

# THE INFLUENCE OF PSYCHOLOGICAL CAPITAL ON WORKPLACE WELLBEING AND EMPLOYEE ENGAGEMENT AMONG SAUDI WORKFORCE

Nasser Saad Alkahtani<sup>1\*</sup>, Sulphey M M<sup>2</sup>, Kevin Delany<sup>3</sup>, Anass Hamad Elneel Adow<sup>4</sup>

<sup>1\*</sup>Associate Professor, Department of Human Resource Management, College of Business Administration, Prince Sattam Bin Abdulaziz University, Saudi Arabia; <sup>2</sup>Professor, College of Business Administration, Prince Sattam Bin Abdulaziz University, Saudi Arabia; <sup>3</sup>Norwich Business School, University of East Anglia, United Kingdom; <sup>4</sup>Department of Accounting, College of Business Administration, Prince Sattam Bin Abdulaziz University, Saudi Arabia. Email: <sup>1\*</sup>ns.alkahtani@psau.edu.sa, <sup>2</sup>s.manakkattil@psau.edu.sa, <sup>3</sup>k.delany@uea.ac.uk, <sup>4</sup>a.adow@psau.edu.sa

Article History: Received on 27<sup>th</sup> July 2020, Revised on 5<sup>th</sup> September 2020, Published on 26<sup>th</sup> September 2020

#### Abstract

**Purpose of the study:** The purpose of the study is to find out the complex relationship between psychological capital (PsyCap), workplace wellbeing (WWB), and employee engagement (E.E.) among the working class of Saudi Arabia.

**Methodology:** The study which used a cross-sectional quantitative research design made use of three structured, validated questionnaires to collect the required data. Data were randomly collected online from a sample of 395 respondents. The respondents belonged to varying demographics. The data so collected was analyzed using Structural Equation Modeling (SEM) with the help of the Python program.

**Main Findings:** The study has found a significant positive relationship between the three constructs of Psychological capital (PsyCap), workplace wellbeing (WWB), and employee engagement (E.E.)in the workplace. A similar significant relationship was also observed between workplace wellbeing and employee engagement.

**Applications of this study:** The constructs identified for the study are those that help organizations to elicit effective performance from their employees. In the present uncertain world, only a band of engaged, happy, and psychologically strong employees will be capable of facing the multiple challenges of the corporate world. The findings of the study provide directions in this regard to social scientists and researchers.

**Novelty/Originality of this study:** Though studies have been conducted in the western world about the antecedents and consequences of Psychological Capital (PsyCap), only limited studies have been done in Saudi Arabia and its neighbouring countries. The study has succeeded in enriching social science literature in this regard. There is ample scope for further research in this regard by including certain other constructs.

Keywords: Psychological Capital, PsyCap, Workplace Wellbeing, Employee Engagement, Saudi Arabia.

# INTRODUCTION

Positive organizational behavior (POB), which originated over a decade back strives to understand workplace attitudes and behaviors through a positive lens (<u>Bakker and Schaufeli, 2008</u>). Ample empirical evidence exists to suggest that psychologically positive employees can overcome any form of challenges (<u>Gupta and Shaheen, 2018</u>). According to Luthans (<u>Luthans, Norman, Avolio, and Avey2008a</u>; <u>Luthans, Youssef, Sweetman, and Harms, 2013</u>), individuals who are capable psychologically have high levels of psychological capital (PsyCap). PsyCap, one of the core constructs in POB, has been identified as capable of enhancing organizational commitment, organizational citizenship behavior, and engagement; reduce absenteeism and turnover intentions; and bring in better work performances (<u>Al-Kahtani, Sulphey, Delany, and Adow, 2020</u>; <u>Avey, Luthans, and Jensen, 2009</u>; <u>Avey, Luthans, Smith, and Palmer, 2010</u>; <u>Luthans, Youssef, and Avolio, 2007a</u>; <u>Walumbwa et al., 2010</u>). PsyCap also enables employees to cope with all forms of life pressures and help in dedicating their energies towards their work roles (<u>Nguyen and Nguyen, 2012</u>). It is defined by <u>Luthans et al (2007a, p. 3)</u> as:

"An individual's positive psychological state of development that is characterized by: having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; making a positive attribution (optimism) about succeeding now and in the future; persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success."

Evidence suggests that being a higher-order concept that combines multiple concepts, PsyCap is capable of positively influencing the work and life outcomes of employees (<u>Choi and Lee, 2014</u>). <u>Wright (2003)</u> believes that PsyCap is not merely a functional variable that enhances performance, but is broad enough to be an indispensable psychological capacity essential for human life. <u>Luthans, Luthans, and Palmer, (2016)</u> identify the concept as a personal resource that helps employees to be "positive, confident, hopeful, optimistic, and resilient at the workplace".

Literature about PsyCap is still evolving, and there is a definite need to further examine its unique effects on the employees across different cultures. The fecundity of the concept of PsyCap suggests that it can contribute more to Social Sciences literature than what has been contributed so far. Literature can be further enriched, and human



knowledge widened by exploring the nature and functions of PsyCap by including its diverse range of outcomes. The other constructs that are considered for the present study are workplace wellbeing (WWB) and employee engagement (E.E.).

Work and life happiness are vital components that ensure the psychological and psychical health of employees (<u>Diener</u>, <u>2000</u>). It helps in solving problems associated with intra and interpersonal relationships, task competence and accomplishment, etc. (<u>Lyubomirsky</u>, <u>King</u>, and <u>Diener</u>, <u>2005</u>), and aids in creating WWB. A few studies have identified the positive relationship between PsyCap and WWB (<u>Chawla and Sharma</u>, <u>2019</u>; <u>Chen et al.</u>, <u>2019</u>; <u>Choi and Lee</u>, <u>2014</u>; <u>Gibson and Hicks</u>, <u>2018</u>; <u>Imran and Shahanawaz</u>, <u>2020</u>; <u>Kun and Gadanecz</u>, <u>2019</u>; <u>Sabaitytė and Diržytė</u>, <u>2016</u>; <u>Vîrgă et al.</u>, <u>2020</u>).

There are multiple components that impact the health, workplace behavior, and performance of employees. Indicators exist to understand the relationship between WWB from the perspective of PsyCap. According to Kun and Gadanecz (2019), PsyCap has the quality of malleability, and is hence open to further development. This, according to Avey et al., (2010) opens up multiple opportunities for leaders in organizations to enhance WWB. This is inferred from the aspect that identifying and promoting inner resources and strengths of individuals will facilitate the improvement of the overall wellbeing and happiness. Kun and Gadanecz (2019) investigated the relationship between PsyCap, workplace happiness, and WWB and found the relationship between them.

The present study attempts to find out the relationship that PsyCap, WWB, and employee engagement (E.E.) in the Saudi context. The paper is divided into the following sections. The first section reviews the relevant literature about PsyCap, WWB, and E.E.; followed by a brief presentation of the methods adopted for the study. The next section provides the results of the data collected. The last section consists of implications, limitations, and suggestions for further research.

#### LITERATURE REVIEW

This section reviews the related literature about Psychological Capital (PsyCap), Wellbeing (WWB), and Employee Engagement (E.E.).

#### **PsyCap**

PsyCap is a "higher-order construct", that goes beyond human and social capital. It is defined as "positive appraisal of circumstances and probability for success based on motivated effort and perseverance" (Luthans, Avolio, Avey and Norman, 2007, p. 550). It is also "an individual's positive psychological state of development" (Luthans, Luthans, and Avey, 2014). Empirical studies show that PsyCap is having a significant and enduring influence on employees and their attitude towards work environments (Gibson and Hicks, 2018; Grover, Teo, Pick, Roche, and Newton, 2018; Kun and Gadanecz, 2019). It has the capability to reduce burnout (Vîrgă et al., 2020), enhance wellbeing, and resultant performance (Imran and Shahanawaz, 2020). Related to the "best self", PsyCap comprises of four components – hope, efficacy, Optimism, and Resilience (Luthans and Youssef, 2004). According to Stajkovic (2006, p. 1212), these four components overlap, and they "share a common confidence core that exists at a higher level of abstraction".

