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Career Optimism through Career Adaptability and Psychological Capital

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ABSTRACT
In this era of rapid change and career uncertainty, higher-education institutions must equip students with psychological resources. This paper examines how career adaptability mediates the relationship between learning engagement and career optimism, and studies how psychological capital (PsyCap) enhances both constructs among Indian university students. The study is grounded in Psychological Capital and Career Construction theories, integrating positive psychology with career development to explain how engagement and adaptability can foster future-oriented optimism. Using validated constructs and structural modelling, findings show that PsyCap-driven engagements and adaptability can highly contribute to students' career optimism. The study presents a culturally contextualised framework that links engagement, adaptability, and psychological strength within the changing landscape of Indian higher education.

Key Words: Psychological Capital, Career Optimism, Career Adaptability, Learning Engagement, Higher Education

1. Introduction

India's higher-education system is undergoing a major transformation after the implementation of the National Education Policy (NEP, 2020), which emphasises life-long learning, employability and holistic development. Students in Indian universities today face pressure of not only academic competition but job-market volatility, and the psychological strain of transitioning from education to employment. While skills and technical competence remain important, success largely depends on psychological resources that enable students to remain adaptable, motivated, and future-oriented. This context underscores the need to explore how psychological strengths, learning engagement, and adaptability interact with one another to shape career optimism among Indian youth.

1.1 Psychological Capital and Learning Engagement

Psychological Capital (PsyCap), introduced by Luthans and Youssef (2004), refers to an individual's positive psychological state characterised by hope, efficacy, resilience, and optimism. The HERO model of PsyCap is a state which is developable through intervention (Luthans, Avolio, & Avey, 2007). Studies have consistently demonstrated that psychological capital (PsyCap) enhances job performance, satisfaction, and well-being (Newman et al., 2014; Luthans & Youssef-Morgan, 2017). Within the educational domain, PsyCap has been instrumental in fostering motivation for academics, perseverance, and coping with academic-related stress (Siu, Bakker, & Jiang, 2014; Datu & Valdez, 2015).

In Indian higher education, students frequently report burnout, anxiety and pressure of examinations. The students are mostly uncertain about employment (Agarwal & Varma, 2022). In this context, PsyCap becomes a critical inner resource for the students. A study by Singh and Jha (2019) found that Indian college students with higher PsyCap demonstrated greater academic engagement and satisfaction. The components of PsyCap can be described as hope, which is goal-oriented determination; efficacy, which is confidence in one's capabilities for learning; resilience, which is one's ability to recover from failures and setbacks; and

optimism, which is a positive expectation for the future. All these attributes together strengthen a learner's capacity to persist in the face of academic and career challenges. The majority of research using career construction theory concentrated on career adaptability because it is a psychological resource specific to each individual and has connections to cognitive and behavioural outcomes (Boo et al., 2021). In general, academics have witnessed optimism as a quality, characterising it as the state in which a person has an optimistic attitude toward life.

Learning Engagement (LE) is an expansive term that encompasses various dimensions, including behavioural, cognitive, emotional, and agentic engagement (Reeve & Tseng, 2011), reflecting the depth of students' participation in the learning process. Students who are engaged demonstrate a strong sense of curiosity, actively participate, and show a positive attitude towards learning (Fredricks et al., 2004). Previous research indicates that engagement serves as a mediator in the relationship between psychological capital and learning outcomes, suggesting that psychological resources lead to achievement by enhancing engagement (Ouweneel et al., 2011; Lin, 2020). In Indian universities, where classroom participation is frequently limited by conventional teaching methods and exam-related stress, enhancing engagement through the development of psychological capital could significantly enrich students' learning experiences and boost their self-efficacy.

1.2. **Career Adaptability and Career Optimism**

While the studies indicate that learning engagement enhances academic persistence, the transition from university to workplace demands additional career-related attributes and competencies. Career Adaptability (CA), derived from Career Construction Theory (Savickas, 2013), encompasses an individual's psychosocial resources to enable them to manage career transitions. The four dimensions are concern (planning for the future), control (taking responsibility), curiosity (exploring options), and confidence (belief in one's ability to achieve goals). The dimensions are crucial for managing volatile job markets. In the Indian context, where youth unemployment and skill mismatches present significant challenges, career adaptability provides students with the self-regulatory skills necessary to navigate change and uncertainty (Kumar & Kaur, 2021). Empirical studies conducted with Indian management and engineering students indicate that adaptability serves as a predictor for career decision-making self-efficacy and employability (Rastogi et al., 2020; Aryani et al., 2021).

Career Optimism (CO), characterised by individuals' positive expectations regarding their future career success (Rottinghaus et al., 2005), functions as a psychological measure of readiness for employability. Students with a positive outlook view challenges as opportunities, which fosters proactive career planning and resilience (McIlveen & Perera, 2016; Eva et al., 2020). Studies across various cultural contexts have demonstrated that career adaptability promotes career optimism by fostering a sense of agency and reducing anxiety about uncertain career prospects (Sou, Yuen, & Chen, 2022). In India, where career trajectories are frequently shaped by societal norms and financial constraints, optimism serves as a motivational shield that upholds perseverance and clarity of objectives (Gupta & Ghosh, 2022).

