

## **The Effect of Psychological Capital and Self-Leadership on Work Engagement among Agricultural Extension Advisors**

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### ***ABSTRACT***

*Work engagement is considered a significant construct within organisations and the field of industrial psychology. Focus within organisations has shifted to recognise more positive psychological constructs such as self-leadership and psychological capital to promote employees' work engagement. The present study investigated the effect of psychological capital and self-leadership on the work engagement levels of agricultural extension advisors within South Africa. The study was motivated by the lack of research within agricultural extension on positive psychological constructs such as work engagement, self-leadership, and psychological capital, which could impact the agricultural sector. A quantitative research method was used to gather data using three scales. A total of 103 viable questionnaires were obtained. A Pearson product-moment correlation analysis and stepwise multiple regression analysis were used to address the objective. Both psychological capital and self-leadership were found to have a significant positive correlation to work engagement. In addition, hope, optimism, and behaviour-focused strategies were found to have the, most significant contribution toward the work engagement levels of agricultural extension advisors. Within agricultural extension, the above study provided information on how to foster and improve the work engagement levels of their employees using strategies of psychological capital and work engagement.*

**Keywords:** Work Engagement, Psychological Capital, Self-Leadership, Agricultural Extension Advisors.

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## 1. INTRODUCTION

Human resources management and organisational behaviour scholars continue to be vexed by employee turnover (Hom et al., 2017; Oruh et al., 2020). Research has suggested that turnover-related economic losses range from 90% to 200%. In addition, the loss of experienced employees can adversely affect the morale of those who remain in the organisation (Burch, 2016). Therefore, retaining highly skilled employees becomes one of the most pressing challenges in organisations today. Improving employee' work engagement is one of the best ways to reduce the voluntary turnover rate (Nel & Linde, 2018; Shuck et al., 2014). Therefore, work engagement has gained increasing interest in human resources development in the hopes of enhancing an organisation's employee performance and learning (Eldor, 2016). Work engagement is defined by Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002) as a "positive, fulfilling work-related state of mind that is characterised by vigour, dedication and absorption" (p. 74). Studies have shown a significant relationship between employee engagement and the well-being and performance of an organisation (Armstrong, Shakespeare-Finch & Shochet, 2016; Sofian, 2016; Ellis & Sorensen, 2017).

A global study conducted by Hayes, Chumney, Wright, and Buckingham (2019) found that only 16% of employees are fully engaged at work. Zondo (2020) indicated that an increase in employees' work engagement could result in a 21% increase in the organisation's profitability. The human service industry, including agriculture, was found to have higher work engagement levels than other industries (Hakanen, Ropponen, Schaufeli, and De Witte, 2019). This may be due to the positive impact of working with people and assisting them on increasing one's work engagement levels (Hakanen et al., 2019).

Psychological capital and self-leadership have both been shown to impact employees' work engagement levels (Kotze, 2018). Self-leadership was essential for effective job performance (Mahembe, Engelbrecht & Wakelin, 2017). Self-leadership, which is described as how leaders lead themselves, has various benefits, including improving performance and goal achievement. Kotze (2018) has also indicated the positive effects of psychological capital on work engagement levels. Psychological capital, including employees, leaders, and organisations, demonstrated many advantages on all levels.

Both psychological capital and self-leadership have indicated relations to work engagement. Psychological capital positively improves individual work engagement and has been considered a positive psychological resource influencing one's emotions and behaviours (Li, Castano & Li, 2018). Self-leadership behaviours also affect psychological factors such as hope and optimism, dimensions of psychological capital. The above constructs play a vital role in agricultural extension, indicating the necessity to explore and identify how self-leadership and psychological capital influence the work engagement of agricultural extension advisors. Extension advisors play a vital role within agriculture. Agricultural extension has been defined as applying scientific research and knowledge to agriculture practices through farmer education (Anderson & Gershon, 2007).

The study, therefore, aimed to further the understanding of the effects of psychological capital and self-leadership on the work engagement levels of agricultural extension advisors within South Africa. The study aimed to benefit agricultural extension by expanding their knowledge base on how to develop their self-leadership and psychological capital and, by so doing, increase their work engagement levels.