It is imperative to have a short discussion about the four components. Hope, according to <a href="Snyder">Snyder</a>, Irving, and Anderson (1991, p. 287) is the "positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy) and (b) pathways (planning to meet goals)." Efficacy is "the employee's conviction or confidence about his or her abilities to mobilize the motivation, cognitive resources, or courses of action needed to successfully execute a specific task within a given context." (Stajkovic and Luthans, 1998, p. 66). Luthans (2002) identified Optimism as "a positive outcome outlook or attribution of events, which includes positive emotions and motivation and has the caveat of being realistic". Resiliency is the "positive psychological capacity to rebound, to 'bounce back' from adversity, uncertainty, conflict, failure, or even positive change, progress, and increased responsibility" (Luthans, 2002, p. 702).

The biggest strength of PsyCap, according to <u>Luthans & Youssef (2004)</u>, is that it is capable of being developed and managed. It is a "psychological resource" that has the scope for being objectively assessed and can secure improved performance at the workplace through positive cognition and motivational processes (<u>Luthans et al., 2007a</u>). PsyCap is the "positive appraisal of circumstances and probability for success based on motivated effort and perseverance" (<u>Luthans et al., 2007a</u>, p.550). Employees having high levels of PsyCap, according to <u>Luthans et al., (2016</u>), are capable of exercising better control over their work-related outcomes. This is made possible since they are effectual and are persistent in their goals.

# **WWB**

The wellbeing and happiness at the workplace can be highly beneficial for organizations (<u>Chawla and Sharma, 2019</u>; <u>Lups et al., 2019</u>; <u>Seligman 2002</u>, <u>2011</u>). Wellbeing is associated with the general feeling of happiness and life satisfaction (<u>Lee, Singhapakdi, and Sirgy, 2007</u>). Various researchers have attempted to examine the relationship between PsyCap and workplace wellbeing (<u>Luthans, Lebsack, and Lebsack, 2008c</u>; <u>Nguyen and Nguyen, 2012</u>). A study by <u>Choi & Lee (2014</u>) found PsyCap to be related to turnover intention, workplace happiness, and subjective wellbeing.



It was also found associated with employee outcomes. <u>Avey et al. (2010)</u> found employees with high levels of PsyCap to be satisfied with their works and have general contentment with their life, which could result in general wellbeing. <u>Gupta and Shaheen (2018)</u> identified PsyCap to mediate with different constructs, including engagement and general wellbeing. A significant positive relationship between PSyCap and wellbeing was observed by Rani (2015).

Luthans, Lebsack and Lebsack, (2008c) and Luthans, Youssef, Sweetman, and Harms (2013) observed PsyCap enabling employees to cope with pressures and helping them to dedicate all their energies in their work roles. Nguyen and Nguyen, (2012) and Polatci and Akdogan (2014) found PsyCap to enhance the WWB of employees. Multiple studies have found a positive association between PsyCap and WWB (Culbertson, Fullagar, and Mills, 2010; Murray, Pirola-Merlo, Sarros, and Islam, 2010; Wahyuningsih and Wulansari, 2016). Recent studies by Grover, Teo, Pick, Roche, and Newton (2018), Imran and Shahanawaz (2020), and Lups et al., (2019) found PsyCap to have a direct influence on WWB. Rivaldi and Sadeli (2020) found PsyCap to mediate turnover intentions through engagement and WWB. The focus of most of these studies, however, were on subjective wellbeing. Al-Kahtani, Sulphey, Delany, and Adow (2020) proposed that PsyCap has a "yin and yang" relationship with WWB. However, this was only a theoretical proposition and was not tested empirically. Only a few studies have attempted to focus on the relationship with WWB.

Based on the above literature, the first hypothesis is set as under:

**H1:** There is a positive relationship between PsyCap and Workplace wellbeing.

# **Engagement**

E.E. is defined as the "positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, Salanova, Gonzalez-Roma, and Bakker, 2002, p. 74). It is also defined as "a measure of the levels of vigor, dedication, and absorption in work among employees" (Bakker, 2011). It is associated with employee performance (Knight. Patterson, and Dawson, 2017). Engaged employees can achieve individual and organizational outcomes as are emotionally strong and have better wellbeing (Fredrickson, 2009).

A positive relationship between PsyCap and engagement have found by <u>Datu</u>, <u>King</u>, and <u>Valdez (2018)</u>; <u>Simons and Buitendach (2013)</u>, and many others. A study by <u>Grover</u>, <u>Teo</u>, <u>Pick</u>, <u>Roche</u>, <u>and Newton (2018)</u> found PsyCap to have direct influence engagement. They found that employees with high levels of PsyCap perceive that they have more job resources. This keeps them motivational and engaged. The positive association of PsyCap with academic engagement have also been found by <u>Datu</u>, <u>King</u>, <u>and Valdez (2018)</u>; <u>Datu and Valdez (2016)</u>; and <u>Siu et al.</u>, <u>2014</u>). Based on these, the next hypothesis is formulated as:

**H2:** There is a positive relationship between PsyCap and Employee engagement.

A review of the literature about E.E. and WWB has presented inconsistent results. Engagement is the psychological connection of employees with their work' (Bakker, Albrecht, and Leiter, 2011). It captures the physical, cognitive as well as emotional experiences in the workplace. (Khan, 1990). Rivaldi and Sadeli (2020) found PsyCap to influence both E.E. and WWB. Grover, Teo, Pick, Roche, and Newton (2018) analyzed the influence of PsyCap on the outcomes related to wellbeing and engagement and found a positive relationship. A strong connection between wellbeing and WE have been observed by Bakker and Demerouti (2016). A different result was found by Schaufeli, Bakker, and Salanova (2006). They found engagement to be positively related to employee wellbeing. A few other studies, for instance, Brunetto, Teo, Shacklock, and Farr-Wharton, 2012; Judge and Watanabe, 1993; Wright and Cropanzano, 2000) found a positive association between employee wellbeing and engagement. Thus, the third hypothesis is formulated as under:

**H3:** There is a positive relationship between Workplace wellbeing and Employee engagement.

As can be seen from the review of literature that most of the studies have been undertaken in the western world. The significance of the present study is that it is undertaken in Saudi Arabia. The country has a unique culture; which is based in Islamic, Arab, and tribal systems (Razzak, 2016; Sulphey and Al-Kahtani, 2018). These systems are having a profound impact on members of the society. These systems also have major impacts at workplaces, too (Al-Shehery et al., 2006; Faridi and Sulphey, 2019). Irrespective of the social standing of any individual, family bonds enjoy significantly higher value, and self-interests are subsidiary to family-interests (Kabasakal and Bodur, 2002). Members of Saudi society are found to share a number of common attributes, cultural habits, and traditions. Additionally, there exist ultra-conservatism and collectivist values in the society with leaders having a strong paternalistic culture (Razzak, 2016). These aspects do have a profound influence and impact on the workplace environment, including WWB and PsyCap. Further, no earlier study has attempted to examine the relationship between the concepts as envisaged here. As such, it is expected that the findings of the study would be a significant contribution to social sciences literature.

### **METHODOLOGY**

Since the study was envisioned to answer certain explicit research questions, the authors used a type of cross-sectional quantitative research design. This design is ideal for addressing the hypotheses that were formulated for the study.



#### **Data collecting instruments**

The data for the present study was collected from gainfully employed samples from Saudi Arabia, using the following three structured questionnaires.

