Avolio, 2015) was used to measure Participants' level of PsyCap in six different dimensions (i.e., Hope, Optimism, Resilience, and Efficacy). The scale has 24 items with six items for each dimension. In the previous validation studies, the PCQ satisfied validity and reliability standard for research purpose (Görgens-Ekermans and Herbert, 2013; Antunes, Caetano and Pina e Cunha, 2017). The initial Bahasa Indonesia version of the PSQ was retrieved from the scale publisher (Mind Garden). Although the publisher had provided the Indonesia version, the authors rechecked each item and asked two experts to judge the quality of each item. After carefully evaluated each item, using this current research data this study found that Confirmatory Factor Analysis (CFA) confirmed the model was close fit (RMSEA< .08) with Alpha Cronbach coefficient of .81. The findings indicated that the Indonesia version of PCQ had the acceptable level of construct validity and deemed reliable for research purpose. For the demographic variables, the authors collected information on gender, tenure, age, education. The questionnaires were also coded for job types (i.e., public transport personnel or nurses). Work-Engagement was measured using Work Engagement Scale (Schaufeli and Bakker, 2003). The Confirmatory Factor Analysis (CFA) confirmed the model was close fit (RMSEA< .08) with Alpha Cronbach .82. "I am enthusiastic about my job" is one of items in the scale. For the demographic variables, the authors collected information on gender, tenure, age, education. The questionnaires were also coded for job types (i.e., public transport personnel or nurses). The demographic data were collected using self-report survey. Participant's gender and job type were investigated as moderating variables while tenure, age, and education were included as control variables.

3 RESULTS AND DISCUSSION

3.1 Results

There were two main steps in analyzing the data. First, a descriptive analysis was run to show differences between mean scores for the variables. This also included a set of bivariate correlations to capture significant relationships among the variables. The following two figures described participants' mean score for PsyCap and Work-Engagement:

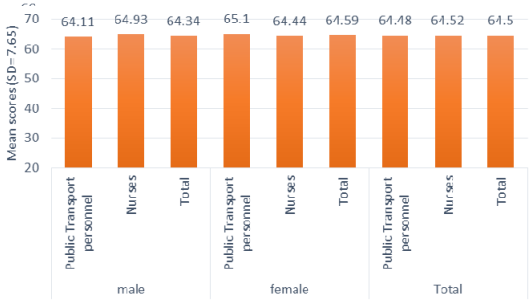

Figure 1: PsyCap mean scores.

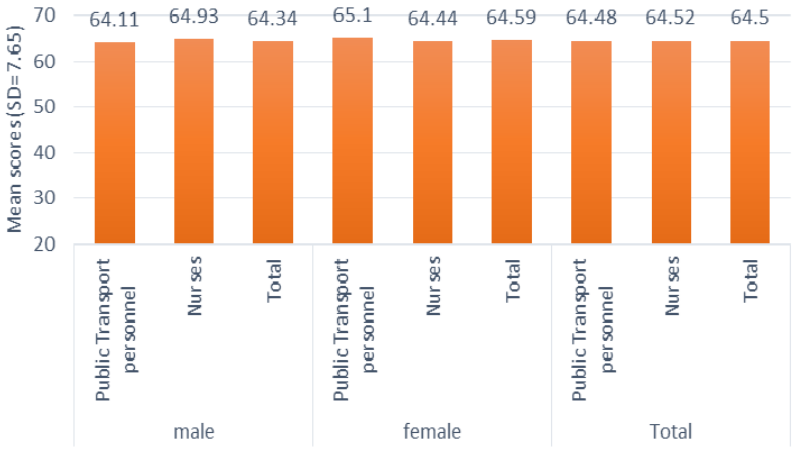

Figure 2: WE mean scores.

Table 1: Descriptive statistics and bivariate correlations.