### **1.1. Research Purpose and Objectives**

The study was conducted to further the understanding of the effects of psychological capital and self-leadership on work engagement among agricultural extension advisors within South Africa. Emphasis was placed on how psychological capital and self-leadership could contribute to increasing work engagement levels. The following objectives were addressed:

- To determine the relationship of psychological capital and work engagement in agricultural extension advisors
- To determine the relationship between self-leadership and work engagement in agricultural advisors
- To determine if the variance in the levels of work engagement can be explained by psychological capital and self-leadership in agricultural extension advisors.

## **2. LITERATURE REVIEW**

Work engagement has been conceptualised for over three decades and has gained growing popularity in business and academia (Schaufeli & Bakker, 2010). Human capital is an essential resource within organisations and gives organisations a more competitive advantage, resulting in engaged employees considered a gain for employers (Rana, Pant & Chopra, 2019). Work engagement was first conceptualised by Khan (1990) as the “harnessing of organisational members” selves to their work roles, stating that people bring their personal selves into their work roles by cognitively, physically, and emotionally expressing themselves during the execution of their work. Questions remain as to how employee engagement differs from job satisfaction, job involvement, and job commitment (Shuck et al., 2013). Definitions of employee engagement in consulting companies and, consulting companies and academia; however, all definitions have essentially conceived employee engagement in terms of emotionally attached to the organisation, their commitment, and additional role behaviour within the organisation (Schaufeli, 2012). One of the most used definitions of work engagement was coined by Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002) as “a positive, fulfilling work-related state of mind that is characterised by vigour, dedication and absorption” (p. 74). Vigor is characterised as mental resilience and high energy levels while working dedication is referred to as one’s experience of significance, passion, and substantial involvement in one’s job. Lastly, absorption is characterised as being entirely concentrated and immersed in one’s work so that time passes quickly and even experiencing difficulty in detaching from the work (Schaufeli et al., 2002).

The job-demands resource model is a widely used framework for work engagement first published by Demerouti, Bakker, Nachreiner, and Schaufeli (2001). According to this model, job resources can be grouped into job demands and personal resources. The model predicts how job demands can deplete employees through impairment that can result in stress and burnout, whereas job resources bolster engagement through motivation (Bakker & Demerouti, 2016). Recent research has moved towards considering an individual as a “job crafter” (Bakker et al., 2012; Hakanen, Seppala & Peeters, 2017; Petrou, Demerouti & Xanthopoulou, 2017) as individuals bring their personal resources into a work situation. Personal resources are considered the aspects of the self that are generally linked to resilience and are linked to the ability to control and impact one’s situation successfully (Xanthopoulou et al., 2007). The model assumes that resources are,

therefore, the main drivers of work engagement and that higher engagement results from the motivation that job resources provide (Burney, 2011).

In 2020, the global employee survey conducted by Gallup found that employee engagement worldwide fell to 20% last year, breaking the pattern of continuous increases since 2009 (Shenton, 2021). Kim, Han, and Park (2019) found that employee engagement could mediate the relationship between variables and reduce turnover intention in individuals, indicating the positive influence that work engagement could have on work performance (Adrianto & Riyanto, 2020). Psychological capital and self-leadership are considered personal resources that can impact an individual's appraisal of their circumstances and their probability for success (Luthans, Avolio, Avey & Norman, 2007). According to Kotze (2018), self-leadership strategies facilitate the development of psychological capacities.

### **2.1. Psychological Capital and Work Engagement**

Positive psychology advocated a shift from negativity to positivity, which characterised the opportunity for growth rather than problems (Tedeschi, Blevins, & Riffle, 2017). Instead of looking at human liabilities, positive psychology focuses on human assets (Warren, Donaldson & Lee, 2017). Psychological capital, initiated from positive psychology, has been considered a key psychological resource within the workplace (Alkahtani, Sulphrey, Delany & Adow, 2021). Psychological capital is considered a multidimensional construct consisting of hope, optimism, efficacy, and resilience. Psychological capital is also strongly related to employee performance and work-related attitudes and behaviours (Cerovic & Kvasic, 2018). Possessing psychological capital supports people to handle everyday life more effectively by acting proactively, trusting in one's possibilities, and not being discouraged by difficulties that arise (Santisi et al., 2020). In a study by Soni and Rastogi (2019), psychological capital and work engagement showed direct links with each other. They found that employees who rated higher on resilience, a component of psychological capital, were more engaged in their jobs. Psychological capital was also found to positively influence two dimensions of work engagement: vigour and dedication (Kotze, 2017).

