

MANAGEMENT PRACTICES: PAST, PRESENT AND FUTURE

Scientific Management

Agile and Project Management

Knowledge Management

Artificial Intelligence and Automation

Sustainability and Ethics

Dr. M. Saravanan

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MANAGEMENT PRACTICES: PAST, PRESENT AND FUTURE

Editor

Dr. M. Saravanan

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PREFACE

In the present era of globalisation, management practices and policies in an organisation extremely vital for the sustainable growth. Also it has become a part of natural or artificial intelligence. It is more common to see managerial issue that comes out and corner the enterprise and is quite inevitable. On the other hand the manager need to have advanced knowledge and experience to combat the managerial issue in an organisation

The edited e-book titled “MANAGEMENT PRACTICES: PAST, PRESENT AND FUTURE” published by Muthra Publishers, brings together academicians, Researchers and executives working on different filed of Management over the country to privede a forum for exchange of information between scholars on various issues in functional management and bring new contribution to the Commerce and Management discipline.

The research papers and articles were invited from all over India. The review board has evaluated and accepted 44 full papers for publication in this book

I express my gratitude to the Prof. **Dr. E. Edwin Lawrence**, Principal, Merit Arts and Science College, Idaikal, Ambasamudram, for his constant motivation and support and his inspiring forward penned in a pleasing style.

I extend my sincere thanks to Muthra Publishers for timely deliverance of our Research articles. I also like acknowledge the panel of evaluators and all authors whose contributions have made this e-book a valuable one

Enjoy reading these articles and we hope that this will be a good addition to meet challenges in the global competition.

11-03-2026

Dr. M. Saravanan

Editor



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FOREWORD

It is a distinct honor to provide a foreword for *Management Practices: Past, Present, and Future*, authored by Dr. M. Saravanan. This work arrives at a critical juncture in our industrial and academic history, offering a comprehensive roadmap through the shifting landscapes of organizational leadership.

Management is no longer a static set of rules but a living evolution. Dr. M. Saravanan masterfully traces this trajectory, beginning with the foundational rigors of Scientific Management. While these classical principles established the bedrock of efficiency, the book transitionally captures the modern necessity for fluidity through Agile and Project Management. This shift from rigid hierarchy to adaptive responsiveness is essential for any leader navigating today's volatile markets.

What makes this volume particularly timely is its deep dive into the intellectual and technological pillars of the modern era. By addressing Knowledge Management alongside Artificial Intelligence and Automation, the author highlights the symbiotic relationship between human expertise and machine intelligence. This isn't just a technical overview; it is a strategic guide on how organizations can leverage data without losing the "human element."

Perhaps most importantly, Dr. M. Saravanan does not shy away from the moral imperatives of our time. The concluding focus on Sustainability and Ethics serves as a vital reminder that the "future" of management must be measured not only by profit margins but by our commitment to social responsibility and environmental stewardship.

This book is an invaluable resource for students, researchers, and practitioners alike. It provides the historical context necessary to understand where we have been and the visionary insights required to lead where we are going. I commend Dr. M. Saravanan for this scholarly contribution, which I am certain will become a staple in the study of contemporary management.

Dr. E. Edwin Lawrence

Principal,
Merit Arts and Science College
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A STUDY ON MANAGEMENT PRACTICES, EMPLOYEE EMPOWERMENT, AND INVOLVEMENT IN THOOTHUKUDI CITY

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ABSTRACT

Management practices significantly influence employee empowerment and involvement, which are critical determinants of organizational performance. In the context of rapid industrial and service-sector growth in Thoothukudi City, organizations face increasing challenges to enhance productivity, employee satisfaction, and competitive advantage. This study aims to examine the impact of management practices on employee empowerment and involvement and to analyze how these factors affect organizational performance in selected organizations in Thoothukudi City. Key management practices considered in the study include participative decision-making, leadership support, communication effectiveness, training and development, and performance appraisal systems. Employee empowerment and involvement are examined as mediating variables that link management practices to organizational outcomes such as productivity, efficiency, innovation, employee commitment, and retention. The study adopts a descriptive and analytical research design, using primary data collected from employees through structured questionnaires, supported by secondary data from journals and reports. The findings of the study are expected to provide insights into how effective management practices foster empowered and involved employees, leading to improved organizational performance. The study offers practical implications for managers and policymakers to develop employee-centered management strategies for sustainable organizational growth in Thoothukudi City.

Key Words: Management Practices, Employee Empowerment, Mediating Role, Organizational Performance, Employee Involvement, Strategic Implications.

INTRODUCTION

In today's dynamic and competitive business environment, organizations increasingly recognize the importance of effective management practices in achieving superior organizational performance. Traditional management approaches that emphasize control and hierarchy are gradually being replaced by participative and empowerment-oriented practices that encourage employee involvement in decision-making and organizational processes. Employees are no longer viewed merely as operational resources but as valuable contributors whose knowledge, skills, and commitment directly influence organizational success.

Management practices such as leadership style, communication systems, training and development, performance appraisal, and reward mechanisms play a vital role in shaping employee attitudes and behaviors. When these practices are designed and implemented effectively, they promote employee empowerment by granting autonomy, responsibility, and authority in performing job roles. Empowered employees are more confident, motivated, and accountable, which enhances their willingness to actively participate in organizational activities.

Thoothukudi City, an important industrial and port city in Tamil Nadu, hosts a wide range of manufacturing, logistics, service, and small-scale industries. Organizations in this region face challenges related to workforce management, skill development, and performance improvement in a competitive economic environment. Despite the growing industrial significance of Thoothukudi, limited empirical studies have focused on the relationship between management practices, employee empowerment, involvement, and organizational performance in this regional context.

REVIEW OF LITERATURE:

Erstad (1997) explained the need for a new management culture that empowered employees to bring about a change in the organization. The study by Karakoc & Yilmaz (2009) indicated empowering employees was indispensable for customer and employee satisfaction.

Swarnalatha & Prasanna (2012) in their research in healthcare sector showed empowered employees were more confident about their abilities. Meyerson & Dewettinck (2012) emphasized employees were willing to accept their tasks and performed better when empowered.

Reddy & Dowla (2012) in a study conducted in Power Grid Corporation of India pointed out the need to enhance skills and capabilities by providing training and development and empowering employees.

Isimoyamidele & Bakarey (2013) found a strong relationship between empowered employees and satisfied customers.

The study by Makinda & Kwasira (2014) conducted in banking sector revealed a lack of employee involvement had become an obstacle for growth and overall organizational performance.

Khan & Tariq (2014) in their research conducted on telecom sector employees showed a positive relationship between employee empowerment and organizational

commitment. Celik et al. (2014) emphasized organizations to keep up with the pace of change by empowering and encouraging employees to give innovative ideas.

Chauhan (2015) in his study conducted at Hindustan Aeronautics Limited and National Aerospace Laboratories showed a high degree of job involvement and loyalty among empowered employees.

George et al. (2015) found employee involvement and empowerment increased performance and brand recognition in higher educational institutions.

Hajian et al. (2015) emphasized empowering employees was necessary for development of organizational human capital and it ensured organizational transparency and improvement.

Dhanabhakym and Shetty (2015) have shown employee empowerment increased employees' sense of personal power and contributed to increased customer satisfaction.

Kumar & Sajid (2019) in their study in healthcare sector found employee empowerment increased job satisfaction and performance of nurses, doctors and lab technicians.

Selvi & Maheswari (2020) study revealed employee empowerment had a positive impact on job satisfaction, team spirit and staying intention among IT employees and recommended managements to create a conducive atmosphere.

Literature review revealed there were no earlier comprehensive studies that examined empowerment from the viewpoint of employees willingness, managerial support and its impact on engagement, confidence and employee branding in the IT sector in Bengaluru

STATEMENT OF THE PROBLEM:

- Lack of effective implementation of participative management practices in organizations.
- Limited employee empowerment in decision-making and job-related responsibilities.
- Inadequate employee involvement in organizational planning and problem-solving activities.
- Low employee motivation and job satisfaction affecting organizational performance.
- Absence of region-specific empirical studies on management practices, empowerment, and involvement in Thoothukudi City

PERIOD OF STUDY:

Period of study was from October 2025 – December 2025

OBJECTIVES OF THE STUDY:

The main objectives of the study are:

1. To examine the existing management practices followed by organizations in Thoothukudi City.
2. To assess the level of employee empowerment in selected organizations.
3. To analyze the extent of employee involvement in organizational activities and decision- making.
4. To study the relationship between management practices and employee empowerment.
5. To analyze the relationship between management practices and employee involvement.
6. To examine the impact of employee empowerment and involvement on organizational performance.
7. To provide suitable suggestions for improving organizational performance through effective management practices.

SCOPE OF THE STUDY

The scope of the study is confined to selected organizations operating in Thoothukudi City. The study focuses on examining various management practices such as leadership style, communication, training and development, performance appraisal, and employee participation. It also analyzes the level of employee empowerment and involvement and their impact on organizational performance indicators such as productivity, efficiency, job satisfaction, employee commitment, and retention.

The study covers employees at different hierarchical levels to obtain a comprehensive understanding of management practices and their outcomes. The findings of the study are expected to help organizational managers, policymakers, and human resource professionals in designing effective management strategies that enhance employee empowerment and involvement. However, the results of the study may be limited to the selected organizations and may not be generalized to all industries or regions.

CONCEPT OF MANAGEMENT PRACTICES

Management practices refer to the methods, strategies, and processes adopted by management to plan, organize, direct, and control organizational activities. Effective management practices include participative leadership, effective communication, training and development, performance appraisal, and reward systems. According to Robbins and Coulter (2016), management practices play a crucial role in shaping employee behavior and

improving organizational efficiency. Studies indicate that organizations with employee-oriented management practices achieve better performance and employee satisfaction.

EMPLOYEE EMPOWERMENT

Employee empowerment refers to the process of granting employees greater autonomy, authority, and responsibility in decision-making related to their jobs. Conger and Kanungo (1988) defined empowerment as enhancing employees' self-efficacy by removing conditions that foster powerlessness. Spreitzer (1995) identified empowerment dimensions such as meaning, competence, self-determination, and impact. Research findings suggest that empowered employees are more motivated, committed, and productive, leading to improved organizational performance.

EMPLOYEE INVOLVEMENT

Employee involvement is the degree to which employees participate in organizational decision-making, problem-solving, and improvement activities. Cotton et al. (1988) stated that employee involvement improves job satisfaction and organizational commitment. Involvement practices such as suggestion schemes, team-based work, and participative management encourage employees to contribute ideas and innovations. Previous studies reveal that higher levels of involvement result in improved productivity, quality, and employee morale.

ORGANIZATIONAL PERFORMANCE

Organizational performance refers to the extent to which an organization achieves its objectives efficiently and effectively. Performance can be measured in terms of productivity, profitability, quality, innovation, employee satisfaction, and retention. According to Pfeffer (1998), organizations that invest in human resource practices such as empowerment and involvement gain a competitive advantage. Several empirical studies confirm that effective management practices positively influence organizational performance through improved employee attitudes and behaviors.

RELATIONSHIP BETWEEN MANAGEMENT PRACTICES AND EMPLOYEE EMPOWERMENT

Previous studies have found a significant relationship between management practices and employee empowerment. Bowen and Lawler (1995) highlighted that participative decision-making, access to information, and skill development empower employees. Research indicates that supportive leadership and training programs enhance employees' confidence and decision-making abilities, thereby improving their performance.

RELATIONSHIP BETWEEN MANAGEMENT PRACTICES AND EMPLOYEE INVOLVEMENT

Management practices such as open communication, teamwork, and decentralized decision-making significantly influence employee involvement. Lawler (2008) emphasized that involvement-oriented management practices create a sense of ownership among employees. Studies show that organizations encouraging employee participation experience higher engagement and reduced employee turnover.

EMPOWERMENT, INVOLVEMENT, AND ORGANIZATIONAL PERFORMANCE

Several researchers have identified employee empowerment and involvement as mediating factors between management practices and organizational performance. Empowered and involved employees demonstrate higher levels of commitment, innovation, and productivity. Empirical evidence confirms that organizations focusing on empowerment and involvement achieve better long-term performance outcomes.

RESEARCH GAP

Although extensive research has been conducted on management practices, employee empowerment, and involvement, limited studies focus on their combined effect on organizational performance in regional contexts such as Thoothukudi City. Most studies are concentrated in metropolitan or multinational settings. Hence, there is a need for an empirical study to examine these relationships in the context of organizations operating in Thoothukudi City.

DATA COLLECTION

The study is based on both primary and secondary data.

Primary Data

Primary data are collected from employees working in selected organizations in Thoothukudi City. A structured questionnaire is used as the main instrument for data collection. The questionnaire consists of sections related to demographic profile, management practices, employee empowerment, employee involvement, and organizational performance. The respondents are selected using a suitable sampling method such as simple random sampling or convenience sampling.

Secondary Data

Secondary data are collected from published sources such as research journals, books, reports, theses, government publications, and relevant websites. These sources provide theoretical support and help in framing the research design and analysis.

STATISTICAL ANALYSIS:

Table 1: Demographic Profile of Respondents (Percentage Analysis)

Particulars	Category	No. of Respondents	Percentage
Gender	Male	58	58%
	Female	42	42%
Age	Below 30	32	32%
	31–40	44	44%
	Above 40	24	24%
Experience	Below 5 years	36	36%
	5–10 years	41	41%
	Above 10 years	23	23%

Interpretation

The table shows that a majority of respondents are male (58%) and fall within the age group of 31–40 years (44%). Most employees have 5–10 years of experience, indicating a mature and experienced workforce suitable for analyzing empowerment and involvement.

Table 2: Descriptive Statistics – Mean & Standard Deviation

Variables	Mean	Standard Deviation
Management Practices	3.72	0.61
Employee Empowerment	3.68	0.64
Employee Involvement	3.75	0.59
Organizational Performance	3.81	0.56

Interpretation

The mean scores indicate that management practices, employee empowerment, involvement, and organizational performance are at a moderately high level. Low standard deviation values indicate consistency in employee perceptions.

Table 3: Chi-Square Test

Variable	χ^2 Value	df	Sig.
Gender vs Empowerment	9.41	2	0.009
Experience vs Involvement	11.36	4	0.023

Interpretation:

Gender vs Empowerment

The calculated chi-square value is **9.41** with **2 degrees of freedom**, and the significance value is **0.009**. Since the significance value is **less than 0.05**, there is a **statistically significant relationship** between gender and empowerment. This indicates that the level of empowerment differs significantly between male and female respondents.

Experience vs Involvement

The chi-square value obtained is **11.36** with **4 degrees of freedom**, and the significance value is **0.023**. As the significance value is **below 0.05**, there exists a **significant association** between experience and involvement. This implies that respondents' level of involvement varies according to their years of experience.

FINDINGS OF THE STUDY

Based on the analysis of data collected from employees of selected organizations in Thoothukudi City, the major findings of the study are as follows:

1. Most of the respondents indicated that management practices such as communication, leadership support, and training programs are moderately effective in their organizations.
2. The study reveals that employee empowerment levels are moderate, indicating that employees are given some autonomy and responsibility, but decision-making authority is still limited in certain areas.
3. Employee involvement in decision-making, problem-solving, and organizational activities is found to be satisfactory but not at an optimal level.
4. A significant relationship exists between management practices and employee empowerment, indicating that better management practices lead to higher levels of empowerment.
5. There is a positive relationship between management practices and employee involvement, showing that participative and supportive management enhances involvement.
6. Employee empowerment and involvement have a significant positive impact on organizational performance indicators such as productivity, job satisfaction, and employee commitment.
7. The study finds that organizations with effective management practices experience improved organizational performance compared to those with traditional management approaches.

SUGGESTIONS OF THE STUDY

Based on the findings, the following suggestions are offered to improve organizational performance in Thoothukudi City:

1. Management should encourage greater employee participation in decision-making processes to enhance involvement and commitment.
2. Organizations should implement empowerment-oriented practices by delegating authority and responsibility at appropriate levels.
3. Regular training and development programs should be conducted to improve employees' skills and confidence.
4. Transparent and fair performance appraisal systems should be strengthened to motivate employees.
5. Management should create open communication channels to improve trust and cooperation between employees and management.
6. Employee suggestions and innovative ideas should be recognized and rewarded to enhance motivation.
7. Organizations should focus on developing a supportive organizational culture that values teamwork, empowerment, and continuous improvement.

CONCLUSION

The study concludes that effective management practices play a vital role in enhancing employee empowerment and involvement, which significantly influence organizational performance. In the context of Thoothukudi City, organizations that adopt participative leadership, transparent communication, and employee-centered management practices are better positioned to achieve higher productivity, employee satisfaction, and organizational effectiveness. Employee empowerment and involvement act as crucial mediating factors that strengthen the relationship between management practices and performance outcomes. Therefore, organizations must view empowerment and involvement not merely as human resource initiatives but as strategic tools for achieving sustainable growth and competitive advantage. The study provides valuable insights for managers and policymakers to design effective management systems that foster an empowered and involved workforce, leading to long-term organizational success.

The study on **management practices, employee empowerment, and involvement in Thoothukudi City** reveals that effective management practices play a vital role in enhancing employee empowerment and involvement. The findings indicate that demographic factors such as **gender and work experience significantly influence empowerment and**

involvement levels among employees. Supportive leadership, participative decision-making, and clear communication were found to positively contribute to employees' sense of empowerment and their active involvement in organizational activities. Overall, the study concludes that organizations in Thoothukudi City can improve employee performance and satisfaction by adopting inclusive management practices that encourage empowerment and foster greater employee involvement.

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**A STUDY ON THE IMPACT OF GST ON CONSUMER BUYING BEHAVIOUR
WITH SPECIAL REFERENCE TO KAYALPATNAM**

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ABSTRACT

Goods and Services Tax plays a major role in deciding the purchase decision of the consumers. This is because, It plays a major role on the pricing decision of different members of channels of distribution. The prices of the products differ according to the taxation slab in which they are grouped under GST. However marketers through their effective strategies manage to offer some differentiation for the consumers, in terms of price, to the Consumers. The study will explore the changes in consumer purchasing patterns, preferences, and decision making processes post -GST implementation, focusing on various sectors and demographic groups. The findings Of this study will contribute to a better understanding of the implications of GST on consumers and provide Insights for policymaker sand businesses.

KEYWORDS: Goods and Services Tax, consumer buying behavior, GST implementation, purchasing patterns, Consumer preferences, decision-making processes

INTRODUCTION:

The Goods and Services Tax (GST), introduced in 2017 in India, marks a significant milestone in tax reform, Aiming to streamline the complex web of indirect taxes prevalent in the pre - GST era. Since its implementation, GST has not only reshaped the economic landscape but has also wielded a profound influence on consumer buying behavior. Understanding the impact of GST on consumer behavior is crucial as it illuminates the dynamics of how taxation policies intersect with consumer choices, spending patterns, and market trends. In this paper, we delve into the multifaceted impact of GST on consumer buying behavior, exploring how this trans formative tax regime has altered consumer perceptions, preferences, and purchasing decisions. By dissecting the impact of GST on consumer buying behavior, the aim of this paper is to contribute to a deeper understanding of the evolving dynamics between taxation policies and Consumer choices, shedding light on the intricacies of modern market economies in the GST era.

STATEMENT OF THE PROBLEM

The implementation of the Goods and Services Tax (GST) has made a substantial impact on the economy and may have an impact on consumer choices in a number of different areas and in this study, we set down with special reference on kayalpatnam.

Examining the complex effects of GST on consumer purchasing behavior is the goal of this study. The specific objective is to determine how the Goods and Services Tax (GST) has affected consumers' attitudes, preferences, and buying habits for goods and services. Additionally, the study intends to investigate how the GST affects various product categories, socioeconomic backgrounds, and demographic segments differently.

OBJECTIVES:

- To study the customer profile of the respondents.
- To study customer awareness about GST.
- To evaluate the impact of GST on consumer behavior and purchasing decisions.
- To identify challenges faced by customers due to GST.
- To evaluate customer satisfaction regarding the implementation of GST.
- .To elicit suggestion regarding the impact of GST

SCOPE OF STUDY:

- ❖ The respondents selected are of mixed group which will give wider difference in Understanding.
- ❖ To find out the relationship between Goods and Service Tax(GST) of consumer and the satisfaction level of consumers.
- ❖ The scope of the study is conducted to find out the views of consumers perceptions about Goods and Service Tax (GST).

NEED OF THE STUDY

Most of the consumers are unaware of GST applicability on various goods and Services. They don't know the tax rates before GST and after GST. Not only that, some retailers are engaged in cut practices and they are fooling the consumers by charging GST on MRP based products. MRP includes GST but retailers are taking advantage of consumer's confusion.

LIMITATIONS OF THE STUDY:

- ◆ This study covers only limited area. This the major limitation of the study.
- ◆ Another limitation of the study is that it is restricted to kayalpatnam.
- ◆ Sample size is relatively small.
- ◆ Time constraints refer to the limitation on the amount of time available to complete a task or achieve a goal.
- ◆ Data availability refers to access and retrieved at a when needed, ensuring it is stored, maintained and protected for reliable use.