	M	*SD*	1	2	3	4	5	6
1. Age	31.91	7.33						
2. Tenure	7.89	5.50	.755**					
3. Education	2.77	1.01	.273**	.291**				
4. PCQxGender	78.07	23.42	.032	.051	.237**			
5. PCQxJob	75.29	22.37	.217**	.267**	.638**	.441**		
6. PCQtotal	47.51	5.19	-.088	-.086	-.137**	.229**	.014	
7. WEtotal	64.50	7.65	-.027	.005	.083	.141**	.139**	.325**

Note: *N*= 466, PCQ= Psychological Capital Questionnaire (PsyCap), WE= Work Engagement, *M*= mean, *SD*= standard deviation, **p< 0.01

Figure 1 showed that in the same job, male and female PsyCap had only small differences. However, employees in the public transportation office tended to have a higher level of PsyCap than the nurses. It influenced the total differences where the public transport personnel had a higher level PsyCap than nurses. For the gender comparisons, male employees were slightly higher in PsyCap than their female counterparts. In brief, the graph showed a quite noticeable comparison across jobs and genders.

Unlike the figure 1, the participants' Work-Engagement across genders and jobs tended to be stable. The mean scores were closely ranged from 64.11 to 65.50 where the differences lower than a half of the standard deviation. Regarding job type and gender, no considerable differences should be noted for the level of Work-Engagement. This finding showed that job type, and gender did not have significant influences on employees' Work-Engagement.

Table 2: Model Summary for PCQ Total as Predictor for Work Engagement controlling Tenure, Age and Education.

Model	*R*	R^2	*Adj.* R^2	ΔR^2	ΔF	β	*T*
Tenure	.10	.01	.01	.01	1.64	.04	.61
Age						-.09	-1.22
Education						.09	1.94
Tenure	.35	.12	.12	.11	59.69**	.05	.78
Age						-.07	-1.11
Education						.13	2.92**
PCQ Total						.34	7.73**

Note: *N*= 466, **p<0.01, β= Standardized Beta Weight, SEE= Standard Error of the Estimate, Adj.= Adjusted, Δ= change

Table 2 also showed significant correlations among variables. The participants' Work-Engagement were positively and significantly associated with PCQxJob, PCQxGender, and total PsyCap. The cross-product of the total PsyCap and Job showed significant positive correlations with all the study variables excluding the total PsyCap. The correlation coefficients could provide an initial indication that the interaction between PsyCap, gender, and job potentially influenced the level of employees' Work-Engagement.

The descriptive analysis and the bivariate correlations indicated that the interactions between PsyCap and Gender (or Job) determined the effect of PsyCap on employee's Work-Engagement. To examine the effect, Multiple Regression Analyses with control variables were performed.

In the first Multiple Regression Analysis (MRA), the first model only ran the analysis with the control variables to test any significant effects of the variables then the PCQ total (the total PsyCap) was included in the second model. As predicted, tenure, age, and education did not predict Work-Engagement. In contrast, PsyCap added significant incremental values (ΔR^2 = .11, p< .01) to predict Work-Engagement after included in the model. In the second model, Education also significantly predicted Work-Engagement after PsyCap included in the model. These findings confirmed the first hypothesis that PsyCap contributed significantly to employees' Work-Engagement.

The second MRA also supported this study's second hypothesis. The cross-product of PCQxGender (ΔR^2 = .02, p< .01) and PCQxJob (ΔR^2 = .01, p< .01) both showed significant incremental values in predicting Work-Engagement. Also, none of the control variables significantly predicted Work-Engagement. These findings confirmed that the interactions among employee's PsyCap, Gender, and Job predicted employee's Work-Engagement. Considering the mean scores in the previous tables, PsyCap varies across gender and job type.

Table 4. Conditional effect of PsyCap on Work Engagement

Gender	Effect	se	t	p	CI 95% LL	CI 95% UL
Male	.32	.10	3.06	.00	.12	.53
Female	.63	.08	7.50	.00	.46	.79
Job type						
PTP	.18	.08	2.09	.04	.01	.34
Nurse	1.02	.10	10.1	.00	.82	1.22

Note: PTP= public transport personnel, LL= lower level, UL= upper level, CI= Confidence Interval

Table 3: Model summary for the cross-product of PCQxGender and PCQxJob as predictors for work engagement controlling tenure, age and education.