Hypothesis 1: There is a positive relationship between psychological capital (hope, self-efficacy, resilience, and optimism) and work engagement among agricultural extension advisors

## **2.2. Self-Leadership and Work Engagement**

Self-leadership emerged due to increasing competition in organisations and challenges relating to the traditional assumptions of organisational behaviour and psychology (Stewart, Courtright & Manz, 2019). Self-leadership requires employees to become more responsible and participate in decision-making. This presumes a move from a top-down approach to an environment where employees need to take self-action and greater control (Costello, Brunner & Hasty, 2002). Self-leadership challenges the fundamental assumption that a follower and a leader are both required for leadership to occur. Self-leadership has been defined by Manz (1983, p. 5) as “the process of influencing oneself”. Self-leadership is a self-influence process where individuals learn to navigate, motivate, and lead themselves toward their desired achievements and behaviours (Manz, 1996).

Three strategies can be distinguished within self-leadership: behaviour-focused, natural reward, and constructive thought patterns (Manz & Neck, 2004). The first behaviour-focused strategy, includes self-observation, self-goal setting, self-reward, self-punishment, and self-cueing (Furtner, Baldeggar & Rauthmann, 2012). According to Neck and Manz (2013), these strategies focus on managing one’s behaviours towards unpleasant but necessary tasks. The second strategy, natural reward, focuses on building natural rewards into the tasks themselves to foster a positive effect (Manz, 2015). Lastly, constructive thought patterns focus on positive perceptions and thought patterns to reduce dysfunctional thoughts and foster more positive, optimistic, and adaptive thought patterns (Crossen, 2015). Constructive thought patterns include positive self-talk, mental imagery, and recognising and replacing negative beliefs and assumptions. It was found that employee engagement was positively increased using daily self-management, such as self-goal setting, self-reward, and self-punishment (Breevaart, Bakker & Demerouti, 2014). Inam, Ho, Sheikh, Shafqat and Najam (2021) confirmed that self-leadership improved the work engagement levels of employees and further improved their performance within the workplace.

Hypothesis 2: A positive relationship exists between self-leadership (behaviour-focused, natural rewards, and constructive thought patterns) and work engagement in agricultural extension advisors.

### **2.3. Self-Leadership, Psychological Capital, and Work Engagement**

Self-leadership and psychological capital have been found to have a statistically significant relationship with the vigour and dedication components of work engagement (Kotze, 2017). Furthermore, self-leadership was also shown to have a positive relationship with psychological capital (Kotze, 2017). The study by Kotze (2017) indicated that self-leadership and psychological capital influenced employees' work engagement. Given the benefits associated with psychological resources, the current research endeavours to determine if psychological capital and self-leadership are related to work engagement and can explain the variances in work engagement levels. The study was conducted explicitly with agricultural extension advisors due to the lack of research within this area. Agricultural extension officers are vital to the agricultural sector as they provide valuable information and facilitation to farmers (Anderson & Gershon, 2007). Studies have shown the importance of psychological capital and climate change adaptation behaviours, confirming these constructs' importance within the agricultural sector (Chipfupa, Tagwi & Wale, 2021). Studies with farmers have indicated the importance of having psychological capital as these farmers have shown to be more persistent and productive despite the constraints faced (Chipfupa, 2017). Unfortunately, the constructs of psychological capital, self-leadership and work engagement have not been explored within agricultural extension. Exploring these constructs and providing recommendations to organisations, specifically government departments, can help increase the work engagement, self-leadership and psychological capital of these extension advisors, which can facilitate agricultural transformation and growth within the sector.

Hypothesis 3: The variance in the levels of work engagement can be explained by psychological capital and self-leadership among agricultural extension advisors.

## **3. METHODOLOGY**

### **3.1. Research Method and Approach**

A cross-sectional survey design was used in which quantitative primary data was obtained from the respondents using a self-administered questionnaire to achieve the study's objective. The survey research approach provided generalised findings about a larger population by only studying a small segment (Rea & Parker, 2014).

### **3.2. Research Participants**

Primary data and trends on the three constructs, self-leadership, psychological capital, and work engagement, were sought through this study. Focus was placed on agricultural extension advisors within and across South Africa. The sample was drawn from the South African Society for Agricultural Extension (SASAE) database of 500 members. A non-probability convenience sampling method was applied, and respondents participated based on their willingness and availability. A total of 103 questionnaires were obtained and used for data analysis. The study consisted of 48.5% males and 47.6% females. Regarding race, most participants (88.3%) were African/Black. All of the participants had a tertiary qualification.

