

## **PERCEIVED RELATIVE ADVANTAGE OF E-LEARNING ADOPTION AMONG MANAGEMENT FACULTY MEMBERS IN KERALA**

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### **ABSTRACT**

This research investigates the perceived relative advantage experienced by management faculties in Kerala State upon the adoption of e-learning resources. The study aims to assess the extent to which e-learning adoption contributes to perceived advantages within the area of management education. Employing a comprehensive methodology, including surveys and interviews, the research explores faculty perspectives on the effectiveness, efficiency, and overall benefits associated with integrating e-learning into their teaching methodologies. By investigating into the unique context of Kerala State, this study seeks to provide valuable insights into the impact of e-learning adoption on management education, shedding light on potential improvements and opportunities for further development in the educational landscape.

**Keywords:** E-learning adoption, Perceived relative advantage, Technology integration

### **INTRODUCTION**

In the rapidly evolving landscape of education, the integration of technology has become a pivotal factor in shaping the pedagogical approaches employed by academic institutions. This study delves into the intricate realm of management education, specifically focusing on the perceived relative advantage resulting from the adoption of e-learning resources among faculties in Kerala State. As digital advancements continue to redefine traditional teaching methodologies, understanding the experiences and perspectives of management faculties becomes imperative for effectively harnessing the potential benefits of e-learning.

As technology increasingly becomes intertwined with education, the findings of this research endeavour to contribute valuable knowledge to the ongoing discourse surrounding the effective implementation of e-learning resources, thereby informing future strategies for enhancing the quality and efficacy of management education in Kerala State and beyond.

In recent years, the adoption of e-learning technologies has significantly transformed the landscape of higher education, offering new avenues for instructional delivery and learning experiences. Within this context, management education stands as a pivotal domain where the integration of e-learning resources holds substantial promise for enhancing teaching methodologies and fostering student engagement. Kerala State, renowned for its commitment to education and technological advancements, presents a compelling backdrop for

investigating the perceived relative advantage of e-learning adoption among management faculties.

This study aims to explore the perceptions and experiences of management faculties in Kerala State regarding the integration of e-learning resources into their teaching practices. By examining the perceived benefits associated with e-learning adoption, this research endeavours to provide valuable insights into the efficacy and impact of technological advancements in the area of management education. As the educational landscape continues to evolve in response to rapid technological innovations, understanding the perceived relative advantage of e-learning adoption becomes imperative for educators, policymakers, and stakeholders in equal manner.

Through a comprehensive exploration of faculty perspectives, this research endeavours to illuminate the opportunities and constraints inherent in the integration of e-learning resources, thereby paving the way for informed decision-making and strategic initiatives aimed at enriching the educational experiences of both faculty members and students in Kerala State's management institutions.

## REVIEW OF LITERATURE

The literature review investigates into various studies focused on the adoption and diffusion of e-learning resources in higher education institutions and its perceived relative advantages.

In a study by Hassan M. Selim (2005), critical success factors for e-learning acceptance were identified through Structural Equation Modelling (SEM) on a sample of 900 students. Notably, instructor attitude and computer lab availability emerged as pivotal factors.

Hassan M. Selim Ahmed (2010) investigated hybrid e-learning acceptance, emphasizing the significance of organizational IT infrastructure readiness for successful adoption among 900 undergraduate business students, using the Technology Acceptance Model (TAM).

Yanqing Duan et al. (2010) explored Chinese students' e-learning take-up intention, applying Rogers' diffusion of innovation model. Findings highlighted the significant influence of perceived compatibility and trialability on e-learning adoption intention.

Farida Umrani-Khan and Sridhar Iyer (2009) proposed ELAM, a model for e-learning acceptance, considering variables like performance expectancy, effort expectancy, social influence, and facilitating conditions. The model provided a framework for teacher, student, and institutional factors in e-learning acceptance.

A. Parasuraman (2000) introduced the Technology Readiness Index (TRI) to measure individuals' readiness to embrace new technologies. Collaborating with Rockbridge Associates, the study identified variables like optimism, innovativeness, discomfort, and insecurity.