1.3. **Integrative Framework and Theoretical Foundation**

Drawing on Fredrickson's (2008) Broad-and-Build Theory, PsyCap's positive emotions (hope, efficacy, optimism, and resilience) broaden students' cognitive and behavioural repertoires, fostering engagement and adaptive coping. Simultaneously, Career Construction Theory (Savickas, 2013) posits that adaptability mediates between individuals' self-regulatory capacities and their career outcomes. Integrating these frameworks, the present study proposes that PsyCap serves as a personal resource that enhances learning engagement, which in turn translates into career optimism through career adaptability as a mediating mechanism.

This integrative approach addresses several gaps in the literature. First, most PsyCap research focuses on employees, with relatively few studies examining university students' PsyCap as a developmental resource in the Indian higher-education context. Second, although engagement and adaptability have been studied separately, empirical work connecting them as sequential predictors of career optimism remains limited. Third, existing Indian studies rarely test a comprehensive model combining positive psychological resources, engagement, and career adaptability to explain career optimism using structural equation modelling (SEM).

Accordingly, this study aims to:

- Examine the effect of Psychological Capital (PsyCap) on Learning Engagement (LE) among Indian higher-education students.
- Assess whether Learning Engagement predicts Career Optimism (CO).
- Test whether Career Adaptability (CA) mediates the relationship between Learning Engagement and Career Optimism.

Guided by these objectives, the following hypotheses are proposed:

H1: PsyCap positively influences Learning Engagement.

H2: Learning Engagement positively influences Career Optimism.

H3: Career Adaptability mediates the relationship between Learning Engagement and Career Optimism.

2. Literature Review

India's current higher education system is at a critical juncture, following the implementation of the National Education Policy (NEP, 2020). As per NEP 2020, higher education must emphasise holistic student development, multidisciplinary subjects, and enhanced employability (Ministry of Education, Government of India, 2020). In

this changing environment, students in HEIs face intense academic competition, uncertainty in the job market, skill mismatches, and the psychological stress of making transitions from college to work. The students' psychological resources, learning engagement, and career adaptability in shaping their career optimism are particularly salient given these underlying pressures. Thus, understanding how these constructs interrelate in Indian higher-education (HE) settings helps to align both policy and practice with students' needs.

2.1 Psychological Capital (PsyCap) and Learning Engagement (LE)

Psychological Capital (PsyCap) refers to a higher-order positive psychological state characterised by hope, efficacy, resilience, and optimism (Luthans & Youssef, 2004; Luthans, Avolio, & Avey, 2007). It is considered developable and is often associated with higher performance, greater job satisfaction, well-being, and adaptive behaviour (Luthans & Youssef-Morgan, 2017). Within educational contexts, recent literature reveals strong correlations between PsyCap and academic outcomes, including engagement, persistence, intrinsic motivation, and adjustment (Nguyen, Cao, & Nguyen, 2024; Nielsen et al., 2016).

Nguyen et al. (2024) provide a comprehensive understanding of PsyCap research trends and highlight its growing use in educational settings beyond traditional organisational behaviour. In a review of university student outcomes, PsyCap was found to be a main predictor of students' learning engagement, academic alignment, and well-being (Luthans, Youssef-Morgan, & Avolio, 2015; Nielsen et al., 2016). A study conducted with Chinese university students also found that psychological capital correlated positively with learning engagement ($r = .54$, $p < .01$) (You, 2016, as cited in Luan, 2022) and that Psychological Capital significantly predicted students' engagement (Zheng, 2021).

2.2 Learning Engagement (LE)

Learning Engagement (LE) is conceptualised as students' behavioural participation in tasks, cognitive depth, emotional involvement (interest and enjoyment), and agentic contribution to the learning process (Fredricks, Blumenfeld, & Paris, 2004; Reeve & Tseng, 2011). Engagement has been proven through meta-analysis to be positively influenced by contextual and personal factors and to contribute to academic success and persistence (Li, Ge, & Chen, 2023).

According to Fredrickson's Broaden-and-Build Theory (2008), positive psychological resources such as PsyCap broaden individuals' thoughts, translating them into positive action and thereby building lasting resources, including education, engagement, and coping. Students with higher PsyCap are more likely to engage proactively and deeply in learning because of their belief in efficacy, their hope to find multiple pathways, their resilience in bouncing back from setbacks, and their optimism toward future outcomes. Empirical evidence supports this: one study reported that PsyCap predicted consistent increases in student engagement (Çetin, 2023). A study conducted during the COVID-19 pandemic found that psychological capital (PsyCap) mediated the relationship between self-care activities and academic engagement (Gómez-Borges, Salanova, & Martínez, 2022).

H1: Psychological Capital positively influences Learning Engagement.

2.3 Learning Engagement and Career Optimism (CO)

Career Optimism (CO) refers to positive expectations regarding one's future career and profession, encompassing faith in advantageous job prospects and confidence in attaining them (Rottinghaus, Day, & Borgen, 2005). A systematic review identified several antecedents—career adaptability, self-efficacy, and social support, linked to outcomes like job satisfaction, decisiveness, and reduced burnout (Eva, Newman, Jiang, & Brouwer, 2020). Meta-analytic results indicate a strong correlation between career adaptability and career optimism ($\rho \approx .55$), with moderate associations with self-efficacy ($\rho \approx .52$) (Luan, 2022).

