FACULTY ENHANCEMENT PROGRAMME

Date of Event: 12 December, 2025

Faculty-in-Charge: Ms. Gigy Johnson

REPORT

As part of the Faculty Enhancement Programme, a presentation was held on 12 December 2025 at the Seminar Hall, Main Block, from 03:15 p.m. to 04:00 p.m. The paper was presented by Dr. Anitha Mary Alex, Associate Professor, Department of Commerce, on the topic "Factors Influencing Digital Transformation of MSMEs in Kerala". The presentation examined the key factors influencing the digital transformation of MSMEs in Kerala, focusing on technological adoption, organisational readiness, and external challenges. The session was attended by 53 faculty members from various departments, who participated actively through questions and discussions, contributing to a productive academic exchange.

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Prepared by:	Verified by:	Approved by:
Ms. Gigy Johnson	Dr. Sabu Varghese	Rev. Fr. Dr. Paulachan K.J.
FEP Coordinator	Director IT/ HRD Cell	Principal

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BROCHURE

FACULTY ENHANCEMENT PROGRAMME

Dr. Anitha Mary Alex
Associate Professor
PG Department of Commerce



Topic : Factors Influencing Digital Transformation of MSMEs in Kerala

DATE : 12 DECEMBER, 2025
TIME : 03.15-04.00 PM
VENUE : MAIN BLOCK, SEMINAR HALL

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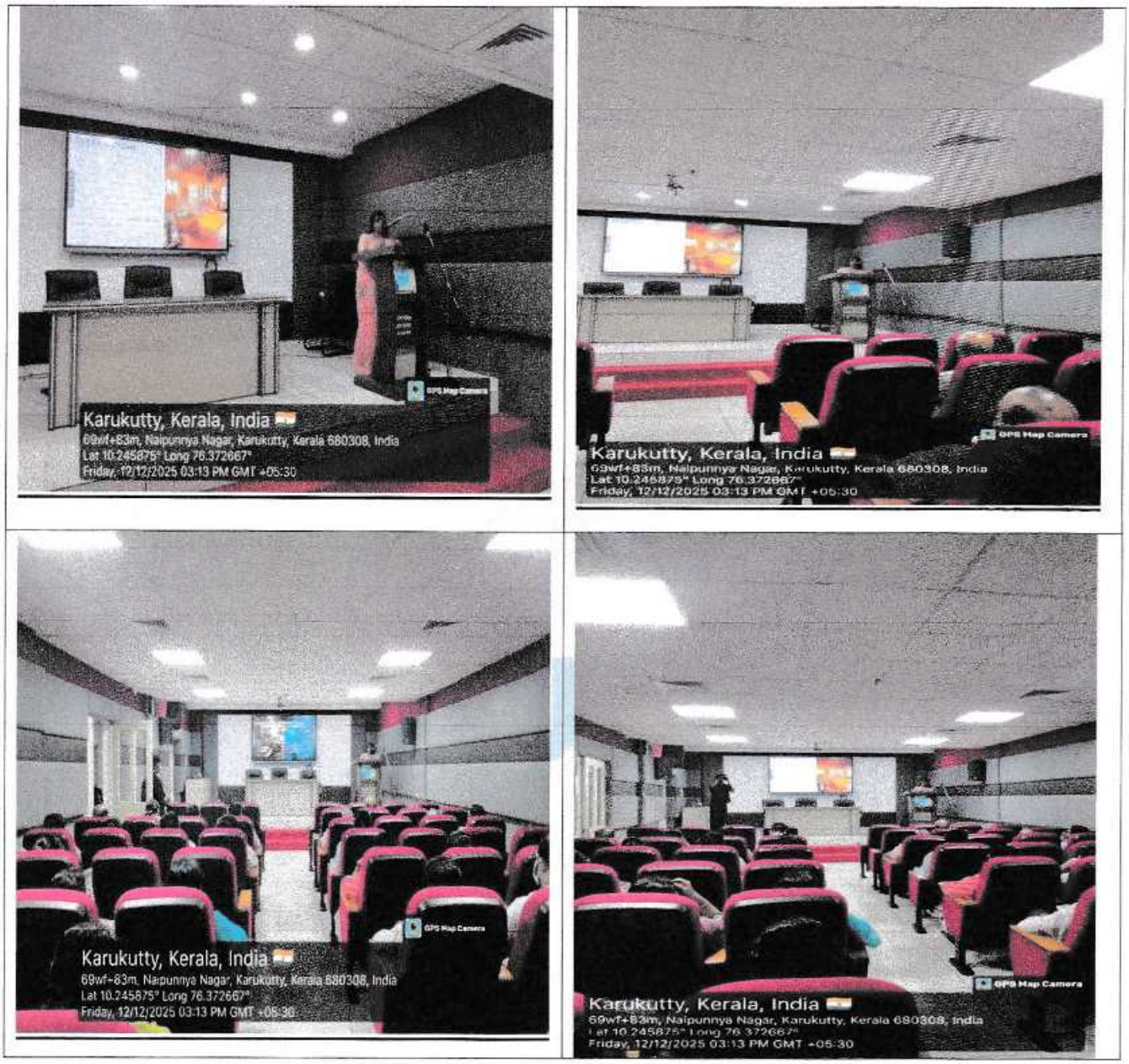
PHOTOGRAPHS



