

Examining the Relationship Between Locus of Control and Psychological Capital

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Abstract: *Is there a relationship between Traits and States is a question that researcher have been trying to understand for long. Is it that traits are a predecessor to states? Or vice versa? Locus of Control is a personality trait which represents the extent to which people believe the rewards they received in life can be controlled by their personal actions (Lefcourt, 1984; Rotter, 1966). PsyCap is defined as: "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 toward 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, Youssef, & Avolio, 2007). The present study focused on studying the relationship between LOC and PsyCap. The empirical results of the study clearly indicated that Rotter's LOC was found not to have a statistically significant relationship with PsyCap (or any of its four sub-constructs) with ($\alpha = 0.05$) for corporate executives working in Goa and Mumbai*

Key Words: *Locus of Control, Psychological Capital.*

1. INTRODUCTION:

For long researchers have been trying to understand the characteristics of 'traits' and 'states' and their inter-relationship. Traits are thought to be more or less fixed aspects of an individual's personality, which do not change much over time. Hundreds of personality traits have been observed and identified by researchers over the years. Groups of similar traits have been clubbed together and made into a bundle of traits for convenience in understanding personalities. There is now a broad consensus that the 'Big five' groups of traits are Openness; Conscientiousness; Extraversion; Agreeableness; and Neuroticism (or OCEAN in short).

States on the other hand are relatively dynamic by nature and are also developable. There may be a specific external or internal situation which may make a person behave in a way which is not consistent with his general personality trait. This is termed as the state of a person. Some states are very dynamic such as emotions or moods while others are more stable than moods yet less stable than traits. Given that states are dynamic, there is a potential for them to be developed and utilized for fulfilling some goal or objective.

However, is there a relationship between Traits and States is a question that researcher have been trying to understand for long. Is it that traits are a predecessor to states? Or vice versa? For example, does being high on Neuroticism lead to being anxious or whether being anxious repeatedly (due to the stimulus of continuous adverse circumstances or threatening people around you) make you high on Neuroticism over a long period of time. The one-way or two-way relationship between the two is not very clear.

Larsen, R. J., & Ketelaar, T. (1991) in their study 'Personality and susceptibility to positive and negative emotional states' concluded that Neurotics show heightened emotional reactivity to the negative-mood induction, whereas extraverts (compared with introverts) show heightened emotional reactivity to the positive-mood induction. Some Traits and States seem to be logically grouped together and therefore some sort of relationship, prima-facie, does seem to exist between them (e.g. Neuroticism and Negative mood or Extraversion and positive moods).

In the context of Organisational Psychology there are certain traits and states which have been found to lead to desirable work outcomes. A study conducted by Thomas, Sorensen and Eby's (2006) concluded that the trait of having Internal Locus of Control is found to be positively associated with desirable work outcomes, such as greater job motivation. Other studies have linked Internal Locus of Control to job satisfaction (Salazar, Hubbard & Salazar, 2002) and job performance (Chen & Silverthorne, 2008)

Similarly Psychological Capital enables individuals to obtain competitive advantages through focused input and development (Luthans, Avolio, Walumbwa & Li, 2005). This has implications on work related outcomes and is thus an important construct for organisations to consider when focusing on employee and organizational effectiveness.

2. REVIEW OF THE LITERATURE:

Rotter's Locus of Control (LOC)

Locus of Control is a personality trait which represents the extent to which people believe the rewards they received in life can be controlled by their personal actions (Lefcourt, 1984; Rotter, 1966). The concept was developed by Julian B. Rotter in 1954.

It can be further divided into two sub-constructs, viz. Internal LOC and External LOC. People with a high internal locus of control (Internals) believe that rewards or penalties are due to their own actions. On the other hand people with a high external locus of control (Externals) believe that events are the result of fate, luck or decisions made by authority.

Some psychologists believe that many people are having mixed beliefs (termed as bi-locals). Bi-locals believe that outcomes are partly a result of their own effort and partly due to external causes. However, for the purpose of this study, we will stick to classifying individuals as either Internals or Externals.