Active engagement in learning is conceptually tied to career optimism. When students demonstrate behavioural, cognitive, and emotional engagement in their studies, they are more inclined to perceive themselves as competent, future-oriented, and prepared for professional challenges. Empirical findings corroborate this: Li et al. (2024) reported that emotional engagement and psychological capital positively correlated with academic achievement in blended-learning contexts. Thus, participation and engagement foster a sense of competence and optimism toward future careers.

H2: Learning Engagement positively influences Career Optimism.

2.4 Career Adaptability (CA) as a Mediator

Career Adaptability (CA) is a core construct within Career Construction Theory (Savickas, 2013), representing an individual's psychosocial readiness and self-regulatory capability to handle job tasks and transitions. Its four dimensions—control, concern, curiosity, and confidence—are essential for managing uncertainty (Savickas & Porfeli, 2012). Recent studies reaffirm its role among students and early-career individuals (Zeraati, Van Vianen, & Ali, 2024) and highlight its mediating capacity (Du, Yu, Luo, & Liu, 2022).

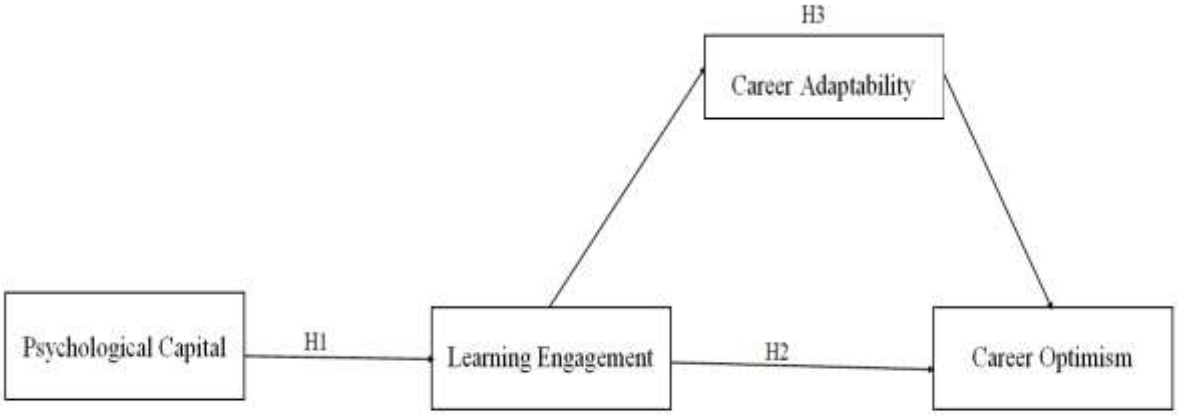
Meta-analysis shows that CA is a strong antecedent of career optimism (Luan, 2022). It also mediates between personal resources and career attitudes. For instance, Stead et al. (2022) found that CA mediated between teacher behaviour and career decision self-efficacy among Chinese students. In the present model, learning engagement enhances CA, enabling students to transform learning experiences into adaptive and optimistic career outlooks.

H3: Career Adaptability mediates the relationship between Learning Engagement and Career Optimism.

2.5 Integrative Model and Summary

The integrative framework (Figure 1) proposes a sequential pathway: Psychological Capital (PsyCap) → Learning Engagement (LE) → Career Adaptability (CA) → Career Optimism (CO). It integrates the Broaden-and-Build Theory (Fredrickson, 2008) for PsyCap–LE linkage and Career Construction Theory (Savickas, 2013) for LE, CA and CO connections. Tailored for the Indian higher-education context, the framework explains how psychological resources and engagement develop adaptability and optimism, essential for employability and future readiness.

Figure 1. Hypothesized Model



3. Research Methods

3.1 Data Source and Collection

The proposed research model illustrates the interrelationships among the study variables, as depicted in Figure 1. Researchers have access to a variety of sampling and data collection methods (Burns & Bush, 2000). This study targeted individuals aged seventeen and above enrolled in higher education institutions, such as universities, chosen for their involvement in mentoring programs related to academic pursuits. This specific selection aimed to ensure that the measurement of career optimism reflected authentic experiences. Data were collected from 305 students enrolled in higher education institutions across the southern region of India. These students were affiliated with 20 different institutes in the southern part of the country and had, on average, lived in southern India for over two years at some point.

Convenience sampling was employed due to constraints such as time, finances, and environmental factors, aligning with the study's objectives. This method is commonly utilised in scholarly research and serves to fulfil additional research goals. The primary data collection method involved an online survey chosen for its efficiency, considering the practical limitations of the academic setting. Surveys are widely recognised as the predominant method for large-scale quantitative research. The selection of institutions was based on the size of the student population in Visakhapatnam, Andhra Pradesh. Out of 800 individuals who received an email containing a cover letter and a structured questionnaire, 487 returned fully completed questionnaires. After initial screening, 305 completed questionnaires were deemed suitable for analysis.

