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Comparative Study of Motivational Analysis of Behaviour for Engineering Faculty of Other Engineering Institutes and SCOE

Dharmadhikari Nirajkumar Meghsham[1] and Dr. Vijaya Puranik[2]
Student, Sinhgad Institute of Management and Computer Application, Narhe, Pune, India[1]
Guide and Professor, Sinhgad Institute of Management and Computer Application, Narhe, Pune, India[2]

Abstract: *Motivation plays an important role in determining faculty performance, organizational commitment, leadership behaviour, and academic effectiveness in higher education institutions. The present study focuses on a comparative analysis of motivational behaviour among engineering faculty members from SCOE and other engineering institutes. The study used the Motivational Analysis of Organizations–Behaviour (MAO-B) scale developed by Udai Pareek to assess six motivational dimensions namely Achievement, Influence, Control, Extension, Affiliation, and Dependence. Data were collected from 36 engineering faculty members through a structured questionnaire distributed using Google Forms. The responses were analyzed using Operating Effectiveness Quotient (OEQ), mean analysis, and independent sample t-test. The findings revealed that SCOE faculty members scored comparatively higher in most motivational dimensions, especially Achievement, Influence, and Dependence motives. The study also found that demographic variables such as age, gender, and work experience had limited significant influence on motivational dimensions, except in selected motives such as Dependence, Control, and Affiliation. The study highlights the importance of institutional culture, organizational support, and professional experience in shaping motivational behaviour among engineering faculty*

Keywords: MAO-B, Operating Efficiency Quotient (OEQ), Independent sample t-test, Organizational Behaviour.

I. INTRODUCTION

Faculty motivation is one of the most significant factors influencing teaching effectiveness, research productivity, institutional development, and student engagement in engineering education. Engineering faculty members work in a highly dynamic academic environment that requires technical competency, leadership, mentoring ability, administrative participation, and continuous professional development. Therefore, understanding motivational behaviour among faculty members becomes essential for improving organizational effectiveness and academic quality.

Different institutions exhibit different organizational cultures, leadership practices, work environments, and opportunities for growth. These variations influence the behavioural motives of faculty members. The present study compares the motivational behaviour of faculty members from SCOE and other engineering institutes using the MAO-B framework developed by Udai Pareek.

The study becomes highly relevant in the context of NEP 2020, which emphasizes innovation, multidisciplinary learning, research orientation, and student-centered education. Motivated faculty members are essential for achieving these educational objectives.

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II. REVIEW OF LITERATURE

Pareek (1974) explained that motivation and motive are closely related concepts and proposed a conceptual model of work motivation consisting of individual needs, organizational interaction, and work satisfaction. According to Elliot and Covington (2001), motivation directs and energizes behaviour through approach and avoidance tendencies.

Maslow (1955) identified hierarchy-based human needs including physiological, safety, social, esteem, and self-actualization needs. Herzberg differentiated between motivators and hygiene factors affecting employee satisfaction. McClelland emphasized Achievement, Affiliation, and Power motives as key behavioural drivers.

Pandey (1997) explained six major motives affecting organizational behaviour: Achievement Motive, Influence Motive, Control Motive, Extension Motive, Affiliation Motive, Dependence Motive

Previous studies indicate that motivational behaviour varies across organizational culture, leadership style, and demographic characteristics. However, very limited studies have been conducted on engineering faculty using the MAO-B framework.

III. OBJECTIVES OF THE STUDY

- To measure and compare approach/avoidance and OEQ of motives among faculty members of other engineering institutes and SCOE.
- To assess variations in motivational motives across demographic variables such as gender, age, and work experience.

IV. RESEARCH HYPOTHESIS

Null Hypothesis (H0)

OEQ and approach/avoidance of motives do not vary significantly across age, gender, and work experience.

Alternate Hypothesis (H1)

OEQ and approach/avoidance of motives vary significantly across age, gender, and work experience.

V. RESEARCH METHODOLOGY

A. Research Design

The study is descriptive and comparative in nature.

B. Population and Sample

The target population consisted of engineering faculty members from engineering institutes in Pune region.
Sample Size: 36 respondents
Sampling Method: Convenience Sampling
Data Collection Tool: Structured Questionnaire (MAO-B)
Data Collection Method: Google Form

C. Statistical Tools Used

The following statistical techniques were used:
Mean Analysis
Percentage Analysis
Operating Effectiveness Quotient (OEQ)
Independent Sample t-test

D. Formula for OEQ

The Operating Effectiveness Quotient was calculated using the following formula: OEQ = [(P-5)/(P=V-10)] *100
Where: P = Approach Score, V = Avoidance Score

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VI. RESULTS AND ANALYSIS

A. Demographic Profile of Respondents

The majority of respondents were male faculty members and most respondents had more than 10 years of teaching experience. A larger proportion of respondents were above 40 years of age.