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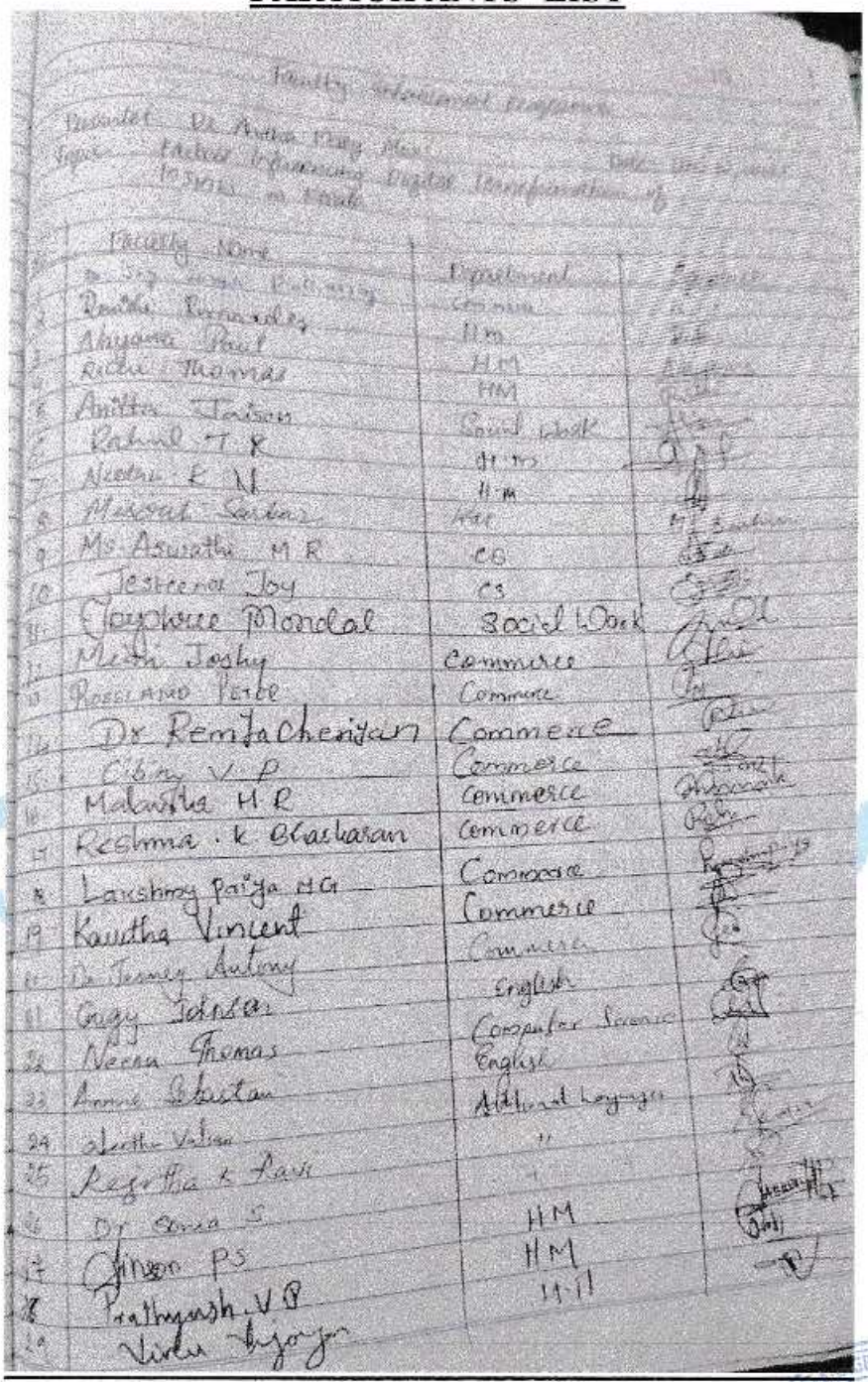
PARTICIPANTS' LIST