### **3.3. Measuring Instruments**

The survey consisted of demographic questions, and three scales were used to measure the variables. These scales are discussed below:

**UWES:** The Utrecht Work Engagement Scale (UWES) was used to measure work engagement. The scale was developed by Schaufeli and Bakker (2004) and is a widely recognised self-rated instrument. The items of the UWES are scored on a 7-point Likert scale ranging from never to always (Schaufeli, Bakker & Salanova, 2006).

**PCQ-24:** Psychological capital was measured using the PCQ-24 scale developed by Luthans et al. (2007). The PCQ-24 comprises four sub-scales that measure hope, optimism, self-efficacy and resilience. Each sub-scale consists of six items measured on a 6-point Likert scale ranging from strongly disagree to strongly agree.

**ASLQ and RSLQ:** Self-leadership was measured using Houghton and Neck's (2002) revised self-leadership scale as well as the abbreviated self-leadership questionnaire due to limitations with the RSLQ in that it doesn't include the natural rewards and self-cueing dimensions. Therefore, the ASLQ was used with added items from the RSLQ (natural reward and self-cueing subscales). The scale, thus, consisted of 16 items on a 5-point Likert scale ranging from not at all accurate to completely accurate.

### **3.4. Research Procedure and Ethical Considerations**

The Faculty of Economic and Management Sciences at the University of the Free State applied for and granted ethical clearance. The Board of SASAE granted permission to access the membership database, and the questionnaires were sent to the participants via email. A consent form was provided detailing the purpose of the research and the procedures being used. Participants were informed that their participation was voluntary and that all information given would remain confidential.

### **3.5. Statistical Analysis**

Cronbach's coefficient alphas were used to measure the reliability of the scales and scale items. A value of 0.80 is usually considered the minimum level of acceptable internal consistency and was used as the guideline for determining the reliability of the scales (Bryman & Bell, 2019).

Pearson's Product Moment Correlation was used to provide evidence of the relationships between the independent variables (psychological capital and self-leadership) with the dependent variable, work engagement.

Multiple regression was used to explore further the effect of one continuous dependent variable and several independent variables (Pallant, 2016). A stepwise multiple regression was used to analyse the effect of the independent variables, psychological capital and self-leadership, on the dependent variable, work engagement. Stepwise multiple regression allows the researcher to provide a list of independent variables. Then it allows the program to select which variables it will enter and which order based on the statistical criteria (Pallant, 2016). Variables that are included and those that are excluded are based solely on the statistics that were computed for that sample (Tabachnick & Fidell, 2013).

## **4. RESULTS**

The reliability estimates for each variable and sub-items are reported in Table 1, which shows that all variables (PsyCap, self-leadership, and work engagement) had acceptable levels of reliability, ranging between 0.879 and 0.916.

**TABLE 1: Internal Consistencies for PsyCap, Self-Leadership and Work Engagement**

Variable	Cronbach
1. PsyCap	0.879
Self-efficacy	0.824
Hope	0.802
Resilience	0.480
Optimism	0.583
2. Self-Leadership	0.881
Behaviour Focused strategies	0.772
Constructive thought pattern strategies	0.698
Natural Reward strategies	0.858
3. Work Engagement	0.916
Vigor	0.784
Dedication	0.808
Absorption	0.779

**TABLE 2: Correlations Between PsyCap and its Dimensions with Work Engagement**

	Work engagement
PsyCap	.721**
Self-efficacy	.567**
Hope	.722**
Resilience	.334**
Optimism	.618**

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

Table 2 indicates a positive relationship between psychological capital and work engagement ( $r = .721, p = .000$ ). This relationship can be interpreted as a large, substantial relationship. All the dimensions of psychological capital had statistically significant relationships with work engagement, with hope, self-efficacy and optimism having a higher correlation than resilience.

**TABLE 3: Correlations Between Self-Leadership and its Strategies and Work Engagement.**

	Work engagement
Self-leadership	.585**
Behaviour-focused strategies	.474**
Construct thought pattern strategies	.274**
Natural reward strategies	.584**

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

Table 3 indicates a significant positive correlation ( $r = .585$ ,  $p = 0.000$ ) between self-leadership and work engagement, indicating a large relationship between the two. All self-leadership strategies also showed a positive statistically significant association with work engagement and with natural reward strategies, indicating a larger relationship than constructive thought patterns, which had the smallest relationship to work engagement.