ANALYSIS AND INTERPRETATION OF IMPACT OF CUSTOMER BUYING BEHAVIOUR

TABLE: 1

DEMOGRAPHIC PROFILE OF THE RESPONDENTS

S. No	Age	No. of respondents	Percentage
1	Below20 years	22	28
2	21 -30years	15	18
3	31 -40years	32	40
4	41 -50years	6	8
5	Above50years	5	6
	Total	80	100
Sl. No	Gender	No. of Respondents	Percentage
1	Male	27	34
2	Female	53	66
	Total	80	100
S. No	Educational qualification	No. of respondents	Percentage
1	Up-to higher secondary	8	10
2	Undergraduate	50	63
3	Postgraduate	12	15
4	Others	10	12
	Total	80	100
1.	Married	47	58.75
2.	Unmarried	28	35
3.	Widow	5	6.25
	Total	80	100
Sl. No	Occupation	No. of Respondents	Percentage
1	Student	22	28
2	Homemaker	19	24
3	Salaried employee	26	32
4	Businessman	9	11
5	Others	4	5
	Total	80	100
S.no	Monthly-Income	No .of respondents	Percentage
1	Below Rs.10,000	25	30
2	Rs.10,000 – Rs.25,000	23	29
3	Rs.25,001 – Rs.50,000	28	35
4	Rs.50,001- Rs.1,00,000	2	3
5	Above Rs.1,00,000	2	3
	Total	80	100
	Total	80	100

Sl. No	Source of information	No. of respondents	Percentage
1	News media	15	19
2	Internet/Social media	18	23
3	Government announcement	18	23
4	Friends/Family	21	26
5	Others	8	9
	Total	80	100

Source: Primary data

TABLE -2
INFLUENCINGPURCHASINGDECISION

S.no	Purchasing decision	Ranks	I	II	III	IV	V	Total	Rank
		Marks (x)	1	2	3	4	5		
1.	Price of the product	f	7	5	16	25	27	300	IV
		fx	7	10	48	100	135		
2.	Brand name or reputation	f	8	12	18	20	22	276	VI
		fx	8	24	54	80	110		
3.	Product quality And durability	f	7	5	10	20	38	317	II
		fx	7	10	30	80	190		
4.	Discount or Offers factor	f	5	13	25	24	13	267	VII
		fx	5	26	75	96	65		
5.	Packing and appearance	f	9	8	11	31	21	287	V
		fx	9	16	33	124	105		
6.	Recommendation from friends/ family	f	8	14	28	20	10	250	X
		fx	8	28	84	80	50		
7.	Online reviews And ratings	f	12	10	22	22	14	256	IX
		fx	12	20	66	88	70		
8.	Av availability of after sale service/warrant y	f	4	8	16	27	25	301	III
		fx	4	16	48	108	125		
9.	Brand loyalty	f	7	5	19	20	29	319	I
		fx	7	10	57	100	145		
10.	Social media promotion	f	19	11	25	20	5	221	XI
		fx	19	22	75	80	25		
11.	Country origin (Made in India)	f	9	9	28	22	12	259	VIII
		fx	9	18	84	88	60		
12.	It made easier formed to make purchasing decision	f	17	14	31	12	6	216	XII
		fx	17	28	93	48	30		

Source: Primary data

TABLE -3
CATEGORY OF GOODS AND SERVICES AFFECTED BY GST

S.NO	Categories	No. of respondents	Percentage
1	Groceries	24	30
2	Restaurants	21	26
3	Automobiles	7	9
4	Others	10	13
5	Electronics	9	11
6	Apparel	9	11
	Total	80	100

Source: Primary data

TABLE -4
CHALLENGE FACED BY CUSTOMER DUE TO GST

S. no	Challenges	Ranks	V	IV	III	II	I	Total	Rank
		Marks(x)	1	2	3	4	5		
1.	GST has led to increase in price of goods and services	f	9	7	11	26	27	295	II
		fx	9	14	33	104	135		
2.	GST has led a significant impact on the luxury goods and services industry	f	6	8	22	31	13	277	III
		fx	6	16	66	124	65		
3.	GST has increased the burden on consumer	f	4	10	14	21	31	305	I
		fx	4	20	42	21	155		

Source: Primary data

Table -5
RESPONDENTS OPINIONS ABOUT GST

S. no	Opinions	Rank	V	IV	III	II	I	Total	Rank
		Marks(x)	1	2	3	4	5		
1.	The transparency introduced by GST tax calculations and pricing(positively)	f	13	8	32	23	4	237	V
		fx	13	16	96	92	20		
2.	GST has positively impacted the demand of luxury goods and services	f	8	14	24	28	6	250	III
		fx	8	28	72	112	30		
3.	GST has result Edina reduction in the over all cost of goods and services	f	13	19	25	19	4	222	VI
		fx	13	38	75	76	20		
4.	I have reduced spending on luxury goods due to GST	f	5	10	29	23	13	269	I
		fx	5	20	87	92	65		
5.	I prefer stores that provide GST invoices	f	6	14	28	23	9	255	II
		fx	6	28	84	92	45		
6.	GST has made pricing more transparent	f	10	13	31	20	6	239	IV
		fx	10	26	93	80	30		

Source: Primary data

FINDINGS OF THE STUDY

From the analysis the following are the main findings of the study

- ◆ Majority (40%) of the respondents belongs to the age group of 31-40years.
- ◆ Most of (66%) of the respondents surveyed are female members.
- ◆ It is observed that a considerable number of respondents are married.
- ◆ No. of 80 respondents, (63%) of the respondents are Salaried employee.
- ◆ Most (32%) of the respondents are students.
- ◆ No. of 80 respondents, 35respondents comes under the category of monthly income of Rs.25,001- Rs.50,000.
- ◆ Majority (26%) of the respondents first learned about GST through friends or family
- ◆ Inference of that 80 respondents through ranking, first rank goes to that the brand loyalty (total score 319) for influencing purchasing decisions.
- ◆ Majority (30%) of the respondents are groceries under the categories of goods/ services were most affected by GST.
- ◆ Inference of that 80 respondents through ranking, first rank goes to that GST has increased the burden on consumer (total score 305) where challenges faced by customers due to GST.
- ◆ Inference of that 80 respondents through ranking, first rank goes to that I have reduced spending on luxury goods due to GST(Total score 269) were their opinions about GST.

SUGGESTIONS:

- The implementation of Goods and Services Tax (GST) in India has undoubtedly influenced consumer buying behavior in various ways. Here are some suggestions or recommendations on its impact:
- Price Sensitivity and Bargain Hunting: GST simplifies taxes, making consumers more price-sensitive. They compare prices across brands, urging businesses to focus on competitive pricing.
- Shift in Product Preferences: GST revised tax structure prompts consumers to favor better value or lower-taxed items. Businesses must adapt their offerings to meet changing preferences.
- Brand Loyalty and Trust: GST compliance influences consumer trust. Businesses should prioritize compliance to build loyalty.

- Impact on High-Involvement Purchases: GST alters pricing for major purchases, requiring thorough consumer education from businesses.
- Promotions and Discounts: Post GST, consumers are more inclined to use promotions. Businesses align strategies with GST implications.
- Educational Initiatives: Businesses should educate consumers about GST impact to empower informed decisions.
- Increased Costs on Certain Goods and Services: Luxury goods, high-end services, and certain sectors like telecom, banking, and insurance have seen increased taxation, making them more expensive.

CONCLUSION

To sum up, the Indian government has successfully introduced GST. All economic sectors have been impacted. Every consumer is impacted which is likely to cause inflation. People with the lowest income category would be most negatively impacted because they already pay little or no income tax. However, GST has an adverse impact on how customers spend money on necessities. The government needs to seriously think about reducing the tax. Reconsidering tax rates in a way that does not significantly impact consumers necessities is vital on the part of the government. It significantly affects consumers' ability to make purchases. GST is set up to bring in a sizable amount of money for the whole nation as well as state governments. Additionally, both the Indian government and its citizens gain from the collection of indirect taxes.

Based on the study focusing on Kayalpatnam, GST has a negative impact on how customers spend money on necessities. The cost of commodities won't rise if the government takes appropriate measures, which will spare consumers from any negative effects. With all of the previously mentioned data, it is obvious that the GST would have a mixed effect on consumers, with some products being more affordable and others more expensive. Do the consumers get the benefits from GST?. This is a very tricky question and there is no definitive answer to this, as for the producers and the government, the straight answer was YES. But the benefits from GST for the consumers it is not that simple. This is because the GST will have different impact on different goods and services used by consumers.

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UTILIZING ARTIFICIAL INTELLIGENCE IN MANAGEMENT: AN IN-DEPTH ANALYSIS

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ABSTRACT

The revolutionary influence of Artificial Intelligence (AI) on many facets of life is examined in this study of management in modern firms. Companies are increasingly using AI technologies due to their fast growth. Using these instruments more and more to improve decision-making, streamline processes, and encourage innovation. The use of AI in management is covered in this study, with an emphasis on crucial aspects including strategy. Customer relations, human resources, operations, and planning. The advantages and disadvantages of this topic are discussed. The difficulties involved in incorporating AI into management practices, providing information about the changing the environment of leadership in organizations. The continuous technological improvements in society, especially the labor market and the economy are about to be significantly impacted by the widespread digitization of the economy.

The introduction of robotics and artificial intelligence (AI) systems into the workplace. It presents both amazing opportunities and potential risks, such as the possibility of change or even the extinction of some occupations. The ability to effectively redesign management systems is crucial in the ability to respond to new possibilities and problems becomes a crucial element in fostering organizational adjustment to changing circumstances. This research provides a thorough examination of trends in artificial intelligence. The use of intelligence, including an analysis of its effects on the labor market and the changing roles of management positions. It highlights the potential that AI offers to both firms and workers, emphasizing it are the possibility of boosting productivity and creativity. The study, however, also emphasizes the key issues related to the deployment of AI in organizational management systems, covering a wide range of issues from the complex moral dilemmas underlying AI decision-making processes to the topic of job displacement. In the end, it will be the capacity to maneuver these complexities and thoughtfully redesign management frameworks that will

prevail. Play a key role in promoting organizational change that benefits employees, employers, and the rest of society.

Keywords: Artificial Intelligence, AI, Digital economy, digital management, smart decisions.

INTRODUCTION

Artificial Intelligence has grown to be a disruptive factor that is changing the way businesses function and make decisions. AI provides unmatched potential to improve efficiency, enhance decision-making, and boost management in general. Strategic planning and encouraging reactivity. The ever-changing and unpredictable environment of today's business, new digital technologies are reshaping the economy, altering organizational traits, and revolutionizing how consumers engage with companies (Snow et al., 2017). This digital transformation has gone much further affecting society, business practices, management approaches, and the labor market. Artificial intelligence (AI) will have a significant impact as a powerful force (Brynjolfsson and McAfee, 2014). Impact on organizational management systems, possibly accelerating what some term the fourth industrial revolution (Brynjolfsson & McAfee, 2014). Effectively dealing with this challenge, as well as adapting modern management procedures is essential for taking advantage of fresh opportunities and ensuring success.

Artificial intelligence poses significant challenges for managers, forcing them to rethink their previous approach to work. Concepts, with a focus on fostering perfect collaboration between humans and artificial intelligence. Consequently, businesses must modify their recruitment strategies and training programs to draw in people with the skills necessary to carry out the tasks demanding evaluative judgment skills. These abilities include inventiveness, teamwork, and the capacity to investigate. Simply said, managers and organizations must embrace a paradigm shift that highlights the value of the fusion of human creativity with artificial intelligence abilities, enabling each to realize its full potential. The many uses of artificial intelligence in various management fields are discussed in this article.

Automate skill assessments:

AI-powered tools can analyze employee performance data, project assignments, code repositories, and online learning activities to generate comprehensive and objective skill profiles.

Identify emerging skill gaps:

Proactive identification of skill gaps is crucial for organizational agility. AI algorithms can analyze industry trends, job market demands, and technological advancements

to predict future skill requirements and identify potential skill shortages within the organization.

Personalize learning pathways:

AI can personalize learning experiences by recommending relevant training courses, mentorship programs, and skill-building activities based on individual skill gaps, learning styles, and career aspirations.

Enhance employee development:

AI-powered platforms can provide real-time feedback, track individual progress, and offer personalized coaching to support employee growth and development.

This research aims to investigate the current state of AI-powered competency mapping and skill development within IT organizations, analyze the benefits and challenges of implementing these technologies, and explore best practices for successful adoption. By understanding the transformative potential of AI in this domain, organizations can cultivate a highly skilled and adaptable workforce, drive innovation, and gain a competitive edge in the ever-evolving IT industry.

Strategic planning:

By analyzing data and delivering useful insights, AI is essential to strategic planning. Predictive modeling. Machine learning algorithms are able to analyze large datasets in order to find patterns, trends, and possible risks, assisting managers in making educated judgments. Using AI in strategic planning involves scenario analysis. Market prediction, analysis, and the discovery of potential areas for expansion.

Management of Operations:

AI improves operations, cuts expenses, and boosts productivity. Smart systems are powered by AI, which optimizes processes and enhances productivity. AI has the potential to optimize production planning, inventory management, and supply chain management. Predictive AI-enabled maintenance minimizes downtime by predicting equipment malfunctions and scheduling repairs and takes the initiative in carrying out maintenance duties.

Human resources:

By automating mundane tasks like resume screening and other procedures, AI is revolutionizing human resources management. First evaluations of potential candidates, virtual assistants and chat bots that employ natural language processing improve communication and engagement by fostering employee interactions.

Relations with customers:

Customer interactions are improved via AI-driven technologies, such as chat bots and virtual assistants, by offering immediate assistance and customized experiences and driven by customer relationship management (CRM) systems. To improve the customer experience, tailor marketing plans, and forecast preferences by using AI to analyze client data.

Future tendencies:

With progress in explainable AI, the future of AI in management is promising and more cooperation between people and AI systems, as well as independent decision-making. The continuous and future of organizational management will continue to be influenced by the advancement of AI technologies.

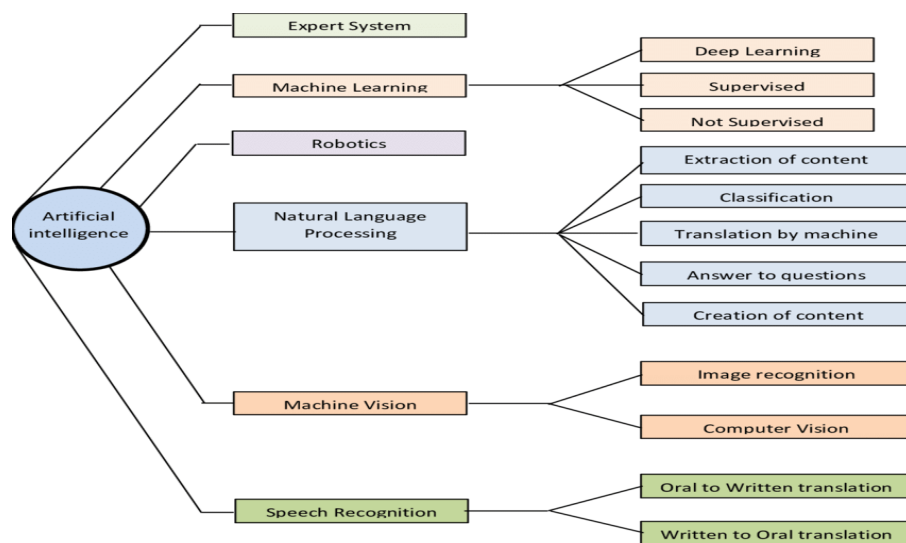


Figure 1 Function of AI

The wide range of tasks that AI is capable of performing, demonstrating its versatility, is shown graphically in Figure 1. As well as its versatility in a variety of fields. The graphic most likely depicts the use of AI in data analysis, natural language processing, image recognition, and decision-making procedures. As illustrated in the picture, the influence of AI is felt across a variety of industries, affecting the future of employment and invention.

AI is essential to data analysis, risk evaluation, and algorithmic trading in finance. Algorithms are capable of analyzing massive datasets, spotting patterns, and making well-informed forecasts, all of which contribute to greater accuracy and accurate financial decision-making. In addition, AI-driven chat bots are used for client care and making tailored suggestions and providing real-time support.

AI applications in healthcare range from diagnostic instruments to individualized therapy. Machine learning Medical pictures can be analyzed by algorithms, abnormalities can be identified, and early disease diagnosis can be facilitated. Additionally, AI helps the

managing healthcare data for better patient outcomes, improving treatment regimens, and finding new drugs.

AI has a variety of benefits for the transportation industry, such as route optimization, predictive maintenance, and more the creation of autonomous vehicles and maintenance. Traffic is analyzed using machine learning algorithms. Using patterns, weather, and past data to improve transportation routes and save fuel and trip times.

LITERATURE REVIEW

Artificial Intelligence (AI) is increasingly used in business because it supports managers in decision-making, quality control, and compliance. Research shows that AI improves efficiency and accuracy, but its use also creates questions about ethics and governance. **Hoffmann and Reich (2023)** show that in manufacturing, AI-driven visual inspection detects defects faster than humans. This improves quality assurance and lowers production errors.

Employee Competencies in the Age of Artificial Intelligence: A Systematic Review from Southeast Asia. *International Journal of Academic Research in Economics and Management Sciences*, **Nordahlia, Umar, Baki., Roziah, Mohd, Rasdi., Steven, Eric, Krauss., Muhd, Khaizer, Omar. (2023)** conducted a systematic literature review on the competencies required during the intervention of AI in the SEA region, which revealed four main themes, namely technological competency, cognitive competency; social and emotional competencies; and change management competency.

Marina, Tcharnetsky., Florian, Vogt. (2023) an Artificial Intelligence Cycle Model against the Shortage of Skilled Professionals. The newly developed OSQE model (Optimize, Secure, Qualify, and Expand) is described, which for the first time outlines an AI cycle against the shortage of skilled professionals in a holistic approach that focuses equally on people and companies.

Similarly, **Betito et al. (2025)** argue that AI strengthens Total Quality Management (TQM) by giving managers more reliable data and reducing waste. These studies suggest that AI aligns well with the TQM principle of continuous improvement. However, both focus on technical benefits and do not fully explain how organizations can manage risks of AI misuse.

Mikalef et al. (2020) link AI with big data analytics, showing that firms gain competitive advantage when they combine both. This supports the Technology Acceptance Model (TAM), where usefulness of AI encourages adoption. Yet, their study is conceptual, while fewer large-scale empirical studies test these claims in real organizations. Governance and ethics remain weak points.

Jobin et al. (2019) reviewed global AI ethics guidelines and found that many are not enforced in practice. **Batool et al. (2023)** also confirm that there is still no unified framework for responsible AI governance. These studies are based on literature reviews, meaning they highlight risks but lack industry-level testing.

In contrast, case studies such as **Kowalczyk (2025)** in the automotive sector and **Wang et al. (2024)** in industrial quality assurance provide practical evidence that AI reduces defects but also show that poor testing of AI systems can threaten compliance. Other scholars stress that AI adoption depends on skills and strategy.

Enholtm et al. (2021) found that AI creates business value only when firms invest in infrastructure and training. Also show that AI improves project success when employees are prepared and leadership provides clear guidance. These findings highlight the Diffusion of Innovation theory, since early adopters succeed when they combine technology with organizational readiness. Overall, the literature suggests three important points.

First, AI tools are powerful for quality assurance and compliance, supporting theories such as TQM. Second, governance and ethics remain weak, with most studies pointing out risks but offering limited tested solutions. Third, there are methodological gaps: many studies are conceptual or based on systematic reviews (**Dwivedi et al., 2021; Batool et al., 2023**), while fewer empirical studies measure AI's direct impact on compliance and quality in real industries. This gap motivates the current research, which aims to combine evidence of AI's benefits with a critical view of governance and transparency challenges.

ACCEPTANCE MODEL (TAM) AND DIFFUSION OF INNOVATION (DOI)

Total Quality Management (TQM):

TQM focuses on continuous improvement, customer satisfaction, and error reduction. AI supports these ideas by providing accurate tools for monitoring and improvement. For example, AI systems can detect product defects faster than humans and analyze customer feedback in real time, helping managers improve processes (**Betito et al., 2025; Hoffmann & Reich, 2023**). In this way, AI strengthens the TQM principle that quality should be built into every stage of work.

Technology Acceptance Model (TAM):

TAM explains how people decide to accept or reject new technology. The two main constructs are perceived usefulness and ease of use (**Shrestha et al., 2019**). If employees and managers believe that AI is helpful and simple to use, they are more likely to adopt it. However, when AI is complex or raises concerns about fairness, adoption slows down

(Ahmed et al., 2025). Linking TAM with TQM shows that even if AI can improve quality, its success depends on whether staff actually uses it.

Diffusion of Innovation (DOI):

DOI explains how new technologies spread within and between organizations. It includes stages such as early adoption, wider diffusion, and institutionalization (Dwivedi et al., 2021). In practice, some industries like automotive and healthcare have already reported strong benefits from AI, which encourages other sectors to follow (Kowalczyk, 2025). The model highlights that adoption is not only about the technology itself but also about organizational culture and external influence.

