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Research Article

Effectiveness of Mentor Systems in Enhancing Academic Quality from a Human Resource Management Perspective in Higher Education Institutions

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Abstract: The mentor system has been widely used in higher education institutions to enhance human resource development, teaching-learning efficacy, and academic excellence. In order to scientifically evaluate its impact in quality improvement and human resource management techniques, this study explores faculty perspectives. A standardised questionnaire with a five-point Likert scale was used to collect primary data from 105 faculty members. Both descriptive and analytical research designs were used in the study. Statistical techniques used in data analysis included variance, standard deviation, mean scores, percentage analysis, and descriptive statistics. A composite Mentoring Quality Enhancement Index (MQEI) was also created to assess the overall efficacy of mentoring. Higher mean scores show that faculty members have a positive opinion of hybrid learning for lesson preparation, faculty development, and instructional efficacy. The availability of formal evaluation processes, institutional human resource assistance, and mentorship resources, on the other hand, demonstrated much lower mean values and more variability, highlighting shortcomings in institutional support systems. The mentor system is classified as fairly successful based on the MQEI results. This suggests that although mentoring is important for improving academic quality and developing human resources, its efficacy is limited by a lack of incentives, inadequate evaluation procedures, and budget constraints. The research concludes that to strengthen mentor systems in Higher Education Institutions, it is essential to enhance institutional human resource policies, formalize mentoring guidelines, and introduce systematic evaluation frameworks for sustainable academic quality improvement.

Keywords: Faculty Mentoring; Quality Enhancement; Higher Education Institutions; Mentoring Quality Enhancement Index (MQEI); Institutional Support; Human Resource; Quality Assurance; Faculty Development; Academic Effectiveness; Organizational Culture

INTRODUCTION

Mentoring has been regarded as one of the most important strategies of facilitating the academic, professional, and personal growth in institutions of higher learning. The mentor system, which began in the old guru-shishya paradigm, has developed into an institutionalised, systematised process, which offers instructors and students on-going academic supervision, counsel, and reward. Mentoring is essential in today's higher education environment for enhancing teaching-learning efficacy, fostering a culture of research, increasing student retention, and promoting holistic development. Mentoring is highlighted as a crucial element for improving institutional quality and outcome-based education by regulatory and quality assurance frameworks [1].

Over the last few years, higher education institutions have been progressively implementing formal mentoring systems to deal with the problems of academic diversity, technological development, and the increasing focus on hybrid and learner-centered pedagogies. Effective mentorship is the result of improved lesson planning, increased academic interaction, easier transition to hybrid learning environments, and increased professional satisfaction among faculty members. Properly planned mentorship program with sufficient funding, open hiring, and ongoing evaluation can help a lot in enhancing the performance of the institution and overall quality control mechanisms within the organization [2].

Although mentor systems are highly used, their success is highly dependent on aspects such as competency of mentors, institutional support, incentive structure, and organizational culture [3]. There is still a need to have some empirical studies that will systematically evaluate the effects of mentoring on quality improvement in higher education institutions through the perspective of faculty mentors [4,5]. With this background, the present study will seek to investigate how the mentor system influences quality improvement. The analysis is based on such issues as the selection of mentors, institutional support, incentives, the effectiveness of hybrid learning, and the mentoring climate in institutions of higher learning. It is based on original data collected from faculty members.

The original contribution of the research is the development and practical application of the Mentoring Quality Enhancement Index (MQEI) as a composite, index-based measurement system that quantitatively reflects the multifaceted effect that the mentor system has on quality improvement in institutions of higher learning. This study is not like other studies that have studied mentoring in isolation or have simply used perceptions to determine correlations, but integrates structural (such as mentor selection and guidelines), institutional (such as resources, incentives, and support), pedagogical (such as effectiveness of hybrid learning), and evaluative (such as formal assessment systems) aspects into one standardised index.

