

EFFECT OF FACULTY MOTIVATION, MANAGEMENT SUPPORT AND FACULTY ENGAGEMENT ON THE PERFORMANCE OF HIGHER EDUCATIONAL INSTITUTIONS

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ABSTRACT

A survey was conducted to capture the antecedents of the performance of Higher Educational Institutions in Bhubaneswar, Cuttack, Ganjam, Puri and Sambalpur in the Odisha state of India. 436 faculty members from 55 higher educational institutions were contacted to elicit survey data on three exogenous variables namely, managerial support, faculty motivation, faculty engagement and the exogenous variable HEI performance. Data from the paper-based questionnaire survey was analyzed to evaluate direct and indirect causal relationships using SmartPLS 4.0 software. Management support ($\beta=0.459$, $p=0.000$) and faculty motivation ($\beta=0.196$, $p=0.000$) had a direct and significant effect on Faculty engagement. Management Support ($\beta=0.288$, $p=0.000$), Faculty motivation ($\beta=0.124$, $p=0.000$) and faculty engagement ($\beta=0.543$, $p=0.000$) had a direct and significant effect on the performance of the HEIs. The high impact of faculty motivation was aided by the indirect effects of faculty motivation and management support on the performance of HEIs through faculty engagement.

Keywords: Management Support, Faculty Motivation, Faculty Engagement, Performance.

INTRODUCTION

Faculty motivation and engagement are important predictors of faculty performance which in turn is likely to result in higher performance of the educational institutes. Faculty motivation can arise due to monetary reasons, due to helping students, doing the job well or for personal satisfaction. Organizational support is another causal factor which together with faculty motivation affects the faculty engagement. Faculty engagement is known to have a direct effect on the performance of the educational institution.

The objective of this study is to evaluate the effect faculty motivation and management support has on faculty engagement and the performance of higher educational institutions (HEIs). The higher educational institutions are those offering tertiary degrees and, in many cases, professional degrees. A survey was conducted among HEIs in the eastern state of Odisha in India and responses were collected from faculty members on a structured questionnaire to elicit responses on faculty motivation, management support and faculty engagement and the performance of HEIs.

LITERATURE REVIEW

Parati and Galicia (2025) aimed to study the research acumen, practices and engagement of dentistry faculty in Higher Education Institutions (HEIs) in Calabarzon. The findings revealed that respondents exhibited very high research readiness in terms of knowledge and attitude, and high readiness in skills. Significant relationships were found between research readiness, practices, and engagement, with a predictive model indicating that research readiness and practices significantly predict research engagement.

Mohammad et al. (2024) explored the impact of artificial intelligence training on the teaching engagement and development of faculty members in Saudi private universities. This study adopts a quantitative approach, analyzing 103 survey responses to evaluate how AI technologies transform faculty roles and responsibilities, focusing on their experiences, perceptions, and practices related to AI in teaching and learning. The study revealed a significant correlation between AI use, faculty engagement, and productivity.

Yang (2024) investigated the effect of organizational support on work engagement in private universities in Thailand. The study focused on the work engagement of faculty and staff at three private universities and investigated how organizational support, in terms of training, autonomy, and technology, influenced the work engagement of faculty and staff in adopting new working styles. The results indicated that organizational support in terms of training, autonomy, and technology was positively associated with work engagement ($p = .009, .009, \text{ and } .000$ respectively).

Mishra and Rath (2025) found that employee engagement was a decisive factor for organisational growth and development. Factors like job satisfaction, work environment, peer relationship, motivation and employee development, which are directly or indirectly connected with employee engagement. Results revealed faculty engagement as an important aspect to be considered as they are the key stakeholders in HEIs.

Luthra, Dixit and Arya (2023) explored the faculty engagement and development activities in the learning organizations. Utilising semi-structured interviews from 267 faculty members, this research concluded that faculty development programmes and training affect faculty engagement behaviours in a positive and significant way.

Wasilowski (2018) considered employee engagement as a critical issue across many industries especially higher education. The research concluded that faculty engagement had a positive and significant impact on the financial outcome and the enterprise value of the educational enterprise.

