

Psychological Capital in Indian Industries: A Demographic Assessment

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Abstract

Positive organisational behaviour remained one of the most sought areas of research for organisational behaviour researchers during the last two decades. Luthans along with his colleagues highlighted the significance of psychological capital as a measure of positive organisational behaviour (POB) in industries. Although the field witnessed valuable research effort across many countries and cultures, there are few instances of investigation of psychological capital in the Indian organizations. The present study involved the assessment of psychological capital of employees serving in Indian industries. The findings and conclusion of the study are given towards the end.

Keywords: Psychological Capital (PsyCap); Hope; efficacy; resilience; optimism; validity, reliability.

INTRODUCTION

Extensive discussions on positivity approaches (e.g., Keyes & Haidt, 2003; Sheldon & King, 2000 ; Seligman & Csikszentmihalyi, 2000 and many others) juxtaposed to 'negativity focused' psychology discipline has been the backdrop of the evolution of psychological capital (PsyCap) concept proposed by Luthans and few fellow researchers like Youssef, Avolio and Avey and others (e.g., Luthans et.al., 2004; Luthans, Youssef and Avolio, 2015).

Psychological Capital is "An individual's positive psychological state of development that is characterized by: 1) having confidence (self efficacy) to take on and put in the necessary effort to succeed

at challenging tasks; 2) making a positive attribution (optimism) about succeeding now and in the future; 3) persevering towards goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and 4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success" Luthans et. al., (2007, p.3).

Luthans and Youssef (2007) referred PsyCap components (hope, efficacy, resilience, and optimism) as the state-like positive psychological resource capacities which are next to pure states i.e., momentary feelings, that sit at one end of the continuum, where genetically transferred traits sit at the opposite end. Contrary to rigid 'traits', the four

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constituents of PsyCap are more 'state-like', a relatively open, stable and malleable psychological resources (Luthans et. al., 2007). Their malleability opens doors of opportunity for organizations to develop and regulate.

State-like characteristics can help an organization to earn competitive advantage by transforming these 'state-like' characteristics of employees into traits with the passage of time through substantial interventions and consistent practice (Luthans, Avey and Patera; 2008). Given its effect on performance (Luthans et. al., 2005) and others, their regulation and development may serve as one of the focus areas for organizations.

Considering scant research concerning psychological capital in India the objectives of the existing study to:

- a. Examine psychometric properties of 24-item PsyCap scale in India;
- b. Explore demographic differences with respect to psychological capital among employees serving in Indian industries, if/any.

PSYCAP COMPONENTS

1. Self-efficacy

Bandura (1986) referred self-efficacy as an individuals' conviction of their proficiency to manage and execute strategies needed to accomplish assigned kind of behaviours. Further self-efficacy finds support as state-like characteristic since long (Bandura, 1997; Maurer & Perce, 1998; Parker, 1998; Luthans & Youssef, 2007).

2. Hope

Hope has been defined as "a positive motivational state that is based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)" (Snyder, Irving, & Anderson, 1991, p. 287). hope is a positive psychological capacity to set goal to achieve and establish pathways (mechanisms) through which the

goals can be achieved in the corresponding prevailing circumstances (Synder et.al., 2000).

3. Resilience

Resilience is the ability to revitalize or rejuvenate from hardship, contradiction, disappointment, or even supportive occasions, advancements, and expanded duty (Luthans, 2002). Resilient individuals exhibit relatively better performance in rapidly changing and challenging workplaces as they possess the higher potential for creativity, change adaptability, and capability to tackle adverse situations (Luthans et. al., 2005). The positive association between resilience and performance has received support from a wide array of research (e.g., Hamel & Valikangas, 2003; and Youssef & Luthans, 2005).

4. Optimism

Optimism may be defined as a mood or intentional predisposition related to a meaning assigned to the societal or materialistic concern that the evaluator considers as beneficial or satisfying with respect to his social needs (Tiger, 1971). Optimism is related to a positive evaluation of outcome backed by a factual evaluation (Luthans, et al., 2007). Schneider's (2001) three-step process signifies the developmental aspect of optimism comprising broad-mindedness towards past, gratefulness for the contemporary, and looking towards future as opportunity-laded. The developmental nature of optimism is obvious since researchers argue that the planned interventions can be used to advance optimism (Carver & Scheier, 2002; Luthans, Avey et al., 2006; Luthans, Avey, et al., 2007).

In the above backdrop, following hypotheses were proposed:

H1: There is no significant difference between male and female concerning psychological capital.

H2: There is no significant difference between different educational level concerning psychological capital.