Prashant Baburao Barge (2009) investigated student support services in e-learning courses in India, utilizing TRA, TAM, and UTAUT methodologies. Findings emphasized the importance of comprehensive support throughout different phases of e-learning.

Hassan M. Selim (2007) identified critical success factors for e-learning-based university curriculums through confirmatory factor models. Surveying 538 students, the study emphasized the importance of instructor characteristics, IT infrastructure, and university support.

Sabyasachi Rath (2015) examined e-learning innovations at a B-School, utilizing the diffusion of innovations (DOI) theory. The findings suggested the need for different strategies for the adoption of high-tech tools among faculty and students.

Lingxian Zhang et al. (2010) investigated perceptions and attitudes towards e-learning in China, applying Rogers' theory on innovation diffusion. Factors such as cost, quality, agility, and certification significantly influenced e-learning adoption in China.

Irina Elgort's study (2005) focused on bridging the chasm in e-learning adoption, exploring how staff development programs could facilitate effective ICT adoption. The study highlighted the importance of teachers' beliefs and instructional approaches in effectively adopting e-learning.

## OBJECTIVES OF THE STUDY

1. To understand the influence of demographic factors towards integrating e-learning technologies into their teaching practices.
2. To assess the perceptions of management faculty members in Kerala State regarding the relative advantages associated with the adoption of e-learning methods.
3. To gain insights into the factors influencing the decision-making process of management faculties in Kerala State regarding the adoption of e-learning.

## SCOPE AND SIGNIFICANCE OF THE STUDY

The study aims to understand faculty perceptions regarding the benefits of integrating e-learning into teaching practices. The research emphasizes decision-making factors such as technological infrastructure, training, and institutional support. Its geographical scope includes management programs across universities and colleges in Kerala. The study's significance lies in informing decision-makers, enhancing teaching practices, guiding policy development, and providing insights for best practices in management education. The findings may also inspire future research on the impact and scalability of e-learning initiatives in Kerala's educational sector.

## METHODOLOGY

Used descriptive research design to systematically investigate and analyse the perceived relative advantage of e-learning adoption among management faculties.

### Sources of Data

**Primary Data:** A structured questionnaire was used to collect primary data in this research work.

**Secondary Data:** Secondary data are collected from the records of the company, websites, journals, books, and internet.

### Sampling Method

Convenience sampling was taken for collecting the samples from the population as the area was wide. A sample of 80 from the entire population is selected for the study.

### Tools for Data Collection and Presentation

- Simple Percentage Analysis
- ANOVA
- One-Sample t-Test

- Multiple Linear Regression Analysis

## LIMITATIONS OF THE STUDY

- Reluctance from respondents during the time of data collection due to institutional pressure.
- The period of the study is short and hence deep effective study was not possible.

## HYPOTHESIS

**Null Hypothesis ( $H_{01}$ ):** There is no significant difference in the level of e-learning integration based on demographic factors among management faculty.

**Alternative Hypothesis ( $H_{11}$ ):** There is a significant difference in the level of e-learning integration based on demographic factors among management faculty.

**Null Hypothesis ( $H_{02}$ ):** Management faculty members do not perceive significant relative advantages in adopting e-learning methods.

**Alternative Hypothesis ( $H_{12}$ ):** Management faculty members perceive significant relative advantages in adopting e-learning methods.

**Null Hypothesis ( $H_{03}$ ):** There is no significant relationship between influencing factors (e.g., institutional related, student related) and e-learning adoption decisions.

**Alternative Hypothesis ( $H_{13}$ ):** There is a significant relationship between influencing factors (e.g., institutional related, student related) and e-learning adoption decisions.