- 1. **PsyCap**: To measure PsyCap, the extensively used PsyCap Questionnaire (PCQ 12) was used (<u>Luthans</u>, <u>Avolio</u>, <u>Avey</u>, <u>and Norman</u>, <u>2007b</u>). The PCQ 12 has four dimensions Self-efficacy with 3, Hope with 4, Resilience with 3, and Optimism with 2 items. While hope had four items, Self-efficacy and Resilience had three items each. The questionnaire had a five-point scale. The 12 items contained in the four factors averaged to form PsyCap, which is considered a higher-order construct. The scale had a Cronbach's alpha of 0.90. A sample item is "*I can think of many ways to reach my current work goals*".
- 2. **Workplace wellbeing**: This variable was measured using the Workplace Wellbeing Scale developed by <u>Bartels</u>, <u>Peterson</u>, and <u>Reina</u>, (2019). It is a two factor, eight-item scale. The two factors, which have four items each are Intrapersonal and Interpersonal dimensions. The questionnaire had a five-point scale. The Cronbach's alpha ranged between .87 and .90. A sample item of the scale is "Among the people I work with. I feel there is a sense of brotherhood/sisterhood."
- 3. **Employee engagement:** The UWES-3 scale (<u>Schaufeli, Shimazu, Hakanen, Salanova, and De Witte, 2017</u>), which has been standardized on populations from across the globe, was used to collect data about work engagement. The scale enjoys robust cross-national reliability as well as validity (all the alphas across nationalities was above .90). A sample item is "*At my work, I feel bursting with energy*". The scale also had a five-point scale.

The alphas of all the tools used for the study meets the liberal stipulation of <u>Lyberg et al. (1997)</u> as well as the conservative stipulation of <u>Nunnally and Bernsteain (1994)</u>.

In addition to the three scales, there was a separate section that solicited the demographics particulars of the respondents like age, gender, experience, etc. The questionnaires were translated into Arabic using the back-translation method (Brislin, 1980). The first author translated the original items from English to Arabic. The fourth author translated the Arabic version back to English. The final translations were compared with the original versions and discrepancies resolved. The questionnaires were then prepared in Google docs, and its link was posted on various social media groups, the membership of which was limited to employees of Saudi Arabia. 395 responses were received in three months. Since all the items were made compulsory on the Google docs, there was no missing information. As such, all the 395 responses were ideal to be used for analysis.

Adequacy of the sample can be assumed as evidence suggest that 384 would be a representative sample for a population of one million (Krejcie and Morgan, 1970, Bartlett, Kotrlik, and Higgins, 2001). They opined that as the population increase, the "sample size increases at a diminishing rate and remains eventually constant at slightly more than 380 cases". Suskie (1996) believes that for a sampling error of 5%, a sample size of 364 is sufficient. Simon and Goes (2013) identified this as the "golden standard", which has been accepted in multiple instances. The adequacy of the sample was also assessed through assessing the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser 1970). The KMO measure of sample adequacy was .835, and Bartlett's Test of Sphericity was 1714.455 (Sig. of .000). In light of these discussions, it can be assumed that the collected sample of 395 can be considered as adequate.

The sample enjoyed wide diversity, which can be observed from the demographics. It included 176 (44.6%) males and 219 (55.4%) females. 300 (75.9%) were married, 77 (19.5) unmarried and 18 (4.6%) were divorced. The age of the respondents ranged from 19 to 61 years, with the average being 40.9 years. The overall experience varied between less than a year to 40 years. The mean years of experience were 13.5. The descriptive statistics can be found in Table 1.

Minimum Maximum SD Mean Efficacy 15.0 13.241 1.6861 7.0 16.509 Hope 9.0 20.0 2.4457 8.0 15.0 13.119 1.6101 Resilience 3.0 10.0 8.841 1.3030 Optimism 51.709 30.0 60.0 5.2514 PsyCap 4.0 20.0 16.889 Interpersonal 2.8566 Intrapersonal 10.0 20.0 17.919 2.1096 WWB 14.0 40.0 34.808 4.2883 EE 6.0 15.0 13.284 1.8444

 Table 1: Descriptive statistics

N = 395



## Measurement of reliability and validity

The reliability and validity were examined using confirmatory factor analysis (CFA) as proposed by (<u>Byrne, 2013</u>). The initial CFA model is presented in the following sections.

#### Confirmatory factor analyses

The nature of the different constructs used for the study was reflective. CFA was done to examine the factor structure of all the constructs – PsyCap, workplace wellbeing, and employee engagement. The CFA results show all the indexes are as per the rule of the thump. Is can thus be seen that the data fits perfectly (Table 2).

Table 2: Model fit indices

Index	Recommended value	Model value	Citation
Goodness of fit index (GFI)	>0.90	0.937	Hair, Black, Babin, and Anderson (2010)
Adjusted goodness of fit index	>0.80	0.818	Gefen, Karahanna, and Straub (2003)
(AGFI)			
Normed fit index (NFI)	>0.95	0.907	Hooper, Coughlan, and Mullen. (2008)
Incremental fit index (IFI)	>0.90	0.919	Davey and Savla (2010)
Comparative fit index (CFI)	>0.90	0.988	Bentler (1992), Hair et al. (2010)
Root mean square error of	< 0.05	0.0434	Diamantopoulos and Siguaw (2000), Hu
approximation (RMSEA)			and Bentler (1999)

Table 2 presents the details of convergent validity. Convergent validity is considered as the extent of a measure correlating positively with measure(s) within the same construct. Convergent validity is assessed using the average variance extracted (AVE) and item loadings (<u>Hair, Hult, Ringle, and Sarstedt, 2013</u>). AVE is the average variance shared between a construct and its measures. A value equal to or higher than 0.50 is the prescribed rule of the thumb for AVE (<u>Hair et al., 2013</u>; <u>Barclays et al., 1995</u>). It can be observed from Table 2 that all the AVEs are above the prescribed value of 0.05.

Composite reliability (C.R.) is considered as a better reliability estimate than Cronbach Alpha. It helps in assessing the internal consistency of the variables studied (<u>Fornell and Larcker, 1981</u>). Any value over 0.70 is considered ideal for C.R. (<u>Hair, Ringle, and Sarstedt, 2011</u>; <u>Hair, Hult, Ringle, and Sarstedt, 2017</u>; <u>Henseler and Sarstedt, 2013</u>). In the present case, all the C.R. values are well above the prescribed 0.07, thereby ensuring reliability. The details are presented in Table 3.

Table 3: Convergent Validity – Standardized Regression Weights

Items		Factors	Estimate	Item reliability	AVE	Sum of estimate	C.R.	
H1	-	_	0.765	0.585				
H2	-	Homo	0.788	0.621	— — 0.679	3.287	0.894	
Н3	-	- Hope	0.811	0.658	- 0.679			
H4	-		0.923	0.852				
E1	-		0.76	0.578				
E2	-	Self-efficacy	0.734	0.539	0.630	2.373	0.835	
E3	-	·	0.879	0.773				
R1	-		0.865	0.748		2.277	0.805	
R2	-	Resilience	0.678	0.460	0.582			
R3	-	-	0.734	0.539				
O1	-	Ontingian	0.734	0.539	0.797	1.763	0.879	
O2	-	- Optimism	0.981	0.962	<b>—</b> 0.787			
IN1	-		0.714	0.510		3.376	0.910	
IN2	-	- 	0.894	0.799	0.710			
IN3	-	- Interpersonal	0.845	0.714	- 0.719			
IN4	-	-	0.923	0.852				
IR1	-		0.748	0.560		3.113	0.861	
IR2	-	Turkus us us sus 1	0.711	0.506	- 0.610			
IR3	-	- Intrapersonal	0.883	0.780				
IR4	-	-	0.771	0.594	_			
EE1	-		0.863	0.745		2.599	0.900	
EE2	-	Employee engagement	0.865	0.748	0.751			
EE3	-		0.871	0.759	_			



The CFA model is presented in Figure 1.