3.2 Common Method Bias (CMB)

Researchers employed statistical and procedural methods to address common method bias (CMB). To mitigate potential CMB, they utilised Harman's single-factor assessment technique, following guidelines established by Podsakoff et al. (2003). The single factor identified explained 36.56% of the total variance, falling below the recommended threshold of 50% suggested by Podsakoff et al. (2003). Thus, this study did not present a significant issue concerning CMB.

4. Data Analysis

4.1 Demographic Details

Table 1. Demographic Details of Respondents

Demographics	Group	Frequency	Percent
Age	17-21	233	76.39
	22-25	58	19.01
	More than 25	14	4.5
Gender	Male	110	36.06
	Female	190	63.94
Educational Background	UG	186	60.98

	PG	114	39.02
Course Registered	MBA	114	39.02
	BBA	98	32.13
	B. Tech	28.85	19.0

From the above table, it is evident that the age group of the respondents are categorised into three groups. Which are 17-21, 22-25 and more than 25 years of age. Their respective percentage are 76.39, 19.01 and 4.5. Gender is categorised into two categories, where males comprise 36.06 per cent and females 63.94 per cent, respectively. The educational background of the respondents is categorised into two, with PG comprising 39.02% and UG comprising 60.98%, respectively. The last category was categorised into three courses, including MBA, BBA, and B.Tech., where MBA comprises 39.02%, BBA comprises 32.13%, and B.Tech comprises 19%.

Measures

Here, the table below reflects the values of measurement items and of the construct as well. It reflects the values of factor loading, standardised regression weight, alpha, composite reliability and average variance extracted (Table 2).

In this current study, one dimension of psychological capital, specifically Self-Efficacy, is examined. This dimension is measured using five items. This measurement scale was given by Luthans, Youssef, & Avolio (2006). To assess the appropriateness of the measurement items and of the construct, it was found that the values of factor loading, SRW, alpha, CR and AVE are within the desired criteria. It was clearly evident from the results of this study that the values (A = 0.799, CR = 0.769, and AVE = 0.509) are suitable for this study. Hence, all measures are found appropriate for this study.

Optimism. This dimension of psychological capital is measured using a five-item scale. This measurement scale was given by Luthans, Youssef, & Avolio (2006). To see the appropriateness of the measurement items and of the construct, it was found that the values of factor loading, SRW, alpha, CR and AVE is within the desired criteria. The results of this study clearly indicated that the values (A = 0.709, CR = 0.811, and AVE = 0.586) are suitable for this study. Hence, all measures are found appropriate for this study.

Hope. This dimension of psychological capital is measured using a five-item scale. This measurement scale was given by Luthans, Youssef, & Avolio (2006). To assess the appropriateness of the measurement items and the construct, it was found that the values of factor loading, SRW, alpha, CR, and AVE are within the desired criteria. It was clearly evident from the results of this study that the values (A = 0.801, CR = 0.899, and AVE = 0.537) are suitable for this study. Hence, all measures are found appropriate for this study.

Resilience. This dimension of psychological capital is measured using five items. This measurement scale was given by Luthans, Youssef, & Avolio (2006). To see the appropriateness of the measurement items and of the construct, it was found that the values of factor loading, SRW, alpha, CR and AVE is within the desired criteria. It was clearly evident from the results of this study that the values (A = 0.836, CR = 0.849, and AVE = 0.576) are suitable for this study. Hence, all measures are found appropriate for this study.

Behavioural Engagement. This dimension of learning engagement is measured using four items. This measurement scale was given by Reeve and Tseng (2011). To see the appropriateness of the measurement items and of the construct, it was found that the values of factor loading, SRW, alpha, CR and AVE are within the desired criteria. It was clearly evident from the results of this study that the values (A = 0.755, CR = 0.867, and AVE = 0.533) are suitable for this study. Hence, all measures are found appropriate for this study.

Cognitive Engagement. This dimension of learning engagement is measured using four items. This measurement scale was given by Reeve and Tseng (2011). To see the appropriateness of the measurement items and of the construct, it was found that the values of factor loading, SRW, alpha, CR and AVE are within the desired criteria. It was clearly evident from the results of this study that the values (A = 0.724, CR = 0.873, and AVE = 0.547) are suitable for this study. Hence, all measures are found appropriate for this study.

Emotional Engagement. This dimension of learning engagement is measured using three items. This measurement scale was given by Reeve and Tseng (2011). To see the appropriateness of the measurement items and of the construct, it was found that the values of factor loading, SRW, alpha, CR and AVE are within the desired criteria. It was clearly evident from the results of this study that the values (A = 0.807, CR = 0.877, and AVE = 0.513) are suitable for this study. Hence, all measures are found appropriate for this study.

Agentic Engagement. This dimension of learning engagement is measured using three items. This measurement scale was given by Reeve and Tseng (2011). To assess the appropriateness of the measurement items and of the construct, it was found that the values of factor loading, SRW, alpha, CR and AVE are within the desired criteria. It was clearly evident from the results of this study that the values (A = 0.719, CR = 0.857, and AVE = 0.512) are suitable for this study. Hence, all measures are found appropriate for this study.