## RESULT AND DISCUSSION

**Table 1:** Demographic profile of the respondents

Demographic profile	Number of Respondents N=80	Per cent (%)
<b>Gender</b>		
Male	33	41.25
Female	47	58.75
<b>Total</b>	<b>80</b>	<b>100</b>
<b>Age (Years)</b>		
25-34 Years	39	48.75
35-44 Years	25	31.25
45-54 Years	10	12.5
55-64 Years	6	7.5
<b>Total</b>	<b>80</b>	<b>100</b>
<b>Academic rank</b>		
Assistant Professor	53	66.25
Associate Professor	18	22.5
Professor	9	11.25
<b>Total</b>	<b>80</b>	<b>100</b>
<b>Experience (Years)</b>		
0-5 Years	25	31.25
5-10 Years	31	38.75
10-15 Years	18	22.5

15-20 Years	4	5
More than 20 Years	2	2.5
<b>Total</b>	<b>80</b>	<b>100</b>
<b>Higher Qualification</b>		
PG	51	63.75
M.Phil.	1	1.25
PhD	24	30
PDF	4	5
<b>Total</b>	<b>80</b>	<b>100</b>

*Source: Field Survey (Online)*

The gender distribution among the respondents indicates a slightly higher participation of female faculty members, with 47 respondents accounting for 58.75% of the total sample, compared to 33 male respondents (41.25%). This female-majority sample suggests a growing representation of women in management education in Kerala. Such a distribution may reflect broader shifts in the academic workforce demographics, where the inclusion of women in higher education teaching roles is becoming more prominent. Alternatively, it may also result from a sampling pattern in which female faculty were more accessible or responsive during data collection. This near-balanced distribution ensures that perspectives from both genders are fairly represented, which is significant when analysing gender-based variations in the adoption and perception of e-learning technologies.

The age profile of the respondents reveals a concentration of younger faculty members. Nearly half of the participants (48.75%) fall within the 25–34 years age bracket, followed by 31.25% in the 35–44 years group. Faculty members aged between 45–54 and 55–64 years comprise 12.5% and 7.5% of the sample, respectively. This indicates that almost 80% of the respondents are below 45 years of age, suggesting a young and dynamic teaching workforce. Such a demographic composition could have a significant bearing on the adoption of e-learning, as younger educators are generally more tech-savvy, adaptable, and open to pedagogical innovations. Their digital familiarity may positively influence their perceptions and usage of e-learning tools in academic practice.

Analysis of academic rank shows that a significant majority of the respondents (66.25%) hold the position of Assistant Professor. Associate Professors constitute 22.5% of the sample, while Professors account for only 11.25%. This skew toward junior-level academic positions aligns with the observed age distribution and reinforces the presence of a relatively early-career teaching community. The predominance of Assistant Professors may indicate a higher degree of flexibility, learning orientation, and willingness to integrate new teaching methodologies such as e-learning. However, it may also highlight a potential gap in institutional authority or decision-making roles related to curriculum and technology integration, which are often held by more senior faculty members.

The respondents' teaching experience further supports the trend of a relatively young faculty cohort. A combined 70% of participants have less than 10 years of teaching experience, with 31.25% having 0–5 years and 38.75% having 5–10 years of experience. Only 22.5% fall within the 10–15 years range, and a minimal number of respondents (7.5%) report more than 15 years of experience. This indicates that most of the faculty members are at an early stage in their academic careers, potentially still shaping their teaching styles and technology preferences. The level of experience may influence their decision-making autonomy and

confidence in adopting e-learning, making it an important variable in understanding adoption behaviour.

The educational qualifications of the respondents show that the majority (63.75%) possess a postgraduate (PG) degree, while 30% have earned a PhD. A small portion has attained postdoctoral fellowships (PDF, 5%), and only 1.25% hold an M.Phil. qualification. This distribution suggests that while a significant number of respondents are highly qualified, there remains a substantial group with only postgraduate degrees. The level of academic qualification may impact faculty members' exposure to research-driven teaching methodologies and their readiness to engage with technologically advanced teaching tools. Those with doctoral and postdoctoral qualifications may be more inclined to experiment with innovative teaching methods, including e-learning, due to their deeper engagement with academic research and pedagogy.

**H<sub>0</sub> □a (Null Hypothesis):** There is no significant difference in e-learning integration based on academic rank (Assistant Professor, Associate Professor, Professor).