Hanley, Maykrantz and Houghton (2023) developed and tested a hypothesized model of faculty engagement in which faculty member grit is positively related to faculty member engagement both directly and indirectly through faculty member–academic chair leader member exchange (LMX). Using a sample of 156 faculty members in a public university in the US they tested the model and found significant positive relationships between faculty member grit and faculty member engagement.

Han, Yin and Wang (2018) studied burnout among nursing college faculty and the effect of the management behaviour of the dean and collegial support using a mail survey. The findings indicated that management style and collegial support were strong predictors of burnout.

Stokowski et al. (2019) examined the work motivation and job satisfaction levels of sport management faculty members and the relationship between their job satisfaction levels and work motivations. Results revealed that regarding job satisfaction, faculty members were more satisfied with work itself, supervision, and coworkers and were less satisfied with pay, operating procedures, and reward. Intrinsic motivation and job satisfaction were high for the participants.

Haris, Saidabadi and Niazazari (2016) investigated the effects of spiritual leadership on professional mediation and job satisfaction. Results showed a significant and positive relationship between the variables

Zaraket and Halawi (2015) analysed the notion of faculty members' organisational commitment in the Lebanese higher education sector, and how faculty members can exert more commitment and devotion towards their academic institutions. They report that commitment of faculty was a significant factor of motivation.

Essakow, Tsoi and Van Schaik (2023) investigated the faculty motivation to participate in academic activities having no direct monetary compensation. The authors report that motivating factors are personal gain, desire to help others, desire to help the greater good, job responsibility and ability to help.

Zhao et al. (2025) studied the link between academic stressors and academic performance of faculty with the mediating role of faculty motivation. Using structural equation modelling they reported a significant relationship between faculty academic performance, stress reduction and increased motivation.

Emeagwali (2021) investigated the antecedents of performance of eight Nigerian universities and reported that while there was a limited link between differentiation strategy and performance, there was a substantially strong link between focus strategy and performance according to the findings.

METHODS AND MATERIALS

The data was collected using a paper-based questionnaire and responses were collected from 700 teachers at the 55 HEIs in five major cities of Odisha state in India. Participants were asked to mark their choice on the sixteen Likert type questions from 1 to 7 with 1=Strongly Disagree, 2=Disagree, 3=Somewhat Disagree, 4=Neutral, 5=Somewhat Agree, 6= Agree and 7-Strongly Agree. The cities were coded as Bhubaneswar=1, Cuttack=2, Puri=3, Ganjam=4 and Sambalpur=5. The higher education institutes were coded as Government=1 and Private=2. Participants were coded in four classes as >30 year=1, 30-40 years=2, 40-50 years=3 and >50=4. Gender was coded as Male=1 and Female=2. Marital status was coded as Married=1 and Single=2. Those not covered by the category of married were all put under Single. In educational qualification of the respondents Postgraduates were coded as 1, Doctorates as 2 and those with professional degrees or industry experience were coded as 3. Assistant Professors were coded as 1, Associate Professors as 2 and Professors were coded as 3. Finally, experience was coded as <10 years=1, 10-20 years=2, >20 years=3.

The survey questionnaire had seven questions on the demographic profile of the respondents and 16 forced choice Likert type questions on 7-point scale. Each of the four constructs, namely, Faculty Motivation, Management Support, Faculty Engagement and HEI Performance were measured by four questions each. Out of 700 responses collected, 436 questionnaires were found complete in all respects and useful resulting in 62.28% response rate. This is more than the minimum required sample size (Bujang, Omar, & Baharum, 2018). The data was collected over a period of four months between December 2024 to March 2025.

The demographic details of the sample such as gender, age, experience, education, marital status etc. are presented in Table 1. Table 2 details the constructs used in the study and the indicative questionnaire items to measure these constructs. Table 3 presents the mean, standard deviation and reliability statistics (Cronbach's alpha).

Quantitative data was collected using questionnaire survey from a diverse population spread all over Odisha in India. The questionnaire had two sections, section 1 collected demographic data and section 2 collected information on 16 items covering four latent constructs. The constructs were adapted from literature.