Concern. This dimension of Career Adaptability is measured using three items. This measurement scale was given by Maggiori et al. (2017). To see the appropriateness of the measurement items and of the construct, it was found that the values of factor loading, SRW, alpha, CR and AVE is within the desired criteria. It was clearly evident from the results of this study that the values (A = 0.901, CR = 0.893, and AVE = 0.612) are suitable for this study. Hence, all measures are found appropriate for this study.

Control. This dimension of Career Adaptability is measured using three items. This measurement scale was given by Maggiori et al. (2017). To assess the appropriateness of the measurement items and of the construct, it was found that the values of factor loading, SRW, alpha, CR and AVE are within the desired criteria. It was clearly evident from the results of this study that the values (A = 0.766, CR = 0.889, and AVE = 0.603) are suitable for this study. Hence, all measures are found appropriate for this study.

Curiosity. This dimension of Career Adaptability is measured using three items. This measurement scale was given by Maggiori et al. (2017). To assess the appropriateness of the measurement items and of the construct, it was found that the values of factor loading, SRW, alpha, CR and AVE are within the desired criteria. It was clearly evident from the result of this study that the values (Alpha=0.738, CR=0.911 and AVE=0.678) are suitable for this study. Hence, all measures are found appropriate for this study.

Confidence. This dimension of Career Adaptability is measured using three items. This measurement scale was given by Maggiori et al. (2017). To see the appropriateness of the measurement items and of the construct, it was found that the values of factor loading, SRW, alpha, CR and AVE are within the desired criteria. It was clearly evident from the result of this study that the values (Alpha=0.788, CR=0.934 and AVE=0.648) are suitable for this study. Hence, all measures are found appropriate for this study.

Table 2. Reliability, item strength and validity measurement of items

Construct	Items	Factor Loading	SRW	Alpha	CR	AVE
Psychological Capital						
Self-Efficacy	SEF1	0.743	0.711	0.799		
	SEF2	0.738	0.795			
	SEF3	0.814	0.749			
	SEF4	0.699	0.767			
	SEF5	0.812	0.707		0.769	0.509
Optimism	OPT1	0.811	0.729	0.709		
	OPT2	0.741	0.708			
	OPT3	0.785	0.711			
	OPT4	0.777	0.799		0.811	
	OPT5	0.825	0.736			0.586
Hope	HP1	0.825	0.744	0.801		
	HP2	0.833	0.796			
	HP3	0.744	0.768			
	HP4	0.726	0.819			
	HP5	0.715	0.798		0.899	0.537
Resilience	RSL1	0.788	0.756	0.836		
	RSL2	0.811	0.845			
	RSL3	0.825	0.759			
	RSL4	0.836	0.700			
	RSL5	0.877	0.735		0.849	0.576

Learning Engagement						
Behavioural engagement	BE1	0.774	0.774	0.755		
	BE2	0.749	0.766			
	BE3	0.725	0.844			
	BE4	0.814	0.848		0.867	0.533
Cognitive engagement	CE1	0.747	0.755	0.724		
	CE2	0.726	0.846			
	CE3	0.699	0.887			
	CE4	0.759	0.829		0.873	0.547
Emotional Engagement	EE1	0.722	0.768	0.807		
	EE2	0.802	0.735			
	EE3	0.805	0.791		0.877	0.518
Agentic Engagement	AE1	0.833	0.783	0.719		
	AE2	0.799	0.844			
	AE3	0.768	0.807		0.857	0.512
Career Adaptability						
Concern	CNC1	0.774	0.887	0.901		
	CNC2	0.812	0.811			
	CNC3	0.845	0.869		0.893	0.612
Control	CNT1	0.875	0.844	0.766		
	CNT2	0.845	0.837			
	CNT3	0.766	0.799		0.889	0.603
Curiosity	CR1	0.749	0.819	0.738		
	CR2	0.736	0.809			
	CR3	0.744	0.846		0.911	0.678
Confidence	CNF1	0.788	0.788	0.788		
	CNF2	0.846	0.725			
	CNF3	0.809	0.866		0.934	0.648
Career Optimism	COPT1	0.755	0.768	0.879	0.901	0.675

	COPT2	0.755	0.812			
	COPT3	0.762	0.807			
	COPT4	0.814	0.891			
	COPT5	0.738	0.768			
	COPT6	0.749	0.839			
	COPT7	0.817	0.768			
	COPT8	0.857	0.849			
	COPT9	0.776	0.888			
	COPT10	0.798	0.708			
	COPT11	0.786	0.768			

Career Optimism. This is measured using eleven items. This measurement scale was given by Rottinghaus, et al. (2005). To see the appropriateness of the measurement items and of the construct it was found that the values of factor loading, SRW, alpha, CR and AVE is within the desired criteria. It was clearly evident from the result of this study that the values (Alpha=0.879, CR=0.901 and AVE=0.675) are suitable for this study. Hence, all measures are found appropriate for this study.