**TABLE 4: Results of the Stepwise Multiple Regression Analysis**

Model	sUnstandardised		sStandardised	t	Sig.
	Coefficients		d		
	B	Std. Error	Beta		
(Constant)	-4.791	7.330		-.654	.515
Hope	1.822	.289	.483	6.300	.000
Optimism	1.157	.254	.325	4.554	.000
Behaviour focused strategies	.700	.293	.164	2.390	.019

a. Dependent variable: Work engagement (Total)

The results from the stepwise multiple regression, as indicated in Table 4, showed that three variables were significant predictors of work engagement, namely hope (psychological capital), optimism (psychological capital), and behaviour-focused strategies (self-leadership). The three

variables explained 62.8% of the variance in work engagement. Hope was shown to be the best predictor of work engagement, with optimism being shown as the second-best predictor.

**TABLE 5: Stepwise Regression Analysis for Individual Variable Contributions to R2**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.722 <sup>a</sup>	.522	.517	11.52146
2	.779 <sup>b</sup>	.606	.598	10.50634
3	.792 <sup>c</sup>	.628	.616	10.26710

a. Predictors: (Constant), Hope

b. Predictors: (Constant), Hope, Optimism

c. Predictors: (Constant), Hope, Optimism, Behaviour-Focused

As indicated in Table 5 above, the R<sup>2</sup> values were further analysed to determine each independent variable's contribution towards work engagement and the amount of variance in the dependent variable. The model indicated that hope had the highest contribution with a variance of 0.52 (52%) towards work engagement, which indicated that hope had the strongest contribution towards determining one's work engagement. Optimism contributed a variance of 8%, with behaviour-focused strategies contributing the lowest variance at 2%.

## 5. DISCUSSION

As indicated in the results, hypothesis 1 was supported as there was a significant positive relationship between psychological capital and work engagement. These results were consistent with Harumvame (2018), who also found a positive relationship between work engagement and psychological capital, with hope and optimism having higher correlations than self-efficacy and resilience. These were consistent with the above results, as hope and optimism showed a higher correlation to work engagement. In another study conducted by Erbasi and Ozbek (2016), hope and optimism were also shown to have a relationship with the work engagement levels of employees. The results from the stepwise multiple regression indicated that hope and optimism

were the first major predictors of work engagement as both contributed significantly towards the work engagement levels of agricultural extension advisors. The results were slightly lower compared to Harumvame (2018), who reported that hope, optimism, and self-efficacy made up 68% of the total variance in work engagement. Ferreira (2015) reported a lower variance of 43% of psychological capital to work engagement. Hypothesis 3 was, therefore, partially accepted as only some aspects of psychological capital could explain the variances in work engagement.

Hypothesis 2 was supported as there was a significant positive relationship between self-leadership and work engagement, with natural reward and behaviour-focused strategies having a higher relationship to work engagement than constructive thought patterns. The results of this study were slightly lower than the study conducted by Harumvame (2018), whose results indicated a slightly larger relationship between the constructs. However, Har (2018) found constructive thought patterns moderately related to work engagement. Behaviour-focused strategies made up only 2% of the variance towards work engagement, which was slightly lower than Harumvame (2018). Bakker (2017) highlighted that employees who use behaviour-focused strategies mobilise more resources, leading to higher work engagement levels.

## **6. PRACTICAL IMPLICATIONS**

The above research contributes new knowledge to the field of industrial psychology as well as to the area of agricultural extension. Within industrial psychology, theoretical models of psychological capital, self-leadership, and work engagement should be considered when fostering positivity and engagement within the workplace. The study also indicated that hope and optimism (psychological capital dimensions) and behaviour-focused strategies (self-leadership dimensions) could provide interventions to facilitate change within the workplace. Within agricultural extension, the above study provided information on how to foster and improve the work engagement levels of their employees using strategies of psychological capital and work engagement. It is therefore recommended that the agricultural extension sector focus on developing psychological resources and using behaviour-focused strategies to boost the work engagement levels of their employees.

## **7. LIMITATIONS AND RECOMMENDATIONS**

Although much research has been conducted on the constructs of work engagement, self-leadership and psychological capital, no studies have been conducted within the agricultural sector, limiting the amount of literature to determine the influence of these constructs within agricultural extension. Due to time limits, the study was conducted using online questionnaires, which can have limiting factors, as online questionnaires have the disadvantage of only being completed by those who are computer literate and have access to the internet. The current study's small sample size restricted the generalisation and representation of the findings. Therefore, future research should consider conducting a longitudinal study in which a larger sample size can be used to obtain representativeness.