The findings specifically indicate that although mentoring enhances the teaching and learning process, especially in the design of hybrid lessons, it is limited in its effectiveness due to poor institutional support, insufficient rigorous evaluation, and poor reward systems. This complex data demonstrates that organisational policy and infrastructure have a major impact on mentoring efficacy, which is not only dependent on the dedication of individual mentors. The findings broaden the research literature on mentoring to more than descriptive correlations to quantifiable quality measures.

Methodologically, the study has a descriptive and analytical research design and uses primary data collection process using a structured questionnaire that will be administered to 105 faculty members that work as mentors in Higher Education Institutions. The tool, which was created based on a wide range of literature and expert validation, relied on a five-point Likert scale to guarantee the sensitivity and reliability of measurement. The statistical methods of mean score analysis, standard deviation, variance, percentage analysis and composite index construction were employed to analyze the data with the help of statistical software. Triangulation of descriptive statistics with index-based analysis enhances the methodological rigor because it allows not only a fine interpretation of the individual variables but also a comprehensive evaluation of the effectiveness of mentoring. This methodology makes the research methodologically sounder than traditional survey-based mentoring research, and provides a replicable and policy-relevant model of institutional quality measurement.

Review of the Literature

Ahmed Alsaadi in his article, Enhancing Educational Quality: Reforming Mentorship Practices in Private Higher Education, discussed the issue of faculty mentorship as a determinant of the quality of education in the Omani private higher education. His work highlighted the growing tension between financial and academic integrity, and showed that the practice of mentoring is under the sway of profit-making demands. The research demonstrated that the mentorship programs that were originally focused on faculty development are being re-oriented to meet revenue-related goals such as student retention and satisfaction, through qualitative approaches such as in-depth interviews, observations, and analysis of secondary data. This shift has led to grade inflation, decline in academic rigor, ethical issues and declining faculty morale all contributing to a loss of institutional credibility and academic integrity [6].

"Mentoring and Quality Assurance Measure in the Nigerian Educational System" is the title of their study. Adedayo Adeniran Odunlami and Oluwakemi Mogelola Anyanwu of the University of Ilesa in Nigeria examined how mentorship, the strength of staff, lecturer workload, and quality assurance relate. The authors gathered information on academic personnel with the help of a validated Mentoring and Quality Assurance Questionnaire (MAQAQ) and descriptive survey study design. The results showed a significant positive correlation between mentoring practices and quality assurance measures in community service, teaching and research. Another finding of the study was that a large workload on lecturers may increase productivity but may cause stress, health issues, and errors that affect mentoring effectiveness and quality of education. On the contrary, an increased staff strength enhances quality assurance. [7].

Loan Nguyen, Sarath Tomy, and Eric Pardede emphasised the need of integrating technology-driven mentoring techniques into modern education in their work "Enhancing Collaborative Learning and E-Mentoring in a Smart Education System in Higher Education." The study suggested a conceptual paradigm that combines e-mentoring and collaborative learning to enhance student capabilities in a smart education setting. The study, using questionnaires to both the facilitators and the students, demonstrated a high level of congruency regarding the feasibility and usefulness of the proposed model, highlighting the effectiveness of e-mentoring in linking students to professional networks and improving learning outcomes. [8].

In their article, P. S. Aithal and Adithya Kumar Maiya created an in-depth framework of their work in the article titled Development of a New Conceptual Model of Improvement of the Quality Services of Higher Education Institutions in Academic, Administrative, and Research Areas. Based on the exploratory study strategy, which included literature reviews, focus groups, and systematic analyses, the authors determined the main determinants of service quality in higher education institutions. across order to enhance quality in academic, administrative, and research spheres, the study introduced a new conceptual model, which emphasized innovation, best practices, and institutional originality [9].