Connecting the Theories:

These three theories complement each other. TQM explains why AI matters for quality. TAM explains how employees accept AI as a tool. DOI explains how adoption spreads across industries. Together, they provide a framework to study both the opportunities (efficiency, compliance, customer trust) and risks (resistance, weak governance, bias) of AI in management.

THE SIGNIFICANCE OF ARTIFICIAL INTELLIGENCE

- **Decision Making:** AI algorithms analyze huge datasets to find patterns, forecast trends, and offer recommendations, actionable insights that will enable better strategic and operational decision-making. This includes forecasting, risk analysis and resource allocation.
- **Task Automation:** AI-powered technologies automate mundane and repetitive activities throughout a variety of sectors. Administrative duties, allowing human managers to concentrate on more innovative and strategic tasks. Examples, this covers data entry, scheduling, and first interactions with clients through bots.
- **Improved Communication and Collaboration:** NLP makes things easier by using natural language processing and communication via tools such chat bots for real-time updates and stakeholder participation. AI can additionally, analyze communication patterns and make recommendations for the best team arrangement in order to foster greater collaboration.
- **Human Resource Management:** By effectively screening candidates, AI helps in talent Acquisition, identifying skill deficiencies and tailoring training programs. Additionally, it may improve performance, objective feedback and identifying areas for development are used to manage.

- **Supply Chain Management:** AI improves several SCM processes, such as demand prediction, inventory management, transportation logistics, and purchasing, resulting in increased productivity and lessened operational hazards.
- **Project Management:** AI improves project planning by calculating costs and time, identifying risks, and managing other factors, resource management, mitigation, and resource management. It also assists in monitoring the development of projects and identifying any potential possible problems in real time.
- **Customer Relationship Management:** CRM systems that utilize AI enhance customer interaction by means of tailored interactions, chat bots for prompt assistance, and examination of customer data to improve service and foresee future requirements.
- **Financial Risk Evaluation:** AI technologies in the finance sector concentrate on assessing credit risk, identifying fraud, and predicting financial patterns, aiding in more reliable and knowledgeable financial choices.
- **Marketing:** Artificial intelligence is utilized for immediate analysis of campaigns, categorization of customers, and tailored communication. Promotion and forecasting buyer actions.

AI IN AN ADMINISTRATIVE POSITION

- **Automated Task Management:** Artificial intelligence is highly effective at automating repetitive tasks and routine administrative processes. Certainly! Please provide the text you would like me to rephrase, and I will be happy to assist you. This entails organizing meetings, overseeing calendars, managing invoices, and addressing fundamental tasks. Customer questions via chat bots and producing standard reports. AI systems can operate continuously providing constant support and service.
- **Document and Data Management:** Artificial Intelligence can effectively arrange, categorize, and access large volumes of data and electronic files and information. Optical Character Recognition (OCR) tools allow AI to transform printed Digitizing documents enables their conversion into searchable formats, and Natural Language Processing (NLP) facilitates advanced searching and summarizing capabilities. The ability enhances work processes, minimizes mistakes in data input, and guarantees that information is easily accessible.
- **Workflow Automation:** Artificial Intelligence can streamline intricate workflows that consist of several stages and approvals, including those related to project management, authorizations for expenses, and coordination among team members.

The exchange of information and responsibilities can be enhanced by AI systems, which can minimize delays, increase productivity, and guarantee that established procedures are adhered to consistently.

- **Assistance in Decision-Making and Foundational Decision Processes:** AI algorithms possess the ability to examine extensive datasets to detect patterns, trends, and irregularities, offering administrators and managers with insights based on data for Decision-making. In certain situations, AI is capable of making simple independent decisions based on established guidelines, Conditions, such as automatically restocking supplies when inventory amounts are insufficient.
- **Resource Efficiency:** Artificial Intelligence can examine how resources are used to pinpoint areas of waste and possibilities for improvement. This involves overseeing office areas, distributing equipment, and also improving staff numbers according to anticipated requirements.

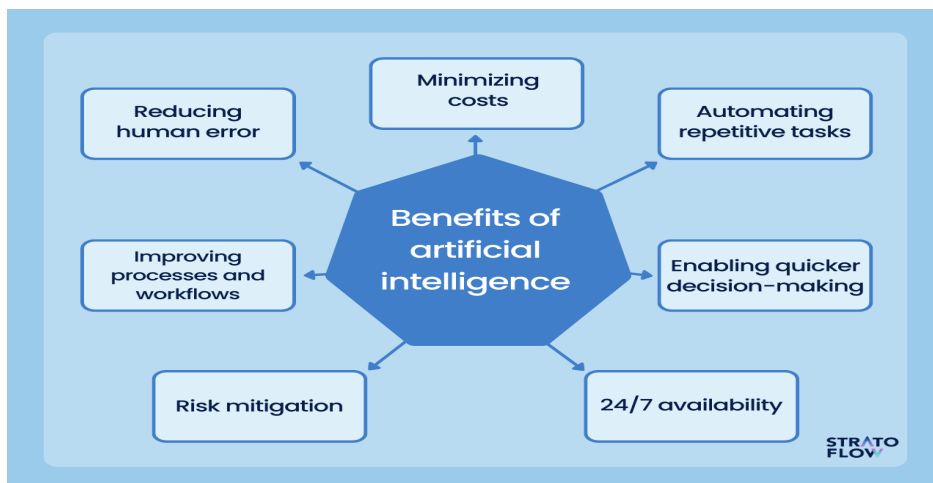


Figure 2 Benefits of AI

- **Improved Communication and Assistance:** AI-driven chat bots and virtual assistants are capable of managing regular communication activities, respond to common inquiries, and offer preliminary assistance to staff and clients. This allows human administrators to concentrate on more intricate and subtle tasks.
- **Compliance and Risk Management:** Artificial Intelligence can help in overseeing adherence to internal regulations and external standards by examining data and recognizing potential risks or inconsistencies. This may be especially beneficial in fields such as data protection and confidentiality.

DIFFICULTIES

- **Data Quality and Accessibility:** The success of AI significantly depends on the presence of high-quality data, pertinent information. Low-quality data may result in incorrect findings and defective decision-making.
- **Connection with Older Systems:** Linking new AI systems with current technology Infrastructure can be complicated and expensive.
- **Algorithmic Bias and Fairness:** AI algorithms have the ability to maintain and even increase the biases that exist in the data. The information they are trained upon may result in biased or unjust results.
- **Ethical Considerations:** Matters concerning data privacy, clarity, and responsibility in AI-based systems. Decision-making requires thorough evaluation.
- **Employment Displacement:** The ability of AI to automate tasks leads to worries regarding the replacement of human workers. Employees need approaches for changing jobs and learning new skills.
- **Requirement for Competent Workforce:** Effective implementation of AI necessitates a competent workforce proficient in Creating, implementing, and overseeing AI systems, along with working together efficiently with them.
- **Expenses and Return on Investment:** The introduction of artificial intelligence may entail substantial initial expenses, along with the necessity to provide a clear and achieving a prompt return on investment can be difficult.
- **Opposition to Change:** Both employees and managers may be hesitant to embrace the implementation of AI because of concerns regarding the uncertainty or apprehensions regarding their responsibilities.
- **Absence of Transparency (Black Box Issue):** Certain sophisticated AI models, especially those based on deep learning, may be hard to understand, which makes it tough to see how they make particular choices.

PROSPECTIVE DEVELOPMENTS

- **Enhanced Cooperation between Humans and AI:** In the future, it is expected that there will be a stronger focus on joint efforts between human supervisors and artificial intelligence systems, utilizing the advantages of each.
- **Progress in Advanced Artificial Intelligence:** Improvements in machine learning, deep learning, and natural language processing will result in more efficient and adaptable AI applications in management.

- Emphasize Ethical and Responsible AI: Increasing understanding of the ethical consequences of AI will motivate the creation of guidelines and rules to guarantee its responsible utilization.
- AI for Increased Creativity and Innovation: Future AI uses will probably extend beyond automation and analysis to help create new ideas and promote innovation.
- Incorporation of AI throughout All Management Levels: AI will progressively be incorporated into the daily activities of managers at every level, ranging from operational tasks to strategic planning.
- Focus on Accessible AI Interfaces: The creation of more straightforward and user-friendly interfaces will enable managers with limited technical knowledge to utilize AI tools more easily.
- AI for Sustainability and Social Responsibility: Future uses of AI could concentrate on tackling Social issues including corporate social responsibility and environmental sustainability.
- Customized and Flexible Management: Artificial Intelligence has the potential to facilitate more customized and flexible management. Management methods involve customizing strategies and interactions according to the specific needs of individuals and teams.

CONCLUSION

In summary, artificial intelligence has great potential to change the administrative tasks in management. Resulting in enhanced efficiency, decreased expenses, and better decision-making. Nevertheless, achieving success Execution demands thoughtful attention to the related difficulties, such as ethical considerations, data safety, and the necessity for a capable and flexible workforce. By thoughtfully incorporating AI into administrative processes by redefining roles, organizations can achieve greater operational excellence and enable their workforce to concentrate on more valuable tasks. Additionally, the creation of more accessible AI interfaces and no-code/low-code platforms is essential. This study helps us understand better how Artificial Intelligence (AI) is changing management and quality work. The findings show that AI is more than just a tool. It also pushes organizations to work in new ways. When linked with Total Quality Management (TQM), AI shows that quality does not always improve slowly step by step. In many cases, AI can bring quick and major changes.

AI platforms will enable these technologies to be more reachable for people who do not possess extensive technical knowledge enabling a broader group of managers and

administrators to utilize AI in their routine tasks. In summary, the use of AI in management serves as a powerful agent of change that is altering the way of organizations function and makes choices. The incorporation of AI in strategic planning, operations, and human resources can greatly enhance efficiency and decision-making processes. The management of resources and customer relations provides numerous advantages; however, it also presents various challenges that need to be addressed. Attentively handled. As companies increasingly adopt AI technologies, the responsibilities of managers will change. Demanding a mix of technical skills and strategic guidance to manage the challenges of artificial intelligence motivated commercial environment.

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“A STUDY ON CUSTOMER PERCEPTION TOWARDS THE PRODUCTS AND SERVICES OF INNCON”

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ABSTRACT

Customer perception levers the strength of organizations, which are the most essential part of growth and development of the organization. In this context, Inncon at Chennai is in the stage of strengthening up its marketing functions, thereby creating a need to embrace the impact of its policies on their clients. The project aims at finding the impact of marketing policies of Inncon towards its customers in Chennai city, which would act as a stepping stone for the company to spread the activity to the entire country. A study of company documents was initiated to understand the customer perception on customer perception and their satisfaction towards the products and services of Inncon which are generic to the organization as a whole. The questionnaire needed for this study was framed after conducting a discussion with the sales officers of the company. The customers of Inncon are interviewed with a structured questionnaire to find out their perception and preference for the products and services of Inncon. 120 respondents were taken as sample for this study and questionnaires were distributed to obtain their response. The collected questionnaires were put under the simple percentage.

Keywords Customer perception, embrace the impact, marketing policies, products and services.

Introduction

As a new paradigm based on proper integration of formal teaching and actual practice, project in post graduate diploma courses has been introduced to get a feel of actual Business Environment To bridge the gap between theory & practice and to cultivate proper temperament and generate much needed morale i.e. to help the students to identify their strong and weak points in the following and appreciating various organizational activities. So that appropriate measures can be taken at an earliest time. In recent times the concept of customer perception has received the attention of both manufacturers and retail organizations and also from players in services industries from all over the world been it local or multinational. There are several reasons for this dramatic growth in customer perception. First, consumers have accepted customer perception as part of their buying decision criteria.

It provides reluctant decision makers with an incentive to make choices by increasing the value offered by a particular brand. Second, the increasing tendency of businesses to focus on short-term results has helped spur growth in customer perception, which can provide an immediate boost in sales. Finally, an increase in the size and power of retailers has also boosted the use of customer perception.

Buyer's value theory is actually a theory that examines value from the customer's point of view. The theory regards customer value as the measurement in the minds of customers. The measurement is the value of products and services that customers perceive in the process of consumption. Consumers would also have a clear sense of cross-border e-commerce platforms. When shopping on cross-border e-commerce platforms, consumers would show a certain perception based on the entire purchase process. The formation of consumer perception is based on multiple dimensions [5]. With the vigorous development of the digital economy, cross-border e-commerce has developed rapidly. Cross-border e-commerce is influenced by government policies and international trade promotion. Consumers could learn more directly about related products through cross-border e-commerce platforms. Compared with offline transactions, the information transparency of cross-border e-commerce platforms is higher. Therefore, consumers could get a certain perception based on buyer evaluation and customer service quality [6]. On one hand, the Internet allows businesses to respond more efficiently to consumers. On the Internet platform, consumers could express their consumption needs more directly. At the same time, companies are also able to respond quickly and effectively to consumer demand. It could be seen that cross-border e-commerce trade channels effectively improve consumers' perceived usefulness and consumption interaction, and reduce consumption risks. It also effectively increases consumers' intention to buy [7]. Furthermore, based on the e-commerce marketing theory, it could be seen that cross-border e-commerce shows low technical requirements for the use of the Internet. In this way, consumers could get clear information about the target product through simple operations and feel high availability. It could enhance consumers' purchase intention [8]. On the other hand, related factors could also show a negative impact on consumer perception, thus inhibiting consumers' purchase intention. For example, the quality of customer service is low. The product is exaggerated. The product quality is poor. All of these situations could lead to negative perceptions among consumers. It would discourage consumers from buying something [9]. It could be seen that there is a significant correlation between consumer perception and consumer purchase intention.

Review of Literature

Dr. Lazar Stosi., The Importance Of Educational Technology In Teaching, (IJCRSEE) International Journal of Cognitive Research in Science, Engineering and Education Vol. 3, No.1, 2015. Today, more than ever, the role of educational technology in teaching is of great importance because of the use of information and communication technologies. With the help of various applications for distance education, the Internet, teachers, and students themselves, they see the advantage of educational technology. PrabhaRamseook-Munhurrin, 2010, Service Quality In The Public Service, International journal of management and marketing research Volume 3 Number 1 2010. The purpose of this paper is to obtain a better understanding of the extent to which service quality is delivered within the Mauritian public service by drawing on front-line employees (FLE) and customer perceptions of service quality. The paper investigates how closely customer expectations of service and FLE perceptions of customer expectations match.

Androulidakis : G.kandus (2011) correlated the brand of mobile phone to users security practices. Users show different behavior in an array of characteristics, according to the brand of the mobile phone they are using. As such, there is a categorization of areas, different for each brand, where users are clearly lacking security mind, possibly due to lack of awareness. Such a categorization can help phone manufacturers enhance their mobile phones in regards to security, preferably transparently for the user Rodolfo Martínez Gras ; Eva espinar Ruiz (2012) highlight a new dimension in information and technology with respect to teenagers in Spain. The main objective of this article is to analysis the relationship between information and communication technological and Spanish adolescents. Specifically, researchers have studied, though qualitative methodology, the characteristics of teenagers' access and uses of technological devices. And analyzed the purpose that motivate the utilization of information and communication technological devices and analyzed the purpose that motivates the utilization of information and communication and entertainment. On the contrary, there is an under-utilization of all these devices for teaching and learning purposes.

Wafa N.Muhanna; Awatif M.Abu-Al-sha (2009) aims at investigating Jordanian university undergraduate and graduate students attitudes towards the learning environment where cell phones are used as learning tools in classroom. The study comprised two independent variable, level and learning tools in classroom. The study comprised that undergraduates are more favorable to cell phone environment.

Objectives

1. The primary objective is to find out the customer perception and satisfaction of customers towards the software products of Inncon, Chennai.
2. To find out the level of satisfaction of consumers in different dimensions regarding price, performance and giving solutions on time.
3. To assess whether the product is user friendly for work and also about after sales services offered by the company.
4. To study the needs and wants of customers regarding up gradation of versions and information security of the products.

Research Methodology

Research Methodology is a systematic approach in management research to achieve pre-defined objectives. It helps a researcher to guide during the course of research work. Rules and techniques stated in research methodology save time and labor of the researcher as researcher know how to proceed to conduct the study as per the objective. It defines the way in which the data are collected in a research project.

Findings

1. 43% of the respondents are in the age group of 18-25 years, 23% in 26-32 years, 20% in 33-40 years and 13% above 40 years.
2. 36% of respondents are male and 64% are female.
3. 56% of the respondents are executives, 27% of them are system administrators, 10% respondents are network admins and rest 7% of them respondents are managers who participated in the survey.
4. 10% are getting 5000-10000 per month as income, 23% are getting 10000-15000, 36% - 15000-20000 and 31% above 20,000
5. It is observed that 77% of respondents were aware of products and solutions offered by Inncon and 23% of respondents were not aware about the products and solutions offered by Inncon
6. It is observed that 12% of respondents were aware of Inncon through marketing executives, 44% of them said they came to know about the company through references, 32% said it is through internet, 7% of them said newspapers and magazine and the rest 5% of the respondents said they came to know about the company through other sources.

Conclusion

Customer perception is a key ingredient in marketing campaigns and consists of a diverse collection of incentive tools, mostly short term designed to stimulate quicker or greater purchase of particular products or services by consumers. Customer perceptions programmers are those activities other than stimulate consumer purchase. Customer perception can also be known as a direct inducement that offers an extra value or incentive for the product to the sales force, distributors, or the final consumer with the primary objective of creating an immediate sale .As far as the survey is concerned a good understanding of the companies IT infrastructure was done. The objectives of the project were fulfilled. The key conclusions from the report are: The study reveals that Inncon is trying its level best to increase its consumer purchasing behaviour. But there are some more steps are to be taken it improve further customer's satisfaction which is beneficial both for the customers and the company. The company should adopt the modern concept of marketing strategy which emphasizes that marketing which starts with consumers and ends with customers.

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AI & AUTOMATION: OPPORTUNITIES AND CHALLENGES IN THE EDUCATION FIELD

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ABSTRACT

Artificial Intelligence (AI) has transitioned from a theoretical concept to a practical and transformative tool in education. Today, educational institutions worldwide leverage AI-driven platforms, intelligent algorithms, and automated systems to manage classrooms, support learners, optimize administrative functions, and enhance teaching quality. AI facilitates real-time analysis of student learning behaviors, enables personalized content delivery, and reduces human effort in repetitive tasks. Automation complements AI by streamlining routine operations such as attendance tracking, scheduling, notifications, report generation, and admissions processing.

Historically, AI in education has evolved from early computer-assisted instruction in the 1960s to sophisticated adaptive learning systems and generative AI models today. The COVID-19 pandemic accelerated the adoption of AI-enabled tools, driving hybrid and remote learning models across the globe.

The education sector is now shifting from traditional teacher-centered approaches to technology-enhanced, learner-centered paradigms. AI offers opportunities for personalized learning, collaborative platforms, accessibility tools, faculty development, and mental health support. However, challenges such as digital literacy gaps, ethical concerns, algorithmic bias, overreliance on technology, and inequitable access require careful management. A balanced understanding of both the potential and limitations of AI is essential for institutions to implement human-centered, equitable, and sustainable AI strategies in education.

KEYWORDS

Artificial Intelligence, Automation, Smart Education, Personalized Learning, Digital Transformation, Data Privacy, Educational Technology, Institutional Development.

CHAPTER CONTENTS

Introduction

Artificial Intelligence has transitioned from a theoretical notion to a practical instrument that significantly impacts educational systems across the globe. Presently, educational institutions leverage intelligent algorithms, automated systems, and data-driven platforms to effectively manage classrooms, support learners, and optimize administrative

functions. AI facilitates real-time analysis of learning behaviors, enhances decision-making processes, and alleviates human effort in repetitive tasks. Furthermore, automation complements AI by enabling the efficient execution of routine operations, such as attendance tracking, scheduling, notifications, and documentation.

The education sector is experiencing a shift from traditional, teacher-centered pedagogies to blended, technology-enhanced learning environments. However, the incorporation of AI also presents challenges related to financial implications, digital literacy, ethical considerations, and job security. It is imperative to comprehend both the beneficial and adverse aspects of AI to ensure its responsible adoption within the educational sphere.

Opportunities Created by AI & Automation in Education

- **Personalized Learning and Adaptive Instruction**

AI systems analyze student performance data, learning behavior, and cognitive patterns to tailor instructional content according to individual needs. This creates highly customized learning pathways that match each learner's pace, style, and preferences. By identifying learning gaps early, AI ensures timely intervention, strengthens conceptual understanding, and boosts engagement. Advanced adaptive learning platforms, AI tutors, and intelligent remediation systems provide targeted exercises, real-time feedback, and continuous monitoring. In higher education, AI-driven platforms support competency-based learning by aligning coursework with skill-mastery levels.

- **Enhanced Instructional Support for Educators**

AI significantly assists educators by automating lesson planning, generating multimedia learning materials, creating assessments, and even producing rubrics for evaluation. These tools reduce repetitive administrative tasks, enabling teachers to focus on mentoring, classroom facilitation, and student-centered learning. AI-enabled feedback systems help teachers analyze classroom performance trends and refine their teaching strategies. Additionally, AI can identify areas where students commonly struggle, helping educators redesign instruction, improve course structure, and adopt more effective pedagogy.