H3: There is no significant difference among the three age groups, selected in the study, concerning psychological capital

RESEARCH METHOD

1. Data Collection

The data was gathered from 792 respondents who were employees serving in Delhi/NCR region, across various companies, such as Sandhar Technologies Limited, Religare, Escorts Limited etc. Sample was selected using non-random convenience sampling given the non-availability of sampling frame i.e. list of serving employees. The descriptive research design was considered to evaluate the gathered data and draw useful findings. In total, 900 questionnaires were distributed, of which 792 were returned. Twenty-one questionnaires were not considered for incomplete data. Thus, 771 remaining responses were used in the present work, suggesting an 83.11 per cent response rate.

2. Instruments

The original 24 item questionnaire of psychological capital (PCQ) was utilized to gather responses from the sample respondents. The questionnaire contains six items each for four constituents viz., efficacy, hope, optimism and resilience. The questionnaire comprised of questions like "I feel confident in analysing a long-term problem to find a solution" (Efficacy); "If I should find myself in a jam at work, I could think of many ways to get out of it" (Hope);

"When I have a setback at work, I do not have trouble recovering from it, moving on" (Resilience); and "When things are uncertain for me at work, I usually expect the best" (Optimism). The questionnaires were first provided to five experts of the related field and then tested on a small sample of 30 employees, and then on finding understanding common queries on the questionnaire and confirming suitability of the instrument for the selected study area, which was Delhi/NCR; the data collection task was conducted in the area from June'2018 to October'2018.

3. Procedure

First, the data was checked for its reliability using Cronbach alpha, followed by factor analysis. The total of 24-items was used for testing of the proposed hypotheses.

RESULTS

a. Descriptive Statistics

Table 1 exhibits the descriptive statistics. It outlays demographic details of the participants. Seventy-three per cent of the total 771 respondent population were male with sample mean age 28.92 years (SD=8.25). The proportion of sample in the three age groups was 74%, 15% and 11% respectively. Also, 51% of the total sample population was graduate while 49% of the population was post-graduate. Details are given in Table 1.

Table 1 : Descriptive Statistics

		N (%)
Total		771 (100)
Gender	Male	563 (73.02)
	Female	208 (26.97)
Age	<=30	571 (74.05)
	30-40	118 (15.30)
	>40	82 (10.63)
Qualifications	Under-graduate	393 (50.98)
	Post-graduate	378 (49.02)

b. Establishing Reliability and Validity

Reliability of 24-item was judged PsyCap scale with two established mechanisms viz., cronbach alpha and composite reliability. Three items each were deleted from resilience and self-efficacy sub-scales due to low item-to-total correlation. Whereas, two items each were deleted from sub-scales of hope and optimism due to the same reason. The Cronbach alpha of sub-scales respectively was efficacy ($\alpha=.70$), Hope ($\alpha=.51$), Resilience (.62), and Optimism (.53), which shows their poor reliability of sub-scales of PsyCap. Whereas if all items of PsyCap are used i.e., 24 items, the Cronbach alpha stands to be 0.73.

Next, factor analysis was conducted to check the unidimensionality of the sub-scales of PysCap. Since Kaiser-Meyer-Olkin measure of sampling adequacy was more than .70 and Bartlett's test of sphericity

was significant, therefore, we found the data apt for application of factor analysis. In total, four factors emerged. The results exhibited in Table 2 clearly suggest that resilience and optimism broadly overlapped, whereas self-efficacy and hope were able to emerge as relatively clearer factors. The four factors were named as resilience & optimism - I, efficacy, resilience & optimism - II and hope. Overall, the variance extracted by the factors was 42.47 per cent.

Finally, Table 3 exhibits that average variance extracted (AVE) of extracted factors was less than 0.50 and composite reliability (CR) too was less than 0.70, therefore, the extracted factors as a part of scale PsyCap were not valid (Fornell & Larcker, 1981). Therefore, above results suggest that PsyCap scale does not withstand the tests of reliability and validity in India.

Table 2 : Results of Factor Analysis

	Factors			
	1	2	3	4
	Resilience & Optimism - I	Efficacy	Resilience & Optimism - II	Hope
PC22Opti	.833			
PC18Re	.726			
PC13Re	.589			
PC1SE		.855		
PC2SE		.585		
PC4SE		.497		
PC17Re			.975	
PC21Opti			.302	
PC9Hope				.677
PC11Hope				.414
PC8Hope				.373
PC7Hope				.327
Eigen Values	2.865	2.242	1.211	1.042
Sum of Squared Loadings	11.167	17.447	8.408	5.454
Extraction Method: Maximum Likelihood.				
Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 6 iterations. Opti- Optimism; Re- Resilience; SE - Self-efficacy.				

Table 3 : Inter-Factor Correlations, AVE and CR

	Resilience and Optimism - I	Self-efficacy	Resilience and Optimism - II	Hope	CR
Resilience and Optimism - I	(0.29)				0.54
Self-efficacy	-.232	(0.24)			0.43
Resilience and Optimism - II	.361	.150	(0.46)		0.50
Hope	-.360	.538	.084	(0.07)	0.17

c. Testing of Hypotheses:

Given the failure of reliability and validity of the four factor componential structure of PsyCap scale, i.e., hope, efficacy, resilience and optimism, the sum of 24-items of the scale is used to test our hypotheses. The 24-item scale exhibited acceptable reliability i.e., 0.70.