## **8. CONCLUSION**

The findings of the current study provide insights into the importance of work engagement within the agricultural sector and the role played in psychological capital and self-leadership in influencing the levels of work engagement. It was concluded from the study that psychological capital resources, such as hope and optimism, as well as self-leadership resources, such as behaviour-focused strategies, impact the levels of work engagement among agricultural extension advisors within South Africa.

## **REFERENCES**

- ADRIANTO & RIYANTO, S., 2020. The effect of sorganisational commitment, employee engagement, and sorganisational citizenship behaviour on employee performance at pt. titan infra energy - head office. *IOSR J. Humanit Soc. Sci.*, 25(1): 22–31.
- ALKAHTANI, N.S., SULPHEY, M.M., DELANY, K. & ADOW, A.H.E., 2021. A Conceptual Examination about the Correlates of Psychological Capital (PsyCap) among the Saudi Arabian Workforce. *Soc. Sci.*, 10: 122.

- ANDERSON, J.R. & GERSHON, F., 2007. Agricultural Extension. *Handbook. Agric. Econ.*, 3: 2343-2378.
- ARMSTRONG, D., SHAKESPEARE-FINCH, J. & SHOCHET, I., 2016. Organisational belongingness mediates the relationship between sources of stress and post-trauma outcomes in firefighters. *Psychol. Trauma: Theory Res. Pract. Policy.*, 8: 145-165.
- BAKKER, A.B. & DEMEROUTI, E., 2016. Job demands–resources theory: Taking stock and looking forward. *J. Occup. Health Psychol.*, 22(3): 273-285
- BAKKER, A.B., 2017. Strategic and proactive approaches to work engagement. *Org. Dynamics.*, 46(2): 67–75. doi: 10.1016/j.orgdyn.2017.04.002
- BAKKER, A.B., TIMS, M. & DERKS, D., 2012. Proactive personality and job performance: The role of job crafting and work engagement. *Human Relations.*, 65(10): 1359-1378.
- BREEVAART, K., BAKKER, A.B. & DEMEROUTI, E., 2014. Daily self-management and employee work engagement. *J. Vocat. Behav.*, 84(1): 31-38.
- BELL, E., BRYMAN, A. & HARLEY, B., 2019. *Business research methods*. Oxford University Press.
- BURNEY, M.R., 2011. *Testing the job demands-resources model of work engagement with a sample of corrections officers working within New Zealand*. Master's thesis. Massey University, New Zealand.
- CEROVIC, Z. & KVASIC, G.S., 2018. Managing employee's psychological capital. In an *Enterprise Odyssey: Saving the Sinking Ship through Human Capital. 8th International Conference*, Faculty of Economics & Business, University of Zagreb, Croatia, (pp. 49-57).
- CHIPFUPA, U., 2017. *Entrepreneurial development pathways for smallholder irrigation farming in KwaZulu-Natal: Typologies, aspirations, and preferences*. Doctoral dissertation. University of KwaZulu-Natal, South Africa.

- CHIPFUPA, U., TAGWI, A. & WALE, E., 2021. Psychological capital and climate change adaptation: Empirical evidence from smallholder farmers in South Africa. *Jamba: J. Disaster Risk Stud.*, 13(1): a1061
- COSTELLO, M.L., BRUNNER, P.W. & HASTY, K., 2002. Preparing students for the empowered workplace: The risks and rewards in a management classroom. *Act. Learn. High. Educ.*, 3(2): 117-127.
- CROSSEN, L.S.J., 2015. *Self-leadership, leadership styles, and employee engagement: Testing moderation models*. Master's dissertation. University of Canterbury.
- DEMEROUTI, E., BAKKER, A.B., NACHREINER, F. & SCHAUFELI, W.B., 2001. The job demands-resources model of burnout. *J. Appl Psychol.*, 86(3): 499.
- ELDOR, L., 2016. Work engagement: Toward a general theoretical enriching model. *Hum. Resour. Dev. Rev.*, 15(3): 317-339.
- ELLIS, F. & SORENSEN, J., 2017. *Supporting workplace learning for high-performance work*. International Labour Organization.
- ERBASI, A. & OZBEK, M.C., 2016. The effect of psychological capital on work engagement. *Austr. Acad. Bus. Econ. Rev.*, 2(4): 276-284.
- FERREIRA, T., 2015. *The relationship between psychological capital and work engagement amongst correctional officers at a correctional facility in the Western Cape*. Master's thesis. University of the Western Cape.
- FURTNER, M.R., BALDEGGERM U. & RAUTHMANN, J.F., 2012. Leading yourself and leading others: Linking self-leadership to transformational, transactional, and laissez-faire leadership. *Eur. J. Work. Organ. Psychol.*, 22(4): 436-449.
- HAKANEN, J.J., SEPPÄLÄ, P. & PEETERS, M.C.W., 2017. High job demands, still engaged, and not burned out? The role of job crafting. *Int. J. Behav. Med.*, 24(4): 619-627 doi: 10.1007/s12529-017-9638-3.