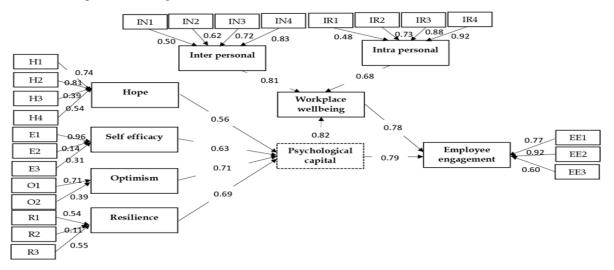


Figure 1: CFA model

Discriminant validity deals with the uniqueness of a construct, and that it is in no way reprehensive of other constructs withing the given model (<u>Hair et al., 2013</u>). It is an indication that a particular construct is sharing more variance than with any other construct within the model (<u>Hulland, 1999</u>).

To assess the discriminant validity, a comparison is made between the square root of the AVE and the correlations of latent variables (Fornell & Larcker, 1981). To have discriminant validity, the squared root of AVE needs to higher than the highest correlation value of other constructs (Hair et al., 2013). The square roots of AVE coefficients are presented in the correlation matrix along the diagonal. Is can be observed from the matrix that no construct has an r value higher than 0.70 (Anderson and Gerbing, 1988). Further, all r values of the constructs are less than the square roots of AVE, as stipulated by Fornell and Larcker (1981). These results are in line with the rule of thumb, and hence evidencing discriminant validity (Fornell & Larcker, 1981; Hair et al., 2013). Further, all the Alpha values are well above the stipulated 0.70 (Nunnally and Bernsteain, 1994), thereby confirming reliability. Table 4 presents the convergent and discriminant validities and the reliabilities.

	Convergent		Discri	minant v	validity							
	validity		Squared Intercorrelations								Alnha	
	CR	AVE	H	SE	R	O	P	IP1	IP2	WWB	EE	Alpha
H	0.894	0.679	0.824									0.811
SE	0.835	0.630	0.247	0.794								0.765
R	0.805	0.582	0.094	0.066								0.891
					0.763							
O	0.879	0.787	0.306	0.316	0.095	0.887						0.761
P	0.811	0.715	0.044	0.059	0.003	0.053	0.846					0.894
IP1	0.910	0.719	0.034	0.145	0.065	0.004	0.056	0.848				0.811
IP2	0.861	0.610	0.087	0.074	0.063	0.053	0.054	0.065	0.781			0.873
WWB	0.940	0.664	0.011	0.078	0.007	0.017	0.073	0.052	0.276	0.815		0.824
WE	0.900	0.751	0.098	0.089	0.098	0.035	0.098	0.072	0.123	0.087	0.867	0.807

Table 4: Convergent and discriminant validities

#### RESULTS/FINDINGS

The analyse of the data to test the tenability of the hypothesis was done using SEM. It was done using the package *Semopy*, in the *Python* platform (<u>Igolkina & Meshcheryakov</u>, 2020), to assess the relationship between the variables and test the hypothesis.

### Structural Equation Modeling

The analysis was done using SEM as it is comprehensive, and tests the complete and simultaneous relationships in social sciences research (<u>Tabachnick and Fidell, 2007</u>). It also assesses the measurement and structural models for predictive validity (<u>Becker et al., 2013</u>). Further SEM is also helpful in testing theories that involve multiple equations for dependence relationships (<u>Hair et al., 2010</u>). Since the present study involves multiple variables, SEM is ideal for addressing the research questions framed for the study.



#### Path analysis

The estimated structure model arrived at based on the analysis is presented in Figure 2. It presents the inter-relationship between the constructs. The results of the SEM, and the path coefficients are presented in Table 4. The path analysis estimates the  $\beta$  coefficients of the independent variables on the dependent variables as well as the t-statistic. Sufficiently higher  $\beta$  values imply a strong effect of the independent variable on the dependent variables (<u>Aibinu and Al-Lawati</u>, <u>2010</u>). The t-statistic tests the level of significance of  $\beta$  values, the path coefficients are considered to be significant at 1% if the t-value is greater than 2.58 (<u>Hair et al.</u>, 2011).

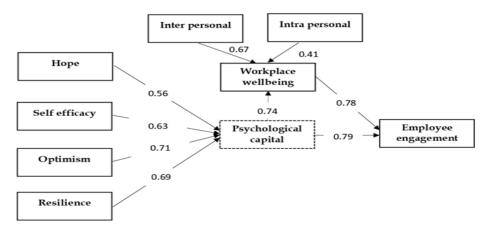


Figure 2: Structure model

**Table 5:** Structural equation modelling result

Hyp	oothesis			Standardized Path Coefficient	t-value	Result
H1	PsyCap	->	Workplace wellbeing	0.781**	4.17	Supported
	PsyCap	->	Employee engagement	0.218***	5.44	Supported
Н3	Workplace wellbeing	->	Employee engagement	0.811***	9.01	Supported

From table 5 it can be observed that all the hypotheses formulated for the study are supported, and the respective constructs have significant positive relationships. The two hypotheses, other than H1, are accepted with a confidence level of 0.01 level. H1 is accepted at 0.05 level. Further, the corresponding t-values are above the critical value of 2.58 as stipulated by <u>Hair et al., (2011)</u>. The robust t-values shows the strong effect of the paths in the model, and the strengths of the relationship between the constructs (<u>Hair et al., 2011</u>).

The  $\beta$  for the constructs (PsyCap and Workplace wellbeing is 0.781, p < 0.005; PsyCap and employee engagement is 0.281, p < 0.001; and that of Workplace wellbeing and employee engagement is 0.811, p < 0.001. All these values indicate fairly good acceptable levels (<u>Akter, D'Ambra, and Ray, 2011; Lleras, 2005; Lu, 2014</u>). It is thus concluded that PsyCap has a significant positive relationship with workplace wellbeing and employee engagement. The same relationship is also observed between workplace wellbeing and employee engagement.

# **DISCUSSION/ANALYSIS**

Though there is adequate literature about the antecedents of PsyCap (Al-Kahtani et al., 2020), there are scarce and inconsistent evidence about its consequences (Costa & Neves, 2017). This dearth of empirical evidence is compelling in the MENA regions in general, and KSA in particular (Al-Kahtani et al., 2020). Despite globalization opening the floodgates of Social Sciences and Business research across the globe in culturally diverse organizational backgrounds, very few empirical examinations have been done about the nature, antecedents, consequences, and functions of PsyCap in KSA. As KSA has a unique and distinct culture, which is based on strong patriarchal and collectivist culture (Sulphey and Al-Kahtani, 2018; Sulphey and Salim, 2020), the interrelation between the constructs considered in the present study is highly relevant and is sure to be a novel addition to Social Sciences research. It has also identified the value and importance of PsyCap and its consequences in the unique Saudi context. To the best of the knowledge, this is one of the few studies undertaken in Saudi Arabia regarding the consequences of PsyCap.

The present study has contributed to the literature in multiple ways. It has succeeded in bringing PsyCap to a broader and comprehensive domain, thereby contributing to the knowledge about making life at the workplace more worthwhile, meaningful, and thriving. Of particular importance is the contribution of this study towards the external validity of PsyCap and its different functions. It has facilitated wider recognition of PsyCap as a novel approach that can aid management practices, as it has investigated the role of PsyCap in making the workplace more meaningful and



enhancing the level of employee engagement. The study also extends the findings of <u>Choi and Lee (2014)</u> that developing PsyCap organizations could transform the work and workplace to a significant source of happiness, satisfaction, and overall wellbeing. In addition to this, the present study has found that the combined effect of PsyCap and WWB could lead to employee engagement.

The study has also highlighted its importance and applicability across various cultural milieus. In this regard, it is of high significance to note that the present study was conducted in Saudi Arabia, which has a unique cultural milieu. Further, though multiple studies have been conducted in the western world involving the constructs examined here, the present study is the first of its kind in Saudi Arabia, thus bridgind a major gap in the literature.