In the article, "A System-Wide Health Sciences Faculty Mentor Training Program Is Associated with Improved Effective Mentoring and Institutional Climate," JoAnn Trejo and her co-authors assessed the outcomes of an organized Faculty Mentor Training Program (FMTP) that was instituted within UC San Diego Health Sciences. The study found that under-represented faculty experienced substantial changes in institutional atmosphere, faculty satisfaction, and mentoring quality and behaviours. The findings showed the potential of formal, institutionally-funded mentor training programs to enhance faculty morale, inclusiveness, and long-term mentoring outcomes [10].

In the article The Interplay Between Leaders Personality Traits and Mentoring Quality and their influence on Mentees Job Satisfaction and Job Performance, Kalpina Kumari and her co-authors focused on the relationship between the Big Five personality traits of leaders and employee outcomes and the quality of mentoring in Pakistani higher education institutions. The study conducted on an explanatory research design and PLS-SEM analysis concluded that extraversion, conscientiousness and openness of leaders had a significant influence on mentoring quality. Consequently, it was discovered that mentees' work happiness and performance were significantly impacted by the quality of mentoring. The findings are informative on the leadership development strategies to improve the efficacy of mentoring in learning institutions. [11].

Statement of the Problem

Formal mentor systems have become a strategic tool used by Higher Education Institutions to improve the quality of academic performance, faculty performance and comprehensive development of students. Although mentoring is widely considered as a key tool of quality improvement, its application in institutions varies in their form, mentor selection criteria, availability of resources, incentive schemes, and assessment strategies. Mentoring programs are in most instances implemented as policy mandates and not being monitored and assessed systematically on the actual effect on quality improvement [12].

Although mentoring is becoming a significant focus in institutional quality models, there exists a gap in empirical research to explore how mentor systems can improve teaching and learning, faculty engagement, hybrid learning support, and organizational culture in institutions of higher learning. Issues such as poor institutional support, vague mentoring policies, inadequate incentives, and periodic evaluations may undermine the desired effects of mentoring programs. Thus, the issue that this paper is going to consider is the necessity to critically evaluate the effectiveness of mentor system and its role in quality improvement in higher education institutions, according to the perceptions and experiences of the faculty members, who are engaged in mentoring processes [13].

Objectives of the Study

- To investigate how well the mentor system established in Higher Education Institutions is working. To examine how the processes of selecting mentors contribute to improving the quality of mentoring outcomes.
- In order to evaluate how much institutional backing and resources have been supplied to guarantee that the mentor system works effectively.
- In order to assess how incentives and non-financial rewards affect mentor motivation and performance.
- To investigate how mentoring affects the quality of teaching and learning, as well as the effectiveness of hybrid learning.
- To identify key factors of the mentor system that contribute to quality enhancement in Higher Education Institutions.

MATERIALS AND METHODS

Research Design

The research design used in this study is descriptive and analytical, to examine the impact of mentor system on quality improvement in Higher Education Institutions. The design is appropriate since it enables a systematic explanation of the faculty attitudes towards mentor selection, institutional support, incentives, hybrid learning effectiveness, and organizational culture and an analytical evaluation of their effects on quality outcomes [14].

Sources of Data

Both primary and secondary data were used for the study. Primary data were gathered directly by using structured questionnaire to faculty members who are mentors in Higher Education Institutions. A range of secondary sources was used to gather secondary data, such as research articles, academic journals, institutional reports, regulatory guidelines, and relevant policy documents on mentoring and quality assurance in higher education [15].

Sample Size and Sampling Technique

The sample of the study is made up of faculty members working in higher institutions of learning such as assistant professors, associate professors, professors, and research scholars. Convenience sampling was used because of the willingness of the respondents to take part and their availability. It was considered that the final sample size was sufficient to capture a variety of academic roles and levels of experience in the organisations [16].

Research Instrument

The data collection method employed was a structured questionnaire. The questionnaire was designed based on a review of literature and expert inputs and comprised two sections: demographic details and statements related to mentor selection, institutional support, incentives, mentoring effectiveness, hybrid learning, and organizational culture. Responses were measured using a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5).

