

The Mediating effect of Academic Satisfaction on the relationship between Psychological Capital and Performance of Undergraduate Students – A Longitudinal Study in India

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ABSTRACT:*Aim-* The current research identifies the relationship between psychological capital, academic satisfaction and academic performance among undergraduate students.

Methodology- A survey-based research was conducted in a university in Jharkhand and 387 usable responses were collected from the undergraduate students. The perceived academic satisfaction and Psychological Capital were measured using validated instruments and academic performance of the respective students were taken from the exam performance of the students with their consent. Regression analysis was done to analyse the data. **Results-** The results revealed the mediating role of academic satisfaction on the relationship between psychological capital and the academic performance. Results of this study indicate that, meaning-focused PsyCap workshops can be of great help for students in developing all the four constructs of PsyCap and psychological well-being. **Implications-** The implications for researchers and practitioners are discussed.

KEYWORDS- Psychological Capital, academic satisfaction, academic performance

Date of Submission: 17-08-2018

Date of acceptance: 31-08-2018

I. INTRODUCTION

One of the most important and relevant outcomes of an academic institution or university is the students' academic performance. Typically, academic performance is measured for the level of knowledge gained by the students at the end of their university program. Such knowledge generally includes theoretical concepts, practical applications and associated developments in the related field. Students performing well in their exams means they have a high level of related knowledge and hence high performance is proposed to have an impact on their employability and career success. (Fugate, Kinicki, and Ashforth 2004). The core objective of the university is to enhance the knowledge and employability of the students undergoing the education program. Hence, enhancing the student's academic performance becomes the core agenda of any university. Students, after completing the respective programs in the university need to face social and economic challenges and they must also face high degree of competition in their career. (Siu, Bakker, and Jiang 2014). Higher level of knowledge and better academic performance can ensure them a better competitive advantage and therefore, a suitable intervention needs to be implemented to enhance their learning academic performance. (Lane, Hall, and Lane 2004). The current study intends to contribute to the academic performance literature, exploring the influence of psychological factors influencing the academic performance.

Psychological Capital and academic Performance

Psychological Capital popularly known as PsyCap is related to positive psychological capacities which is an important outcome of Positive Psychology. PsyCap is like any other capital, as human capital; that is related to knowledge and competency associated with human beings, Social Capital; that is associated with the density of social network an individual has, by investing on which lots of benefits can be earned. PsyCap corresponds to 4 constructs – Self- efficacy, optimism, hope and resilience (Luthans, Avolio, and Youssef 2007). Self- efficacy is perceived belief about self in achieving the specific task. Higher self-efficacy is higher perceived self -worthiness related to specific activity. Optimism is ability to expect positive outcome. Hope refers to will power to achieve goal and ability to think of multiple ways to achieve the goal. Resilience corresponds to ability to bounce back during adversity. These 4 constructs of PsyCap are well connected to students' experiences in the university. PsyCap is a multi-domain construct with PsyCap in the personal life could be different PsyCap in students' life in the university which could be different from PsyCap in one's work life. PsyCap is more a state-like, thus developable. Training interventions are found to be effective in developing PsyCap (Luthans, Avolio, and Youssef 2007). Each of the four constructs of PsyCap are needed for a student to

be able to perform well. Academic life comprises challenging situations consisting of reading and writing assignments with time boundedness, working for internship during breaks and preparing for the exams that needs reading volumes of material, understanding lot of concepts etc. PsyCap can make the students to be positive and thus be intrinsically motivated, helping them to cope up with challenges associated with university life. High level of self – efficacy helps the students to put maximum efforts needed to complete tasks. Optimism provided the necessary motivation for the students to expect desired outputs and thus keep up with positive emotions. Resilience and hope help them to face the down times in their journey and get back with high spirits to continue with needed efforts. Therefore, it is important to explore the influence of PsyCap on students’ academic performance. (Siu, Bakker, and Jiang 2014).

PsyCap can be measured during the early stage of the students’ journey (time 1) and their performance can be measured after few months (time2)

Hypothesis1(H₀₁): PsyCap at time 1 has a positive influence on the performance over time (time 2)

Academic Satisfaction and Performance

Subjective evaluation of the total educational experience of a student in the academic institution is referred to as academic satisfaction. (Ramos et al., 2015). Typically, it is the result of comparing the reality with the expectations of a student and rating of the academic satisfaction includes the institutional context as a whole.

Academic satisfaction of students includes factors related to:

- Course contents – Theoretical and practical aspects, teaching and valuation methodology
- Management – Style of management, facilities provided, policies and procedures
- Teaching quality – Interaction with teachers, coordinators

(Ramos et al 2015).

When students are with high PsyCap, their outlook will be more positive, which makes them to be working with more personal meaningfulness despite difficulties.

People who can find meaning in what they do, will tend to put effort in every small step. Bandura (2011). Such people will also be able to regulate their emotions in their daily activities. (Tuazon 2014). Such mind set help students to perceive the external factors to be more positive and hence helps them to have better academic satisfaction.

Hence, we can hypothesize that, academic satisfaction mediates the relationship between PsyCap and academic performance.