- **Automation of Administrative and Institutional Operations**

AI streamlines critical institutional processes such as attendance tracking, timetabling, admissions screening, fee reminders, document verification, and reporting. Automated workflows reduce human error, accelerate decision-making, and ensure operational consistency. Predictive analytics enhance resource planning, optimize staff allocation, and

forecast enrollment trends. This leads to timely student services, improved administrative productivity, and better institutional governance. Large universities now use AI dashboards to monitor campus operations and enhance overall institutional performance.

- **Intelligent Student Support Services**

AI-driven Chatbot, virtual assistants, and helpdesk automation provide students with instant responses regarding academic schedules, course prerequisites, examination details, and financial information. These tools operate continuously, improving communication and reducing pressure on administrative staff. AI-based alert systems also help students track deadlines, academic responsibilities, and learning progress. Some institutions now use emotion-recognition AI to detect student stress levels and direct learners to appropriate mental-health resources

- **Smart Classrooms and Technology-Enabled Learning**

AI enhances classroom interactivity through digital whiteboards, AR/VR simulations, virtual labs, and real-time learning analytics. These tools make complex concepts more accessible and foster experiential learning. Smart sensors and AI-powered monitoring systems enable dynamic seating arrangements, environmental adjustments, and classroom management support. Technology-enabled learning environments promote greater student collaboration, inquiry-based learning, and active participation. In STEM fields, AI supports virtual experiments, automated coding assessment, and 3D visualizations.

- **Data-Driven Academic and Institutional Decision-Making**

AI allows institutions to analyze large datasets related to student attendance, performance, learning patterns, and resource utilization. The insights help leaders with curriculum redesign, policy formulation, budget planning, and faculty development. Predictive models identify future institutional needs, enabling long-term academic planning. AI also supports accreditation processes by compiling performance evidence, generating compliance reports, and monitoring quality indicators.

Case Examples of AI in Education:

- **Carnegie Learning (USA)** Provides AI-driven math tutoring and personalized learning solutions. The platform uses real-time analytics to adapt content, offer targeted hints, and strengthen learning outcomes.
- **UNESCO Pilot Projects (Global South)** UNESCO's initiatives in Africa, Asia, and Latin America focus on developing inclusive AI solutions, bridging digital divides,

and supporting multilingual education. Projects include AI for early-grade reading and teacher-support systems in underserved regions.

➤ **Duolingo & Coursera**

- Duolingo uses machine learning algorithms to create personalized language exercises and optimize difficulty based on learner performance.
- Coursera integrates AI for personalized course recommendations, automated grading, adaptive quizzes, and engagement analytics for millions of learners worldwide.

➤ **Indian Smart Classroom Initiatives**

Government schools in India are adopting AI-enabled facial-recognition attendance systems, adaptive digital content in local languages, and automated competence-tracking tools. States such as Karnataka, Kerala, and Andhra Pradesh have piloted AI tutors for mathematics and science.

➤ **LinkedIn Learning & Skill-Based Platforms**

AI recommends courses aligned with users' career goals, job market trends, and skill gaps. It supports vocational education by offering personalized up skilling pathways.

➤ **Grade scope - Assessment Technology**

Uses AI-assisted grading for open-ended assignments, handwriting recognition, and automated rubric suggestions, reducing grading time and improving feedback quality.

Edtech Use Cases: Real-World Examples



Duolingo: AI for language learning



Brainly: AI-powered homework assistance



Squirrel AI: Adaptive learning in China



Gradescope: AI-enabled assessment and feedback



Coursera and Udemy: AI for online learning



Khan Academy and Quizlet: Help for educators



Knewton & Carnegie Learning: Adaptive learning platform

Challenges and Ethical Concerns:

• Digital Literacy and Training Requirements

Many educators, administrative staff, and students still lack the technical competence needed to effectively use AI tools. Without structured, continuous training programs, institutions may resist adopting new technologies due to fear of errors or system misuse. Digital literacy gaps also limit the benefits of advanced tools such as adaptive learning platforms, virtual labs, and AI-driven analytics. Institutions must invest in capacity-building workshops, hands-on training, and AI-literacy programs to ensure stakeholders can confidently and responsibly use AI systems.

• Financial and Infrastructure Limitations

AI implementation requires significant investment in digital devices, high-speed Internet connectivity, cloud platforms, cyber security solutions, and maintenance support. Many small, rural, or underfunded institutions lack the budget to acquire or sustain such modern infrastructure. This results in stark differences between well-resourced schools and underserved communities, widening the digital divide. Long-term financial planning, public-private partnerships, and government support programs are essential for ensuring equitable adoption across regions.

• Data Privacy, Security, and Ethical Concerns

Educational institutions collect sensitive data such as learning behavior, attendance patterns, personal identifiers, and emotional analytics which requires strict protection. Breaches or unauthorized data sharing can expose students to security risks. AI systems must comply with global data protection regulations and institutional policies to maintain confidentiality. Ethical challenges arise when algorithms are opaque or biased, leading to unfair outcomes. Ensuring transparency, responsible data governance, and explainable AI mechanisms is crucial for protecting student rights.

• Job Insecurity and Resistance to Change

AI-driven automation can cause anxiety among educators and administrative staff who fear being replaced by technology. Misconceptions about AI replacing teaching roles can delay its acceptance and reduce staff willingness to adopt new tools. Change management strategies—including awareness programs, participatory decision-making, and clear communication—are necessary to assure stakeholders that AI is designed to support, not eliminate, human roles. Re-skilling and up-skilling initiatives also help staff adapt to evolving responsibilities.

• **Overdependence on Technology**

Relying too heavily on AI may hinder the development of essential human skills such as critical thinking, creativity, interpersonal communication, and independent problem-solving. Technology failures—such as system downtimes, cyber-attacks, or connectivity issues—can disrupt learning and administrative processes. Institutions must strike a balance between technological efficiency and human interaction by encouraging blended learning and ensuring that technology complements rather than replaces traditional pedagogical methods.

Ethical Concerns:

Bias in Algorithms

AI models trained on incomplete or biased datasets may unintentionally reinforce stereotypes or disadvantage marginalized groups. This can affect grading, admissions decisions, career recommendations, or behavior predictions. Ethical auditing and diverse datasets are essential for reducing algorithmic bias.

Equity in Access

Wealthier institutions adopt advanced AI tools more quickly, while rural, remote, and low-income institutions face barriers to implementation. This leads to unequal learning outcomes and widens educational disparities. Policies promoting affordable devices, shared digital resources, and government-funded infrastructure are critical for ensuring fairness.

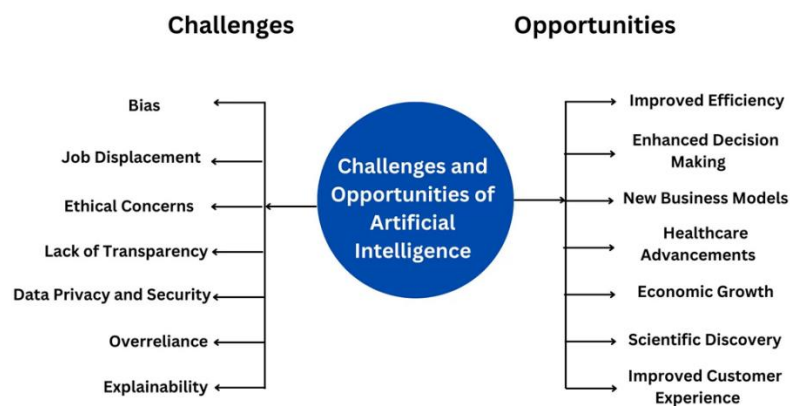
Transparency & Accountability

Many AI systems function as “black boxes,” making it difficult for educators or students to understand how decisions—such as risk scores or recommendations—are generated. Lack of explainability can erode trust and limit responsible use. Clear documentation, explainable AI tools, and educator oversight are necessary to maintain accountability.

Responsible AI Governance

Educational institutions must establish governance frameworks that outline ethical standards, responsibilities, and acceptable uses of AI. These frameworks should align with global guidelines, such as **UNESCO’s Recommendation on the Ethics of Artificial Intelligence (2025)**, ensuring fairness, inclusivity, transparency, human oversight, and long-term accountability. Regular audits, stakeholder consultation, and compliance monitoring help institutions maintain ethical integrity.

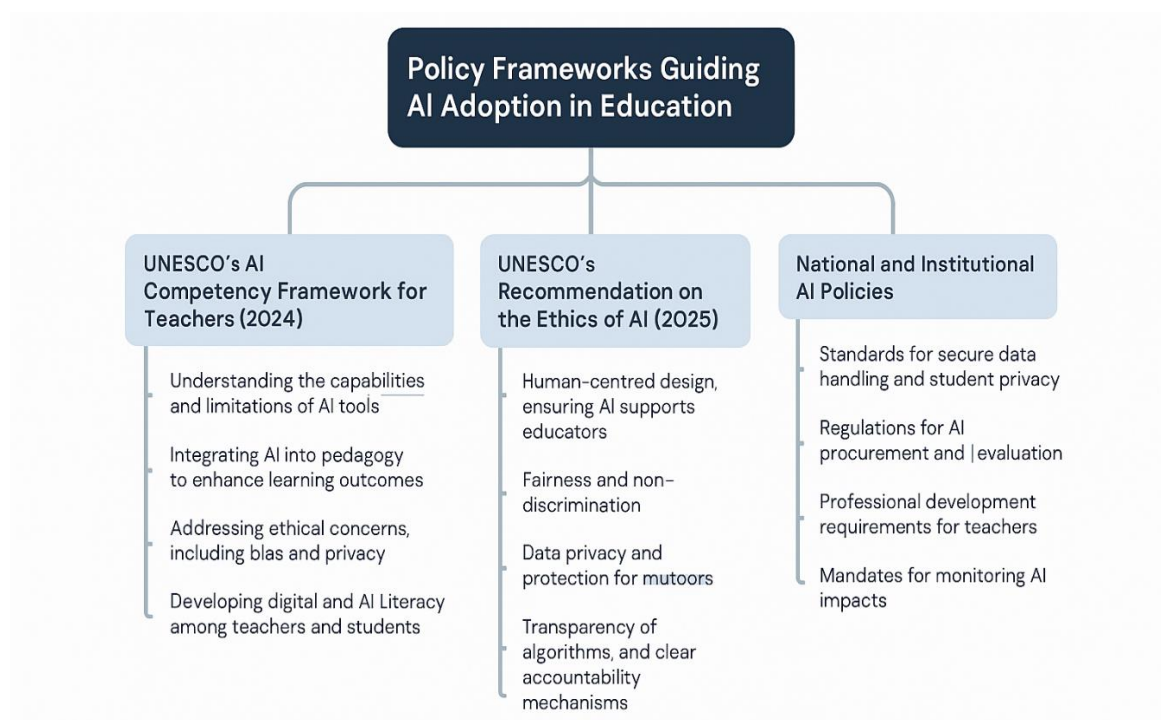
Opportunities vs Challenges of AI & Automation in Education



Policy Frameworks Guiding AI Adoption in Education

As AI adoption accelerates across global education systems, international organizations and national governments have introduced comprehensive policy frameworks to ensure that AI is used ethically, safely, and equitably. These frameworks provide structured guidance on issues such as data governance, teacher training, algorithmic transparency, cyber security standards, student protection, and institutional accountability.

They also support institutions in developing responsible AI strategies, ensuring that educational benefits are maximized while risks are minimized. By establishing clear expectations for stakeholders—including teachers, policymakers, developers, and administrators—these policies help create sustainable, human-centred AI ecosystems aligned with global ethical standards.



This visual organizes the three major policy frameworks guiding AI adoption in education:

- **UNESCO's AI Competency Framework for Teachers (2024)** → focuses on teacher preparedness, pedagogy, ethics, and literacy.
 - **UNESCO's Recommendation on the Ethics of AI (2025)** → emphasizes human-centred design, fairness, privacy, and transparency.
 - **National and Institutional AI Policies** → highlight secure data handling, procurement standards, teacher training, and monitoring impacts
- Emerging Trends in Education Technology (2024–2025)**

Generative AI in Education: Personalization and Content Creation

Generative AI (GenAI) is moving beyond basic text generation to become a **powerful tool for hyper-personalization** and administrative support, not just cheating prevention.

- **Personalized Learning Paths:** AI-powered adaptive platforms analyze student data in real-time. They automatically **customize and adjust the curriculum** and provide supplementary, targeted content or practice problems, ensuring students are working within their **Zone of Proximal Development (ZPD)**.
- **Dynamic Content Creation:** Educators use GenAI tools to instantly generate a variety of teaching materials, including **course outlines, differentiated quizzes, tailored study guides**, and custom visual aids, such as diagrams and images. This reduces the administrative burden, giving teachers more time for direct student interaction.
- **Intelligent Tutoring and Feedback:** AI chatbots are evolving into **24/7 intelligent tutoring agents** that can explain complex concepts, simplify material, and provide **immediate, actionable feedback** on drafts of essays or code, which enhances student understanding and iterative learning.

AI-Driven Assessment: Focus on Higher-Order Skills

Assessment is shifting from simply detecting plagiarism to **evaluating the quality of human-AI collaboration** and complex skills.

- **Comprehensive Skill Evaluation:** New systems are designed to assess **critical thinking, ethical reasoning, and problem-solving** in AI-assisted contexts. This includes evaluating how well a student uses the AI and their ability to **critique and refine** AI-generated outputs, not just the final product.
- **Real-Time Adaptive Testing:** AI-based proctoring and testing environments are being developed that can dynamically adjust the difficulty or type of question based

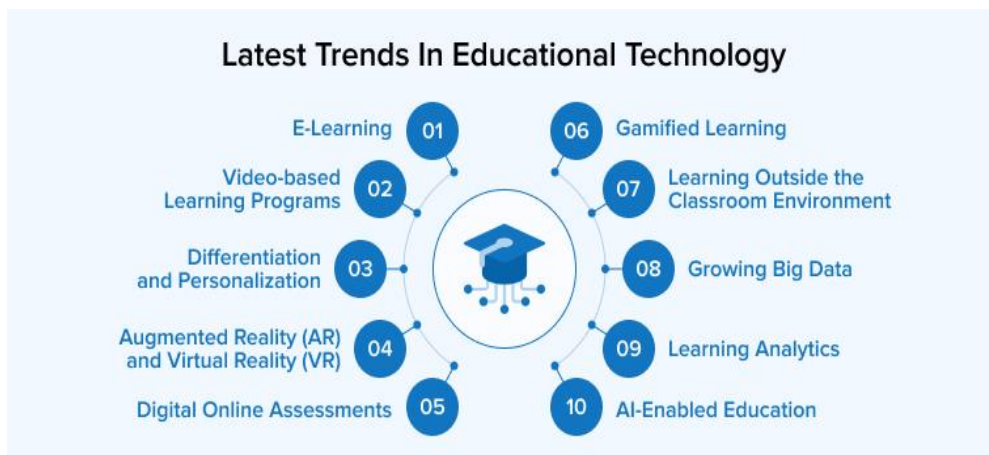
on a student's ongoing performance, ensuring a more accurate and **reliable measure of true mastery** rather than just recall.

- **Predictive Analytics:** Learning analytics, fuelled by AI, are moving from a reactive state to a **proactive/predictive** state, identifying students at risk of falling behind **in real-time** so that targeted human intervention can occur immediately.

Immersive Learning with AI and VR/AR: Extended Reality (XR)

The integration of AI with Extended Reality (XR)—which includes Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR)—is creating highly engaging, experiential learning environments.

- **Virtual Labs and Field Trips:** Platforms like Labster allow students to conduct complex and costly STEM experiments in a safe, simulated virtual environment. VR also enables students to take "virtual field trips" to historical sites or study complex anatomical structures in 3D
- **Adaptive Simulations:** AI within XR environments can dynamically change the parameters of a simulation or scenario based on the learner's actions. For example, a medical training simulation can adjust patient vitals or complications based on the student's decisions, providing highly realistic and tailored practice.
- **Edutainment and Gamification:** The use of **gamification**, including interactive quizzes, leader boards, and interactive storytelling, is being enhanced by AI to make learning modules (**micro learning** or Nano learning segments) more engaging, particularly for Gen Z learners.



Global Policy Directions: Ethical and Human-Centered Frameworks

Global bodies are establishing concrete frameworks to ensure the responsible, ethical, and equitable adoption of AI in educational systems.

- **UNESCO AI Competency Framework for Teachers (2024):** This framework outlines 15 competencies across five key areas:

Five Core Dimensions - Thematic Areas

These dimensions represent the five essential domains of knowledge, skills, and values required for a teacher in the age of AI:

- **Human-centred Mind-set:** Focuses on core values like human agency, accountability, and social responsibility when engaging with AI.
- **Ethics of AI:** Focuses on understanding and applying ethical principles (e.g., fairness, privacy, non-discrimination) and the responsible use of AI tools.
- **AI Foundations & Applications:** Focuses on the technical literacy to understand how AI works, its capabilities, its limitations, and how to select and proficiently use AI tools for administrative and educational tasks.
- **AI Pedagogy:** Focuses on integrating AI into teaching and learning. This includes designing AI-assisted lessons, personalizing content, and using AI for innovative assessment.
- **AI for Professional Learning:** Focuses on leveraging AI for the teacher's continuous professional development (CPD) and contributing to institutional knowledge and policy.

Three Progression Levels - Proficiency

These levels define a pathway for teacher development, moving from basic awareness to advanced innovative application:

Level	Focus	Teacher's Role/Action
Acquire	Literacy and Use	Teacher can recognize fundamental AI concepts and use existing AI tools appropriately and safely.
Deepen	Integration and Assessment	Teacher can strategically integrate AI into lesson design and assessment, critically evaluating its impact on learning outcomes.
Create	Innovation and Policy	Teacher can critically adapt, configure, or potentially modify AI tools and contribute to the development of institutional AI policies.

- **Focus on Equity and Accessibility:** Policy guidelines emphasize the need to use AI to bridge the digital divide and enhance accessibility for students with disabilities or language barriers.

Future Skills Development: The Collaborative Human Advantage

The curriculum is rapidly evolving to prioritize human skills that **complement, rather than compete with, AI capabilities**.

- **AI Literacy:** This is now a core competency, moving beyond simple tool use to include the ability to **demystify AI** and how to apply it ethically.
- **Human-AI Collaboration:** The focus is on **augmenting human abilities**—using AI for speed and scale while reserving human expertise for **empathy, judgment, ethical reasoning, and high-level creativity**. This shifts learning to tasks where human and machine intelligence merge for superior outcomes.
- **New Technical Skills:** Specific skills like **algorithmic thinking** and **prompt engineering** are being integrated into subject curricula worldwide.

Conclusion

AI and automation offer unprecedented opportunities to enhance educational quality, learner engagement, and institutional efficiency through personalized learning, adaptive assessments, smart classrooms, and AI-assisted administrative processes, while also supporting faculty development, accessibility, mental health initiatives, and human-AI collaboration that prepares students for future-ready competencies. Yet challenges such as digital literacy gaps, data privacy risks, algorithmic bias, and inequities across regions and socioeconomic groups highlight the need for responsible implementation, especially as overreliance on technology may diminish critical thinking and mentorship, reinforcing the importance of human oversight. To maximize benefits and mitigate risks, institutions should embrace a human-centered AI approach by developing robust infrastructure and secure digital platforms, providing comprehensive AI literacy and ethical training for teachers and staff, ensuring equitable access to AI tools, continuously monitoring systems for bias, transparency, and effectiveness, and balancing technology use with human mentorship and social-emotional support. By adopting these strategies, educational institutions can create inclusive, adaptive, and sustainable learning environments where AI enhances rather than replaces the vital role of educators.

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CONTEMPORARY AND FUTURE-ORIENTED MANAGEMENT PRACTICES

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ABSTRACT

Contemporary management practices are undergoing rapid transformation due to digitalization, globalization, and evolving workforce expectations. Traditional hierarchical models are increasingly being replaced by flexible, technology-enabled, and human-centered approaches that emphasize agility and collaboration. This chapter examines how future-oriented management practices—such as remote and hybrid work, artificial intelligence, automation, sustainability, and ethical governance—are reshaping organizational structures and leadership roles. It explores the implications of these practices for managerial decision-making, employee engagement, and overall organizational performance. The chapter further highlights the emerging competencies required for managers to navigate complexity, uncertainty, and rapid change. Ultimately, it emphasizes the need to balance technological advancement with human values to achieve sustainable organizational growth.

Keywords: Future-Oriented Management, Digital Transformation, Remote and Hybrid Work, Artificial Intelligence, Sustainability and Ethics

1. Introduction

Management practices have evolved significantly in response to rapid technological advancements, intensified global competition, and changing employee expectations. Organizations today operate in environments characterized by volatility, uncertainty, complexity, and ambiguity (VUCA), which challenge traditional modes of planning, organizing, leading, and controlling. The increasing pace of change requires organizations to be flexible, responsive, and innovative in their management approaches. Traditional command-and-control structures, which emphasized authority, standardization, and close supervision, are no longer sufficient to manage knowledge-driven and innovation-oriented organizations. Employees increasingly seek autonomy, meaningful work, flexibility, and

opportunities for personal growth. At the same time, stakeholders demand ethical behavior, sustainability, and social responsibility from organizations.