The first hypothesis was tested using Independent sample t-test since the variable gender was having only two levels i.e., male and female. The results suggest there was no significant difference in

PsyCap of male (M=119.15, SD=12.87) and female (M=117.43, SD=13.19); $t=1.16$, $p=.246$. Considering the evidence, first hypothesis could not be rejected.

The second hypothesis too was tested using Independent sample t-test since the variable education was having only two levels i.e., undergraduate and post-graduate. The results suggest there was no significant difference in PsyCap of under-graduates (M=118.78, SD=13.99) and post-graduates (M=118.36, SD=11.85); $t=0.305$, $p=.761$. Considering the evidence, second hypothesis could also not be rejected.

Table 4 : Results of Independent Sample t-test

	Variance Assumption	GENDER WISE DIFFERENCE					
		Gender	Mean	SD	t	df	Sig
H1	Equal variances not assumed	M	119.15	12.87			
		F	117.43	13.19	1.163	526.658	.246
H2	Equal variances assumed	UG	118.78	13.99	.305	769	.761
		PG	118.36	11.85			

Finally, we tested the third hypotheses using one-way ANOVA since the levels of the dependent variable i.e., age, were more than three. Results summarized in Table 2 exhibit that there was no

significant effect of age on a person's PsyCap since $p > 0.05$, of the difference, among the three age groups [$F(2,769) = 2.24$, $p = 0.108$]. Thus, considering the outcome, third hypothesis also could not be rejected.

Table 5 : Results of ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	748.831	2	374.415	2.237	.108
Within Groups	58416.344	769	167.382		
Total	59165.175	771			

DISCUSSION AND FUTURE DIRECTIONS OF WORK

The onset of 21st century visualizes the emphasised confluence of empirical and theoretical research work conducted by eminent researchers in tapping competitive advantage through PsyCap, a state-like capacity of employees (Luthans et. al. 2004; Luthans, Avolio, Walumbwa, & Li, 2005; Luthans, Avey, Avolio, Norman, & Combs, 2006; and Luthans, Avey, & Avolio, 2007; Sweetman, Luthans, Avey, & Luthans, 2011). The constituents of psychological capital that have been envisaged till now include efficacy, hope, resilience and optimism.

A few instances concerning the study of PsyCap in India includes the work done by Gupta (2012), Totawar (2012), Nambudiri (2014) among others. The present effort stands in contrasts to the empirical examinations of PsyCap that have been made in India till now. First, the present study fails to validate componential formation of PsyCap scale in India. Rather, it suggests a single-factor factor underlay all the 24-items. Meaning thereby, in order to derive an overall score of PsyCap, all 24-items individual items of PsyCap should be added, in place of the suggested approach (Rego, Sousa, Marques, & Cunha, 2012) where firstly the scores are expected to be added component-wise. Therefore, the present study fails to validate the psychometric properties of the scale as has been done by the other studies in India (e.g., Gupta 2012) and abroad (e.g., Caza, Bagozzi, Woolley, Levy, & Barker, 2010; Luthans, Avolio, Walumbwa, & Li, 2005). Such an outcome limits the use of PsyCap as an additive composition of four constructs in India. Second, the demographic difference in PsyCap based on gender, age and education did not reflect significant differences in India. This is to an extent an unusual finding and fails to support the many research efforts till date (for e.g., Norman, Avey, Nimnicht, & Graber Pigeon, 2010). Expectedly this outcome seems to be India specific only. The probable reasons may be the weak psychometric properties of scale when tested in India or the sample being less diverse.

The outcomes of the present study are unique in the sense that they did not align with the global or Indian outcomes of the similar studies. It seems that the issue of validity of scale is still live and needs further examination. Perhaps a cross-cultural reworking of the scale (Beaton, Bombardier, Guillemin, & Ferraz, 2000) may help to eke out better information from the respondents. Additionally, a study of a more diverse sample may help in further validating the present outcome.

In addition to the above directions, the present study can be extended to connect an employee's PsyCap to her/his in-role and extra-role performance. More specifically, using the existing demographic variables as covariates, the relationship of PsyCap can be explored with innovative work behaviour, corporate citizenship behaviour, performance at work, among others.

LIMITATIONS

The present study is based on convenience sampling due to the limitation of organizational permissions and lack of availability of employees during work hours. Second, though employees have a working understanding of English language, but we are skeptical that the employees were able to grasp the real sense of items in the questionnaire. This seems to be a nagging issue in India. Therefore, it is suggested that future studies should be conducted with Hindi or vernacular version of the questionnaire.

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