The respondents rated the questionnaire items on a 7-point Likert scale. The researchers identified 55 higher educational institutes (HEIs) offering tertiary level and professional degree courses. These were selected from both the public and private sectors in Bhubaneswar, Cuttack, Puri, Ganjam and Sambalpur districts of Odisha state in India. A combination of purposive and random sampling was chosen to include the HEIs which permitted the survey and the random sampling within the available HEIs ensured that the sample was representative of the population. Survey questionnaires with incomplete or missing information were deleted and remaining 436 questionnaires were coded and entered in SPSS for basic statistical frequency analysis.

Based on the literature survey following hypotheses were tested-

H₁: Faculty motivation has a direct effect on faculty engagement.

H₂: Management support has a direct effect on faculty engagement.

H₃: Faculty motivation has a direct effect on HEI performance.

H₄: Management support has a direct effect on HEI performance.

H₅: Faculty engagement has a direct effect on HEI performance.

H₆: Faculty motivation has an indirect effect on HEI performance through faculty engagement.

H₇: Management support has an indirect effect on HEI performance through faculty engagement.

Table 1			
DEMOGRAPHIC STATISTICS OF THE SAMPLE			
Demographic Variable	Category	Frequency	Percentage
Gender	Male	309	70.9
	Female	127	29.1
HEI Category	Government	249	57.1
	Private	197	42.9
Age	<30 years	36	8.3
	30-40 years	119	27.3
	40-50 years	162	37.2
	>50 years	119	27.3
Marital Status	Married	312	71.6
	Single	124	28.4
Teacher Level	Assistant Professor	49	11.2
	Associate Professor	240	55
	Professor	147	33.7
Experience	<10 years	49	11.2
	10-20 years	238	54.6
	>20 years	149	34.2
City	Bhubaneswar	101	23.2
	Cuttack	102	23.4
	Puri	116	26.6

	Ganjam	64	14.7
	Sambalpur	53	12.2

Table 2
CONSTRUCT DESIGN AND SOURCES

Construct Design and Source			
Construct	Label	Item Detail	Source
Management Support	MANSUP1	University provides flexible work hours	[Hanley, Maykrantz and Houghton (2023), Cotelnic (2022)]
	MANSUP2	I have freedom to offer new courses	
	MANSUP3	Management encourages faculty initiatives	
	MANSUP4	Management provides reskilling and upskilling	
Faculty Motivation	FACMOT1	University vision motivates me	[Ghimire et al. (2022), Hanley, Maykrantz and Houghton (2023), Iqbal, Razali and Bin Taib (2023)]
	FACMOT2	My university follows ethical practices	
	FACMOT3	My university offers equal opportunity in employment	
	FACMOT4	Management treats employees as respectable assets	
Faculty Engagement	FACENG1	My university incentivises academic publications and efforts.	[Engidaw (2021), Hanley, Maykrantz and Houghton (2023), Li and Khattak (2023)]
	FACENG2	I work to constantly improve my course delivery	
	FACENG3	My university provides good professional growth.	
	FACENG4	I receive regular feedback on my performance	
HEI Performance	HEIPER1	My university has received national international accreditations	[Asif and Searcy (2014), Brown et al. (2005), Cotelnic (2022), Emengwali (2022), Li and Khattak (2023)]
	HEIPER2	My university fills all its seats and has a high demand ratio	
	HEIPER3	University undertakes industry and government training projects	
	HEIPER4	University is known for transparency and accountability	

Table 3
MEAN, STANDARD DEVIATION AND RELIABILITY OF CONSTRUCTS

Mean, Standard Deviation and Reliability (Cronbach's α) of the measured constructs				
	Management Support	Faculty Motivation	Faculty Engagement	HEI Performance
Mean	4.847	5.092	3.591	4.673
Standard Deviation	1.623	1.623	1.584	1.489
Reliability (α)	0.774	0.806	0.773	0.754

Data Analysis

SmartPLS 4.0 was used for carrying out the structural equation modeling (Agasisti&Bertoletti, 2019). The fitted model is shown in Figure 1. The path coefficients are given

in Table 4 and show the direct effects which are all significant ($p < 0.05$). The indirect effects of faculty motivation and management support on HEI performance are presented in Table 5.