**H<sub>0</sub> □a (Alternative Hypothesis):** There is a significant difference in e-learning integration based on academic rank.

**Table 2: ANOVA for testing the influence of demographic factors (academic rank) towards integrating e-learning technologies**

ANOVA					
E-Learning Integration					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.189	2	0.594	1.784	0.175
Within Groups	25.658	77	0.333		
Total	26.847	79			

The results of the one-way ANOVA test indicate that there is no statistically significant difference in the average e-learning integration scores among faculty members based on academic rank (Assistant Professor, Associate Professor, and Professor). The obtained F-value of 1.784 and corresponding p-value of 0.175 ( $p > 0.05$ ) suggest that variations in academic rank do not significantly influence how faculty integrate e-learning technologies into their teaching practices.

Therefore, the null hypothesis is retained, confirming that academic rank is not a determining factor in the adoption or extent of e-learning usage among management faculty in Kerala. This finding implies a relatively uniform approach to e-learning integration across all ranks, possibly reflecting institutional policies or shared professional development experiences across the academic hierarchy.

**H<sub>0</sub> □b (Null Hypothesis):** There is no significant difference in e-learning integration based on years of teaching experience.

**H<sub>0</sub> □b (Alternative Hypothesis):** There is a significant difference in e-learning integration based on years of teaching experience.



**Table 3: ANOVA for testing the influence of demographic factors (years of teaching experience) towards integrating e-learning technologies**

ANOVA					
E-Learning Integration					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.271	4	0.068	0.191	0.942
Within Groups	26.576	75	0.354		
Total	26.847	79			

The results of the ANOVA test indicate that there is no statistically significant difference in e-learning integration based on years of teaching experience among management faculty members in Kerala. The test yielded an F-value of 0.191 with a corresponding p-value of 0.942, which is well above the conventional significance threshold of 0.05. This suggests that the average level of e-learning integration does not vary meaningfully across faculty with different teaching experience ranges (0–5, 5–10, 10–15, 15–20, and more than 20 years).

Therefore, the null hypothesis ( $H_0$ ), which states that there is no significant difference in e-learning integration based on teaching experience, is retained. This outcome implies that regardless of whether faculty are early in their careers or have decades of experience, their approach to incorporating e-learning tools remains broadly consistent. The findings highlight a uniform adoption pattern of e-learning technologies across varying levels of professional experience.

**Null Hypothesis ( $H_0$ ):** Management faculty members do not perceive significant relative advantages in adopting e-learning methods.

**Alternative Hypothesis ( $H_1$ ):** Management faculty members perceive significant relative advantages in adopting e-learning methods.

**Table 4: One Sample t-Test for testing whether management faculty members perceive significant relative advantages in adopting e-learning methods.**

One-Sample Test						
	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Perceived Relative Advantage (Average)	16.120	79	0.000	1.01786	0.89217	1.143542

One-sample t-test was conducted to examine whether management faculty members perceive significant relative advantages in adopting e-learning methods. The test compared the average score of perceived relative advantage (RAP-AVG) against a neutral test value of 3. The results revealed a mean difference of 1.02, which was statistically significant,  $t(79) = 16.12$ ,

$p < .001$ . The 95% confidence interval for the mean difference ranged from 0.89 to 1.14, indicating a high level of confidence that the true mean perception exceeds the neutral value.

These findings suggest that faculty members strongly perceive e-learning to offer significant relative advantages in their teaching practices. The statistically significant positive deviation from the neutral midpoint highlights their favourable views, such as improved flexibility, efficiency, and engagement through e-learning platforms.

**Null Hypothesis ( $H_{03}$ ):** There is no significant relationship between influencing factors (e.g., institutional related, student related) and e-learning adoption decisions.

**Alternative Hypothesis ( $H_{13}$ ):** There is a significant relationship between influencing factors (e.g., institutional related, student related) and e-learning adoption decisions.