The finding that PsyCap has a relationship with WWB is in partial agreement with the study by <u>Gupta and Shaheen</u> (2018). However, this study was more about general wellbeing and not strictly about WWB. While earlier studies examined the role of PsyCap in a broader milieu (<u>Choi and Lee, 2014</u>), the present study is unique as it has focused its attention more specifically on workplace WWB and engagement in the Saudi context. This study has thus succeeded in demonstrating the hitherto unexplored unique relationship among PsyCap, WWB, and employee engagement in Saudi Arabia. For a better understanding, the major findings of the study are presented here:

- PsyCap has a significant positive relationship with WWB,
- PsyCap has a significant positive relationship with employee engagement, and
- WWB has a significant positive relationship with employee engagement.

While the first relationship was significant at 0.05 level the other two were significant at 0.01 level.

#### **IMPLICATIONS**

PsyCap has been identified as a psychological resource that can be effectively developed with the help of short interventions (<u>Luthans, et al., 2008a</u>; <u>Luthans et al., 2010</u>). Further, <u>Luthans et al., (2008b</u>) have found that an appropriate precondition could enable the development of PsyCap. This study has identified that PsyCap can positively influence engagement. Thus, a positive organizational climate could have the advantage of enhancing many indispensable O.B. constructs like PsyCap, WWB, engagement, and the like. In the new normal, these are conditions that are required to trigger the employees to be malleable and help in rebuilding the overall organizational climate in a manner ideal to face the emerging harsh business environment.

This study provides ample practical implications and directions for leaders and organizations towards enhancing the engagement levels of employees. The study provided evidence to the effect that enhancing the physical and psychological wellbeing will have a positive and healthy impact on the engagement of employees. This, in turn, will help managers to make their organizations effective and productive constructively and healthily. Further, organizational leaders can play a significant role in developing a positive organizational climate, including PsyCap and WWB (Choi and Lee, 2014). Leadership programs can be realigned such that it can stimulate positive O.B. including PsyCap and psychological strengths of members. Now employee wellbeing is accorded top priority due to their long-term positive implications on physical and mental health, which in turn organizational effectiveness (Danna and Griffin, 1999). The findings of the study also lend support to this. The post-COVID-19 new normal has brought in such a situation that enhancing the physical and mental wellbeing of employees is of paramount importance since work and life are now increasingly becoming blurred or intertwined, and are reciprocal in their influence.

# LIMITATION AND STUDY FORWARD

Various personality traits are likely to influence the variables examined in the study. Individuals could vary drastically in their personality (<u>Barrick, Mount, and Judge, 2001)</u>, self-evaluations (<u>Judge and Bono, 2001</u>), work and family balance (<u>Leung, Cheung and Liu, 2011</u>), general outlook associated with positive traits (<u>Avey et al., 2010</u>; <u>Bakker and Schaufeli, 2008</u>), attitude towards organizational outcomes, empowerment (<u>Jose and Mampilly, 2014</u>), psychological contract (<u>Naidoo, Abarantyne, and Rugimbana, 2019</u>), turnover intend (<u>Sandhya and Sulphey, 2020</u>), etc. Through exercising control over variables that could have individual differences, future researchers could attempt to increase the internal validity of the findings of this study for the effects of PsyCap.

This study was conducted in KSA and has contributed to the literature for the contextual applicably of PsyCap. However, the generalizability of the findings and their implications in other cultural settings need to be ascertained. There is ample scope for future researchers to replicate it in diverse cultures. It is expected that the present study will act as a trigger for further researches in this area.

#### ACKNOWLEDGEMENT

This project was supported by the Deanship of Scientific Research at Prince Sattam Bin Abdulaziz University under Research project No. 2019/02/10800





#### **AUTHORS CONTRIBUTION**

Author 1: Overall coordination data collection and funding.

Author 2: Analysis of data.

**Author 3:** Review of literature and editing of the manuscript.

**Author 4:** Data collection and data entry.

#### **REFERENCES**

- 1. Aibinu, A. A., and Al-Lawati, A. M. (2010). Using PLS- SEM technique to model construction organization's willingness to participate in ebidding. *Automation in Construction*, Vol. 19, No. 6, pp. 714–724, <a href="https://doi.org/10.1016/j.autcon.2010.02.016">https://doi.org/10.1016/j.autcon.2010.02.016</a>
- 2. Akter, S., D'Ambra, J.D., and Ray, R. (2011). An evaluation of PLS based complex models: the roles of power analysis, predictive relevance and GoF index. *Proceedings of the 17th Americas Conference on Information Systems* (AMCIS '11), 2011, Detroit, Michigan. Retrieved from: <a href="http://aisel.aisnet.org/amcis-2011-submissions/151">http://aisel.aisnet.org/amcis-2011-submissions/151</a>
- 3. AlKahtani, N. S., Sulphey, M. M., Delany, K., and Adow, A. H. E. (2020). PsyCap and Workplace Social Capital as Antecedents of Employee Engagement: A Study among Saudi Arabian Workforce. *Talent Development & Excellence*, 12(2), 1110-1120.
- 4. Anderson, J. C. and Gerbing, D. W. (1988), Structural equation modelling in practice: a review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423. <a href="https://doi.org/10.1037/0033-2909.103.3.411">https://doi.org/10.1037/0033-2909.103.3.411</a>
- 5. Avey, J.B., Luthans, F., and Jensen, S. (2009), Psychological capital: a positive resource for combating employee stress and turnover., *Human Resource Management*, 48, 677-693. <a href="https://doi.org/10.1002/hrm.20294">https://doi.org/10.1002/hrm.20294</a>
- 6. Avey, J.B., Luthans, F., Smith, R.M., and Palmer, N.F. (2010), impact of positive psychological capital on employee wellbeing over time. *Journal of Occupational Health Psychology*, 15, 17-28. https://doi.org/10.1037/a0016998
- 7. Bakker, A. and Schaufeli, W.B. (2008). Positive organizational behavior: Engaged employees in flourishing organizations. *Journal of Organizational Behavior*, 29, 147-154. <a href="https://doi.org/10.1002/job.515">https://doi.org/10.1002/job.515</a>
- 8. Bakker, A. B., Albrecht, S. L., and Leiter, M. P. (2011). Key questions regarding work engagement. *European Journal of Work and Organizational Psychology*, 20(1), 4–28. https://doi.org/10.1080/1359432X.2010.485352
- 9. Bakker, A.B. (2011), "An evidence-based model of work engagement", *Current Directions in Psychological Science*, 20(4), 265-269. https://doi.org/10.1177/0963721411414534
- 10. Bakker, A.B. and Demerouti, E. (2016), "Job demands-resources theory: taking stock and looking forward", *Journal of Occupational Health Psychology*. <a href="https://doi.org/10.1037/ocp0000056">https://doi.org/10.1037/ocp0000056</a>
- 11. Barclay, D., Higgins, C.A., and Thompson, R. (1995). The partial least squares approach to causal modelling: personal computer adoption and use as illustration. *Technology Studies*, 2 (2), 285-309.
- 12. Barrick, M.R., Mount, M.K., and Judge, T.A. (2001). Personality and performance at the beginning of the new millennium: what do we know and where do we go next? *International Journal of Selection and Assessment*, 9, 9-30. https://doi.org/10.1111/1468-2389.00160
- 13. Bartels, A. L., Peterson, S. J., and Reina, C. S. (2019). Understanding wellbeing at work: Development and validation of the eudaimonic workplace wellbeing scale. *PLoS ONE* 14(4), e0215957. https://doi.org/10.1371/journal.pone.0215957
- 14. Bartlett, J.E.I., Kotrlik, J.W., and Higgins, C.C. (2001), Organizational research: determining appropriate sample size in survey research. *Information Technology, Learning, and Performance Journal*, 19(1), 43-50.
- 15. Becker, J-M., Rai, A., and Rigden, E. (2013). Predictive Validity and Formative Measurement in Structural Equation Modeling: Embracing Practical Relevance. *Proceedings of the International Conference on Information Systems (ICIS)* Milan.
- 16. Bentler, P.M. (1992). On the Fit of Models to Covariances and Methodology to the Bulletin. *Psychological Bulletin*, 112(3), 400-404. <a href="https://doi.org/10.1037/0033-2909.112.3.400">https://doi.org/10.1037/0033-2909.112.3.400</a>
- Brislin, R. W. (1980), Translation and content analysis of oral and written materials, in Triandis, H. C. and Berry, J. W. (Eds), *Handbook of Cross-cultural Psychology*, Vol. 2, Allyn and Bacon, Boston, MA, pp. 389-444
- 18. Brunetto, Y., Teo, S.T.T., Shacklock, K., and Farr-Wharton, R. (2012), Emotional intelligence, job satisfaction, wellbeing and engagement: explaining organisational commitment and turnover intentions in policing, *Human Resource Management Journal*, 22 (4), 428-441. https://doi.org/10.1111/j.1748-8583.2012.00198.x
- 19. Byrne, D. (2013) Evaluating complex social interventions in a complex world. *Evaluation*, 19 (3), 217-228. https://doi.org/10.1177/1356389013495617
- 20. Chawla, S. and Sharma, R. R. (2019). Enhancing Women's Wellbeing: The Role of Psychological Capital and Perceived Gender Equity, With Social Support as a Moderator and Commitment as a Mediator. *Frontiers in Psychology*, 10(1377), 1-15. <a href="https://doi.org/10.3389/fpsyg.2019.01377">https://doi.org/10.3389/fpsyg.2019.01377</a>