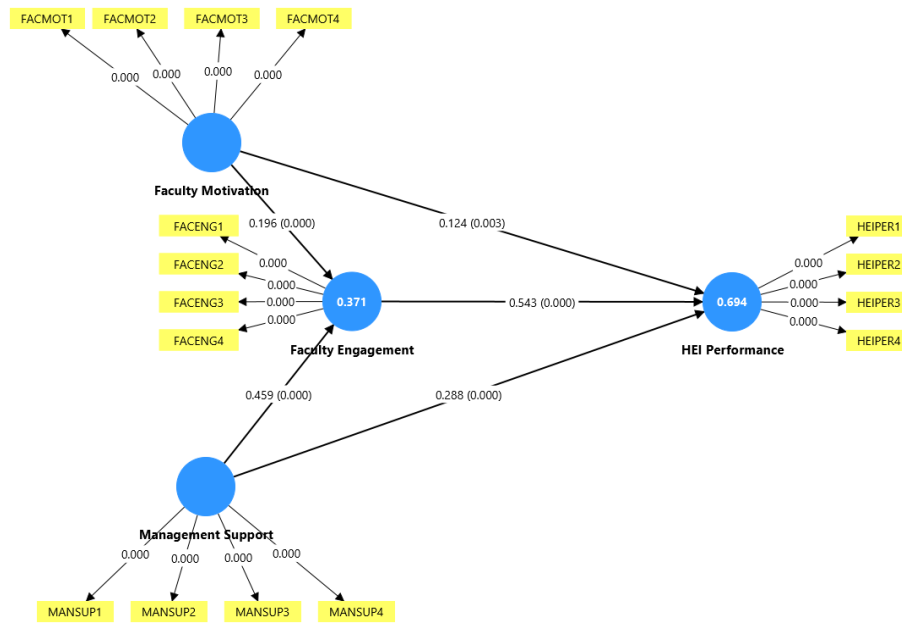


FIGURE 1
PATH DIAGRAM SHOWING COEFFICIENTS AND P VALUES

Table 4 PATH COEFFICIENTS AND SIGNIFICANCE VALUES					
Path coefficients					
Mean, STDEV, T values, p values	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Faculty Engagement → HEI Performance	0.543	0.543	0.037	14.575	0.000
Faculty Motivation → Faculty Engagement	0.196	0.199	0.051	3.824	0.000
Faculty Motivation → HEI Performance	0.124	0.123	0.042	2.985	0.003
Management Support → Faculty Engagement	0.459	0.458	0.052	8.859	0.000
Management Support → HEI Performance	0.288	0.290	0.047	6.160	0.000

Table 5 INDIRECT EFFECTS OF FACULTY MOTIVATION AND MANAGEMENT SUPPORT ON HEI PERFORMANCE					
Total indirect effects					
Mean, STDEV, T values, p values	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Faculty Motivation → HEI Performance	0.107	0.108	0.028	3.807	0.000

Management Support -> HEI Performance	0.249	0.249	0.033	7.594	0.000
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Table 6 presents the R^2 values for the path model. R^2 values for faculty engagement and HEI performance as the dependent variables are significant.

Table 6 R2 VALUES OF THE PATH MODEL					
R-square					
Mean, STDEV, T values, p values	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Faculty Engagement	0.371	0.376	0.036	10.439	0.000
HEI Performance	0.694	0.698	0.026	26.980	0.000

Table 7 presents the average variance extracted for the four constructs and all the values are above 0.5 indicating satisfactory value for the model. Cronbach's alpha for all four constructs of the study are above 0.7 and are satisfactory (Table 7). The model fit is given by Standardized Root Mean Square Residual (SRMR) under 0.08 (Table 8). The discriminant validity of the four constructs is given by HTMT ratios. Tables 9 & 10 shows the HTMT ratios which are all below 0.9 indicating discriminant validity.