In the context of Organisational psychology, a study conducted by Thomas, Sorensen and Eby's (2006) concluded that the trait of having Internal Locus of Control is found to be positively associated with desirable work outcomes, such as positive task and social experiences as well as greater job motivation. Other studies have linked Internal Locus of Control to job satisfaction. Salazar, Pfaffenberg, Salazar (2006) found a strong correlation between Locus of Control scores and Job Satisfaction levels in hotel employees. The study concluded that Internals were more satisfied and motivated in their jobs.

A study by Ng, Sorensen and Eby, (2006) found that internal locus was positively associated with favorable work outcomes, such as positive task and social experiences, and greater job motivation.

A study conducted by Noor (2002) showed that having internal locus of control is advantageous in moderating work-family conflict. Internals are also more capable to adapt themselves to problems and events that they experience at the workplace (Karimi and Alipour, 2011).

Internal LOC is positively related to organisational commitment while it is negatively related to absenteeism and turnover intentions. Studies by Weiss and Sherman (1973); Gurusamy, Velsamy and Rajasekar, (2011); have all linked Internal Locus of Control with positive work outcomes.

Psychological Capital (PsyCap)

Luthans, developed the concept of positive psychology further and looked at how it could be applied to organizational settings. He initially developed the concept of Positive Organisational Behaviour (POB). The objective of POB was to focus on developing a positive environment in organisations and employee well-being, which in turn is considered to be essential for organizational effectiveness.

Later Luthans et al further developed the core construct of Psychological Capital (PsyCap) as essential for having Positive Organisational Behaviour. They defined PsyCap as: "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 toward 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, Youssef, & Avolio, 2007).

Relationship between Locus of Control and Psychological Capital or its sub-constructs

While other empirical studies conducted, have found significant support for both, LOC and PsyCap having significant impact on positive work outcomes, the researcher could find limited number of studies which investigated and showed a significant relationship between Work Locus Of Control (WLOC) and PsyCap such as by Shaik Zurayda, Buitendach Johanna H. : The relationship between work locus of control and psychological capital amongst middle managers in the recruitment industry of South Africa (2015). Another study by Carrifio, J (2002) showed no significant relationship between Academic Locus of Control and the 3 sub-constructs of PsyCap viz. Hope, Optimism and Self-Efficacy. Another study by Babalola SS (2009) investigation the influence of PsyCap on women entrepreneurs' innovative behaviour; the result indicated that 'women with high self-efficacy and internal locus of control scored higher on entrepreneurial innovative behaviour than women with low self-efficacy and external locus of control'.

3. RESEARCH METHODOLOGY :

Objectives/ hypothesis:

To understand the relationship between Locus of Control Psychological Capital

Variables:

Locus Of Control

i. Internal

ii. External

Psychological Capital

i. Hope

ii. Efficacy

iii. Resiliency

iv. Optimism

Hypothesis:

1. There is no significant relationship between between LOC and PsyCap
2. There is no significant relationship between between LOC and any of the sub-constructs of PsyCap (i.e. Hope, Efficacy, Resiliency & Optimism)

Data sources & collection methods:

Data was collected directly from working people via face-to-face, off-line questionnaires/tests. This method was chosen in order to provide any clarifications to the participants on answering the scales as well as to put them at ease over the ethical use of the information being collected. Further, permission from Mindgarden.com was taken to conduct face-to-face tests for PCQ-24 scale.