Factor	Category	Percentage
Age	Above 40 years	64%
Gender	Male	72%
Work Experience	Above 10 years	92%

Table 1: Demographic information of the sample used

B. OEQ Comparison between SCOE and Other Institutes

The findings indicate that SCOE faculty members scored comparatively higher in all motivational dimensions. The highest differences were observed in Influence, Achievement, and Dependence motives.

Motive	Other Institutes	SCOE
Achievement	56	61
Influence	61	68
Control	48	52
Extension	56	59
Affiliation	56	57
Dependence	52	58

Table 2: OEQ comparison

C. Gender-wise Analysis

Motive	Gender			
	OTHER	Significance	SCOE	Significance
Achievement	0.5	No Significance	1.65	No Significance
Influence	0.01	No Significance	0.33	No Significance
Control	1.66	No Significance	1.52	No Significance
Extension	1.33	No Significance	1.02	No Significance
Affiliation	0.87	No Significance	0.2	No Significance
Dependence	**2.38**	**Significant**	0.69	No Significance

Table 3: Independent sample t test values for gender

The independent sample t-test showed no significant gender-based differences in Achievement, Influence, Control, Extension, and Affiliation motives. However, Dependence motive showed significant variation among faculty members from other engineering institutes.

D. Work Experience-wise Analysis

Motive	Work Experience			
	OTHER	Significance	SCOE	Significance
Achievement	1.03	No Significance	0.36	No Significance
Influence	0.94	No Significance	1.49	No Significance
Control	1.14	No Significance	**2.36**	**Significant**

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Extension	0.18	No Significance	0.96	No Significance
Affiliation	1.61	No Significance	**2.25**	**Significant**
Dependence	**2.04**	**Significant**	1.03	No Significance

Table 4: Independent sample t test values for work experience

The analysis revealed significant differences in:

Dependence motive among faculty from other institutes.

Control and Affiliation motives among SCOE faculty members.

Experienced faculty members generally demonstrated stronger leadership orientation, organizational involvement, and professional commitment.

E. Age-wise Analysis

The analysis revealed that most motivational dimensions remained stable across age groups.

Motive	Age			
	OTHER	Significance	SCOE	Significance
Achievement	0.77	No Significance	0.99	No Significance
Influence	0.51	No Significance	0.76	No Significance
Control	1.05	No Significance	1.28	No Significance
Extension	0.24	No Significance	0.88	No Significance
Affiliation	0.25	No Significance	0	No Significance
Dependence	1.51	No Significance	**2.18**	**Significant**

Table 5: Independent sample t test values for age

However, Dependence motive showed significant variation among SCOE faculty members.

VII. DISCUSSION

The study reveals that faculty members of SCOE possess comparatively stronger motivational characteristics than faculty members from other engineering institutes. Higher Achievement motive scores among SCOE faculty indicate stronger goal orientation, academic ambition, and professional growth orientation.

Higher Influence motive scores suggest greater participation in organizational decision-making, leadership activities, and academic administration. Higher Extension motive scores reflect stronger concern for student welfare, mentoring, and institutional contribution.

The study also indicates that demographic variables such as age and gender do not significantly affect most motivational dimensions. However, work experience influences managerial orientation, interpersonal relationships, and dependence on organizational support systems.

The findings suggest that organizational culture, leadership practices, institutional support, and professional exposure play an important role in shaping faculty motivation.

VIII. CONCLUSION

The present study concludes that engineering faculty members from SCOE demonstrate comparatively stronger motivational profiles than faculty members from other engineering institutes. Achievement, Influence, and Extension motives emerged as dominant motivational dimensions among faculty members.

Most motivational dimensions remained stable across demographic variables such as age, gender, and work experience. However, Dependence motive emerged as the most sensitive dimension influenced by demographic and institutional factors.

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The study emphasizes the importance of supportive organizational culture, mentoring systems, faculty development initiatives, and professional growth opportunities for enhancing faculty motivation and academic effectiveness.

IX. LIMITATIONS OF THE STUDY

The sample size was limited to 36 respondents.
The study was restricted to engineering faculty members from selected institutes in Pune region.
Institutional differences such as policies, work culture, and management style may influence motivational behaviour.
The study relied on self-reported responses.

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