Hypotheses 2 (H₀₂): Academic satisfaction mediates the relationship between PsyCap (time 1) and academic performance (time 2).

H₀₃: Academic satisfaction mediates the relationship between PsyCap (time 1) and academic performance (time 2).

II. RESEARCH METHODOLOGY

Sampling

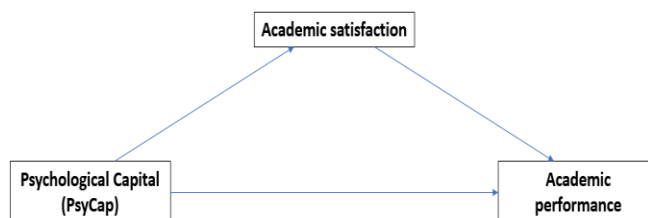
The present study was conducted among undergraduate students in management course, at a University in Jharkhand. A brief presentation of the study was given to the participants during class time and were invited to participate the survey. Each student was asked to fill up the questionnaire. This was repeated for three consecutive years with the same group of students, after their mid – semester exams.

Number of students considered for valid data:

Year	2014	2015	2016
Batch	2014-17	2014-17	2014-17
Number of useable PsyCap data obtained	428 During Dec 2014	396 During Dec 2015	387 During Dec 2016
Number of Usable Academic-Satisfaction data	428 During Dec 2014	396 During Dec 2015	387 During Dec 2016
Number of usable academic performance data	428 During June 2015	396 During June 2016	387 During June 2017

The number of students decreased each year because of dropouts / absenteeism. Among the 387 students of final year, 45% were female students. The overall marks percentage of semester exams conducted by the university was used as the academic performance, the dependent variable.

Model



Instruments Used

Psychological capital

Psychological Capital Questionnaire (PCQ-12) (Avey, Avolio, and Luthans 2011; Luthans et al. 2008) was used to measure the PsyCap of students during time 1. This is consisting of 12 items. This questionnaire was taken from Mind Garden, Inc. It contains four items to measure hope, three items to measure self-efficacy, three items to measure resilience, and two to measure optimism. The instrument was translated to for the students who found difficulty in understanding English. Reverse translation technique was adapted to improve the reliability of the translated instrument. PsyCap is used as a higher order core construct in which these four positive psychological resources interact in a synergic way (see Luthans, Youssef-Morgan, and Avolio 2015). An example item is: ‘I can think of many ways to reach my current goals related to my studies’. The reliability value is shown in Table 1.

Academic Satisfaction

Four-item scale developed by Maldonado and Salanova (2017) was used to measure Academic satisfaction. This took into consideration, the four main relevant aspects for university students:

- the university as a whole
- the faculty to which they belonged
- the program that they were studying at and
- their professors.

For each of the above element, students indicated the extent of their satisfaction on a 5-point scale ranging from 1 to 5. An example item is: ‘How satisfied are you with the University?’ The reliability value is shown in Table 1.

Performance

Academic Performance of the students was assessed by the overall percentage, provided by the University. The academic performance was considered at the end of the academic year around three months after the students completed the PCQ- 12 questionnaire for the PsyCap. Students were requested to sign a consent form to seek their permission to obtain their percentages, which was needed to analyze the data.

Data Analysis

Regressions in IBM SPSS Amos 21 was used for analyzing the data obtained. Standardized regression coefficients were used to examine predictive paths relationships that were hypothesized (Lane, Hall, and Lane 2004; Meneghel 2014).

Strategies used to mitigate problems with common method bias:

- predictor and criterion measures were obtained from different sources (Podsakoff, MacKenzie, and Podsakoff 2012). That means, PsyCap, and academic satisfaction were obtained from self-report assessment (students), and academic performance of the students was collected from an external source (% Marks).
- A time lag (three months) between obtaining % marks and the rest of measures was maintained. The same method was used for three consecutive years.

Table No-1

		Mean	SD	1	2	3
1	Psychological Capital	4.31	0.71	0.71		
2	Academic - Satisfaction	3.65	0.38	0.29	0.79	
3	Performance	63%	8.02	0.16	0.11	-

Notes: N = 387. All correlations higher than .10 are significant at $p < .01$. Cronbach's α reliability estimates are listed in the diagonal in parentheses.

Table No - 2

		Path	Model Sig	Variable Sig	R	Ajd R-Sq	SE
Model 1	Step 1	c	0.001*		0.40	0.16	0.034
Model 2	step 2	a	0.002 ^b		0.41	0.16	0.093
Model 3	Step 3	b	0.000	0.000***	0.38	0.16	0.043
	Step 4	c'	0.010				0.062

Regression to investigate predictive relationships between PsyCap, satisfaction and performance among undergraduate students (N = 387). Notes: * $p < .05$; ** $p < .01$; *** $p < .001$.

From Table 1, we can infer PsyCap is correlated with academic satisfaction ($r = 0.29$). Similarly, PsyCap also found to be correlated academic performance ($r = 0.16$) at 0.01 level. So, we can infer that, PsyCap has a positive relationship with Academic performance (H_{01}) and Academic satisfaction is also positively related to academic performance (H_{02})

When PsyCap was regressed on Academic performance, the relationship was found to be statistically significant at $p < 0.001$. The second regression model was used to regressed Academic satisfaction on academic performance, the model was also found to be statistically significant at 0.001 (Table 2).