Tools & techniques of analysis:

- 1) **Rotter's locus of control scale (LOC):** The Rotter's internal-external locus of control scale, originally developed by Julian B. Rotter, is a 29 item forced choice questionnaire which includes 6 filler items. The higher the score, the more external the individual. The locus of control scale shows satisfactory psychometric properties thereby supporting its reliability and validity. The test – retest reliability of the scale was reported by Rotter (1966) to range from 0.49 to 0.83 depending on the time period and particular population. The reliability co-efficient is closely tied to the length of the time period involved as these periods may alter their beliefs.
- 2) **Psychological capital questionnaire (PCW-24 scale):** PsyCap is measured with the help of a 24-item psychological capital questionnaire (PCQ) (developed by Fred Luthans, Bruce J. Avolio, and James B. Avey). PCQ instrument uses a 6-point Likert-type scale (1= strongly disagree, 2= disagree, 3= somewhat disagree, 4= somewhat agree, 5= agree, 6= strongly agree). PCQ consists of four dimensions namely hope, resilience, optimism, and self-efficacy. Hope scale was adopted from Snyder et al. (1996). Optimism was taken from Scheier and Carver (1985). Self-efficacy from Parker (1998) & Resilience from Wagnild & Young (1993). Sub-scales of the PCQ instrument have demonstrated satisfactory psychometric properties.
- 3) **Statistical methods for determining correlation:**
Pearson's Product movement correlation to determine the relationship between Locus of Control and PsyCap as well as Locus of Control and each of the four sub-constructs of Locus of Control (i.e. Hope, Efficacy, Resilience and Optimism).
Also other correlational methods such as Spearman's Correlation to test relationship between LoC and Psyscap for differences in socio-economic variables such as Gender(M/F) and Marital Status(Married/Unmarried).
Further, U-test (instead of t-test) was used to determine whether there was a significant difference between Internals and Externals. A non-parametric test (U-test) was used since although total sample size itself was 30, the size of internals as well as externals sample, separately, was less than 30.

Discussion and Result :

Table 1:Age-wise distribution (years) of Participants

Age	Number of Participants
<30	2
30-39	16
40-49	8
>=50	4

Table 2: Gender-wise distribution of Participants

Gender	Number of Participants
Male	18
Female	12

Table 3: Hierarchy-wise distribution of Participants

Level of Management	Number of Participants
Lower Management	10
Middle Management	16
Senior Management	4

Table 4: Hierarchy-wise distribution of Participants

Sector	Number of Participants
Hospitality	15
Agrochemicals	5
IT	3
Others	7

Table 5: Experience-wise distribution of Participants

Years of Experience	Number of Participants
<10	3
10-19	21
>=20	6

Table 6: Location-wise distribution of Participants

Location	Number of Participants
Goa	20
Mumbai	10

Table 7: Education-wise distribution of Participants

Education level	Number of Participants
Graduate	14
Post Graduate	12
10th Pass	2
Diploma	1
Phd	1

Table 8: Locus of Control Scores and PsyCap Scores for selected sample

S.No.	Efficacy	Hope	Resilience	Optimism	PsyCap	Locus of Control
1	27	26	22	28	103	6
2	22	21	24	23	90	15
3	35	31	33	28	127	9
4	27	25	22	25	99	12
5	32	31	28	27	118	4
6	31	26	27	23	107	11
7	31	34	27	27	119	11
8	31	28	26	28	113	11

S.No.	Efficacy	Hope	Resilience	Optimism	PsyCap	Locus of Control
9	33	31	30	29	123	15
10	36	35	31	28	130	11
11	36	30	30	29	125	2
12	32	30	30	30	122	9
13	25	36	29	27	117	6
14	34	29	27	24	114	5
15	30	33	28	28	119	11
16	32	26	28	30	116	7
17	29	26	25	26	106	14
18	33	28	29	24	114	9
19	24	27	26	26	103	9
20	32	29	28	27	116	7
21	28	20	19	23	90	14
22	33	30	25	25	113	5
23	31	28	19	27	105	11
24	31	30	27	33	121	13
25	34	34	29	26	123	5
26	24	26	23	23	96	12
27	29	26	28	27	110	4
28	28	29	27	31	115	11
29	31	29	26	28	114	5
30	29	29	25	29	112	5

Table 9: Results/Findings of Correlation Analysis between Rotter’s LOC and PsyCap (and its sub-constructs)

Pearson’s Correlation Coefficient	Relationship between
-0.35793	Rotter’s LOC and Psychological Capital
-0.33632	Rotter’s LOC and Self-Efficacy
-0.32263	Rotter’s LOC and Hope
-0.28662	Rotter’s LOC and Resilience
-0.13582	Rotter’s LOC and Optimism

The findings above show that, for the selected sample (n=30), there is a weak negative relationship between LOC and PsyCap. There is also a weak to very weak negative relationship between LOC and the four sub-constructs of PsyCap viz. Hope, Self-Efficacy, Resilience and Optimism.