- 21. Chen, X., Guang, Zeng, G. Chang, E. C., and Cheung H. Y, (2019). What Are the Potential Predictors of Psychological Capital for Chinese Primary School Teachers? *Frontiers in Education*, 4(50), 1-8. https://doi.org/10.3389/feduc.2019.00050
- 22. Choi, Y. and Lee, D. (2014), Psychological capital, Big Five traits, and employee outcomes. *Journal of Managerial Psychology*, 29(2), 122-140. <a href="https://doi.org/10.1108/JMP-06-2012-0193">https://doi.org/10.1108/JMP-06-2012-0193</a>
- 23. Costa, S. and Neves, P. (2017). Job insecurity and work outcomes: The role of psychological contract breach and positive psychological capital. *Work & Stress*, Vol. 31(4), 375–394. https://doi.org/10.1080/02678373.2017.1330781
- 24. Culbertson, S. S., Fullagar, C. J., and Mills, M. J. (2010). Feeling good and doing great: The relationship between psychological capital and wellbeing. *Journal of Occupational Health Psychology*, 15(4), 421–433. <a href="https://doi.org/10.1037/a0020720">https://doi.org/10.1037/a0020720</a>
- 25. Danna, K. and Griffin, R.W. (1999), Health and wellbeing in the workplace: a review and synthesis of the literature. *Journal of Management*, 25, 357-384. https://doi.org/10.1177/014920639902500305
- 26. Datu, J. A. D., and Valdez, J. P. M. (2016). Psychological capital predicts academic engagement and wellbeing in Filipino high school students. *The Asia Pacific Education Researcher*, 25, 399–405. <a href="https://doi.org/10.1007/s40299-015-0254-1">https://doi.org/10.1007/s40299-015-0254-1</a>
- 27. Datu, J. A. D., King, R. B., and Valdez, J.P.M. (2018). Psychological capital bolsters motivation, engagement, and achievement: Cross-sectional and longitudinal studies, *The Journal of Positive Psychology*, 13(3), 260–270. https://doi.org/10.1080/17439760.2016.1257056
- 28. Davey, A., and Savla, J. (2010). *Statistical power analysis with missing data: A structural equation modeling approach*. Routledge/Taylor & Francis Group. <a href="https://doi.org/10.4324/9780203866955">https://doi.org/10.4324/9780203866955</a>
- 29. Diamantopoulos, A., and Siguaw, A.D. (2000). *Introducing LISREL: A Guide for the Uninitiated*. Sage, London. <a href="https://doi.org/10.4135/9781849209359">https://doi.org/10.4135/9781849209359</a>
- 30. Diener, E. (2000). Subjective wellbeing: The science of happiness and a proposal for a national index. *American Psychologist*, 55(1), 34–43. <a href="https://doi.org/10.1037/0003-066X.55.1.34">https://doi.org/10.1037/0003-066X.55.1.34</a>
- 31. Faridi, M. R. and Sulphey, M. M. (2019). Food security as a prelude to sustainability: a case study in the agricultural sector, its impacts on the Al-Kharj community in the Kingdom of Saudi Arabia, *Entrepreneurship and Sustainability Issues*, 6 (3), 1536 1545. https://doi.org/10.9770/jesi.2019.6.3(34)
- 32. Fornell, C., and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <a href="https://doi.org/10.2307/3151312">https://doi.org/10.2307/3151312</a>
- 33. Fredrickson, B. (2009). Positivity: Ground breaking Research Reveals How to Embrace the Hidden Strength of Positive Emotions, Overcome Negativity, and Thrive. New York, NY: Crown.
- 34. Gefen, D., Karahanna, E., and Straub, D. (2003). Trust and TAM in Online Shopping: An Integrated Model. *Management Information Systems Quarterly*. https://doi.org/10.2307/30036519
- 35. Gibson, A. and Hicks, R. E. (2018). Psychological Capital and Core Self-Evaluations in the Workplace: Impacts on Well-Being. *International Journal of Psychological Studies*, 10(2), 15-24. https://doi.org/10.5539/ijps.v10n2p15
- 36. Grover, S. L., Teo, S. T. T., Pick, D., Roche, M., and Newton, C. J. (2018). Psychological capital as a personal resource in the JD-R model, *Personnel Review*, 47(4), 968-984. https://doi.org/10.1108/PR-08-2016-0213
- 37. Gupta, M., and Shaheen, M. (2018). Does work engagement enhance general wellbeing and control at work? Mediating role of psychological capital, *Evidence-based HRM: A Global Forum for Empirical Scholarship*, 6(3), 272-286. https://doi.org/10.1108/EBHRM-05-2017-0027
- 38. Hair, J. F., Hult, G. T.M., Ringle, C.M., and Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2 ed.). Sage, Thousand Oaks, CA. https://doi.org/10.15358/9783800653614
- 39. Hair, J.F., Black, W.C., Babin, B.J., and Anderson, R.E. (2010), *Multivariate Data Analysis*, 7th ed., Prentice-Hall, Uppersaddle River, NJ.
- 40. Hair, J.F., Hult, G.T.M., Ringle, C.M., and Sarstedt, M. (2013). *A Primer on Partial Least Squares Structural Equation Modeling*. ISBN: 1452217440. Sage, London.
- 41. Hair, J.F., Ringle, C.M., and Sarstedt, M. (2011). PLS-SEM: indeed, a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–151. https://doi.org/10.2753/MTP1069-6679190202
- 42. Henseler, J. and Sarstedt, M. (2013), Goodness-of-fit indices for partial least squares path modelling. *Computational Statistics*, 28(2), 565-580. <a href="https://doi.org/10.1007/s00180-012-0317-1">https://doi.org/10.1007/s00180-012-0317-1</a>
- 43. Hooper, D., Coughlan, J., and Mullen, M. (2008). Structural Equation Modelling: Guidelines for Determining Model Fit. *Electronic Journal of Business Research Methods*, 6(1), 53-60. http://arrow.dit.ie/libart/4
- 44. Hu, L.T., and Bentler, P.M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives. *Structural Equation Modeling*, 6, 1-55. <a href="https://doi.org/10.1080/10705519909540118">https://doi.org/10.1080/10705519909540118</a>
- 45. Hulland, J. (1999). Use of partial least square (PLS) in strategic management research: a review of four recent studies. *Strategic Management Journal*, 20(2), 195-204. <a href="https://doi.org/10.1002/(SICI)1097-0266(199902)20:2<195::AID-SMJ13>3.0.CO;2-7">https://doi.org/10.1002/(SICI)1097-0266(199902)20:2<195::AID-SMJ13>3.0.CO;2-7</a>