The mediation effect was tested in the third model, which considers PsyCap as the independent variable, Academic performance the dependent and Academic satisfaction as the mediator. The model was found to be statistically significant at 0.001 level and the model explained 67% variance in Academic performance. Therefore, Academic satisfaction is found to be mediating the relationship between PsyCap and Academic performance (H_{03}).

III. DISCUSSION

The key objective of this study was to explore the predictive relationships between PsyCap and academic satisfaction towards academic performance among undergraduate students. The hypotheses were tested using regression analysis model. The results indicate that, PsyCap of the students predict their academic performance directly, also, PsyCap predicts the academic satisfaction of the students which in turn is a strong predictor of their academic performance. Thus, it shows that, PsyCap is one of the key factors influencing the positive psychological outcomes and academic performance. (Siu, Bakker, and Jiang 2014).

Students with higher PsyCap have higher belief in self, tend to be more optimistic and hopeful regarding their role and performance as student. Also, they would be able to come out of intermediate "low times" due to higher resilience. Such students can have a positive outlook towards external environment in the university. They are self-motivated to empathize the difficult situations and consider such times as possibilities to enhance their learning and individual growth. (Riulli, Savicki, and Richards 2012). Such students will be able to excel in their learning and academic performance.

The model under consideration showed that PsyCap has a direct influence on academic satisfaction of the students. For the given situation, students with higher PsyCap have better happiness and satisfaction and better psychological well-being when compared to those with lower PsyCap. (Datu, King, and Valdez 2016; Datu and Valdez 2015; Nielsen et al. 2016; Riulli, Savicki, and Richards 2012; Siu, Bakker, and Jiang 2014) Students with higher PsyCap believe their personal strengths and use the same in achieving tasks and thus feel good about themselves. They make use of their psychological capacities in accomplishing their academic goals.

Positive psychological attributes and their influence on the performance is well studied by various researchers. Research by Howells et al. (2017) shows that gratitude of doctoral students for their supervisor has positive influence on the students' psychological well-being, self-efficacy and motivation. In a similar thread of research, a study by Hanson et al. (2016) shows the significant positive effect of social cooperation and collaborative learning on Psychological well-being of students.

Practical Implications

Exploring various methods to enhance the academic performance of students has always been a great challenge to teachers and management of academic institutions and universities. Traditional approach has been to make efforts in teaching more rigorously, providing additional facilities, trying to counsel the students to make them understand the importance of the academic performance in deciding their career success etc. Despite different efforts in this direction, there has been a need to explore other strong predicting factors of academic performance of the students. This study has considered the psychological capacities as predicting factors and the results of this empirical study are quite promising. By working on the PsyCap of students, their outlook towards their academic satisfaction can be tuned and that in turn can influence their academic performance.

Suitable interventions can be implemented based on the related theory and research in this regard which can enhance the students' academic performance. (Lane, Hall, and Lane 2004).

Results of this study supports the PsyCap literature available on interventions and institutional programs oriented to improve psychological well-being and performance in the university settings. (Avey et al. 2010; Luthans et al. 2010). Results of this study indicate that, meaning-focused PsyCap workshops can be of great help for students in developing all the four constructs of PsyCap and psychological well-being (Luthans et al. 2006). These workshops could be very helpful interventions when conducted in small groups where students could be getting opportunity to have one-on-one discussion with the resourceful faculty and will be able to improve their self-efficacy, optimism, hope and resilience. This can build the personal capacity among the students that can help them to be positive in their outlook, to be goal oriented and work with will power and way power that results in their psychological well-being and a successful performance.

IV. LIMITATION

This study has few limitations that can be considered during the future research studies.

In this study, PsyCap is assessed based on self -reported data, which can have bias due to socially desirable response. However self-report is justified by the nature of the constructs.

Also, PsyCap is a multi -domain construct and in this study, PsyCap in the student domain is considered. However, PsyCap related to the students' personal life can have an influence in the self-reported PsyCap measurement, which we have not considered.

This study is done for a small group of undergraduate students in the management discipline. To strengthen the hypotheses, similar study needs to be extended to other courses and other universities in other states of India which can make the research to be generalized in the Indian education context.

V. CONCLUSION

Students' academic performance is a key factor in any academic institution. Efforts to enhance the academic performance of the students has been given lot of importance to and continuing to be so. Academic satisfaction of the students has been an interesting factor to address so that, satisfied students can perform better in their academic assessments. However, positive psychological capacities can influence the perceived academic satisfaction of the students and thus can influence their academic performance. The results of this study indicate that PsyCap has positive influence on the academic satisfaction of the students which in turn has the positive impact on their academic performance.

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Dr. Ujjal Mukherjee "The Mediating effect of Academic Satisfaction on the relationship between Psychological Capital and Performance of Undergraduate Students – A Longitudinal Study in India" *International Journal of Business and Management Invention (IJBMI)*, vol. 07, no. 08, 2018, pp. 75-80.