Hypothesis testing:

1. There is no significant relationship between Locus of Control and PsyCap Scores

The Hypothesis testing was done with $\alpha=0.05$ (two-tailed). The Statistical Value (Pearson’s Correlation Coefficient of 0.35793) was within the Critical Values Range of ± 0.361 . Since the Statistical Value did not exceed the Critical Values Range on either side, the Null Hypothesis is accepted i.e. there is no significant relationship between Locus of Control and PsyCap.

2. There is no significant relationship between between LOC and any of the sub-constructs of PsyCap (i.e. Hope, Efficacy, Resiliency & Optimism)

The Hypothesis testing was done with $\alpha=0.05$ (two-tailed). The Statistical Value (Pearson’s Correlation Coefficients of -0.336 for Efficacy; -0.323 for Hope; -0.287 for Resilience; and -0.136 for Optimism) was within the Critical Values Range of ± 0.361 . Since the Statistical Values of the sample did not exceed the Critical Values Range on either side, the Null Hypothesis is accepted i.e. there is no significant relationship between Locus of Control and the each of the four sub-constructs of PsyCap.

Findings of other studies: While there are a few studies which have been done on the effect of Locus of Control and PsyCap on Workplace effectiveness, there are not many studies have been conducted to test the direct relationship between Rotter's Locus of Control and PsyCap. And this is one of the gaps that this study is trying to fill. The only study which has been found out by the researcher was conducted by The Relationship between Work Locus of Control and Psychological Capital Amongst Middle Managers in the Recruitment Industry of South Africa By Shaik, Zurayda; Buitendach, Johanna H. (2015). The study was conducted between Work Locus of Control, which is measured differently from Rotter's Locus of Control. It was found that there was a negative relationship between external Work Locus of Control (WLOC) and PsyCap (Pearson's $r = -0.645$ at Time 1 and Pearson's $r = -0.598$ at Time 2), which is statistically significant ($p \leq 0.01$). In addition, a positive relationship was found between internal WLOC and PsyCap (Pearson's $r = 0.657$ at Time 1 and Pearson's $r = 0.590$ at Time 2), which is statistically significant ($p \leq 0.01$).

Mann-Whitney U-test between Internals and Externals (on LOC score)

Further, a Mann-Whitney U-test was conducted (instead of a t-test due to $n < 30$) to test whether there was any significant difference between the LOC scores of the two groups i.e. Internals ($n=12$) and Externals ($n=18$)

The analysis showed that there is a statistically significant difference (at $\alpha=0.05$) between LOC scores of Internals and externals and it is unlikely to have occurred due to chance . (Refer Appendix for detailed calculations)

Mann-Whitney U-test between Internals and Externals (on PsyCap score)

Further, a Mann-Whitney U-test was conducted (instead of a t-test due to $n < 30$) to test whether there was any significant difference between the PsyCap scores of the two groups i.e. Internals and Externals

Therefore there is no statistically significant difference (at $\alpha=0.05$) between PsyCap scores of Internals($n=12$) and externals($n=18$) and it is likely to have occurred due to chance .

Additional results/ findings relating to Correlation between LOC and PsyCap scores for various Socio-economic variables (Refer Appendix for detailed calculations)

1. Correlation between LOC & PsyCap Scores of Internals ($n=12$)

Spearman's Coefficient of Correlation $r_s = -0.16434$ (very weak negative relationship). Further, testing for statistical significance ($\alpha=0.05$), it was found that there is no statistically significant relationship between LOC and PsyCap for Internals.