Future-oriented management practices emphasize agility, inclusiveness, sustainability, and ethical responsibility. Managers today must integrate advanced technologies with human-centric leadership to enhance organizational performance and resilience. This chapter provides a comprehensive overview of contemporary and future-oriented management practices, highlighting their relevance, challenges, and strategic importance for long-term organizational success.

2. Evolution from Traditional to Contemporary Management Practices

Historically, management practices were guided by principles of scientific management and bureaucratic administration, which focused on efficiency, supervision, task specialization, and centralized authority. These approaches were effective in stable industrial environments where work processes were repetitive and predictable. However, they often limited creativity, innovation, and employee participation. In contrast, contemporary management practices prioritize decentralization, employee empowerment, and continuous learning. Organizations increasingly recognize employees as valuable sources of knowledge, innovation, and competitive advantage. Managers now focus on creating enabling environments that encourage collaboration, experimentation, and shared responsibility. Digital tools and platforms have played a critical role in facilitating this transformation. Technologies such as enterprise collaboration systems, cloud-based platforms, and digital communication tools enable teams to work across organizational and geographical boundaries. As a result, managers increasingly act as facilitators, coaches, and mentors rather than controllers, fostering cultures of trust, accountability, and innovation.

3. Remote and Hybrid Work Models

3.1 Emergence of Flexible Work Arrangements

Remote and hybrid work models have emerged as defining features of modern management practices, particularly with advancements in digital communication technologies. Remote work allows employees to perform their tasks outside traditional office settings, while hybrid work combines remote and on-site work arrangements. These models have gained widespread acceptance due to their ability to provide flexibility while maintaining organizational connectivity.

Flexible work arrangements enable organizations to access a broader talent pool, reduce infrastructure costs, and enhance employee satisfaction. For employees, remote and

hybrid work offer improved work–life balance, reduced commuting time, and greater autonomy. As a result, flexibility has become a key factor in attracting and retaining talent.

3.2 Managerial Challenges in Flexible Work Environments

Managing dispersed teams requires a fundamental shift in leadership and management approaches. Managers must rely on trust-based relationships, clear communication, and outcome-based performance evaluation rather than physical supervision. Ensuring productivity, engagement, and coordination in virtual environments presents significant challenges. Managers must also address issues such as employee isolation, communication gaps, and blurred boundaries between work and personal life. Effective remote management requires intentional efforts to maintain regular interaction, provide feedback, and support employee well-being.

3.3 Impact on Organizational Culture and Performance

Flexible work arrangements can positively influence organizational culture by promoting autonomy, inclusiveness, and employee empowerment. When managed effectively, they contribute to higher job satisfaction, reduced absenteeism, and improved performance. However, sustaining a strong organizational culture in remote settings requires deliberate strategies, such as virtual team-building activities, inclusive communication practices, and shared values.

4. Artificial Intelligence and Automation in Management

4.1 AI-Driven Decision-Making

Artificial intelligence has become an essential tool for managerial decision-making in contemporary organizations. AI systems analyze large volumes of data to identify patterns, predict trends, and support strategic planning. Applications of AI include demand forecasting, risk assessment, customer analytics, and performance management.

By providing data-driven insights, AI enhances the speed and accuracy of managerial decisions. However, managers must understand the limitations of AI and ensure that technology complements, rather than replaces, human judgment.

4.2 Automation of Managerial and Operational Processes

Automation streamlines routine managerial and operational tasks such as scheduling, reporting, payroll processing, and compliance monitoring. This increases efficiency, reduces errors, and frees managers to focus on strategic, creative, and people-oriented activities. In human resource management, AI-based systems enhance recruitment, training, and workforce planning by improving objectivity and efficiency. Nevertheless, automation raises concerns

about job displacement and skill obsolescence, requiring proactive workforce reskilling and transition strategies.

4.3 Human–Technology Integration

Despite its advantages, AI cannot replace human creativity, emotional intelligence, and ethical reasoning. Effective future managers must integrate technological tools with human insight, ensuring transparency, accountability, and responsible technology use. Human–technology collaboration enables organizations to leverage innovation while preserving human values and social responsibility.

5. Sustainability-Oriented Management Practices

5.1 Sustainability as a Strategic Imperative

Sustainability has become central to contemporary management as organizations face increasing pressure from governments, investors, customers, and society. Sustainable management emphasizes long-term value creation by balancing economic objectives with environmental protection and social well-being. Organizations increasingly adopt sustainability frameworks that integrate environmental, social, and governance (ESG) considerations into strategic decision-making. Managers play a critical role in aligning sustainability goals with organizational strategy.

5.2 Green Management and Responsible Resource Use

Managers are responsible for implementing environmentally responsible practices such as energy efficiency, waste reduction, sustainable sourcing, and green logistics. Digital technologies support these initiatives through real-time monitoring, data analytics, and optimization of resource usage. Green management not only reduces environmental impact but also improves operational efficiency and cost savings. It encourages innovation in products, processes, and business models.

5.3 Sustainability and Competitive Advantage

Organizations that integrate sustainability into management practices enhance brand reputation, stakeholder trust, and long-term competitiveness. Sustainable practices foster innovation, resilience, and risk management, enabling organizations to adapt to regulatory changes and evolving market expectations.

6. Ethics and Responsible Management

6.1 Ethical Leadership in Contemporary Organizations

Ethical leadership emphasizes fairness, transparency, accountability, and respect for stakeholders. Ethical leaders set standards for behavior and decision-making, shaping

organizational culture and values. In technology-driven environments, ethical leadership is essential to ensure responsible innovation and trust.

6.2 Ethical Challenges in the Digital Era

Digitalization raises ethical concerns related to data privacy, employee surveillance, algorithmic bias, and job displacement. Managers must establish ethical frameworks, governance mechanisms, and compliance systems to address these challenges responsibly and protect stakeholder interests.

6.3 Corporate Social Responsibility and Governance

Corporate social responsibility (CSR) is a core component of responsible management. Organizations are expected to contribute positively to society through employee well-being initiatives, community development programs, and inclusive growth strategies. Strong governance structures ensure accountability and transparency.

7. Competencies Required for Future Managers

Future-oriented management practices demand a new set of managerial competencies. Key skills include digital literacy, adaptability, emotional intelligence, strategic thinking, and ethical judgment. Managers must also possess strong communication skills, cultural sensitivity, and the ability to manage diverse teams. Continuous learning and upskilling are essential for managers to remain effective in dynamic environments. Leadership in the future requires the ability to inspire trust, foster innovation, and navigate uncertainty with confidence.

8. Challenges and Opportunities in Adopting Future-Oriented Practices

While contemporary management practices offer significant benefits, organizations face challenges such as resistance to change, skill gaps, cybersecurity risks, and high implementation costs. Cultural barriers and lack of leadership commitment can further hinder adoption. However, these challenges also present opportunities for organizational learning, innovation, and competitive differentiation. Organizations that proactively embrace future-oriented practices can build resilience, adaptability, and long-term success.

9. Conclusion

Contemporary and future-oriented management practices reflect a fundamental shift toward flexibility, intelligence-driven decision-making, sustainability, and ethical responsibility. Remote and hybrid work, artificial intelligence, and sustainability-oriented strategies are reshaping how organizations are managed and led. Effective future managers must balance technological advancement with human values to build resilient, inclusive, and

high-performing organizations. By embracing these practices, organizations can achieve sustainable growth while contributing meaningfully to societal development.

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INNOVATIVE MANAGEMENT PRACTICES: TECHNOLOGY, SUSTAINABILITY, AND ETHICS

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ABSTRACT

Innovative management practices are increasingly shaped by rapid technological advancement, sustainability imperatives, and rising ethical expectations in the global business environment. Traditional management models are being transformed to accommodate digitalization, artificial intelligence, and flexible work arrangements. This chapter examines how technology-driven innovation, sustainability-oriented strategies, and ethical governance are redefining managerial roles and organizational structures. It explores the implications of these practices for leadership effectiveness, strategic decision-making, and employee engagement. The chapter also discusses challenges associated with responsible technology adoption, workforce adaptation, and sustainable growth. Ultimately, it emphasizes balancing innovation with human values to ensure long-term organizational success and societal well-being.

Keywords: Innovative Management, Digital Transformation, Artificial Intelligence, Sustainability, Ethical Leadership

1. Introduction

The contemporary business environment is characterized by rapid technological change, global interconnectedness, intensified competition, and heightened societal expectations regarding corporate responsibility. Organizations today operate in conditions marked by volatility, uncertainty, complexity, and ambiguity, which place unprecedented demands on management systems and leadership approaches. Traditional management practices—largely hierarchical, rule-based, and efficiency-driven—are increasingly inadequate in addressing the challenges of the digital and knowledge-driven economy. Innovation has become central to organizational survival, competitiveness, and long-term sustainability. Innovative management practices integrate technology, sustainability, and

ethics into strategic and operational decision-making processes. Managers are no longer evaluated solely on financial performance but also on their ability to create social value, ensure environmental stewardship, and uphold ethical standards. This chapter provides a comprehensive examination of how innovative management practices are shaping modern organizations and redefining the role of managers in the digital age.

2. Evolution of Management Practices toward Innovation

Classical management theories, such as scientific management and bureaucratic administration, emphasized standardization, close supervision, and centralized authority. These approaches were effective in stable industrial environments where efficiency, predictability, and control were paramount. However, in fast-changing and innovation-driven contexts, such rigid structures often hinder creativity, responsiveness, and employee engagement. Modern management practices have evolved toward decentralization, empowerment, collaboration, and continuous learning. Innovation-oriented organizations encourage experimentation, knowledge sharing, and cross-functional teamwork. Managers increasingly function as facilitators, mentors, and coaches rather than controllers. Digital platforms and collaborative technologies further accelerate this evolution by enabling real-time communication, transparency, and global connectivity. This shift reflects a broader transformation from managing tasks and processes to managing people, knowledge, and innovation.

3. Technology as a Driver of Innovative Management

3.1 Digital Transformation in Organizations

Digital transformation refers to the integration of digital technologies into all aspects of organizational functioning, fundamentally altering how value is created and delivered. Technologies such as cloud computing, big data analytics, enterprise resource planning systems, and digital collaboration tools have transformed managerial planning, coordination, and control. Decision-making has become faster, data-driven, and more transparent, enabling managers to respond swiftly to market changes and customer needs. Digital transformation also supports organizational agility by facilitating remote collaboration, flexible workflows, and real-time performance monitoring. Managers must therefore develop technological awareness and strategic insight to leverage digital tools effectively while aligning them with organizational goals.

3.2 Artificial Intelligence and Automation

Artificial intelligence (AI) and automation play a pivotal role in innovative management practices. AI-driven systems support predictive analytics, strategic forecasting,

risk assessment, and performance evaluation. In areas such as human resource management, marketing, and operations, AI enhances efficiency, accuracy, and consistency in decision-making. Automation reduces the burden of routine and repetitive tasks such as reporting, scheduling, data entry, and compliance monitoring. This enables managers to focus on higher-order responsibilities, including innovation, leadership development, and strategic planning. However, automation also raises concerns related to job displacement and skill obsolescence, requiring careful managerial intervention.

3.3 Human–Technology Collaboration

Despite rapid technological advancements, human judgment, creativity, emotional intelligence, and ethical reasoning remain irreplaceable. Innovative management emphasizes human–technology collaboration, where technology enhances human capabilities rather than replacing them. Managers must cultivate digital literacy among employees while maintaining accountability, transparency, and ethical oversight. Effective integration of technology and human expertise is essential for sustainable innovation.

4. Sustainability-Oriented Management Practices

4.1 Sustainability as a Strategic Imperative

Sustainability has emerged as a strategic imperative for modern organizations due to climate change, resource scarcity, regulatory pressures, and increasing stakeholder awareness. Sustainable management focuses on long-term value creation by balancing economic performance with environmental protection and social responsibility. Organizations are increasingly adopting sustainability frameworks aligned with global development goals.

4.2 Green Innovation and Resource Optimization

Innovative managers promote green practices such as energy efficiency, waste reduction, sustainable sourcing, and circular economy models. Digital technologies support sustainability initiatives by enabling accurate measurement, reporting, and optimization of resource usage. Sustainable innovation not only reduces environmental impact but also improves operational efficiency and cost effectiveness.

4.3 Sustainability and Competitive Advantage

Organizations that embed sustainability into their management practices enhance brand reputation, stakeholder trust, and organizational resilience. Sustainability-driven innovation fosters risk reduction, regulatory compliance, and long-term competitiveness. As a result, sustainability is increasingly viewed not as a cost but as a source of strategic advantage.

5. Ethics and Responsible Management

5.1 Ethical Leadership

Ethical leadership is fundamental to innovative management practices. It emphasizes fairness, transparency, accountability, and respect for all stakeholders. Ethical leaders set the tone for organizational behavior by modeling integrity and responsible decision-making. Such leadership fosters trust, employee commitment, and positive organizational culture.

5.2 Ethical Challenges of Technology Adoption

The adoption of advanced technologies raises ethical concerns related to data privacy, employee surveillance, algorithmic bias, and unequal access to opportunities. Managers must establish ethical guidelines, governance structures, and compliance mechanisms to ensure responsible technology use. Ethical foresight is critical in preventing misuse of digital tools.

5.3 Corporate Social Responsibility

Corporate social responsibility (CSR) is an essential component of ethical management. Organizations are expected to contribute positively to society through employee welfare, community development, environmental protection, and inclusive growth. CSR initiatives reinforce organizational legitimacy and strengthen relationships with stakeholders.

6. Innovative Leadership and Managerial Competencies

Innovative management requires leaders with a diverse and evolving set of competencies. Key skills include digital literacy, adaptability, emotional intelligence, strategic thinking, creativity, and ethical judgment. Managers must foster inclusive and psychologically safe environments that encourage experimentation, collaboration, and continuous learning. Lifelong learning and professional development are essential for managers to remain effective in dynamic and uncertain environments.

7. Challenges in Implementing Innovative Management Practices

Despite their benefits, innovative management practices face several challenges. These include resistance to change, skill gaps, cultural barriers, cybersecurity risks, high technology costs, and ethical dilemmas. Employees may fear job loss due to automation, while managers may struggle with rapid technological change. Effective change management, leadership commitment, clear communication, and employee involvement are critical to overcoming these barriers.

8. Opportunities and Future Directions

Innovative management practices offer significant opportunities for organizational growth, resilience, and societal impact. By integrating technology, sustainability, and ethics,

organizations can create adaptive systems capable of thriving in uncertain environments. Future management will increasingly focus on purpose-driven leadership, responsible innovation, stakeholder engagement, and value creation beyond profit.

9. Conclusion

Innovative management practices represent a holistic and forward-looking approach to managing organizations in the digital age. Technology enables intelligence-driven decision-making, sustainability ensures long-term viability, and ethics provide moral direction. Effective managers must balance innovation with responsibility to build resilient, inclusive, and high-performing organizations. By embracing these practices, organizations can achieve sustainable growth while contributing positively to society and global development.

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EVOLUTION OF MANAGEMENT PRACTICES: TECHNOLOGY, SUSTAINABILITY, AND ETHICS

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ABSTRACT

Management practices have evolved significantly in response to technological advancements, globalization, and changing workforce expectations. Traditional hierarchical and control-based management models are increasingly giving way to flexible, technology-enabled, and human-centric approaches. This chapter examines the evolution of management practices with a focus on remote and hybrid work models, artificial intelligence and automation, and sustainability-oriented ethical management. It explores how these forces are reshaping organizational structures, leadership styles, and decision-making processes. The chapter also discusses the challenges associated with managing distributed workforces, integrating intelligent technologies, and ensuring ethical responsibility. Furthermore, it highlights the critical competencies required for managers to navigate uncertainty and complexity. Ultimately, the chapter emphasizes balancing technological innovation with sustainability and ethical values for long-term organizational success.

Keywords: Evolution of Management, Remote Work, Artificial Intelligence, Sustainability, Ethical Management

1. Introduction

Management is not a static concept; it evolves continuously in response to economic, technological, and social change. In recent decades, globalization, rapid digitalization, and shifting employee expectations have profoundly altered how organizations operate and compete. Firms are no longer confined to geographical boundaries, and employees increasingly work across cultures, time zones, and digital platforms. As a result, management practices that relied on rigid hierarchy, close supervision, and standardized procedures have become increasingly ineffective. The rise of remote work, artificial intelligence, and sustainability consciousness has further accelerated this transformation. Managers today must lead geographically dispersed teams, leverage advanced technologies for strategic and operational decision-making, and ensure ethical and environmentally responsible business conduct. The focus of management has shifted from controlling resources to enabling people, fostering innovation, and creating long-term value. This chapter explores how management

practices have evolved in response to these forces and why future-oriented approaches are essential for organizational resilience, adaptability, and growth.

2. Historical Evolution of Management Practices

Early management practices were dominated by scientific management and bureaucratic theories that emphasized efficiency, standardization, and hierarchical control. These approaches were highly effective during the industrial era, when work processes were repetitive and organizations operated in relatively stable environments. Managers were primarily concerned with maximizing productivity through close supervision, task specialization, and strict rules. However, as organizations transitioned into the information and knowledge economy, these rigid models began to show their limitations. The rise of service industries, knowledge work, and innovation-driven competition required greater flexibility, creativity, and employee involvement. Human relations and behavioral theories highlighted the importance of motivation, leadership, teamwork, and organizational culture. This shift laid the foundation for contemporary management practices that prioritize empowerment, collaboration, and continuous improvement rather than mere compliance.

3. Emergence of Remote and Hybrid Work Models

3.1 Drivers of Remote Work Adoption

Remote and hybrid work models have emerged as defining features of modern organizations. Advances in digital communication technologies, cloud computing, and high-speed internet have made it possible for employees to collaborate and perform their duties from virtually anywhere. In addition, changing employee expectations for flexibility and work–life balance have made remote work increasingly attractive. Global disruptions such as the COVID-19 pandemic further accelerated the adoption of remote work across industries. Organizations that once resisted flexible work arrangements were compelled to adopt digital platforms and virtual collaboration tools. These models allow firms to access global talent, reduce infrastructure costs, and increase employee satisfaction, making them a permanent feature of contemporary management.

3.2 Managerial Implications of Remote Work

Managing remote teams requires a fundamental shift from presence-based supervision to outcome-based performance management. Managers must rely on trust, clear communication, and accountability rather than physical oversight. Establishing well-defined goals, performance indicators, and feedback systems becomes critical. Remote work also creates challenges such as employee isolation, reduced informal communication, and blurred boundaries between work and personal life. Managers must adopt empathetic leadership,

encourage social interaction, and promote employee well-being to sustain productivity and engagement in virtual environments.

3.3 Impact on Organizational Culture

Remote and hybrid work arrangements reshape organizational culture by promoting autonomy, flexibility, and individual responsibility. However, they can weaken shared identity and team cohesion if not managed effectively. Managers must therefore invest in virtual team-building, transparent communication, and value-driven leadership to maintain a strong organizational culture in distributed work settings.

4. Artificial Intelligence and Automation in Management

4.1 AI-Driven Decision-Making

Artificial intelligence has transformed managerial decision-making by enabling data-driven and predictive analysis. AI systems can process vast amounts of data to identify patterns, forecast trends, and support strategic planning. Managers increasingly rely on AI for market analysis, customer insights, financial forecasting, and performance evaluation. While AI improves accuracy and speed, it does not eliminate uncertainty. Managers must interpret AI outputs critically and combine them with human judgment, experience, and ethical considerations to make balanced decisions.

4.2 Automation of Managerial Processes

Automation has revolutionized routine managerial and operational activities such as scheduling, payroll, reporting, and compliance management. By reducing administrative burden and human error, automation allows managers to focus on strategic, creative, and people-oriented responsibilities. In human resource management, AI-powered systems streamline recruitment, training, and workforce planning. However, automation also raises concerns about job displacement and skill obsolescence, making reskilling and change management essential managerial priorities.

4.3 Human–AI Collaboration

The future of management lies in effective collaboration between humans and intelligent machines. While AI excels at data processing and pattern recognition, human managers provide creativity, emotional intelligence, and ethical reasoning. Integrating AI responsibly ensures that technology enhances rather than replaces human capabilities.

5. Sustainability as an Evolving Management Priority

5.1 Sustainability in Organizational Strategy

Sustainability has become a strategic priority as organizations face climate change, regulatory pressure, and growing stakeholder awareness. Sustainable management focuses on

long-term value creation by balancing economic growth with environmental protection and social responsibility. Managers must integrate sustainability goals into corporate strategies and daily operations.

5.2 Green Management Practices

Green management includes initiatives such as energy efficiency, waste reduction, sustainable sourcing, and environmentally friendly product design. Digital technologies support these efforts by enabling monitoring, reporting, and optimization of environmental performance. These practices reduce costs, enhance reputation, and contribute to social well-being.