4.3 Measurement Model

Table 4. Measurement Model Fit Indices

Criteria	Values	Statistics and Model Fit Indices	Recommended value
CMIN	2251.421		
DF	1265		
CMIN/df	2.050	Chi-square/df (Hinkin, 1995)	<3.00
GFI	0.897	GFI (Hooper, Coughlan, & Mullen, 2008)	>0.90
CFI	0.908	CFI (Watchraversringkan, Yan, & Yurchisin, 2008)	>0.80
TLI	0.914	TLI (Hu & Bentler, 1999)	>0.95
IFI	0.907	TLI (Hu & Bentler, 1999)	>0.90
RMSEA	0.073	RMSEA (MacCallum, Brown, & Sugawara, 1996)	<0.10

In Structural Equation Modelling (SEM), evaluating the adequacy of the study model with the data is essential. The chi-square test, a part of null hypothesis significance testing, is used for this purpose. RMSEA, a measure of model fit, indicates better fit with lower values, ideally ≤ .06 (Hu & Bentler, 1999). Conversely, models with RMSEA ≥ .10 should be treated cautiously (Browne & Cudeck, 1993). CFA, conducted using the latest version of AMOS software, assessed the measurement model's fit, yielding the following values: CMIN/DF = 2.050, GFI = 0.897, CFI = 0.908, TLI = 0.914, IFI = 0.907, and RMSEA = 0.073. All paths in the measurement model were significantly positive, with p-values below 0.073 (see Table 4). The obtained goodness-of-fit indices indicate that the study model meets the required thresholds.

4.4 Hypothesis Testing

Table 5. Regression Analysis

	Beta	Se	t	p	Hypothesis
Psy Capital and Learning Engagement ($R^2 = 0.700$)	0.421	0.304	3.441	.000	Supported
Learning Engagement and Career Optimism ($R^2 = 0.876$)	0.552	0.199	10.545	.000	Supported

Table 5 in the study presents the regression analysis values. To assess the study model and explore the connections between constructs, structural equation modelling was employed. Three hypotheses were formulated, and the SEM results demonstrated that all hypotheses exhibited positive and statistically significant relationships. Table 5 provides standardised path coefficients illustrating the connections among the constructs. Psychological capital exhibits a positive and substantial impact on learning engagement, as indicated by the study's findings ($\beta = 0.421$, SE = 0.304, t = 3.441, $p < 0.000$). Moreover, learning engagement has a significant influence on career optimism ($\beta = 0.552$, SE = 0.199, t = 10.454, $p < 0.000$). The study's results confirm the noteworthy influence of psychological capital on learning engagement and its subsequent impact on career optimism among higher education students. Furthermore, the regression analysis findings align with prior research, emphasising a strong association between psychological capital and learning

engagement. Additionally, it highlights the positive impact of learning engagement on students' career optimism.

4.5 Mediation Analysis

Table 6. Mediation result using Process Macro

				95% confidence interval		Mediation
Bootstrapping	Direct effect	Indirect	BootSE	LLCI	ULCI	
Learning Engagement →Career Adaptability→ Career Optimism	0.0923	0.7791	0.0772	0.6291	0.9253	Full Mediation

Note: i) N=305

ii) LLCI = lower-level confidence interval; ULCI = upper-level confidence interval,

*iii) *significant at the 0.05 level; ** significance at the 0.01 level; ***P # 0.005.*

Table 6 indicates the values of mediation analysis where the mediating role of career adaptability is evaluated between learning engagement and career optimism. From the regression analysis table 5, it is evident that learning engagement has a significant relationship with career optimism. It is evident from the above table that LLCI and ULCI do not include zero. This indicates an indirect effect (Zhao, Lynch & Chen, 2010). Therefore, it is evident from the analysis that the indirect effect exceeds the direct effect. This signifies a full mediating role of career adaptability between learning engagement and career optimism. Hence, hypothesis 3 of this study is supported.

5. Discussion

The results provide robust empirical support for the hypothesised model. Psychological Capital emerged as a critical internal resource that enhances Learning Engagement, consistent with prior research linking PsyCap to motivation and academic persistence (Siu et al., 2014; Nguyen et al., 2024). Students high in self-efficacy, hope, resilience, and optimism are more likely to take academic challenges and pressures as opportunities for growth rather than threats, confirming the Broad-and-Build mechanism (Fredrickson, 2008).

Engaged learners demonstrated stronger Career Optimism, validating the assumption that emotional and cognitive engagement in learning builds confidence for future career success (Hanus & Fox, 2015; Li et al., 2024). The mediating role of Career Adaptability(CA) suggests that the benefits of student engagement extend beyond immediate academic outcomes, ultimately shaping the psychosocial readiness to adapt and grow in dynamic work environments.

This finding reinforces Career Construction Theory (Savickas, 2013), which positions adaptability as the self-regulatory mechanism through which individuals translate learning experiences into career self-efficacy and optimism. In the Indian higher-education context, adaptability acts as a bridge between classroom engagement and employability, aligning with NEP 2020's emphasis on *future readiness*.

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6. Theoretical Implications

This study integrates two perspectives: positive psychology and career development, providing a unified framework that links psychological capital (PsyCap), Engagement, and Career Adaptability to Career Optimism. It empirically extends the Broad-and-Build Theory by establishing how psychological resources contribute to adaptive career outcomes in a developing-country context. The findings also enrich Career Construction Theory by highlighting learning engagement as an antecedent of career adaptability, which is an underexplored linkage in the literature.