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No	Faculty Name	Department	Signature
30	Gilbin T James	COMMERCE	Gilbin
31	Haarrish Sabu	CS	[illegible]
32	Deny P Francis	CS	[illegible]
33	Pravan Antony	HM	[illegible]
34	Anand Thomas	HM	[illegible]
35	Dr. Jose Pantoa	Library	[illegible]
36	Dr. Nijo Varghese	MBA	[illegible]
37	Shinjay Mann	CS	[illegible]
38	Dr. Reddy Varghese	CS	[illegible]
39	Bibitha Reddy	CS	[illegible]
40	Anusha S	CS	[illegible]
41	Jeeva Minu	English	[illegible]
42	Sabina Lee	"	[illegible]
43	Delphina Jose	French Language	[illegible]
44	Harisree N. Kumar	MBA	[illegible]
45	Dhanumol C M	English	[illegible]
46	Noble Devassy	Commerce	Noble
47	Bindu G	Commerce	Bindu
48	Dr. Matthew Jose K	Commerce	[illegible]
49	Dr. Satan Varghese	NBS	[illegible]
50	K Disto K	Social work	[illegible]
51	Fr. Siju Varghese	Social work	[illegible]
52	Reni V. Kalayil	"	[illegible]
53	Emil George	Language	[illegible]

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FACTORS INFLUENCING DIGITAL TRANSFORMATION OF MSMEs IN KERALA

Dr. Anitha Mary Alex
Associate Professor
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NIMIT

Abstract

The digital revolution has redefined business operations, presenting both opportunities and challenges for Micro, Small, and Medium Enterprises (MSMEs). In Kerala, MSMEs play a vital role in employment generation and regional development, yet their digital adoption remains uneven due to resource constraints, infrastructural gaps, and varying levels of digital literacy. This study examines the internal, technological, and environmental factors influencing digital transformation among MSMEs in Kerala, with a focus on sectors such as coir, rubber, and chemicals. It assesses the impact of digitalization on operational efficiency, revenue, and competitiveness. The research identifies key enabling and hindering factors and evaluates their relationship with MSME performance and growth.

Introduction

The digital revolution has redefined how businesses operate, creating both opportunities and challenges for Micro, Small, and Medium Enterprises (MSMEs). In Kerala, MSMEs are critical for employment generation and regional development. However, their pace of digital adoption remains uneven due to resource constraints, infrastructural gaps, and varying levels of digital literacy.

This study explores the determinants and effects of digital transformation among MSMEs in Kerala — focusing on the internal, technological, and environmental factors that shape their digital journey.

MSMEs

MSMEs are Micro, Small and Medium Enterprises, which include small manufacturing units, service providers, retailers, artisans, startups, and home-based businesses. They are defined based on their investment and annual turnover as per the MSME Development Act, Government of India.

Category	Investment (Plant & Machinery/Equipment)	Annual Turnover
Micro Enterprise	Up to ₹1 crore	Up to ₹5 crore
Small Enterprise	Up to ₹10 crore	Up to ₹50 crore
Medium Enterprise	Up to ₹50 crore	Up to ₹250 crore

Statement of the Problem

Although digitalization promises improved productivity, competitiveness, and market reach, MSMEs in Kerala face:

- Limited access to technology and skilled manpower,
- Financial and infrastructural constraints,
- Cybersecurity concerns, and
- Resistance to organizational change.

These challenges make it essential to identify both the factors influencing digital adoption and its measurable impact on performance outcomes.

Scope of the Study

The research encompasses MSMEs operating in Kerala across sectors such as coir, rubber, and chemicals.

The focus lies on:

- Organizational readiness and leadership,
- Technological infrastructure,
- Financial and human resource availability,
- The resultant impact on operational efficiency, revenue, and competitiveness.

Significance of the Study

- Helps entrepreneurs understand key drivers of successful digital adoption.
- Provides policy inputs for the Kerala government and support agencies.

- Adds to the academic literature on digital transformation within regional MSMEs.

Literature Review

Author / Year	Focus Area	Key Findings
Nair & Aithal (2023)	Digital marketing in MSMEs	Digital strategies significantly improve customer reach, market visibility, and sales.
Srivastava (2023)	Digital adoption challenges	MSMEs adopt digital tools increasingly but face risks such as technological uncertainty and operational disruptions.
Verma & Mittal (2023)	ICT adoption in MSMEs	ICT is vital for MSME survival, enabling continuity and customer connectivity, especially during crises.
Kothari & Paliwal (2023)	Mobile app–based digital processes	Mobile application usage enhances productivity and sustainability performance; readiness levels vary.
Gayathri (2023)	Entrepreneurial orientation	Entrepreneurial passion and mindset positively influence MSME digital transformation.
Angeles (2021)	Digital literacy & financial behaviour	Digital literacy enhances MSME financial performance, adoption of digital financial tools, and operational growth.
Boateng et al. (2019)	Digital transformation impact	Digitalisation contributes significantly to MSME growth, market expansion, and competitiveness.
Jayaprakash & Pillai (2020)	Green IT & sustainability	Digital technologies lower environmental impact and improve operational efficiency.