5.3 Sustainability and Competitive Advantage

Organizations that embrace sustainability build stronger stakeholder trust, reduce risk, and gain competitive advantage. Sustainability-driven innovation leads to new products, processes, and business models that support long-term growth and resilience.

6. Ethics and Responsible Management

6.1 Ethical Leadership in Modern Organizations

Ethical leadership emphasizes transparency, fairness, accountability, and respect for stakeholders. In technology-driven organizations, ethical leadership guides responsible innovation and builds trust among employees, customers, and society.

6.2 Ethical Challenges of AI and Digitalization

AI and digital technologies raise ethical concerns related to data privacy, surveillance, algorithmic bias, and transparency. Managers must establish ethical standards and governance systems to ensure responsible use of technology.

6.3 Corporate Social Responsibility and Governance

CSR is an integral part of ethical management. Organizations are expected to contribute positively to society through employee welfare, community engagement, and inclusive growth. Strong governance structures ensure ethical compliance and accountability.

7. Managerial Competencies for the Future

The evolving business environment demands a fundamentally new set of competencies from managers. Traditional managerial skills such as supervision, planning, and control are no longer sufficient in a digital, global, and innovation-driven economy. Future managers must possess digital literacy, which enables them to understand and effectively utilize emerging technologies such as artificial intelligence, data analytics, cloud platforms, and automation tools. Digital competence allows managers to make informed

decisions, evaluate technological investments, and guide their teams in technology-enabled work environments.

Adaptability is another critical competency. The rapid pace of technological and market change requires managers to continuously adjust strategies, structures, and leadership styles. Managers must be open to change, comfortable with uncertainty, and capable of responding quickly to new challenges and opportunities. Organizations that cultivate adaptive leaders are better positioned to survive and thrive in volatile environments.

Emotional intelligence has become increasingly important as workplaces become more diverse and remote. Managers must be able to understand and manage their own emotions while empathizing with the needs and concerns of employees. High emotional intelligence supports effective communication, conflict resolution, trust-building, and employee motivation, especially in virtual and cross-cultural teams.

Strategic thinking enables managers to view the organization holistically and align day-to-day decisions with long-term goals. Future managers must be able to analyze complex information, anticipate trends, and formulate strategies that leverage technological innovation while ensuring sustainability and ethical responsibility. This requires both analytical capability and creative problem-solving.

Finally, ethical judgment is essential in an era marked by digital surveillance, data privacy concerns, and algorithmic decision-making. Managers must be able to evaluate the moral and social consequences of their decisions, ensuring that technological progress does not compromise human dignity, fairness, or social trust. Continuous learning and professional development are crucial for maintaining these competencies in a rapidly evolving environment.

8. Challenges and Opportunities in Evolving Management Practices

The transition toward future-oriented management practices is not without significant challenges. One of the most common barriers is resistance to change, as employees and managers may feel threatened by new technologies, remote work arrangements, and altered power structures. Fear of job loss, skill obsolescence, and increased performance monitoring can create anxiety and opposition to innovation. Another major challenge is the skill gap. Many employees and managers lack the digital and analytical skills required to work effectively with advanced technologies. Without adequate training and development, organizations may struggle to fully realize the benefits of digital transformation. In addition, cybersecurity risks have increased as organizations rely more heavily on digital systems,

remote work platforms, and cloud-based data storage. Protecting sensitive information and ensuring system reliability have become critical managerial responsibilities.

High technology implementation costs also pose challenges, particularly for small and medium-sized organizations. Investments in software, infrastructure, and training can strain financial resources and create uncertainty about returns. Despite these challenges, evolving management practices create significant opportunities. Digital technologies enable innovation in products, services, and business models. Remote work allows organizations to access global talent and operate more flexibly. Sustainability initiatives and ethical governance enhance corporate reputation and stakeholder trust. Organizations that successfully navigate these changes can achieve higher productivity, stronger employee engagement, and sustainable competitive advantage.

9. Future Directions of Management Practices

The future of management will be increasingly shaped by flexibility, intelligence-driven decision-making, sustainability, and ethical governance. Organizational structures will become more fluid, with greater emphasis on project-based work, cross-functional teams, and collaborative networks. Rigid hierarchies will give way to decentralized and agile forms of organization. Artificial intelligence and data analytics will play a central role in guiding managerial decisions. Predictive models, real-time performance dashboards, and intelligent systems will support strategic planning, risk management, and operational efficiency. However, human judgment will remain essential to interpret data, handle ambiguity, and make value-based decisions. Sustainability will become deeply embedded in organizational strategy. Future managers will be expected to balance economic goals with environmental protection and social responsibility. Ethical governance will guide the use of technology, ensuring transparency, fairness, and accountability. Organizations will also adopt a more stakeholder-oriented approach, recognizing the importance of employees, customers, communities, and the environment alongside shareholders. This shift will encourage purpose-driven leadership and long-term value creation.

10. Conclusion

The evolution of management practices reflects a fundamental transformation in how organizations are led and operated. Flexible work arrangements, intelligent technologies, sustainability priorities, and ethical responsibility are reshaping managerial roles and organizational structures. The traditional focus on control and efficiency is being replaced by an emphasis on adaptability, innovation, collaboration, and human well-being. Future managers must balance technological advancement with human values to build resilient,

inclusive, and high-performing organizations. By embracing continuous learning, ethical leadership, and sustainable practices, organizations can not only survive in a rapidly changing environment but also contribute positively to society and long-term economic development.

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FROM PROFIT MAXIMIZATION TO PURPOSE ORIENTATION: THE EVOLUTION OF SUSTAINABLE AND ETHICAL MANAGEMENT PRACTICES

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ABSTRACT

The transformation of management practices from profit maximization to purpose orientation represents one of the most significant paradigms shifts in contemporary organizational theory and practice. While early management philosophies emphasized efficiency, control, and shareholder wealth maximization, modern organizations are increasingly expected to integrate sustainability and ethical responsibility into their core strategies. This chapter adopts a narrative review methodology to synthesize scholarly literature published in Scopus and Web of Science–indexed journals, with particular emphasis on recent studies. Drawing upon classical management theories, corporate social responsibility (CSR), stakeholder theory, environmental, social, and governance (ESG) frameworks, and ethical leadership research, the chapter traces the historical evolution, present practices, and future direction of sustainable and ethical management. The findings reveal a clear transition toward purpose-driven management, where long-term value creation, societal well-being, and environmental stewardship coexist with economic performance. The chapter concludes with managerial implications and future research directions.

Keywords: Profit maximization, purpose orientation, sustainability, ethics, ESG, CSR, ethical management

1. Introduction

Management thought has historically been grounded in the principle of profit maximization, where organizational success was primarily evaluated through financial indicators such as productivity, efficiency, and shareholder returns (Friedman, 1970). Classical management theories, including scientific management and administrative theory, viewed organizations as rational systems designed to optimize economic outcomes (Taylor, 1911; Fayol, 1916). Ethical considerations and social responsibility were largely peripheral to managerial decision-making.

However, the increasing visibility of environmental crises, social inequality, ethical scandals, and governance failures has challenged this narrow perspective (Banerjee, 2008; Crane et al., 2019). Stakeholders now demand that organizations act responsibly toward society and the environment, prompting a shift from profit-centric to purpose-oriented management (Porter & Kramer, 2011). Purpose orientation emphasizes sustainable value creation, ethical conduct, and long-term societal impact alongside financial performance (Hollensbe et al., 2014).

In recent years, this transition toward purpose-oriented management has accelerated due to intensifying global challenges such as climate change, geopolitical instability, technological disruption, and rising expectations for corporate accountability. Contemporary research highlights that organizations are no longer evaluated solely on economic performance but also on their ability to generate positive environmental and social outcomes (Liu et al., 2025; Wu & Liew, 2025). The growing prominence of environmental, social, and governance (ESG) frameworks reflects this shift, as ESG indicators are increasingly integrated into corporate reporting, investment decisions, and regulatory compliance mechanisms (Eccles et al., 2024).

Recent empirical studies emphasize that sustainability-oriented strategies enhance long-term organizational resilience and legitimacy. For instance, Liu et al. (2025) demonstrate that digital transformation and green innovation significantly improve ESG performance, suggesting that sustainability and technological advancement are mutually reinforcing rather than competing priorities. Similarly, Usman et al. (2025) argue that ethical leadership strengthens corporate social responsibility initiatives, fostering employee commitment and stakeholder trust, which ultimately contributes to sustainable competitive advantage. These findings challenge the traditional assumption that ethical and sustainability investments undermine profitability.

Moreover, contemporary scholarship underscores the growing importance of stakeholder engagement in shaping ethical and sustainable management practices. Awa and Ogbonda (2024) contend that stakeholder pressures now act as critical drivers of corporate responsibility, compelling organizations to adopt transparent governance structures and inclusive decision-making processes. This perspective aligns with emerging research suggesting that firms that proactively engage stakeholders demonstrate superior risk management capabilities and long-term value creation (Bansal et al., 2024).

The concept of purpose itself has also evolved in recent literature. Purpose-oriented organizations are increasingly viewed as entities that embed societal and environmental

objectives into their core mission rather than treating them as peripheral initiatives (Gartenberg et al., 2024). Purpose serves as a strategic anchor that guides ethical decision-making, aligns employee values with organizational goals, and enhances organizational coherence in uncertain environments. Recent studies indicate that employees in purpose-driven organizations exhibit higher engagement, moral identification, and pro-social behavior, which in turn supports sustainability outcomes (Kuenzi et al., 2025).

Additionally, the rapid diffusion of artificial intelligence, automation, and data-driven decision-making has introduced new ethical dilemmas that further necessitate purpose-oriented management. Research published in 2024–2025 emphasizes the need for ethical governance frameworks to address issues such as algorithmic bias, data privacy, and workforce displacement (Dwivedi et al., 2024; Floridi & Cowls, 2025). These developments highlight that future-oriented management must integrate ethical foresight alongside technological innovation to ensure responsible and sustainable organizational growth.

Taken together, recent scholarship reinforces the argument that management practices are undergoing a profound transformation. The shift from profit maximization to purpose orientation is no longer a normative aspiration but an operational and strategic imperative. Organizations that successfully integrate sustainability and ethics into their managerial philosophy are better positioned to navigate complex stakeholder environments, comply with evolving regulatory expectations, and contribute meaningfully to broader societal goals. Thus, understanding the evolution of management practices across past, present, and future contexts is essential for advancing both theory and practice in sustainable and ethical management.

This chapter examines how management practices have evolved across past, present, and future contexts, focusing specifically on the integration of sustainability and ethics into managerial philosophy and organizational strategy.

2. Methodology

This chapter employs a narrative review methodology, which is particularly appropriate for examining conceptual evolution and synthesizing multidisciplinary research across time (Green et al., 2006). Narrative reviews enable interpretive integration of diverse theoretical perspectives, making them widely used in management and sustainability research (Tranfield et al., 2003).

2.1 Data Sources and Selection Criteria

The literature reviewed in this chapter was drawn primarily from Scopus and Web of Science databases. In addition to the stated inclusion criteria, emphasis was placed on

selecting studies that offered strong theoretical, conceptual, and integrative insights into sustainability and ethical management practices. Peer-reviewed empirical articles, conceptual papers, narrative reviews, and meta-analyses were included to ensure a comprehensive understanding of the evolution of management thought. Particular priority was given to studies that examined sustainability, corporate social responsibility (CSR), environmental, social, and governance (ESG) frameworks, stakeholder theory, and ethical leadership within organizational contexts.

To enhance academic rigor, journals with high scholarly impact and disciplinary relevance were emphasized. These included leading outlets such as *Journal of Business Ethics*, *Academy of Management Perspectives*, *Organization Studies*, *Business Strategy and the Environment*, *Sustainability*, and *Humanities and Social Sciences Communications*, all of which are indexed in Scopus and/or Web of Science. The deliberate inclusion of recent publications from 2024–2025 ensured that emerging trends, contemporary challenges, and evolving managerial practices were adequately captured, while seminal works were retained to provide theoretical grounding and continuity.

2.2 Analytical Framework

The selected literature was analyzed using a thematic narrative approach, allowing for interpretive synthesis rather than statistical aggregation. An iterative reading process was adopted to identify recurring concepts, dominant perspectives, and shifts in managerial priorities related to sustainability and ethics. The analysis aimed to achieve conceptual saturation, whereby additional studies reinforced established themes and enhanced theoretical clarity.

To facilitate a longitudinal understanding of management evolution, the literature was organized into three temporal dimensions. The past dimension focuses on profit maximization and shareholder primacy, highlighting efficiency-driven management and its ethical limitations. The present dimension examines the growing integration of sustainability and ethics through CSR initiatives, stakeholder engagement, ESG frameworks, and ethical leadership practices. The future dimension explores emerging paradigms such as purpose-driven management, responsible innovation, ethical artificial intelligence, and long-term stakeholder value creation. This structured analytical framework enables a systematic examination of how management practices have transitioned from economically driven models to ethically and sustainability-oriented approaches.

3. Management Practices: Past – Profit Maximization and Ethical Minimalism

Early management practices were dominated by efficiency-oriented models. Scientific management focused on task specialization, productivity enhancement, and cost minimization, often overlooking human and ethical considerations (Taylor, 1911). Similarly, administrative theory emphasized authority, discipline, and centralized control, reinforcing hierarchical decision-making structures (Fayol, 1916).

The doctrine of shareholder primacy, strongly advocated by Friedman (1970), asserted that managers' primary responsibility was to maximize shareholder wealth within legal boundaries. Ethical and social responsibilities were considered secondary, provided legal compliance was maintained (Boatright, 2006).

While this approach facilitated economic growth, it also contributed to negative externalities such as labor exploitation, environmental degradation, and declining public trust in corporations (Banerjee, 2008). These limitations highlighted the need for a broader conception of managerial responsibility. Beyond the economic and operational limitations, early efficiency-driven management models also failed to adequately recognize employees as social and psychological beings. Workers were largely perceived as instruments of production, resulting in alienation, low morale, and resistance to managerial control. Subsequent empirical and historical analyses suggest that the mechanistic orientation of early management practices contributed to adversarial labor relations and undermined long-term organizational sustainability (Ghoshal, 2005). These outcomes exposed the inherent weakness of management systems that prioritized output over human dignity and ethical accountability.

Furthermore, the narrow focus on shareholder wealth creation encouraged short-termism in managerial decision-making. Organizations frequently prioritized immediate financial returns at the expense of long-term investments in environmental protection, employee well-being, and community development. Recent scholarship argues that such short-term profit orientation amplified systemic risks, including financial instability and ecological crises, thereby threatening the very survival of firms and economies (Bansal & DesJardine, 2014; Slawinski et al., 2024). These critiques underscore how traditional management practices externalized social and environmental costs to broader society.

Contemporary analyses also reveal that shareholder primacy constrained ethical discretion among managers by framing moral responsibility as subordinate to financial performance. Studies published in 2024 highlight that rigid adherence to profit-maximization norms reduced managerial willingness to address ethical dilemmas proactively, particularly

in areas related to labor standards, environmental compliance, and corporate transparency (Mayer et al., 2024). As a result, many organizations adopted a compliance-based approach to ethics, focusing on minimal legal adherence rather than moral responsibility.

In addition, early management thought largely ignored the interconnectedness between organizations and their external environment. Environmental degradation resulting from industrial expansion was treated as an unavoidable by-product of economic progress. Recent historical sustainability research demonstrates that this oversight delayed the adoption of environmentally responsible practices and contributed to long-term ecological damage (Rockström et al., 2024). These findings further reinforce the argument that efficiency-oriented management lacked systemic awareness and ethical foresight.

The cumulative impact of these shortcomings gradually eroded public trust in corporations and intensified calls for reform. Stakeholders—including employees, consumers, regulators, and civil society—began demanding greater accountability, transparency, and social responsibility from business organizations. Contemporary management literature suggests that this growing legitimacy crisis served as a catalyst for the emergence of alternative paradigms such as corporate social responsibility, stakeholder theory, and sustainable management (Aguinis et al., 2025). These paradigms challenged the dominance of profit maximization and laid the foundation for purpose-oriented management models.

Collectively, these critiques highlight that early management practices, while instrumental in driving industrial growth, were insufficient for addressing the complex ethical, social, and environmental challenges faced by modern organizations. The recognition of these limitations marked a critical turning point in management thought, paving the way for the integration of sustainability and ethics into managerial philosophy and organizational strategy.

4. Management Practices: Present – Sustainability and Ethical Integration

4.1 Corporate Social Responsibility (CSR)

In the present context, CSR has evolved from a voluntary corporate initiative into a strategic and operational imperative. Organizations increasingly embed CSR into core business models rather than treating it as an ancillary function. Contemporary research highlights that firms adopting integrated CSR strategies demonstrate superior risk management capabilities, improved brand reputation, and stronger stakeholder relationships (Kim & Kim, 2024). CSR is now closely aligned with global sustainability frameworks such

as the United Nations Sustainable Development Goals (SDGs), enabling firms to link organizational performance with broader societal outcomes.

Recent studies further indicate that CSR effectiveness depends on authenticity and internal alignment. Symbolic or superficial CSR initiatives, often termed “greenwashing,” can undermine organizational legitimacy and stakeholder trust (Testa et al., 2024). Conversely, values-driven CSR, supported by ethical leadership and transparent reporting, enhances both environmental and social performance. Empirical evidence from multinational firms in 2025 suggests that CSR initiatives yield greater long-term financial and non-financial benefits when integrated with innovation, employee engagement, and ethical governance structures (Rahman et al., 2025). Thus, CSR has become a mechanism for balancing economic goals with ethical and sustainability commitments.

4.2 Stakeholder Theory and Inclusive Value Creation

In contemporary management practice, stakeholder theory has transitioned from a normative framework to a practical strategic tool. Organizations increasingly recognize that sustainable value creation depends on balancing the interests of diverse stakeholder groups, including employees, customers, suppliers, communities, and regulators. Recent empirical studies demonstrate that inclusive stakeholder engagement enhances organizational adaptability, particularly in volatile and uncertain environments (Mishra & Suar, 2024).

Moreover, stakeholder-oriented firms are better equipped to address social inequalities and environmental challenges through collaborative governance mechanisms. Research published in 2025 shows that organizations engaging stakeholders in decision-making processes experience higher levels of innovation and resilience, particularly in sustainability-driven industries (Hörisch et al., 2025). Stakeholder inclusivity also strengthens corporate legitimacy by aligning organizational objectives with societal expectations. As a result, stakeholder theory now functions as a bridge between ethical responsibility and strategic performance, reinforcing the shift away from shareholder-exclusive models toward broader value creation.

4.3 ESG Frameworks and Governance

Environmental, social, and governance (ESG) frameworks represent a significant advancement in formalizing sustainability and ethics within corporate governance systems. Unlike traditional CSR, ESG emphasizes measurable outcomes, standardized disclosures, and accountability mechanisms. Recent regulatory developments across global markets have accelerated ESG adoption, making sustainability reporting increasingly mandatory rather than discretionary (Zhang & Chen, 2024).

Recent empirical research indicates that strong ESG performance is associated with reduced cost of capital, enhanced investor confidence, and lower exposure to regulatory and reputational risks (Albuquerque et al., 2025). Additionally, digital technologies such as artificial intelligence and big data analytics are being leveraged to improve ESG measurement, monitoring, and transparency. Studies published in 2025 reveal that firms integrating digital innovation with ESG governance achieve superior sustainability outcomes and long-term competitiveness (Rashid & Islam, 2025). Consequently, ESG frameworks have become central to contemporary management practices, embedding ethical and sustainability considerations into strategic decision-making.

4.4 Ethical Leadership and Organizational Culture

Ethical leadership has emerged as a critical enabler of sustainable and responsible management in the present era. Leaders play a pivotal role in translating sustainability and ethical principles into daily organizational practices by shaping norms, values, and behavioral expectations. Recent studies highlight that ethical leadership fosters psychological safety, employee engagement, and moral awareness, all of which are essential for sustainability-oriented behavior (Zhu et al., 2024).

Furthermore, ethical leadership strengthens organizational culture by promoting transparency, accountability, and fairness. Empirical evidence from cross-sectoral studies in 2024–2025 demonstrates that ethical leadership significantly reduces unethical practices, improves ESG compliance, and enhances stakeholder trust, particularly in complex and regulated environments (Nguyen et al., 2025). Organizations led by ethically grounded leaders are more likely to internalize sustainability as a shared responsibility rather than a compliance obligation. Thus, ethical leadership functions as a cultural anchor that sustains the integration of ethics and sustainability within contemporary management practices.

5. Management Practices: Future – Purpose Orientation and Responsible Management

5.1 Purpose-Driven Organizations

Future-oriented management practices increasingly emphasize organizational purpose as a central driver of strategy, governance, and performance. Purpose-driven organizations go beyond profit maximization by embedding social and environmental commitments into their core identity, decision-making processes, and value propositions. Recent studies suggest that organizational purpose enhances strategic coherence, employee motivation, and long-term resilience by aligning business goals with societal expectations (Gartenberg et al., 2024). Purpose orientation also reshapes leadership priorities, shifting managerial focus from short-term financial metrics to long-term stakeholder value creation. Empirical research published

in 2025 demonstrates that firms with clearly articulated and authentically enacted purposes outperform competitors in terms of innovation capability, employee retention, and reputational capital (Mayer & Roche, 2025). Purpose acts as a moral and strategic anchor, enabling organizations to navigate complex ethical dilemmas and sustainability trade-offs in uncertain environments.