Model	R	R^2	$Adj. R^2$	ΔR^2	ΔF	β	t
Tenure	.16	.03	.02	.02	7.23**	.04	.61
Age						-.08	-1.16
Education						.06	1.26
PCQxGender						.13**	2.69**
Tenure	.15	.02	.01	.01	5.78**	.03	.37
Age						-.08	-1.14
Education						.01	.08
PCQxJob						.14*	2.40*

Note: N= 466, *p<0.05,**p<0.01, β= Standardized Beta Weight, SEE= Standard Error of the

Table 4 showed the conditional effect PsyCap on Work Engagement at different gender and job type. For the gender, the results suggested that the effect was stronger (0.63, p< 0.001) for female than for male (0.32, p< 0.001) participants. For the job type, Nurses showed higher effect (1.02, p< 0.001) compared to public transport personnel (0.18, p< 0.05). Nevertheless, the significant effect of PsyCap on Work-Engagement was consistently found across genders and job types.

3.2 Discussions

This study aimed to investigate the effect of PsyCap on Work-Engagement and to examine the moderating effect of gender and job type on the relationship. The positive contributions of PsyCap in many desired employees' outcomes have been documented by scholars in the area of Psychology, Management and Organization studies. Many previous publications consistently supported the argument that PsyCap had positive associations with employees' positive outcomes. According to the positive organization movement, PsyCap also positively influences employee's Work-Engagement. For this reason, many recent studies aim to develop learning or training to support employee's PsyCap (Luthans et al., 2014, 2006, 2008; Reichard et al., 2014; Dello-Russo and Stoykova, 2015).

Nevertheless, the effect of PsyCap may depend on several demographic factors such as employee's gender and job type. This argument was plausible as the PsyCap construct was developed using pre-existing Psychological Construct (Lorenz et al., 2016; Youssef-Morgan and Luthans, 2015; Görgens-Ekermans and Herbert, 2013). Consequently, the composite score of PsyCap or the total PsyCap hypothetically also contained similar moderating effect with its dimensions (e.g., self-efficacy). As mentioned earlier, most of the PsyCap dimensions varied across genders and job type. Therefore, this study intended to further examine any interaction effect of gender/job with the PsyCap as composite scores.

The results supported all hypotheses confirming that PsyCap had a significant positive effect on Work-Engagement and employee's gender and job type played important roles in the magnitude of their PsyCap. This fact further causes interactions between gender, job, and PsyCap. To illustrate, one employee could have higher (or lower) effect of PsyCap on Work-Engagement as a consequence of his/her gender or job. PsyCap is treated as the antecedent of many positive desired organizational outcomes. Thus demographic aspects should be considered with cautions. Some employees could suffer from lower PsyCap than their co-workers due to having unfortunate demographic factors.

The findings in this study also supported the previous literature. According to the JDR theory, personal resources and job resources influence work-engagement depending on job demand or employees' perception towards workload (Bakker and Demerouti, 2008; Leiter and Bakker, 2010). This theory was in-line with several studies where researchers found some variations in the effect of PsyCap on employees' outcomes such as the effect of PsyCap among nurses (Bradbury-Jones, 2015) and police officers (Siu, Cheung and Lui, 2014). On the other hand, female employees also experience more physical work demand than their male counterparts (Aittomäki et al., 2005) causing interaction between PsyCap and gender.

This study was very convincing that researchers and practitioners should carefully interpret the effect of PsyCap on Work-Engagement or other positive employees' outcomes. Some employees in different industries may experience higher PsyCap than others throughout their day-to-day work life. However, this study was unable to detect the antecedents which may cause the fluctuation of the employees' PsyCap. Another limitation, this study only compared two job types from two distinct industries (i.e., nurses and transport service personnel). There could be different interactions between PsyCap, and other variables or PsyCap could be moderated by other variables. Having considered those limitations, this study suggested that future investigations should empirically test the antecedents of PsyCap, other demographic variables related to PsyCap, and examine the effect of PsyCap on Work-Engagement using an experimental design.