Tools Used for Analysis

The collected data were analyzed using appropriate **statistical tools** such as percentage analysis, mean score analysis, and descriptive statistics to interpret faculty perceptions. Composite measures and index-based analysis were employed to assess overall mentoring effectiveness and its contribution to quality enhancement. The analysis was carried out using standard statistical software to ensure accuracy and reliability of results [17].

Data Analysis and Interpretation

Inference

According to the average evaluations, faculty members have a favourable opinion of hybrid learning when it comes to lesson planning. However, the somewhat lower average values for formal evaluation methods and mentoring resources indicate that there is potential for institutional improvement in supporting the mentoring infrastructure [18].

Inference

The majority of responders (73.3%) agreed or strongly agreed that faculty lesson preparation is supported by hybrid learning, demonstrating its efficacy as a pedagogical strategy that improves quality [19].

Inference

The results show that although a reasonable number of faculty acknowledge the presence of mentoring assessment systems, a large neutral segment indicates the need for clearer and more transparent evaluation mechanisms [20].

Mentoring Quality Enhancement Index (MQEI)

Construction of the Index

To provide a composite, quantitative evaluation of the mentor system's effectiveness in raising quality in higher education institutions, the Mentoring Quality Enhancement Index (MQEI) was developed. The mentor selection process, institutional support, the availability of mentoring resources, incentive mechanisms, the clarity of mentoring guidelines, the efficacy of hybrid learning, and assessment practices are some of the key dimensions that were selected from the primary data to create the index [21]. Each component was evaluated using a number of statements and a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). A composite index value was produced by

Table 1: Table Depicting The Standard Deviation And Variance Of Selected Variables Related To The Mentor System And Hybrid Learning

S. No.	Statistical Measures	Hybrid learning helps faculty in lesson planning	Students prefer hybrid learning	Availability of mentoring resources enhances effectiveness	Clear guidelines for mentoring role	Formal assessment system for mentoring
1	N (Valid)	105	105	105	105	105
2	Missing	0	0	0	0	0
3	Mean	3.73	3.27	2.87	3.20	2.93
4	Standard Deviation	0.68	0.78	1.03	0.84	0.93
5	Variance	0.47	0.60	1.06	0.70	0.87
6	Minimum	2	2	1	2	2
7	Maximum	4	5	5	4	4
8	Median	4	3	3	3	3
9	25th Percentile	4	3	2	2	2
10	75th Percentile	4	4	4	4	4

Source: Primary Data Statistical Tool: SPSS (Excel data imported)

Table 2: Table Depicting the Opinion Of The Respondents On Likert's Five-Point Scale

S. No.	Response	Frequency	Percent	Cumulative Percent
1	Disagree	8	7.6	7.6
2	Neutral / Not Sure	20	19.0	26.6
3	Agree	54	51.4	78.0
4	Strongly Agree	23	21.9	100.0
5	Total	105	100.0	

Table 3: Table Depicting the Opinion of Respondents

Response	Frequency	Percent	Cumulative Percent
Disagree	12	11.4	11.4
Neutral / Not Sure	41	39.0	50.4
Agree	37	35.2	85.6
Strongly Agree	15	14.4	100.0
Total	105	100.0	

Table 4: Table Depicting The Opinion Of Respondents On Availability Of Mentoring Resources

S. No.	Response	Frequency	Percent
1	Strongly Disagree	9	8.6
2	Disagree	28	26.7
3	Neutral	34	32.4
4	Agree	25	23.8
5	Strongly Agree	9	8.6
6	Total	105	100.0

standardising and combining the mean values of these variables. All variables were given equal weight in order to ensure a fair depiction of the structural, functional, and outcome-oriented aspects of mentoring. The mentor system's total contribution to improving institutional quality is reflected in the ensuing MQEI score [22].