Moreover, purpose-driven management strengthens organizational legitimacy by fostering trust among stakeholders. Future management models emphasize co-creation of value with stakeholders, ensuring that purpose is not merely symbolic but operationalized through policies, incentives, and performance evaluation systems (Edmans, 2024). As societal expectations intensify, purpose-driven organizations are likely to become the dominant form of sustainable enterprise.

5.2 Sustainability, Ethics, and Digital Transformation

Digital transformation will play a defining role in shaping future management practices, particularly through artificial intelligence (AI), automation, big data analytics, and platform-based business models. While these technologies offer unprecedented opportunities for efficiency, personalization, and sustainability optimization, they also introduce significant ethical risks related to bias, surveillance, data privacy, and job displacement. Future management practices must therefore integrate ethical governance into digital innovation processes (Raisch et al., 2024).

Recent scholarship emphasizes the emergence of *responsible digital transformation*, which integrates ethical principles into technology design, deployment, and oversight. Studies published in 2024–2025 highlight that organizations adopting ethical-by-design and human-centered AI approaches achieve higher levels of stakeholder trust and regulatory compliance (Véliz & Floridi, 2024). Ethical digital governance frameworks increasingly stress transparency, explainability, accountability, and inclusivity as core managerial responsibilities.

Additionally, digital technologies can act as enablers of sustainability by improving resource efficiency, monitoring environmental impact, and supporting circular economy models. Research in 2025 indicates that AI-enabled sustainability analytics significantly enhance organizations' ability to measure and manage ESG performance in real time (Dubey et al., 2025). However, realizing these benefits requires ethical leadership and robust governance structures to prevent misuse and unintended consequences. Thus, future management will depend on the successful integration of digital innovation with sustainability and ethical accountability.

5.3 Alignment with Global Sustainability Goals

Future management practices are increasingly shaped by global sustainability imperatives, particularly the United Nations Sustainable Development Goals (SDGs). Organizations are expected not only to minimize harm but also to contribute proactively to solving global challenges such as climate change, inequality, and institutional fragility. Purpose-oriented management provides a framework for aligning corporate strategies with these global priorities (van Zanten & van Tulder, 2024).

Recent empirical studies demonstrate that firms aligning their strategies with SDGs experience enhanced legitimacy, improved stakeholder engagement, and stronger long-term performance outcomes (Silva & Figueiredo, 2025). This alignment encourages systemic thinking, prompting organizations to consider the broader social and ecological consequences of their actions. Future management models emphasize cross-sector partnerships, responsible supply chains, and inclusive business models as mechanisms for advancing SDG-related outcomes.

Furthermore, regulatory pressures and investor expectations are accelerating the integration of sustainability goals into corporate governance and reporting systems. Research from 2025 suggests that SDG-aligned firms are better positioned to manage regulatory risk and access sustainable finance instruments (Kotsantonis & Serafeim, 2025). As global challenges intensify, purpose-oriented and SDG-aligned management practices will be essential for ensuring organizational relevance, resilience, and ethical legitimacy in the future.

6. Managerial Implications

The findings of this study suggest that managers must fundamentally rethink their strategic and operational priorities in light of evolving sustainability and ethical expectations. Integrating environmental, social, and governance (ESG) considerations into strategic planning is no longer optional but essential for long-term organizational viability. Managers should ensure that sustainability goals are embedded within corporate vision, performance metrics, and risk management frameworks, enabling organizations to proactively address regulatory pressures, environmental challenges, and social responsibilities while maintaining competitive advantage.

Equally important is the role of ethical leadership in shaping organizational culture. Managers must model integrity, transparency, and fairness in decision-making to foster value-based cultures that encourage ethical behavior at all levels. Ethical leadership not only reduces the likelihood of governance failures and unethical practices but also enhances

employee engagement, trust, and commitment toward sustainability objectives. By aligning leadership behavior with organizational purpose, managers can translate ethical values into everyday practices and strategic outcomes.

Stakeholder engagement emerges as a critical managerial responsibility in purpose-oriented management. Managers should actively involve key stakeholders—such as employees, customers, suppliers, communities, and investors—in decision-making processes to ensure inclusive value creation. Meaningful stakeholder engagement improves organizational legitimacy, strengthens trust, and enables managers to anticipate and manage social and environmental risks more effectively. Collaborative decision-making also supports innovation and resilience in increasingly complex and uncertain business environments.

Finally, managers must leverage digital technologies to enhance transparency, accountability, and sustainability reporting. Advanced analytics, artificial intelligence, and digital reporting platforms can support real-time monitoring of ESG performance and facilitate accurate, credible disclosure to stakeholders. When used responsibly and ethically, technology becomes a powerful enabler of sustainable and purpose-driven management. Overall, adopting purpose-oriented management practices enhances organizational resilience, strengthens societal legitimacy, and positions firms for sustained long-term competitiveness in a rapidly evolving global context.

7. Conclusion

This chapter set out to examine the evolution of management practices from a narrow focus on profit maximization to a broader, more holistic orientation centered on purpose, sustainability, and ethics. Drawing on a narrative review of seminal and recent literature indexed in Scopus and Web of Science, the chapter demonstrated that management thought has undergone a profound paradigmatic shift. Early efficiency-driven and shareholder-centric models, while instrumental in driving industrial growth and economic performance, proved inadequate in addressing ethical concerns, social inequalities, environmental degradation, and long-term organizational legitimacy.

The analysis of contemporary management practices revealed that sustainability and ethics are no longer peripheral or symbolic considerations but are increasingly embedded within core organizational strategies. Frameworks such as corporate social responsibility, stakeholder theory, ESG governance, and ethical leadership reflect an institutionalization of responsible management practices. These approaches enable organizations to balance economic objectives with social and environmental responsibilities, thereby enhancing resilience, stakeholder trust, and long-term value creation. Empirical evidence reviewed in

this chapter further supports the argument that ethical and sustainability-oriented practices can coexist with, and even reinforce, organizational performance and competitiveness.

Looking ahead, the chapter highlighted that future management practices will be shaped by purpose-driven logic, responsible digital transformation, and alignment with global sustainability agendas such as the Sustainable Development Goals. Purpose orientation emerges as a unifying framework that integrates ethics, sustainability, innovation, and stakeholder engagement into managerial decision-making. At the same time, rapid technological advancements demand stronger ethical governance to ensure that digital transformation contributes to inclusive and sustainable outcomes rather than exacerbating social and ethical risks.

Overall, this chapter underscores that the transition from profit maximization to purpose orientation is not merely an ideological shift but a strategic necessity in an increasingly complex and interconnected world. By integrating sustainability and ethics into managerial philosophy and practice, organizations can contribute meaningfully to societal well-being while securing their own long-term relevance and success. The chapter thus contributes to the growing body of management scholarship advocating for responsible, purpose-driven approaches as the foundation of future organizational excellence.

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REVOLUTION OF ARTIFICIAL INTELLIGENCE AND ITS IMPACT ON HIGHER EDUCATION IN INDIAN ECONOMY

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ABSTRACT

Artificial Intelligence (AI) is rapidly emerging as a transformative technology in higher education, reshaping the landscape of teaching, learning, and administrative processes. This study investigates the multifaceted role and impact of AI within Higher Education Institutions (HEIs). As India pursues the goal of becoming a developed economy (*Viksit Bharat*), HE stands as the pivotal sector for realizing its demographic dividend. The Indian higher education sector is a rapidly growing and significant part of the country's economy, marked by both immense opportunities and persistent challenges. It explores how AI applications, such as adaptive learning platforms, intelligent tutoring systems, and automated administrative tools, are enabling personalized learning experiences, enhancing institutional efficiency, and providing data-driven insights for student success. The study acknowledges the significant benefits, including improved academic outcomes and accessibility, while critically examining associated challenges such as data privacy, algorithmic bias, the potential for diminished critical thinking skills, and threats to academic integrity posed by generative AI. Ultimately, the research emphasizes the need for a structured framework and ethical guidelines to ensure the equitable, responsible, and effective integration of AI, maximizing its potential to support both students and educators in the future of learning in Indian Economy.

Key words: Artificial Intelligence, personalized learning experiences, Higher Education, Indian Economy

CHAPTER CONTENTS

INTRODUCTION

A technological revolution has taken place in most of the parts of recent world, in last few decades. Society has dramatically shifted from traditionally living conditions driven society to the present knowledge society where creativity and inventiveness drives the society. Earlier educational system was characterized where teachers and students physically interacted in the classroom and majority of work is done manually in higher education

institutes. But major technological developments in the last 20 years and mostly because of the Internet have changed people view of education and their working and a new concept that has evolved during the last few years is “artificial intelligence”. It’s a well-known fact that higher education is heavily dependent on human and manual work. This not only increases the operational cost for the higher education institutes but also accounts for increase in the errors and slow processing in the field. Higher education institutes due to its labour intensive framework will have to spend a big budget on hiring and retaining educators and also in the processing of data in their institutes.

Growth and Economic Impact

- ❖ **Market Size and Growth:** The higher education market in India is one of the largest globally. It was valued at approximately **\$68.06 billion (₹5.75 Trillion)** in 2024 and is projected to nearly double to about **\$134.84 billion (₹11.60 Trillion)** by 2033, growing at an estimated CAGR of around 8.1% to 8.5%..
- ❖ **Massive Scale:** India has the world's largest population in the 5-24 age bracket, creating a massive demand for education. The system includes over **1,300 universities** and **52,000+ colleges** (as of FY26 projected figures).
- ❖ **Investment Surge:** Private sector investments, particularly in **EdTech**, have seen a huge surge, attracting over **\$14.4 billion** in Private Equity and Venture Capital over the last decade (2015-2025). The EdTech market alone is projected to grow nearly fourfold by 2030.
- ❖ **Outbound Student Economy:** India is the top source of international students for countries like the United States. Indian students studying abroad contributed an estimated **\$14 billion** to the US economy in 2024-25, highlighting a significant economic outflow from India.

ARTIFICIAL INTELLIGENCE

Artificial intelligence (AI) is the impersonation of human knowledge procedures, for example, discourse and visual acknowledgment, interpretation of the dialects and virtual decision making by machines and robots. The capacity of machine to think and act like people, has given AI an extraordinary place in all fields. Artificial intelligence is available wherever in different parts of our lives beginning from smart sensors to individual associates.

Artificial intelligence is presently advancing at a quickened pace, and this as of now impacts on the significant idea of administrations inside advanced education. For example, “universities already use an incipient form of artificial intelligence, IBM’s supercomputer Watson. This solution provides student advice for Deakin University in Australia at any time

of day throughout 365 days of the year (Deakin University 2014)”. Regardless of whether it depends on calculations appropriate to satisfy dull and moderately unsurprising assignments, Watson's utilization is a case of future effect of AI on the managerial workforce profile in advanced education. This is changing the structure for the nature of administrations, the dynamic of time inside the college, and the structure of its workforce. A super-PC ready to give bespoke input at any hour is lessening the need to utilize a similar number of managerial staff already serving this capacity. In this regard, it is likewise essential to take note of that machine learning is a promising field of artificial intelligence. While some AI arrangements stay subject to programming, some have an inbuilt ability to learn examples and make expectations. “An example is Alpha Go—a software developed by Deep Mind, the AI branch of Google’s—that was able to defeat the world’s best player at Go, a very complex board game (Gibney 2017)”.

OBJECTIVES

The main objective of this study is to conduct a systematic analysis of the current and potential role of Artificial Intelligence in Higher Education Institutions in Indian Economy.

Specific Objectives Include

- **To identify and categorize** the principal applications of AI technology within the academic (teaching/learning) and administrative sectors of higher education.
- **To analyse the impact** of AI tools on **student learning outcomes**, specifically focusing on personalization, engagement, and academic performance.
- **To assess the efficacy** of AI in streamlining administrative tasks for faculty and staff, thereby improving institutional efficiency and resource allocation.
- **To explore the major ethical and academic challenges** associated with AI implementation, including data privacy, algorithmic bias, and academic integrity concerns.
- **To propose a set of recommendations** for developing institutional policies and pedagogical strategies that ensure the responsible, equitable, and effective integration of AI in higher education.
- To impart **21st-century skills** (critical thinking, creativity, complex problem-solving, digital literacy) that meet the evolving demands of the global and domestic market, especially in high-growth sectors like IT, AI, data science, electric mobility, and green energy.

- To improve the global ranking and perception of Indian universities, thereby attracting top faculty, international students, and Foreign Direct Investment (FDI) into the education sector.

Literature Review

The literature review for this study reveals a rapid increase in research, particularly since the widespread adoption of generative AI tools like ChatGPT in late 2022. The existing body of work can be clustered into three main themes:

Transformative Pedagogical Benefits

Early research focused on Intelligent Tutoring Systems (ITS) and Adaptive Learning Platforms, demonstrating AI's capability to tailor content and pacing to individual student needs (¹⁰Zawacki-¹¹Richter et al., 2019).¹² These studies consistently show that personalized feedback and customized learning paths lead to improved student engagement and retention (¹³Holmes et al., 2019).¹⁴ More recent literature highlights the role of AI in providing sophisticated support for skills like coding and academic writing, acting as a "cognitive partner" for students.¹⁵

Operational Efficiency and Learning Analytics

A significant body of work addresses the use of AI for administrative tasks.¹⁶ Learning Analytics (LA), powered by AI, utilizes vast student data to predict academic risk, allowing for timely intervention by counselors and faculty (¹⁷Jia et al., 2020).¹⁸ Applications in automated grading, scheduling, and admissions have been shown to reduce faculty workload and improve the accuracy and consistency of administrative processes (¹⁹Chen et al., 2020).

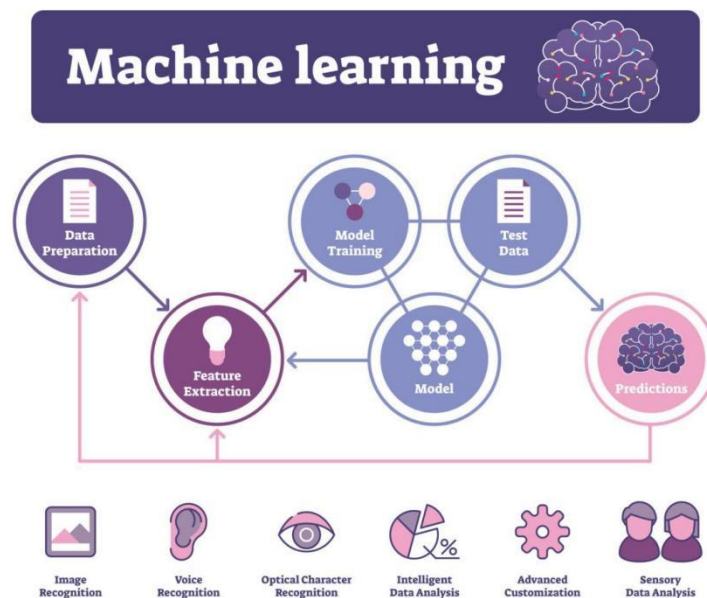
Ethical and Academic Challenges

The critical literature emphasizes the need for caution. Primary concerns revolve around data privacy and the security of sensitive student information.²¹ More profoundly, studies highlight the risk of algorithmic bias, where AI systems trained on non-representative data perpetuate systemic inequities, potentially leading to unfair outcomes in grading or resource allocation. The launch of generative AI has sparked intense debate over academic integrity and the potential for students to lose fundamental critical thinking and writing skills due to over-reliance on these tools (²²Cotton et al., 2023). The consensus is that ethical integration requires transparency, accountability, and strong human oversight.

ADOPTION OF AI AND CHALLENGES - HIGHER EDUCATION

Ethical and Equity Concerns

- ✧ **Data Privacy and Security:** AI systems collect vast amounts of **sensitive student data** (academic records, behavioral data). Ensuring robust data protection, compliance with regulations like GDPR, and preventing breaches or misuse of this information is a significant challenge.
- ✧ **Algorithmic Bias and Fairness:** AI algorithms are trained on existing data, which may contain **societal biases**. If not carefully managed, AI can perpetuate or even amplify these biases in critical areas like admissions, grading, or resource recommendations, leading to **unfair outcomes** for underrepresented groups.
- ✧ **Transparency and Explainability:** Many AI models function as "black boxes," making it difficult to understand **how they reach their decisions** (e.g., in automated grading or predictive analytics). This lack of transparency undermines trust and accountability, especially when decisions affect a student's academic path.
- ✧ **Accessibility and Inclusivity:** Not all students have **equal access** to advanced AI tools or the necessary digital literacy, which can widen the **digital divide** and create new forms of inequity. AI tools can also disadvantage non-native English speakers.



Pedagogical and Academic Integrity Challenges

- **Academic Misconduct:** Generative AI tools (like ChatGPT) make it easier for students to **cheat or plagiarize** by generating sophisticated content that mimics genuine work.

This forces institutions to urgently **rethink assessment methods** and academic integrity policies.

- **Diminished Critical Thinking:** An **over-reliance on AI** for finding answers or solving problems may hinder the development of essential **critical thinking, problem-solving, and analytical skills** in students.
- **Content Quality and Reliability:** AI models can sometimes generate plausible-sounding but **inaccurate information** (known as "hallucinations"). Students and faculty must be equipped with the skills to **critically evaluate** AI-generated content for accuracy and relevance.
- **Dehumanized Learning Experience:** The increased automation and reliance on AI tools can reduce meaningful **human interaction** between students and faculty, which is crucial for mentorship, emotional support, and fostering a sense of community.

Practical and Institutional Hurdles

High Implementation Costs: Implementing AI requires **significant financial investment** in technology, infrastructure, and ongoing maintenance, which can be a barrier for many institutions.

Lack of Faculty Training and Literacy: Many educators lack the **necessary training and familiarity** with AI technologies to effectively integrate them into their teaching. Resistance or "AI guilt" among faculty due to concerns about job displacement or lack of understanding can impede adoption.

Integration with Legacy Systems: Universities often use older IT systems, and **integrating new AI technologies** with this legacy infrastructure can be complex and difficult.

Rapid Pace of Change: The AI landscape is evolving extremely fast, making it difficult for institutions to develop **stable policies, curricula, and ethical guidelines** that keep pace with the technology.

AI Applications and Its Impact on Higher Education

AI is impacting HEIs across the student journey, from prospective enrollment to graduation.

Applications in Teaching and Learning (Pedagogy)

Application	Description	Impact on Education
Adaptive Learning Platforms	Systems that adjust the difficulty, format, and content of lessons in real-time based on student performance data.	Personalization: Allows students to master concepts at their own pace, reducing achievement gaps.
Intelligent Tutoring Systems (ITS)	Provides immediate, one-on-one virtual coaching, feedback, and hints to solve problems.	Accessibility/Support: Offers 24/7 academic help, supplementing the role of human TAs/tutors.
Content Generation & Curation	AI tools that create custom practice quizzes, summaries, or locate relevant research articles and multimedia content.	Efficiency: Reduces preparation time for faculty and improves the relevance of study materials.
Automated Grading	Tools like Gradescope use AI to grade standardized and semi-structured assignments (e.g., math problems, coding tests).	Consistency & Speed: Provides rapid, objective feedback to students and frees up faculty time for deeper teaching.

Government initiatives driving AI integration in Indian higher education and the economy:

Major AI Initiatives & Schemes

IndiaAI Mission (₹10,300+ Crore Investment)

The IndiaAI Mission is the overarching national strategy designed to foster an AI ecosystem from research to startup funding. Several of its seven pillars directly impact higher education:

IndiaAI Compute Pillar:

This provides High-End GPUs at affordable costs (e.g., subsidized rates) to researchers, startups, and academic institutions. This is crucial as high-performance computing is the single biggest bottleneck for large-scale AI research and training in universities.

IndiaAI FutureSkills:

This pillar is explicitly focused on building AI-skilled professionals. It includes: Support for 500 PhD Fellows, 5,000 Postgraduates, and 8,000 Undergraduates in AI-related disciplines.

Setting up Data and AI Labs in Tier 2 and Tier 3 cities across universities and polytechnics to ensure regional inclusion.

IndiaAI Foundation Models:

This pillar supports the development of India's own Large Multimodal Models (LMMs) using Indian languages and data. This directly involves university research collaborations to ensure the technology is culturally and linguistically relevant.

AIKosh (Dataset Platform):

A repository for training AI models that integrates data from government and non-government sources, providing researchers in higher education with critical data access to develop India-specific applications.

National Education Policy (NEP) 2020

The NEP 2020 provides the foundational policy framework for integrating AI at all levels of education, including higher education.

Curriculum Integration:

It emphasizes the inclusion of contemporary subjects like AI, Machine Learning, and Data Science in the curriculum at appropriate stages. The Central Board of Secondary Education (CBSE) already introduced AI as a subject for classes IX and XI, creating an AI-aware student pipeline for higher education.