2. Correlation between LOC & PsyCap Scores of Externals ($n=18$)

Spearman's Correlation Coefficient $r_s = -0.242518$ (weak negative relationship). Further, testing for statistical significance ($\alpha=0.05$), it was found that there is no statistically significant relationship between LOC and PsyCap for Externals.

3. Correlation between LOC & PsyCap Scores of Females ($n=12$)

Spearman's coefficient of correlation $r_s = -0.113636$ (very weak negative relationship). Further, testing for statistical significance ($\alpha=0.05$), it was found that there is no statistically significant relationship between LOC and PsyCap for Females.

4. Correlation between LOC & PsyCap Scores of Males ($n=18$)

Spearman's coefficient of correlation $r_s = -0.313209$ (weak negative relationship). Further, testing for statistical significance ($\alpha=0.05$), it was found that there is no statistically significant relationship between LOC and PsyCap for Males.

5. Correlation between LOC & PsyCap Scores of Young employees (<40 years age, $n=18$)

Spearman's coefficient of correlation $r_s = -0.374665$ (weak negative relationship). Further, testing for statistical significance ($\alpha=0.05$), it was found that there is no statistically significant relationship between LOC and PsyCap for Young Employees.

6. Correlation between LOC & PsyCap Scores of Middle-Aged employees (≥ 40 years age, $n=12$)

Spearman's coefficient of correlation $r_s = -0.12646$ (very weak negative relationship). Further, testing for statistical significance ($\alpha=0.05$), it was found that there is no statistically significant relationship between LOC and PsyCap for Middle-aged employees.

7. Correlation between LOC & PsyCap Score of Lower management employees($n=10$)

Spearman's coefficient of correlation $r_s = -0.44849$ (moderate negative relationship). Further, testing for statistical significance ($\alpha=0.05$), it was found that there is no statistically significant relationship between LOC and PsyCap for Lower management employees.

8. Correlation between LOC & PsyCap Score of Middle & Senior management employees ($n=20$)

Spearman's coefficient of correlation $r_s = -0.19286$ (very weak negative relationship). Further, testing for statistical significance ($\alpha=0.05$), it was found that there is no statistically significant relationship between LOC and PsyCap for Middle/Senior management employees.

9. Correlation between LOC & PsyCap Score of employees located in Goa ($n=20$)

Spearman's coefficient of correlation $r_s = -0.200000$ (weak negative relationship). Further, testing for statistical significance ($\alpha=0.05$), it was found that there is no statistically significant relationship between LOC and PsyCap for employees located at Goa.

10. Correlation between LOC & PsyCap Score of employees located in Mumbai (n=10)

Spearman's coefficient of correlation $r_s = -0.516364$ (moderate negative relationship). Further, testing for statistical significance ($\alpha=0.05$), it was found that there is no statistically significant relationship between LOC and PsyCap for employees located at Mumbai.

11. Correlation between LOC & PsyCap Score of employees who are not highly-educated(Graduates and below) (n=17)

Spearman's coefficient of correlation $r_s = -0.273284$ (weak negative relationship). Further, testing for statistical significance ($\alpha=0.05$), it was found that there is no statistically significant relationship between LOC and PsyCap for employees who are not highly educated (graduates and below).

12. Correlation between LOC & PsyCap Score of employees who are Highly-educated(Post Graduates and above) (n=13)

Spearman's coefficient of correlation $r_s = -0.2500$ (weak negative relationship). Further, testing for statistical significance ($\alpha=0.05$), it was found that there is no statistically significant relationship between LOC and PsyCap for employees who are Highly educated (post graduates and above).

4. CONCLUSION:

The empirical results of the study clearly indicated that Rotter's LOC was found not to have a statistically significant relationship with PsyCap (or any of its four sub-constructs) with ($\alpha= 0.05$) for corporate executives working in Goa and Mumbai. Thus the null hypothesis was accepted.

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