This study has concluded that the effect of PsyCap on Work-Engagement was moderated by gender and job. However, it requires further investigation to find more moderating variables, if any. Hence, this study only examined the effect of PsyCap on one outcome variable. The results could be different if this study included other PsyCap-related variables such as Organizational Citizenship Behavior (OCB) or other undesired negative outcomes. Therefore, future study should incorporate more variables and examine different mediating and moderating effects in the relationships.

4 CONCLUSIONS

The effect of PsyCap on many positive organizational behaviors and attitudes is ubiquitous and easily found in any business, psychology, and management journals. However, it is also important to understand the effect as some demographic variables potentially interact with PsyCap causing moderating effect between PsyCap and its outcome variables. This study found that PsyCap consistently predicted Work-Engagement while controlling for the effect of age, tenure, and education. Furthermore, the effect of PsyCap on Work-Engagement was moderated by employee's gender and job type. Employee's gender and job should be taken as important variables in understanding the effect of PsyCap on employee's outcomes.

REFERENCES

Aittomäki, A., Lahelma, E., Roos, E., Leino-Arjas, P. and Martikainen, P., 2005. Gender differences in the association of age with physical workload and functioning. Occupational and Environmental Medicine, 62(2), pp.95–100.

Antunes, A.C., Caetano, A. and Pina e Cunha, M., 2017. Reliability and Construct Validity of the Portuguese Version of the Psychological Capital Questionnaire. Psychological Reports, 120(3), pp.520–536.

Avey, J.B., Reichard, R.J., Luthans, F. and 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), pp.127–152.

Azanza, G., Moriano, J.A. and Molero, F., 2013. Authentic leadership and organizational culture as drivers of employees' job satisfaction. Revista de Psicología del Trabajo y de las Organizaciones, 29(2), pp.45–50.

Bakker, A.B. and Demerouti, E., 2008. Towards a model of work engagement. Career Development International, 13(3), pp.209–223.

Bakker, A.B., 2010. Work Engagement. Work Engagement: A Handbook of Essential Theory and Research. Psychology Press.

Bouckenooghe, D., Zafar, A. and Raja, U., 2015. How Ethical Leadership Shapes Employees' Job Performance: The Mediating Roles of Goal Congruence and Psychological Capital. Journal of Business Ethics, 129(2), pp.251–264.

Bradbury-Jones, C., 2015. Review: Engaging new nurses: the role of psychological capital and workplace empowerment. Journal of Research in Nursing, 20(4), pp.278–279.

Choi, Y. and Lee, D., 2014. Psychological capital, Big Five traits, and employee outcomes. Journal of Managerial Psychology, 29(2), pp.122–140.

Görgens-Ekermans, G. and Herbert, M., 2013. Psychological capital: Internal and external validity of the Psychological Capital Questionnaire (PCQ-24) on a South African sample. SA Journal of Industrial Psychology, 39(2), pp.1–13.

Lepak, D.P. and Snell, S.A., 2002. Examining the Human Resource Architecturew: The Relationships Among Human Capital, Employment, and Human Resource Configurations. Journal of Management, 28(4), pp.517–543.

Lorenz, T., Beer, C., Pütz, J. and Heinitz, K., 2016. Measuring psychological capital: Construction and validation of the compound PsyCap scale (CPC-12). PLoS ONE, 11(4), pp.1–17.

Luthans, B.C., Luthans, K.W. and Avey, J.B., 2014. Building the Leaders of Tomorrow: The Development of Academic Psychological Capital. Journal of Leadership & Organizational Studies, 21(2), pp.191–199.

Luthans, F., Avey, J.B., Avolio, B.J., Norman, S.M. and Combs, G.M., 2006. Psychological capital development: Toward a micro-intervention. Journal of Organizational Behavior, 27(3), pp.387–393.

Luthans, F., Avey, J.B. and Lincoln, N., 2008. Experimental Analysis of a Web-Based Training Intervention to Develop Positive. Academy of Management Learning & Education, 7(2), pp.209–221.

Luthans, F., Youssef-Morgan, C.M. and Avolio, B.J., 2015. Psychological Capital and Beyond. New York: Oxford University Press.

MacKenzie, S.B. and Podsakoff, P.M., 2012. Common Method Bias in Marketing: Causes, Mechanisms, and Procedural Remedies. Journal of Retailing, 88(4), pp.542–555.