- HAKANEN, J.J., ROPPONEN, A., SCHAUFELI, W.B. & DE WITTE, H., 2019. Who is engaged at work? A large-scale study in 30 European countries. *American College Occup. Environ. Medic.*, 61(5): 373-381.
- HARUNAVAMWE, M., 2018. *The effect of psychological capital, self-leadership and job embeddedness on work engagement among employees in the banking sector*. Doctoral dissertation. University of the Free State.
- HAYES, M., CHUMNEY, F., WRIGHT, C. & BUCKINGHAM, M., 2019. *The global study of engagement: Technical report*. ADP Research Institute.
- HOM, P.W., LEE, T., SHAW, J.D. & HAUSKNECHT, J.P., 2017. One hundred years of employee turnover theory and research. *J Appl Psychol.*, 102(3): 530-545.
- HOUGHTON, J.D. & NECK, C.P., 2002. The revised self-leadership questionnaire: Testing a hierarchical factor structure for self-leadership. *J. Manag. Psychol.*, 17: 672-691.
- INAM, A., HO, J.A., SHEIKH, A.A., SHAFQAT, M. & NAJAM, U., 2021. How self-leadership enhances normative commitment and work performance by engaging people at work? *Current Psych.*, 42: 3596–3609.
- KAHN, W.A., 1990. Psychological conditions of personal engagement and disengagement at work. *Acad Manage J.*, 33: 692–724.
- KIM, W., HAN, S.J. & PARK, J., 2019. Is the role of work engagement essential to employee performance or ‘nice to have’? *Sustainability.*, 11: 1050. doi:10.3390/su11041050
- KOTZÉ, M., 2018. The influence of psychological capital, self-leadership, and mindfulness on work engagement. *S Afr J Psychol.*, 48(2), 279–292.
- LI, Y., CASTANO, G. & LI, Y., 2018. Linking leadership styles to work engagement: The role of psychological capital among Chinese knowledge workers. *Chin. Manag. Stud.*, 12(2): 433-452.

- LUTHANS, F., AVOLIO, B.J., AVEY, J.B. & NORMAN, S.M., 2007. Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psych.*, 60: 541-572.
- MAHEMBE, B., ENGELBRECHT, A.S. & WAKELIN, Z., 2017. A study to assess the reliability and construct validity of the Abbreviated Self-Leadership Questionnaire: A South African study. *S Afr J Psychol.*, 47(3): 356-366.
- MANZ, C.C. & NECK, C.P., 2004. *Mastering self-leadership: Empowering yourself for personal excellence*. 3rd edn. Prentice Hall.
- MANZ, C.C., 1983. *The art of self-leadership: Strategies for personal effectiveness in your life and work*. Prentice-Hall.
- NECK, C.P. & MANZ, C.C., 2013. *Mastering self-leadership: Empowering yourself for personal excellence*. 6th edn. Pearson Prentice Hall.
- MANZ, C.C., 1996. Thought self-leadership: The impact of mental strategies training on employee cognition, behaviour, and affect. *J. Organ. Behav.*, 17(5): 445-467.
- MANZ, C.C., 2015. Taking the self-leadership high road: Smooth surface or potholes ahead? *Acad. Manag. Perspect.*, 29(1): 132-151.
- NEL, J.H. & LINDE, B., 2018. *Antecedents and outcomes associated with high levels of engagement. The art of engaging unionised employees the art of engaging unionised employees*. Palgrave Pivot, Singapore.
- ORUH, E.S., MORDI, C., AJONBADI, A., MOJEED-SANNI, B., NWAGBARA, U. & RAHMAN, M., 2020. Investigating the relationship between managerialist employment relations and employee turnover intention: The case of Nigeria. *Employee Relations.*, 42(1): 52-74.
- PALLANT, J., 2016. *SPSS survival manual: A step by step guide to data analysis using SPSS program*. 6th edn. McGraw-Hill Education.