Table 7 AVERAGE VARIANCE EXTRACTED					
Average variance extracted (AVE)					
Mean, STDEV, T values, p values	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Faculty Engagement	0.595	0.595	0.021	28.970	0.000
Faculty Motivation	0.648	0.648	0.021	30.684	0.000
HEI Performance	0.584	0.584	0.020	29.276	0.000
Management Support	0.603	0.603	0.022	28.031	0.000

Table 8 CRONBACH'S ALPHA FOR RELIABILITY OF CONSTRUCTS					
Cronbach's alpha					
Mean, STDEV, T values, p values	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Faculty Engagement	0.774	0.773	0.019	40.207	0.000
Faculty Motivation	0.821	0.821	0.016	50.599	0.000
HEI Performance	0.757	0.757	0.021	35.986	0.000
Management Support	0.781	0.780	0.020	39.569	0.000

Table 9 MODEL FIT INDICES (SRMR)					
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<u>SRMR</u>				
<u>Confidence intervals</u>	Original sample (O)	Sample mean (M)	95%	99%
Saturated model	0.043	0.051	0.055	0.057
Estimated model	0.043	0.051	0.055	0.057

Table 10 HETEROTRAIT-MONOTRAIT RATIO				
Heterotrait-monotrait ratio (HTMT)				
<u>Confidence intervals</u>	Original sample (O)	Sample mean (M)	2.5%	97.5%
Faculty Motivation <-> Faculty Engagement	0.603	0.604	0.519	0.685
HEI Performance <-> Faculty Engagement	0.779	0.780	0.629	0.903
HEI Performance <-> Faculty Motivation	0.742	0.742	0.657	0.819
Management Support <-> Faculty Engagement	0.743	0.743	0.666	0.816
Management Support <-> Faculty Motivation	0.802	0.803	0.734	0.868
Management Support <-> HEI Performance	0.809	0.810	0.746	0.970

The structural model was further tested for its predictive validity using Cross Validated Predictive Ability Test (CVPAT). Table 11 presents the CVPAT comparison of the PLS model shows negative values of Average loss difference which indicate the validity of the path model (Hair et al., 2014).

Table 11 CROSS VALIDATED PREDICTIVE VALIDITY TEST (CVPAT)					
	PLS loss	IA loss	Average loss difference	t value	p value
Faculty Engagement	1.792	2.264	-0.472	7.174	0.000
HEI Performance	1.442	2.044	-0.601	8.867	0.000
Overall	1.617	2.154	-0.537	8.911	0.000

RESULTS AND CONCLUSION

The path analysis conducted with SmartPLS 4.0 established all the hypotheses which are summarized in Table 12 below.

Table 12 RESULTS OF HYPOTHESIS TESTING			
Direct Effects	T statistics (O/STDEV)	P values	Result
Faculty Engagement -> HEI Performance	14.575	0.000	Accepted
Faculty Motivation -> Faculty Engagement	3.824	0.000	Accepted

Faculty Motivation -> HEI Performance	2.985	0.003	Accepted
Management Support -> Faculty Engagement	8.859	0.000	Accepted
Management Support -> HEI Performance	6.160	0.000	Accepted
<u>Indirect effects</u>			
Faculty Motivation -> HEI Performance	3.807	0.000	Accepted
Management Support -> HEI Performance	7.594	0.000	Accepted

The predictive validity of the model is tested using CVPAT and is satisfactory. The model used in the study passed the CVPAT.

The performance of the higher educational institutions depends on the three causal factors, namely, faculty motivation, management support and faculty engagement. Faculty engagement in turn depended on faculty motivation and management support.

Limitations

The self-report questionnaires used in the survey for collecting information from the faculty regarding their motivation, engagement and management support may have suffered from self-report bias. The share of women (29.1%) in the sample is representative of the population. In India the share of women in higher education has lagged their male counterparts and at university level females are reported to comprise 36.65% only (Gandhi and Sen, 2020). A larger geographic area covering more states of India might provide a more generalizable result.

Ethics Statement

The study utilized nonexperimental data collected through voluntary surveys and the researchers adhered to the ethical considerations throughout the data collection. Consent was obtained from the participants' employing educational institutes and no remuneration was paid for taking part in the survey. The respondents were told that the data would be used solely for academic purposes and no personally identifiable information was sought or collected.

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CONFLICT OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

AUTHOR CREDITS

Sushanta Kumar Mishra: Data collection. original draft; Namita Rath: Conceptualization, Formal analysis, Methodology, Writing–review & editing; Rushil Varma: Data collection, methodology and editing.

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