- 46. Igolkina, A., and Meschcheryakov, G. (2020). semopy: A Python package for Structural Equation Modeling. *Structural equation modelling: A Multidisciplinary Journal*, arXiv:1905.09376. https://doi.org/10.1080/10705511.2019.1704289
- 47. Imran, M. and Shahnawaz, M. G. (2020). PsyCap and Performance: Wellbeing at Work as a Mediator, *Aisa-Pacific Journal of Management Research and Innovation*, 16(2), 93-102. https://doi.org/10.1177/2319510X20915999
- 48. Jose, G., and Mampilly, S.R. (2014). Psychological Empowerment as a Predictor of Employee Engagement: An Empirical Attestation. *Global Business Review*, 15(1), 93–104. <a href="https://doi.org/10.1177/0972150913515589">https://doi.org/10.1177/0972150913515589</a>
- 49. Judge, T. A., and Bono, J. E. (2001). Relationship of core self-evaluation traits self-esteem, generalized self-efficacy, locus of control, and emotional stability with job-satisfaction and performance: a meta-analysis, *Journal of Applied Psychology*, 86, 80-92. <a href="https://doi.org/10.1037/0021-9010.86.1.80">https://doi.org/10.1037/0021-9010.86.1.80</a>
- 50. Judge, T.A., and Watanabe, S. (1993), Another look at the job satisfaction-life satisfaction relationship, *Journal of Applied Psychology*, 78 (6), 939-948. https://doi.org/10.1037/0021-9010.78.6.939
- 51. Kabasakal, H., and Bodur, M. (2002). Arabic cluster: a bridge between East and West. *Journal of World Business*, 37(1), 40-54. <a href="https://doi.org/10.1016/S1090-9516(01)00073-6">https://doi.org/10.1016/S1090-9516(01)00073-6</a>
- 52. Kaiser, H. F. (1970). A Second-Generation Little Jiffy. *Psychometrika*, 35(4), 401-415. <a href="https://doi.org/10.1007/BF02291817">https://doi.org/10.1007/BF02291817</a>
- 53. Knight, C., Patterson, M., and Dawson, J. (2017), Building work engagement: a systematic review and metaanalysis investigating the effectiveness of work engagement interventions, *Journal of Organizational Behavior*, 38(6), 792-812. https://doi.org/10.1002/job.2167
- 54. Krejcie, P., and Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-10. https://doi.org/10.1177/001316447003000308
- 55. Kun, A., and Gadanecz, P. (2019). Workplace happiness, wellbeing and their relationship with psychological capital: A study of Hungarian Teachers. *Current Psychology*, <a href="https://doi.org/10.1007/s12144-019-00550-0">https://doi.org/10.1007/s12144-019-00550-0</a>
- 56. Lee, D.J., Singhapakdi, A., and Sirgy, M.J. (2007). Further validation of a need-based quality-of-worklife (QWL) measure: evidence from marketing practitioners. *Applied Research in Quality of Life*, 2 (4), 273-287. <a href="https://doi.org/10.1007/s11482-008-9042-x">https://doi.org/10.1007/s11482-008-9042-x</a>
- 57. Leung, S.M., Cheung, Y.H., and Liu, X. (2011). The relations between life domain satisfaction and subjective wellbeing. *Journal of Managerial Psychology*, 26, 155-169. <a href="https://doi.org/10.1108/02683941111102182">https://doi.org/10.1108/02683941111102182</a>
- 58. Lleras, C. (2005). Path analysis. *Encyclopedia of Social Measurement*, 3, 25-30. <a href="https://doi.org/10.1016/B0-12-369398-5/00483-7">https://doi.org/10.1016/B0-12-369398-5/00483-7</a>
- 59. Lu, J. (2014). Are personal innovativeness and social influence critical to continue with mobile commerce? *Internet Research*, 24(2), 134-159. <a href="https://doi.org/10.1108/IntR-05-2012-0100">https://doi.org/10.1108/IntR-05-2012-0100</a>
- 60. Lups, A, D.; Vîrgă, D.; Maricut,oiu, L.P.; Rusu, A. (2019). Increasing Psychological Capital: A pre-registered meta-analysis of controlled interventions. *Applied Psychology: An International Review*, 1–51. <a href="https://doi.org/10.1111/apps.12219">https://doi.org/10.1111/apps.12219</a>
- 61. 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, 191–199. <a href="https://doi.org/10.1177/1548051813517003">https://doi.org/10.1177/1548051813517003</a>
- 62. Luthans, F. (2002). The need for and meaning of positive organizational behavior. *Journal of organizational behavior*, 23(6), 695-706. <a href="https://doi.org/10.1002/job.165">https://doi.org/10.1002/job.165</a>
- 63. Luthans, F., and Youssef, C.M. (2004). Human, Social, and Now Positive Psychological Capital Management: Investing in People for Competitive Advantage. *Organizational Dynamics*, 33(2), 143–160. <a href="https://doi.org/10.1016/j.orgdyn.2004.01.003">https://doi.org/10.1016/j.orgdyn.2004.01.003</a>
- 64. Luthans, F., Avey, J.B., and Patera, J.L. (2008b). Experimental analysis of a web-based training intervention to develop positive psychological capital. *Academy of Management Learning & Education*, 7(2), 209-221. https://doi.org/10.5465/amle.2008.32712618
- 65. Luthans, F., Avey, J.B., Avolio, B.J., and Peterson, S. (2010). The development and resulting performance impact of positive psychological capital. *Human Resource Development Quarterly*, 21, 41-67. <a href="https://doi.org/10.1002/hrdq.20034">https://doi.org/10.1002/hrdq.20034</a>
- 66. Luthans, F., Avolio, B., Avey, J. B., and Norman, S. M. (2007b). Psychological capital: Measurement and relationship with performance and job satisfaction. *Personnel Psychology*, 60, 541-572. https://doi.org/10.1111/j.1744-6570.2007.00083.x
- 67. Luthans, F., Avolio, B.J., Avey, J.B., and Norman, S.M. (2007), Positive psychological capital: measurement and relationship with performance and satisfaction, *Personnel Psychology*, 60(3), 541-572. https://doi.org/10.1111/j.1744-6570.2007.00083.x
- 68. Luthans, F., Norman, S. M., Avolio, B. J., and Avey, J. B. (2008a). The mediating role of psychological capital in the supportive organizational climate-employee performance relationship. *Journal of Organizational Behavior*, 29, 219-238. <a href="https://doi.org/10.1002/job.507">https://doi.org/10.1002/job.507</a>
- 69. Luthans, F., Youssef, C. M., and Avolio, B. J. (2007a). *Psychological Capital: Developing the Human Competitive Edge*, Oxford University Press, New York, NY. <a href="https://doi.org/10.1093/acprof:oso/9780195187526.001.0001">https://doi.org/10.1093/acprof:oso/9780195187526.001.0001</a>