6.1 Practical Implications

For universities and policymakers, the study underscores the need to institutionalise interventions that cultivate Psychological Capital through structured life-skills, resilience, and employability programs. Embedding reflective, experiential, and mentoring-based pedagogies can enhance Learning Engagement.
Career guidance cells should integrate Career Adaptability training, for instance, workshops on future planning (concern), decision control, exploration (curiosity), and confidence-building to promote Career Optimism and employability.
Such programs align with NEP 2020's call for *holistic, future-ready graduates* and can significantly reduce student anxiety related to career uncertainty.

7. Limitations and Future Research

The study's limitation is its cross-sectional design, which limits causal inference; a longitudinal or experimental design. Second, data were drawn from southern Indian universities, which may not represent all cultural and institutional contexts. However, future research should replicate the model across diverse regions and disciplines to further validate its findings. Third, self-reported data may introduce social desirability bias despite procedural controls. Multi-source data, including faculty ratings and career outcomes, could provide more objective measures. Additionally, future studies may further examine moderating variables, such as gender, academic major, or socioeconomic status, which could influence the development or adaptability of PsyCap. Lastly, qualitative or mixed-method approaches could uncover richer insights into how students experience adaptability and optimism during their career transitions.

8. Conclusion

This study advances the understanding of how Psychological Capital (PsyCap) contributes to Learning Engagement (LE), Career Adaptability (CA), and ultimately, Career Optimism (CO) among Indian higher-education students in the present context. The findings affirm that developing students' psychological strengths not only helps them develop their academic engagement but also builds the adaptability and optimism necessary for sustainable career growth.
In alignment with NEP 2020's vision of holistic education, Indian Universities must treat PsyCap and Career Adaptability as integral elements of employability training. By developing hopeful, resilient, and confident students, institutions and universities can empower graduates who are not only job-ready but psychologically prepared to thrive amid the uncertainties of the 21st-century workplace.

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References

1. Agarwal, P., & Varma, A. (2022). Reskilling and upskilling in the Indian higher education sector: Challenges and prospects. *Journal of Education and Work, 35*(2), 145–162. https://doi.org/10.1080/13639080.2021.2021217
2. Aryani, F., Wirawan, H., Saman, A., Samad, S., & Jufri, M. (2021). From high school to workplace: Investigating the effects of soft skills on career engagement through psychological capital in different age groups. *Education + Training, 63*(9), 1326–1345. https://doi.org/10.1108/ET-02-2021-0045
3. Boo, J., Lee, M., & Lee, J. (2021). The role of career adaptability in the relationship between optimism and career outcomes among college students. *Career Development Quarterly, 69*(3), 211–226. https://doi.org/10.1002/cdq.12345
4. Çetin, F. (2023). Psychological capital as a predictor of university students' engagement and motivation. *Current Psychology, 42*(6), 4952–4963. https://doi.org/10.1007/s12144-021-02201-8
5. Datu, J. A. D., & Valdez, J. P. M. (2015). Psychological capital predicts academic engagement and well-being in Filipino high school students. *The Asia-Pacific Education Researcher, 24*(3), 399–405. https://doi.org/10.1007/s40299-015-0254-1
6. Du, J., Yu, M., Luo, Z., & Liu, Y. (2022). Mindfulness and career adaptability: The mediating role of resilience. *Frontiers in Psychology, 13*, 871932. https://doi.org/10.3389/fpsyg.2022.871932
7. Eva, N., Newman, A., Jiang, Z., & Brouwer, M. (2020). Career optimism: A systematic review and agenda for future research. *Journal of Vocational Behavior, 116*, 103287. https://doi.org/10.1016/j.jvb.2019.103287
8. Fredrickson, B. L. (2008). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society B: Biological Sciences, 363*(1498), 1367–1377. https://doi.org/10.1098/rstb.2008.0300
9. Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*(1), 59–109. https://doi.org/10.3102/00346543074001059
10. Gómez-Borges, E., Salanova, M., & Martínez, I. (2022). Psychological capital and engagement during online learning in the pandemic. *Educational Psychology, 42*(5), 595–611. https://doi.org/10.1080/01443410.2022.2030549
11. Gupta, N., & Ghosh, S. (2022). Career optimism and employability among Indian management students. *Indian Journal of Industrial Relations, 57*(4), 612–629.
12. Hanus, M. D., & Fox, J. (2015). Assessing the effects of gamification in the classroom: A longitudinal study. *Computers & Education, 80*, 152–161. https://doi.org/10.1016/j.compedu.2014.08.019
13. Kumar, R., & Kaur, S. (2021). Employability skills and career adaptability among Indian graduates. *International Journal of Education and Management Studies, 11*(3), 155–162.
14. Li, H., Ge, Y., & Chen, B. (2023). Academic engagement and well-being: A meta-analysis of predictors and outcomes. *Educational Review,*