**Table 5: Multiple Linear Regression Analysis for assessing the influence of two key factors (Institutional Factors) and (Student-Related Factors) on the adoption of e-learning methods by management faculty members in Kerala.**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.735	0.256		2.869	0.005
	Institutional Factors	0.824	0.073	0.844	11.293	0.000
	Student-Related Factors	0.003	0.073	0.004	0.048	0.962
a. Dependent Variable: E-Learning Integration						

A multiple linear regression analysis was performed to assess the influence of two key factors (Institutional Factors) and (Student-Related Factors) on the adoption of e-learning methods by management faculty members in Kerala. The model seeks to determine how variations in institutional and student-related perceptions relate to the degree of e-learning integration in teaching practices. The regression equation takes the form:

E-Learning Integration = 0.735 + 0.824 (Institutional Factors) + 0.003(Student-Related Factors).

The results indicate that Institutional Factors have a strong, positive, and statistically significant effect on e-learning adoption. The unstandardized coefficient ( $B = 0.824$ ) shows that for every one-unit increase in institutional support, there is an expected increase of 0.824 units in the E-Learning Integration. This relationship is highly significant ( $p < 0.001$ ), as indicated by the t-value of 11.293, and the standardized beta coefficient ( $\beta = 0.844$ ) suggests that institutional factors contribute greatly to the variance in e-learning integration. This highlights the crucial role played by institutional resources such as technical support, training programs, and ICT infrastructure in facilitating e-learning.

On the other hand, Student-Related Factors do not show a statistically significant relationship with E-Learning Integration. The coefficient  $B = 0.003$  is very small, and the p-value = 0.962 is far above the conventional significance level of 0.05. The t-value of 0.048 indicates that this variable's effect on e-learning adoption is negligible in the context of the model. This suggests that while student readiness and feedback are important, they do not appear to be strong determinants of faculty members' decisions to adopt e-learning, at least not when institutional factors are also considered.



In summary, the regression results reveal that institutional support is a critical driver of e-learning adoption, while student-related perceptions play a minor or non-significant role in this model. These findings underscore the importance of creating a strong institutional environment with adequate resources, encouragement, and infrastructure to effectively support faculty in integrating e-learning methods. Institutions aiming to enhance digital teaching practices should prioritize these organizational factors to drive meaningful adoption and sustained usage.

## CONCLUSION

The present study highlights the strong perceived relative advantage of e-learning adoption among management faculty in Kerala, with a significant number of respondents affirming the benefits of digital integration in their teaching practices. The one-sample t-test result ( $t = 16.120$ ,  $p < 0.001$ ) decisively confirms that faculty members view e-learning as enhancing instructional efficiency, flexibility, and student engagement. Interestingly, demographic variables such as academic rank and teaching experience did not significantly affect the level of e-learning integration, as indicated by the ANOVA results ( $p > 0.05$ ). This suggests a broadly uniform adoption pattern across varied faculty profiles, potentially due to institutional policies or statewide academic training programs that promote equal access to e-learning resources.

Furthermore, the study confirms the pivotal role of institutional support in facilitating the adoption of e-learning technologies. The regression analysis underscores this with a strong and statistically significant coefficient for institutional factors ( $\beta = 0.844$ ,  $p < 0.001$ ), emphasizing the importance of adequate infrastructure, training, and administrative backing. Conversely, student-related factors showed no significant effect on e-learning adoption, implying that the faculty's decision to adopt e-learning tools is more strongly influenced by institutional readiness than student engagement expectations. This aligns with prior findings from researchers like Selim (2005, 2007), who emphasized infrastructure and faculty support systems as critical drivers of e-learning success.

Considering the findings, it is evident that faculty in Kerala's management education sector are positively inclined toward e-learning adoption, largely influenced by organizational support and technological facilitation. These insights are invaluable for policymakers, academic leaders, and IT administrators seeking to scale up digital learning initiatives. Strategic investments in institutional ICT capacity and targeted professional development programs could further enhance e-learning adoption and improve the quality of higher education delivery. Future studies may expand on this research by exploring long-term impacts of e-learning on student outcomes and assessing differences across academic disciplines or geographic regions.

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