- PETROU, P., DEMEROUTI, E. & XANTHOPOULOU, D., 2017. Regular versus cutback-related change: The role of employee job crafting in organisational change contexts of different nature. *Int. J. Stress Manag.*, 24(1): 62-85.
- RANA, S., PANT, D. & CHOPRA, P., 2019. Work engagement and individual work performance: Research findings and an agenda for employee relationships. *JETIR.*, 6(5): 17-32.
- REA, L. & PARKER, A., 2014. *Designing and conducting survey research: A comprehensive guide*. 4th edn. John Wiley & Sons.
- SANTISI, G., LODI, E., MAGNANO, P., ZARBO, R. & ZAMMITTI, A., 2020. Relationship between psychological capital and quality of life: The role of courage. *Sustainability.*, 12: 5238. doi:10.3390/su12135238
- SCHAUFELI, W.B., SALANOVA, M., GONZALEZ-ROMA, V. & BAKKER, A.B., 2002. The measurement of engagement and burnout and: A confirmative analytic approach. *J. Happiness Stud.*, 3: 71-92.
- SCHAUFELI, W.B. & BAKKER, A.B., 2010. Defining and measuring work engagement: Bringing clarity to the concept. In *Work engagement: A handbook of essential theory and research* (pp. 10-24). Psychology Press.
- SCHAUFELI, W.B. & BAKKER, A.B., 2004. Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *J. Organ. Behav.*, 25: 293-315.
- SCHAUFELI, W.B., 2012. Work engagement: What do we know and where do we go? *Rom. J. Appl. Psychol.*, 14(1): 3-10.
- SCHAUFELI, W.B., BAKKER, A.B. & SALANOVA, M., 2006. The measurement of work engagement with a short questionnaire: A cross-national study. *Educ Psychol Meas.*, 66(4): <https://doi.org/10.1177/0013164405282471>

- SHENTON, C., 2021. The state of the workplace in 2021: Gallups stark findings for engagement and stress, *Weekly 10*. Available from <https://www.weekly10.com/how-is-employee-engagement-in-2021/>
- SHUCK, B., GHOSH, R., ZIGARMI, D. & NIMON, K., 2013. The jingle jangle of employee engagement: Further exploration of the emerging construct and implications for workplace learning and performance. *Hum. Resour. Dev. Rev.*, 12(1): 11-35.
- SHUCK, B., TWYFORD, D., REIO, T.G. & SHUCK, A., 2014. Human resource development practices and employee engagement: Examining the connection with employee turnover intentions. *Hum. Resour. Dev. Q.*, 25(2): 239-269.
- SOFIAN, S., 2016. Individual factors and work outcomes of employee engagement. *Procedia Soc. Behav. Sci.*, 40: 498-508.
- SONI, K. & RASTOGI, R., 2019. Psychological Capital augments employee engagement. *Psych. Studies.*, 64(4): 465-473.
- STEWART, G.L., COURTRIGHT, S.H. & MANZ, C.C. 2019. Self-leadership: A paradoxical core of organisational behaviour. *Annu. Rev. Organ. Psychol.*, 6(1): 47-67.
- TABACHNICK, B.G. & FIDELL, L.S., 2013. *Using multivariate statistics*. 6th edn. California State University.
- TEDESCHI, R.G., BLEVINS, C.L. & RIFFLE, O.M., 2017. Posttraumatic growth: A brief history and evaluation. In *Scientific advances in positive psychology* (pp. 131- 163). Praeger.
- WARREN, M.A., DONALDSON, S.I. & LEE, J.Y., 2017. *Toward a Positive Psychology of Relationships: New Directions in Theory and Research*.
- XANTHOPOULOU, D., BAKKER, A.B., DEMEROUTI, E. & SCHAUFELI, W.B., 2007. The role of personal resources in the job demands-resources model. *Int. J. Stress Manag.*, 14(2): 121-141.

ZONDO, R.W.D., 2020. The influence of employee engagement on labour productivity in an automotive assembly organisation in South Africa. *SAJEMS.*, 23(1): 2222-3436.