Parthi, K. and Gupta, R., 2016. A Study of Psychological Capital, Job Satisfaction and Organizational A Study of Psychological Capital , Job Satisfaction and Organizational Climate in Telecom Sector : A Gender Perspective. Diviner, 13(1), pp.1–8.

Patton, W., Bartrum, D.E.E.A. and Creed, P.A., 2004. Gender Differences for Optimism , Self-esteem , Expectations and Goals in Predicting Career Planning and Exploration in Adolescents Understanding the career development process across the lifespan has been a. Internat. Jnl. for Educational and Vocational Guidance, 4, pp.193–209.

Peterson, S.J., Luthans, F., Avolio, B.J., Walumbwa, F.O. and Zhang, Z., 2011. Psychological Capital and Employee Performance: A Latent Growth Modeling Approach. Personnel Psychology, 64, pp.427–450.

Pradhan, R.K., Jena, L.K. and Bhattacharya, P., 2016. Impact of psychological capital on organizational citizenship behavior: Moderating role of emotional intelligence. Cogent Business & Management, 3(1), pp.1–16.

Rabenu, E., Yaniv, E. and Elizur, D., 2017. The Relationship between Psychological Capital, Coping with Stress, Well-Being, and Performance. Current Psychology, 36(4), pp.875–887.

Reichard, R.J., Dollwet, M. and Louw-Potgieter, J., 2014. Development of Cross-Cultural Psychological Capital and Its Relationship With Cultural Intelligence and Ethnocentrism. Journal of Leadership & Organizational Studies, 21(2), pp.150–164.

Dello Russo, S. and Stoykova, P., 2015. Psychological Capital Intervention (PCI): A Replication and Extension. Human Resource Development Quarterly, 26(3), pp.329–347.

Schaufeli, W.B. and Bakker, A.B., 2003. UWES Utrecht Work Engagement Scale. Occupational Health Psychology Unit Utrecht University, (November), pp.1–58.

Simons, J.C. and Buitendach, J.H., 2013a. Psychological capital, work engagement and organisational commitment amongst call centre employees in South Africa. SA Journal of Industrial Psychology, 39(2), pp.1–12.

Simons, J.C. and Buitendach, J.H., 2013b. Psychological capital, work engagement and organisational commitment amongst call centre employees in South Africa. SA Journal of Industrial Psychology, 39(2), pp.1–12.

Siu, O.L., Cheung, F. and Lui, S., 2014. Linking Positive Emotions to Work Well-Being and Turnover Intention

Among Hong Kong Police Officers: The Role of Psychological Capital. Journal of Happiness Studies.

Sun, T., Zhao, X.W., Yang, L. Bin and Fan, L.H., 2011. The impact of psychological capital on job embeddedness and job performance among nurses: a structural equation approach. Journal of Advanced Nursing, 68(1), pp.69–79.

Thompson, K.R., Lemmon, G. and Walter, T.J., 2015a. Employee Engagement and Positive Psychological Capital. Organizational Dynamics, 44(3), pp.185–195.

Thompson, K.R., Lemmon, G. and Walter, T.J., 2015b. Employee Engagement and Positive Psychological Capital. Organizational Dynamics, 44(3), pp.185–195.

Vanno, V., Kaemkate, W. and Wongwanich, S., 2014. Relationships between academic performance , perceived group psychological capital , and positive psychological capital of thai undergraduate students. Procedia - Social and Behavioral Sciences, 116, pp.3226–3230.

De Waal, J.J. and Pienaar, J., 2013. Towards understanding causality between work engagement and psychological capital. SA Journal of Industrial Psychology, 39(2).

Youssef-Morgan, C.M. and Luthans, F., 2015. Psychological Capital and Well-being. Stress and Health, 31(3), pp.180–188.

Zubair, A. and Kamal, A., 2015. Aunthentic Leadership and Creativity; Mediating Role of Work-Related Flow and Psychological Capital. Journal of Behavioural Sciences, 25(1), pp.150–171.

SCITEPRESS
SCIENCE AND TECHNOLOGY PUBLICATIONS