Objectives of the Study

Objective 1: To examine the factors facilitating or hindering the digitalization of enterprises.

Objective 2: To assess the impact of digitalization on MSMEs.

Research Questions

- What internal and external factors influence the digitalization of MSMEs?

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- How has digitalization affected the productivity, profitability, and competitiveness of MSMEs in Kerala?

Hypotheses

H_{01}: There is no significant relationship between enabling factors and MSME digitalization.

H_{02}: Digitalization has no significant impact on the performance and growth of MSMEs.

Research Methodology

This study adopted a descriptive and analytical research design with a quantitative approach to examine the factors influencing digital transformation and its impact on MSME performance.

- **Population and Sample -** The target population comprised MSMEs registered in Kerala operating in the coir, rubber, and chemicals sectors. A sample of 250 MSME owners/managers was selected using stratified random sampling to ensure representation across micro, small, and medium enterprises and the three focal sectors.
- **Data Collection**
  - **Primary Data:** Collected through a structured questionnaire (5-point Likert scale) covering internal factors (leadership, digital literacy), technological factors (infrastructure, tools), environmental factors (policy support, competition), and performance indicators (efficiency, revenue, competitiveness). The instrument was pre-tested for reliability (Cronbach's alpha = 0.89).
  - **Secondary Data:** Sourced from government reports (MSME Development Act, Kerala MSME policy documents), academic journals, and industry publications.
- **Data Analysis -** Data were analysed using SPSS Version 26. Descriptive statistics (mean, standard deviation, percentages) and inferential statistics (multiple regression analysis, correlation) were employed to test the hypotheses. Statistical significance was set at $p < 0.05$.

Findings

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Regression and descriptive results (from survey of Kerala MSMEs in coir, rubber, and chemicals sectors) revealed that digitalization positively influences multiple business dimensions.

Impact of Digitalization on MSMEs (Objective 2)

Impact Dimension	Findings
Operational Efficiency	Automation and digital tools improved productivity and reduced manual errors.
Revenue Growth	63% of MSMEs adopting digital tools reported a notable increase in sales and profitability.
Customer Engagement	72% of firms observed better customer interaction via online platforms and CRM tools.
Market Expansion	Digital adoption enabled MSMEs to access new markets beyond local boundaries.
Innovation Capability	Digitally mature MSMEs were more agile and innovative in product/service offerings.
Decision-Making	Data analytics and reporting tools facilitated better business decisions.

Key Statistical Findings

- Regression analysis showed a significant positive impact of digitalization on MSME performance ($p < 0.01$).
- MSMEs with over 75% digitalized operations performed better in sales and customer satisfaction indiators.

Key Findings (Overall)

1. Digital literacy, leadership, and infrastructure are strong enablers of digital transformation.
2. Financial constraints and cybersecurity concerns significantly hinder adoption.
3. Digital transformation improves efficiency, profitability, and competitiveness of MSMEs.
4. Rural MSMEs lag due to weaker infrastructure and limited skill access.
5. Digital maturity is uneven — most MSMEs are still in initial adoption stages.

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Suggestions

To accelerate and sustain digital transformation among Kerala MSMEs, the following actionable recommendations are proposed:

1. Skill Enhancement: Establish ongoing digital training programs under MSME Development Institutes.
2. Financial Incentives: Introduce low-interest digital adoption loans and tax incentives.
3. Cybersecurity Support: Create regional cybersecurity hubs to guide small enterprises.
4. Sector-Specific Digitization: Promote coir, rubber, and chemical sector digitization through specialized digital clusters.
5. Infrastructure Development: Strengthen broadband access and affordable cloud-based services across rural Kerala.
6. Government-Industry Collaboration: Strengthen public-private partnerships to support MSME innovation.
7. Monitoring Mechanism: Implement a Digital MSME Index to periodically assess adoption progress.

Conclusion

The study concludes that digital transformation is not merely a technological upgrade but an organizational and cultural shift. Digitalization significantly enhances operational efficiency, customer engagement, and profitability of MSMEs in Kerala.

However, to ensure inclusive transformation, rural and micro enterprises require infrastructural support, financial assistance, and upskilling. Kerala's MSME ecosystem can thrive digitally only through the synergistic efforts of government, entrepreneurs, and technology enablers.

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