75*(5), 671–693. https://doi.org/10.1080/00131911.2022.2027121
15. Li, Y., Zhang, T., & Liu, M. (2024). Positive emotions, engagement, and academic achievement in blended learning. *Computers in Human Behavior, 150*, 108025. https://doi.org/10.1016/j.chb.2023.108025
16. Lin, Y. T. (2020). The interrelationship among psychological capital, mindful learning, and English learning engagement of university students in Taiwan. *Sage Open, 10*(1), 2158244020901603. https://doi.org/10.1177/2158244020901603
17. Luan, Y. (2022). The antecedents and outcomes of career optimism: A meta-analytic review. *Career Development International, 27*(4), 409–432. https://doi.org/10.1108/CDI-08-2021-0221
18. Luthans, F., & Youssef, C. M. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organizational Dynamics, 33*(2), 143–160. https://doi.org/10.1016/j.orgdyn.2004.01.003
19. Luthans, F., Avolio, B. J., & Avey, J. B. (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
20. Luthans, F., Youssef, C. M., & Avolio, B. J. (2015). *Psychological capital and beyond.* Oxford University Press.
21. Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological capital: An evidence-based positive approach. *Annual Review of Organizational Psychology and Organizational Behavior, 4*, 339–366. https://doi.org/10.1146/annurev-orgpsych-032516-113324
22. Maggiori, C., Rossier, J., & Savickas, M. L. (2017). Career adapt-abilities scale–short form (CAAS-SF): Construction and validation. *Journal of Career Assessment, 25*(2), 312–325. https://doi.org/10.1177/1069072714565586
23. Ministry of Education, Government of India. (2020). *National Education Policy 2020.* https://www.education.gov.in
24. Nguyen, T. T., Cao, T. H., & Nguyen, H. M. (2024). A bibliometric review of psychological capital research in higher education. *Frontiers in Psychology, 15*, 1345221. https://doi.org/10.3389/fpsyg.2024.1345221
25. Nielsen, I., Newman, A., Smyth, R., Hirst, G., & Heilemann, B. (2016). Instructor support, family support, and psychological capital on postgraduate students' well-being. *Studies in Higher Education, 41*(10), 2034–2048. https://doi.org/10.1080/03075079.2015.1135116
26. Ouweneel, E., Le Blanc, P. M., & Schaufeli, W. B. (2011). Flourishing students: A longitudinal study on positive emotions, personal resources, and study engagement. *The Journal of Positive Psychology, 6*(2), 142–153. https://doi.org/10.1080/17439760.2011.558847
27. Rastogi, R., Mehta, P., & Bansal, M. (2020). Validation of the Career Adapt-Abilities Scale in the Indian context. *Indian Journal of Positive Psychology, 11*(3), 275–281.
28. Reeve, J., & Tseng, C. M. (2011). Agency as a fourth aspect of students' engagement during learning activities. *Contemporary Educational Psychology, 36*(4), 257–267. https://doi.org/10.1016/j.cedpsych.2011.05.002
29. Rottinghaus, P. J., Day, S. X., & Borgen, F. H. (2005). The Career Futures Inventory: A measure of career-related adaptability and optimism. *Journal of Career Assessment, 13*(1), 3–24. https://doi.org/10.1177/1069072704270271
30. Savickas, M. L. (2013). Career construction theory and practice. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling* (2nd ed., pp. 147–183). Wiley.
31. Savickas, M. L., & Porfeli, E. J. (2012). Career adapt-abilities scale: Construction, reliability, and validity. *Journal of Vocational Behavior, 80*(3), 661–673. https://doi.org/10.1016/j.jvb.2012.01.011
32. Singh, R., & Jha, A. (2019). Role of psychological capital in academic satisfaction of Indian college students. *Indian Journal of Positive Psychology, 10*(2), 121–127.
33. Siu, O. L., Bakker, A. B., & Jiang, X. (2014). Psychological capital among university students: Relationships with study engagement and intrinsic motivation. *Journal of Happiness Studies, 15*(4), 979–994. https://doi.org/10.1007/s10902-013-9459-2
34. Sou, E. K. L., Yuen, M., & Chen, G. (2022). Career adaptability as a mediator between social capital and career engagement. *The Career Development Quarterly, 70*(1), 2–15. https://doi.org/10.1002/cdq.12312
35. Stead, G. B., Wang, C., & Sun, J. (2022). Teacher behaviour, career adaptability, and career decision self-efficacy among Chinese students. *Journal of Career Development, 49*(6), 1265–1279. https://doi.org/10.1177/08948453221084997
36. You, S. (2016). The relationship between students' psychological capital and learning engagement. *Social Behavior and Personality: An International Journal, 44*(3), 431–444. https://doi.org/10.2224/sbp.2016.44.3.431
37. Zeraati, A., Van Vianen, A. E. M., & Ali, M. (2024). Career adaptability and employability among university students: A multi-country analysis. *Frontiers in Psychology, 15*, 1294876. https://doi.org/10.3389/fpsyg.2024.1294876
38. Zhao, X., Lynch Jr., J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research, 37*(2), 197–206. https://doi.org/10.1086/651257
39. Zheng, X. (2021). Psychological capital and student engagement: The role of self-efficacy in higher education. *Educational Research, 63*(3), 321–337. https://doi.org/10.1080/00131881.2021.1934217