Interpretation of Index Scores

Multiple statements were used to assess each dimension, rated on a five-point Likert scale from Strongly Disagree (1) to Strongly Agree (5). The mean values of these variables were standardized and merged to create a composite index value. To guarantee a balanced representation of structural, functional, and outcome-oriented aspects of mentoring, all dimensions were assigned equal weight. The resulting MQEI score indicates how much the mentoring system contributes to the enhancement of institutional quality [22]. An MQEI score of moderate value indicates a mentoring framework that is partially effective, with some components working well while there are gaps in resources, incentives, or assessment mechanisms. A low MQEI score indicates ineffective mentoring practices, a lack of institutional support, and limited influence on quality outcomes. The calculated index values place the mentor system in the sampled institutions in the category of moderate effectiveness, suggesting it has a beneficial effect on quality enhancement but also a significant potential for systematic improvement [24].

Findings of the Study

The major findings of the study are summarized as follows:

- Generally, faculty members regard the mentoring system as a beneficial means of improving the quality of teaching and learning and fostering academic involvement.

- Hybrid learning is considered helpful for lesson planning and instructional effectiveness, highlighting its contribution to enhancing pedagogical quality.
- The process of selecting mentors is viewed as having moderate effectiveness, but the lack of consistent and clear criteria influences the best possible mentoring results. A considerable share of respondents sees the institutional support regarding mentoring resources and infrastructure as insufficient.
- The limited incentives and recognition mechanisms for mentors may impact their motivation and long-term commitment. Formal assessment and evaluation systems for mentoring activities are often unclear or inconsistently applied across institutions.
- The overall MQEI score indicates that mentoring contributes to quality enhancement, but its impact is limited by operational and policy-level constraints.

Suggestions

Based on the findings of the study, the following suggestions are proposed to strengthen the mentor system in Higher Education Institutions:

- Institutions should establish clear and standardized guidelines for mentor selection, roles, and responsibilities to ensure consistency and accountability.
- Adequate institutional support in the form of mentoring resources, training programs, and digital tools should be provided to enhance mentoring effectiveness.
- A structured and transparent assessment mechanism should be introduced to periodically evaluate mentoring outcomes and provide constructive feedback.
- Incentive systems, including workload recognition, certificates, professional development credits, and non-monetary rewards, should be implemented to motivate mentors.
- Integration of mentoring with hybrid and learner-centric pedagogies should be strengthened through capacity-building initiatives.
- Continuous monitoring and refinement of mentoring policies should be undertaken as part of the internal quality assurance framework.

CONCLUSION

The present study focuses on the crucial role of the mentoring system as a strategic human resource and quality improvement instrument in Higher Education Institutions. The review indicates that mentoring has a positive impact on the effectiveness of teaching-learning, faculty involvement, professional growth, and adjustment to hybrid learning settings. Success of the mentor system is highly determined by institutional commitment, human resource support, availability of resources, mentoring guidelines, and motivation and competency of mentors.

This paper has come up with the Mentoring Quality Enhancement Index (MQEI) that provides a methodology and a quantifiable way of assessing the efficiency of the mentoring practice and human resource development program. The index may be an effective instrument of institutional benchmarking, faculty development, and policy-making. With special interventions and reinforced human resource management practices, the mentoring structures can be improved, and the institutional quality, academic performance, employee satisfaction, and overall organizational culture of Higher Education Institutions can be significantly improved.

Scope for Further Research

The research offers a lot of opportunities in new research. The same studies may be conducted in other kinds of institutions such as universities, autonomous colleges and professional institutions in order to make comparative studies. Future research may incorporate student perceptions as well as faculty perceptions in order to get a holistic analysis of the effectiveness of mentoring. Longitudinal studies can be carried out to determine the long-term effects of mentoring on academic performance, retention, and employability outcomes. The MQEI should also be improved by adding more sophisticated statistical methods and other quality indicators to strengthen it and make it applicable.

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Conflicts of Interest / Competing Interests

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.

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