- 70. Luthans, F., Youssef, C.M., Sweetman, D.S., and Harms, P.D. (2013). Meeting the leadership challenge of employee wellbeing through relationship PsyCap and health PsyCap. *Journal of Leadership & Organizational Studies*, 20(1), 118-133. https://doi.org/10.1177/1548051812465893
- 71. Luthans, K. W., Luthans, B. C., and Palmer, N. F. (2016). A positive approach to management education: the relationship between academic PsyCap and student engagement. *Journal of Management Development*, 35(9), 1098-1118. https://doi.org/10.1108/JMD-06-2015-0091
- 72. Luthans, K.W., Lebsack, S.A., and Lebsack, R.R. (2008c). Positivity in healthcare: relation of Optimism to performance. *Journal of Health Organization and Management*, 22(2), 178-188. <a href="https://doi.org/10.1108/14777260810876330">https://doi.org/10.1108/14777260810876330</a>
- 73. Lyberg, L., Biemer, P., Collins, M., De Leeuw, E., Dippo, C., Schwarz, N., and Trewin, D. (1997). *Survey measurement and process quality*. New York: Wiley. https://doi.org/10.1002/9781118490013
- 74. Lyubomirsky, S., King, L., and Diener, E. (2005). The benefits of frequent positive affect: does happiness lead to success? *Psychological Bulletin*, 131(6), 803-855. <a href="https://doi.org/10.1037/0033-2909.131.6.803">https://doi.org/10.1037/0033-2909.131.6.803</a>
- 75. Murray, A. J., Pirola-Merlo, A., Sarros, J. C., & Islam, M. M. (2010). Leadership, climate, psychological capital, commitment, and wellbeing in a non-profit organization. *Leadership and Organization Development Journal*, 31, 436–457. <a href="https://doi.org/10.1108/01437731011056452">https://doi.org/10.1108/01437731011056452</a>
- 76. Naidoo, V., Abarantyne, I. and Rugimbana, R. (2019). The impact of psychological contracts on employee engagement at a university of technology. S.A. Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur, 17(1), 1-11. https://doi.org/10.4102/sajhrm.v17i0.1039
- 77. Nguyen, T.D., and Nguyen, T.T.M. (2012). Psychological Capital, Quality of Work Life, and Quality of Life of Marketers: Evidence from Vietnam. *Journal of Macromarketing*, 32(1), 87-95. https://doi.org/10.1177/0276146711422065
- 78. Nunnally, J. C., and Bernstein, I. H. (1994). Psychometric theory. New York: McGraw-Hill.
- 79. Polatci, S., and Akdogan, A. (2014). Psychological Capital and Performance: The Mediating Role of Work Family Spillover and Psychological Well-Being. *Business and Economics Research Journal*, 5(1), 1-15.
- 80. Razzak, N. L. A. (2016) Cultural factors impacting student motivation at a health sciences college in the Eastern Province of Saudi Arabia, *Cogent Education*, 3(1), 1-21. https://doi.org/10.1080/2331186X.2016.1153214
- 81. Rivaldi, E., and Sadeli, J. (2020), Investigating the Effects of Psychological Capital on Turnover Intention in International Conference on Economics, Business and Economic Education, *KnE Social Sciences*, pp. 903–916. https://doi.org/10.18502/kss.v4i6.6650
- 82. Sabaitytė, E., and Diržytė, A. (2016). Psychological Capital, Self-Compassion, and Life Satisfaction of Unemployed Youth, *International Journal of Psychology: A Biopsychosocial Approach*, 19, 49–69. https://doi.org/10.7220/2345-024X.19.3
- 83. Sandhya, S., and Sulphey, M. M. (2020). Influence of Empowerment, Psychological Contract and Employee engagement on Voluntary Turnover Intentions. *International Journal of Productivity and Performance Management*. <a href="https://doi.org/10.1108/IJPPM-04-2019-0189">https://doi.org/10.1108/IJPPM-04-2019-0189</a>
- 84. Schaufeli, W. B., Shimazu, A., Hakanen, J., Salanova, M., and De Witte, H. (2017). An Ultra-Short Measure for Work Engagement: The UWES-3 Validation Across Five Countries. *European Journal of Psychological Assessment*. Advance online publication. <a href="https://doi.org/10.1027/1015-5759/a000430">https://doi.org/10.1027/1015-5759/a000430</a>
- 85. Schaufeli, W., Salanova, M., Gonzalez-Roma, V. and Bakker, A. (2002). The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach. *Journal of Happiness Studies*, 3, 71-92. https://doi.org/10.1023/A:1015630930326
- 86. Schaufeli, W.B., Bakker, A.B., and Salanova, M. (2006), The measurement of work engagement with a short questionnaire: a cross-national study, *Educational and Psychological Measurement*, 66(4), 701-716. Seligman, M. (2011). Flourish: A Visionary New Understanding of Happiness and Well-being. Free Press, New York. https://doi.org/10.1177/0013164405282471
- 87. Seligman, M. E. P. (2002). Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfilment. London: Nicholas Brealey.Simon, M.K. and Goes, J. (2013). Dissertation and Scholarly Research: Recipes for Success, WA, Dissertation Success LLC, Seattle.
- 88. Seligman, M. E. P. (2011). Flourish: A visionary new understanding of happiness and wellbeing. Free Press.
- 89. Simons, J. C., and Buitendach, J. H. (2013). Psychological capital, work engagement and organisational commitment amongst call centre employees in South Africa. S.A. Journal of Industrial Psychology/SA Tydskrif vir Bedryfsielkunde, 39(2), 1–12. <a href="https://doi.org/10.4102/sajip.v39i2.1071">https://doi.org/10.4102/sajip.v39i2.1071</a>
- 90. Siu, O. L., Bakker, A. B., and Jiang, X. (2014). Psychological capital among university students: Relationships with study engagement and intrinsic motivation. *Journal of Happiness Studies*, 15, 979–994. <a href="https://doi.org/10.1007/s10902-013-9459-2">https://doi.org/10.1007/s10902-013-9459-2</a>
- 91. Snyder, C.R., Irving, L., and Anderson, J.R. (1991). Hope and Health: Measuring the will and the ways. (pp.285-305). *Handbook of social and clinical psychology: The health perspective*. Elmsford, New York: Pergamon Press.
- 92. Stajkovic, A. D. (2006). Development of a core confidence higher-order construct. *Journal of Applied Psychology*, 91(6), 1208–1224. https://doi.org/10.1037/0021-9010.91.6.1208



- 93. Stajkovic, A. D., and Luthans, F. (1998). Social Cognitive Theory and Self-Efficacy: Going Beyond Traditional Motivational and Behavioral Approaches. *Organizational Dynamics*, 26(4), 62-74. https://doi.org/10.1016/S0090-2616(98)90006-7
- 94. Sulphey, M.M., and Al-Kahtani, N.S. (2018). Academic Excellence of Business Graduates through Nudging: Prospects in Saudi Arabia, *International Journal of Innovation and Learning*, 24(1), 98 114. https://doi.org/10.1504/IJIL.2018.10013022
- 95. Sulphey, M.M., and Salim, A. (2020). Development of a Tool to Measure Social Entrepreneurial Orientation, *Journal of Entrepreneurship in Emerging Economies*, <a href="https://doi.org/10.1108/JEEE-07-2019-0099">https://doi.org/10.1108/JEEE-07-2019-0099</a>
- 96. Suskie, L. (1996). *Questionnaire Survey Research: What Works*, 2nd ed., Association for International Research, Washington, D.C.
- 97. Tabachnick, B. G., and Fidell, L. S. (2007). Using Multivariate Statistics, 5th ed., Pearson Education, Boston.
- 98. Vîrgă, D., Baciu, E., Lazăr, T. and Lups, D. (2020). Psychological Capital Protects Social Workers from Burnout and Secondary Traumatic Stress Delia, *Sustainability*, 12, 2246, 1-16. <a href="https://doi.org/10.3390/su12062246">https://doi.org/10.3390/su12062246</a>
- 99. Wahyuningsih, D., and Wulansari, N. A. (2016). The impact of psychological capital on nurses' performance: the mediating role of psychological wellbeing and work-family conflict. *Management Analysis Journal*, 5 (4), 325-338.
- 100. Walumbwa, F.O., Wang, P., Wang, H., Schaubroeck J., and Avolio, B.J., (2010). Psychological processes linking authentic leadership to follower behaviors *The Leadership Quarterly*, 21, 901-914. <a href="https://doi.org/10.1016/j.leaqua.2010.07.015">https://doi.org/10.1016/j.leaqua.2010.07.015</a>
- 101. Wright, T.A. (2003)., Positive organizational behavior: an idea whose time has truly come. *Journal of Organizational Behavior*, 24(4), 437-442. https://doi.org/10.1002/job.197
- 102.Wright, T.A., and Cropanzano, R. (2000), Psychological wellbeing and job satisfaction as predictors of job performance, *Journal of Occupational Health Psychology*, 5(1), 84-94. <a href="https://doi.org/10.1037/1076-8998.5.1.84">https://doi.org/10.1037/1076-8998.5.1.84</a>