Multidisciplinary Approach:

The policy encourages higher education institutions to adopt multidisciplinary learning, allowing students to take AI courses regardless of their core stream (e.g., an Arts student taking a minor in AI ethics).

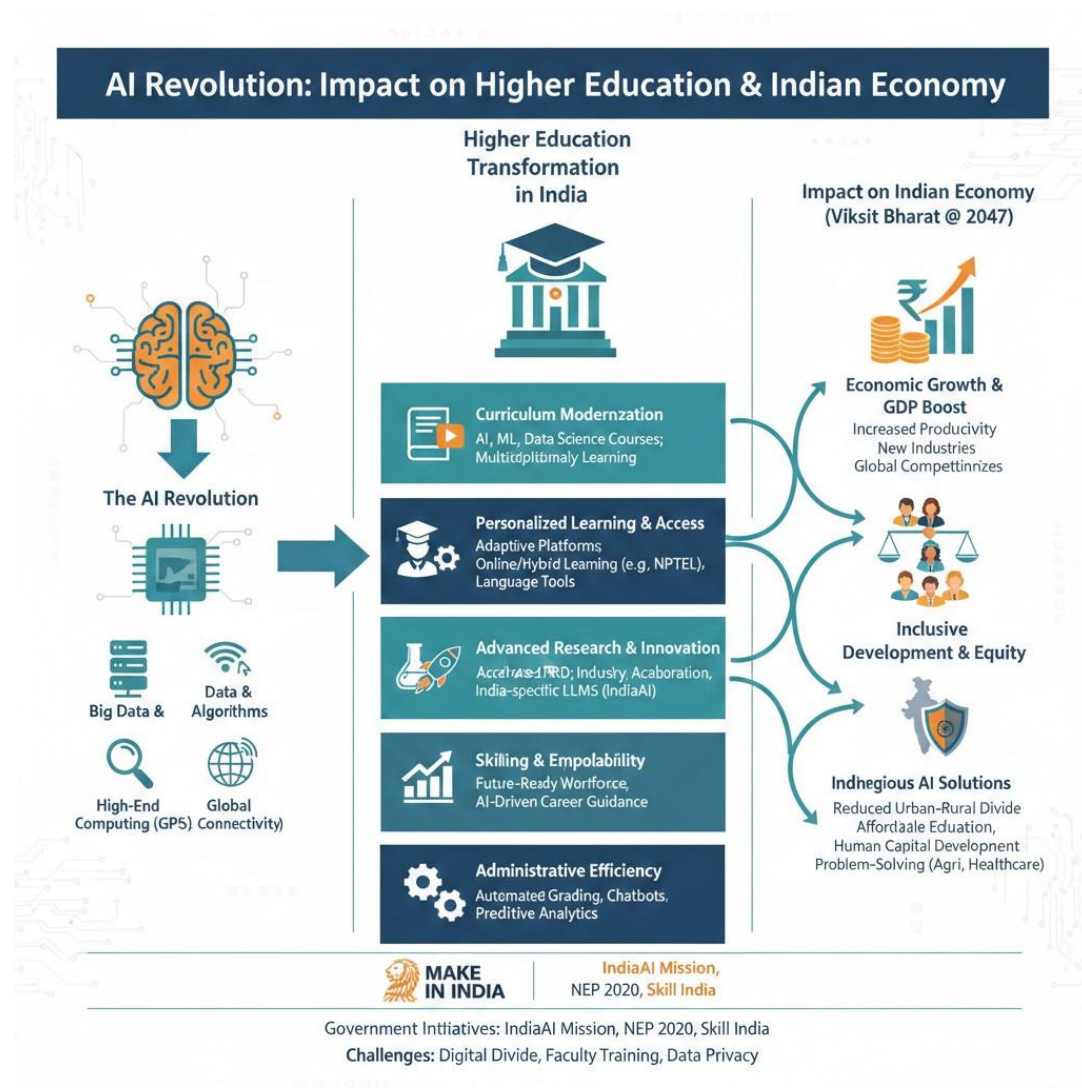
Research & Innovation:

NEP promotes high-quality research, which is supported by the AI infrastructure being built under the IndiaAI mission, thereby improving India's global research output.

Economic Goals of Government Initiatives

The government efforts are all strategically aligned to achieve three major economic goals:

- **Viksit Bharat @ 2047:** The goal of making India a developed nation by 2047 is heavily reliant on technological leadership, with AI being a core component. The educational initiatives are the human capital foundation for this vision.
- **Atmanirbhar Bharat (Self-Reliant India):** By developing indigenous AI models (IndiaAI Foundation Models) and training a massive local talent pool, India aims to reduce its reliance on foreign technology and expertise, creating sovereign technological capability.
- **Harnessing the Digital Dividend:** By making AI education accessible and focusing on Tier 2/3 cities and rural areas, the government is trying to bridge the urban-rural digital divide, ensuring that the economic benefits of AI are inclusive and empower marginalized communities.



Sources : Secondary sources

Overall Impact on Higher Education

- ❖ **Enhanced Personalization:** AI moves the focus from standardized delivery to individualized mastery, catering to diverse learning styles and paces.
- ❖ **Increased Efficiency:** Automation of routine tasks allows faculty to prioritize high-value interactions, such as mentoring, curriculum design, and research.
- ❖ **Data-Driven Decision Making:** Institutions can use AI insights to refine curricula, allocate resources effectively, and formulate targeted policies.
- ❖ **Shift in Skill Requirements:** The integration of generative AI necessitates a curricular shift toward AI literacy, critical evaluation of AI-generated content, and human-centric skills (e.g., creativity, complex problem-solving).
- ❖ **Academic Risk:** Without strict policy, the reliance on AI for output could lead to the devaluation of fundamental academic skills and an increase in academic misconduct.

CONCLUSION

This research reveals the perspectives of the teachers about learning through AI with special which helped in further inspecting the role of various modern artificial intelligence methods adopted by universities in successfully enhancing the learning capability. The study also reveals that though the future prospects of artificial intelligence in higher education institutes are very high and it holds lot of possibilities in this field, But the present state of AI in higher education institutes is demanding rigorous investment in terms of funding and time.

Thus Institutions that are planning to adopt AI are required to consider a wide variety of factors just to make sure that adoption of AI will become a turning point in their learning methodology to be sure that it will benefit students, teachers as well as the institutes. Adoption and implementation of AI in higher education is late in comparison to the corporate sector, many companies that have already adopted artificial intelligence and are continuing to invest more into AI applications will surely remain ahead of their competitors.

The revolution of Artificial Intelligence (AI) presents not merely a disruption, but a fundamental redesign opportunity for India's higher education system, serving as the critical catalyst to realize the nation's economic ambitions, particularly those outlined in the **National Education Policy (NEP) 2020**.

The successful integration of AI is non-negotiable for India. The challenge is not in adopting the technology, but in ensuring an **equitable and ethical adoption** that provides necessary digital infrastructure, trains faculty effectively, and establishes robust regulatory

frameworks. By strategically embedding AI into its educational fabric, India can transform its demographic dividend into a **knowledge superpower**—an equitable, innovative, and highly productive engine for the 21st-century global economy.

Higher education institutes that incorporate AI into all of its programs remain leaders in their field and are already reaping the benefits associated with it. At the end from all the discussion and analysis done in the paper we can now say that AI is impacting higher education institutes in a significant way.

AI expansion is forcing many jobs to become obsolete and thus an entire new skill sets will be required. Higher education institutes are required to train and develop their students to upgrade them to face the challenge of the AI revolution and fight successfully in the AI age.

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**A STUDY ON SERVICE QUALITY TOWARDS MULTI SPECIALITY HOSPITALS
WITH SPECIAL REFERENCE MADURAI CITY.**

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ABSTRACT:

In the current global state, governing bodies comprise a key part of every economy. All created nations and the greater part of the nations being created are service economies. In the administration part, the most critical pattern talking to both the risk of helping open the door is the undeniably aggressive nature of the mall. It requires specialized cooperatives to have a more professional approach in enforcing their administrations, even if by chance they are supposed to be fruitful. The healthcare industry is the world's largest industry and is undergoing rapid change the ever-expanding needs and demands of the patient population. Medical facilities offer medicinal products administration, line administration, permanent administration and auxiliary administration. They offer the same instructional and preparatory offices and advanced medical research. This article is primarily focused on the service quality perception of patients of multi-specialty hospitals in Madurai district. Through some basic tools and the Servqual model used to assess service quality in multi-specialty hospitals.

Key word: Quality of services, Multispecialty, Hospital, Health care.

INTRODUCTION:

Quality of service is becoming more and more important these days business, especially in industries with high customer involvement such as healthcare and financial services. Quality of service is a decisive direction for increasing the performance of the enterprise, which is the basis for widespread acceptance of quality improvement initiatives in many service industries. In recent years, one of the fastest growing industry in the service sector is healthcare industry. Healthcare is a patient-centered service industry where the patient or service users are at the center of attention and patient service is a differentiating factor. Success and survival health care organization depends on the effectiveness of a the effectiveness of the services provided to their patients. Patients Satisfaction is key to ensuring patient retention/loyalty create superior long-term performance or optimize long-term value. This perception of patients is based on their expectations and is perceived in the services offered by the healthcare sector industry. The purpose of the study is to better understand the

SERVQUAL factors that determine consumers' perceptions and expectations of service quality in Multidisciplinary hospitals.

REVIEW OF LITERATURE:

Upadhyai, Raghav and Jain (2020) - Professional services like healthcare work with serious level of data lopsidedness, where normally the searcher of service needs information and abilities, and therefore, they can't assess the advantages. Elective markers in the assistance conveyance are looked for by the searchers to acquire equality their assessment, which probably won't be intelligent of suppliers' points of view of care. This study endeavors to investigate viewpoints of both the members in healthcare service conveyance in multispecialty hospital settings. Semi-organized meetings were led utilizing snowball testing with doctors, paramedical staff and directors in multispecialty hospitals and patients and their specialists who have visited similar arrangement of hospitals during recent year

Rehaman. B., Husnain. M (2018) - The current study inspects "The effect of service quality measurements on patient satisfaction in the private wellbeing area situated in locale Sargodha, Pakistan. Service quality is viewed as one of the critical factor to keep individuals safe and wellbeing from sicknesses. The study has been done by utilizing questionnaire as data collection strategies by planning 21 things on a five point likert scale. The sample size of the study is made out of 380 respondents from locale Sargodha. The consequences of the study uncovers that the main factor that sway on help quality measurement is substantial "(Physical offices, gear, and presence of faculty)" and sympathy "(Caring, individualized consideration the firm gives its clients)" so these are the main elements of SERVQUAL model that sway on assistance quality. Future research may investigate the assistance quality in different areas in Pakistan as a rule and in the Sargodha district specifically.

Min Li1, 29 May 2015 Evaluating patients' perception of service quality at hospitals in nine Chinese cities by use of the Servqual scale. The Study objective was to look at the patients' perception of administration quality at healthcare centers in nine Chinese urban 1937 outpatients. The Servqual strategy was utilized in an overview. The Study was directed with 22 things in the five measurements of Servqual scale. It was discovered that the reliability was 0.978 and the Pearson connection co-effective are support and measurably note worthy. Prattana et al.(2012), measured the service quality of the hospital implementing Lean management. The paper assessed patients' expectation and satisfaction pertaining to hospital service quality. Data collected from 450 patients are analyzed by using the SERVQUAL model. The model compared patients' perception.

Prattana et al.(2012), measured the service quality of the hospital implementing Lean management. The paper assessed patients' expectation and satisfaction pertaining to hospital service quality. Data collected from 450 patients are analyzed by using the SERVQUAL model. The model compared patients' perception and expectation of service received across five dimensions of service quality including reliability, responsiveness, assurance, empathy and tangibility. The results of this study reveal that overall service quality score is positive, however, there is no significantly different between overall patients' perception and expectation. The service quality level of the hospital implementing lean is moderate; the hospital is able to deliver service as expected. In addition, the largest positive gap between patients' perception and expectation is in term of tangibility. The largest negative gap is with respect to assurance

Rao et al. (2006), studied the use of 16-item scale having good reliability and validity. Patient perceptions of quality at public health facilities are slightly better than neutral. Multivariate regression analysis results indicate that for outpatients, doctor behavior has the largest effect on general patient satisfaction followed by medicine availability, hospital infrastructure, staff behavior, and medical information. For in-patients, staff behavior has the largest effect followed by doctor behavior, medicine availability, medical information, and hospital infrastructure.

OBJECTIVES OF THE STUDY:

- To analyze demographic profile of the respondent.
- To identify the level of perception of the patients about the health care industries in the study area.
- To offer possible suggestion for the betterment of health care industry in Madurai.

RESEARCH METHODOLOGY:

RESEARCH DESIGN: This research is descriptive and survey method is used for this study to analyze service quality of multi specialty hospitals

DATA COLLECTION METHOD: Primary and secondary data were used for this study. The analysis was made mainly using primary data. Primary data was collected through a structured questionnaire using Rensis Likert's Scale. Secondary data has been obtained from journals, websites and books.

SAMPLING METHOD:

360 sample respondents were approached for the study and collected through stratified Simple random sampling technique. Hence, for the purpose of the study Madurai has been selected as an area of the study.

DATA ANALYSIS:

The collected data will be analyzed with the help of statistical packages, namely SPSS 20.0 version by using statistical tools such as percentage analysis and chi-square test.

DATA ANALYSIS AND INTERPRETATION:

It can be surmised from the above table that the respondents focused upon tangibility of services quality perceptions of the patients in hospital. The respondents are neutral towards best & latest –modern looking medical equipments and usage of modern technology in service is 39.9 per cent and 51.2 per cent respectively. On the other hand, the respondents strongly agreed towards the hospital staff will be neat in appearance is 33.2 per cent and 28.6 per cent of the respondents are disagreed towards visually appealing physical facilities. It is found out from the analysis that majority (51.2%) of the respondents are neutral towards the service quality of usage of modern technology towards tangibility of services quality.

It can be observed from the above table that the respondents focused upon reliability of services quality perceptions of the patients in hospital. The respondents strongly agreed towards doctors" keep, their promises, the hospital staff show sincere interest in solving patients" problems and the services of the hospital will be quite dependable as 46.8, 46.1 and 46.0 per cent respectively. On the other hand, the respondents agreed towards the hospital staff who provide their services as promised and hospital keep error-free records as 40.3 and 42.8 per cent respectively. It is noted from the analysis that majority (46.8%) of the respondents strongly agreed towards doctors" keep their promises towards reliability of services quality. It can be obtained from the above table that the respondents focused upon responsiveness of services quality perceptions of the patients in hospital. The respondents agreed towards the employees in hospital inform exactly when services will be performed is 45.6 per cent. On the other hand, the respondents are neutral towards the employees in hospital give prompt service to patients, the employees will always willing to help patients and the employees will never too busy to respond to the request of the patients/attendants is 40.6, 47.1 and 49.4 per cent respectively. It is noted from the analysis that majority (49.4%) of the respondents are neutral towards the employees will never be too busy to respond to the request of the patients/attendants towards responsiveness of service quality.

It can be implied from the above table that the respondents focused upon assurance of services quality perceptions of the patients in hospital. The respondents strongly agreed towards employee's behaviour instill the patients confidence, patients feel safe in their treatment, employees will be consistently courteous with the patients (showing polite, kind and good manners) and employees will have the sufficient knowledge to answer patients' questions as 24.6, 30.1, 31.1 and 37.6 per cent respectively. It is stated from the analysis that majority (37.6%) of the respondents strongly agreed towards employees who will have the sufficient knowledge to answer patients' questions towards assurance of service quality. It can be determined from the above table that the respondents focused upon empathy of services quality perceptions of the patients in hospital. The respondents strongly agreed towards the hospital employees will give the patients individual attention, hospital will have operating hours convenient to all patients, the hospital staff will understand/justifying the needs of their patients and the hospital employees will have the patients best interest at heart is 30.1, 28.3, 31.3 and 26.0 per cent respectively. On the other hand, 37.1 per cent of the respondents agreed towards employees who deal with patients in a caring fashion. It is stated from the analysis that majority (37.1%) of the respondents agreed towards employees who deal with patients in a caring fashion towards empathy of service quality.

CONCLUSION:

This paper measures service quality of multi-specialty hospital by using the SERVQUAL model. Findings shows that service quality level of this hospital in multi specialty hospitals is good. Overall, patients' perception is slightly higher than patients' expectation; however, the gap between perception and expectation is not significantly different. The highest service quality dimension of patients' expectation is tangibility. The highest service quality dimension of patients' perception is also tangibility. The key finding also indicates that tangibility, reliability and responsiveness are the three most important dimensions of hospital service quality perceived by patients; whereas the empathy was found having the largest negative gap. In summary, this study helps identify the quality of service provided by the multi-speciality hospital as an improvement initiative. The results provide a managerial implication in continuously improving the service quality thereby enhancing customer satisfaction.

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A STUDY ON PERCEPTION OF RURAL CUSTOMERS TOWARDS DIGITAL PAYMENT SYSTEMS IN TIRUCHENDUR TALUK

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ABSTRACT

This study explores the growing adoption and impact of digital payment systems in Tiruchendur Taluk, highlighting the transformation from traditional cash-based transactions to modern digital alternatives. The research investigates consumer awareness, usage patterns, preferences, and challenges associated with digital payments. Using primary data collected through structured questionnaires from local users, the study identifies key factors influencing the shift towards cashless transactions, including convenience, government initiatives, and technological advancements. The findings underscore the increasing reliance on digital platforms such as mobile wallets, UPI, and internet banking, while also noting concerns related to cybersecurity and digital literacy. The paper concludes with suggestions for improving digital payment infrastructure and enhancing user trust and accessibility.

Keywords: Digital Payment systems – digital literacy – cashless transactions

INTRODUCTION

Digital payment is a form of payment that is processed via digital modes. With digital payments, both the payer and the payee use digital modes to send and receive cash. It's additionally referred to as electronic payment. No cash (currency notes) is involved with digital payments. The rapid advancement of digital financial technology has significantly transformed the way people conduct transactions worldwide. Digital payment systems, including mobile wallets, UPI (Unified Payments Interface), internet banking, and card-based transactions, offer numerous benefits such as convenience, security, and efficiency. However, the adoption of digital payments in rural areas remains a challenge due to factors such as limited digital literacy, lack of infrastructure, trust issues, and socio-economic conditions.

STATEMENT OF THE PROBLEM

Despite the increasing adoption of digital payment systems globally, rural areas still face significant barriers in transitioning from cash-based transactions to digital modes of payment. Factors such as low digital literacy, lack of proper internet infrastructure, security concerns, and resistance to change hinder the widespread adoption of digital payments among rural customers. Additionally, trust issues related to fraud and transaction failures further discourage usage.

This study seeks to explore the perception of rural customers towards digital payment systems, identifying key challenges, awareness levels, and factors influencing their adoption.

Understanding these issues can help policymakers, financial institutions, and technology providers develop effective strategies to improve digital financial inclusion in rural areas.

OBJECTIVES OF THE STUDY

The main objectives of the study are.

1. To Analyze the awareness level of rural customers about digital payment systems in Tiruchendur taluk.
2. To identify the factors influencing the usage of digital payment systems rural customers in Tiruchendur taluk.
3. To explore the benefits perceived by rural customers while using digital payment systems in Tiruchendur taluk.
4. To assess the challenges faced by rural customers while using digital payment Platforms.
5. To suggest measures to improve the efficiency of digital payment systems in rural are

REVIEW OF LITERATURE

Gupta, Sunny, and Dinesh Kumar (2020) investigated the innovativeness of the Unified Payments Interface (UPI) and its acceptance among consumers. They discovered that demographic factors, except for education, did not significantly influence UPI usage. The widespread availability of the internet and smartphones facilitated the adoption of UPI payments.

Shankar et al. (2020) analyzed the rapid acceleration of digital payments due to the COVID-19 pandemic. They observed that both consumers and businesses shifted to digital methods to minimize physical contact. Key drivers of this adoption included convenience, speed, and ease of use. However, the study also highlighted barriers such as concerns over privacy, technological literacy, and trust in the system.

Singh and Kaur (2021) the adoption of digital payment systems among rural customers has been a subject of extensive research, particularly in the wake of digital transformation initiatives and the impact of the COVID-19 pandemic. Several studies in 2021 highlighted key factors influencing rural consumers' perceptions towards digital payments, including awareness, ease of use, trust, and accessibility. It found that while digital payment systems were perceived as convenient and time-saving, many rural users were hesitant due to concerns about transaction security and a lack of familiarity with digital platforms.

Gupta et al. (2021) found that many rural users feared cyber fraud, identity theft, and transaction failures, which hindered their willingness to shift from traditional cash-based transactions to digital platforms. The study suggested that enhancing fraud protection

measures and ensuring robust customer grievance redressal mechanisms could significantly improve trust in digital payment services.

Rai, (2021) despite these challenges, government initiatives and technological advancements have contributed to a steady increase in digital payment adoption in rural areas. The Digital India campaign, financial literacy programs, and the widespread use of UPI-based transactions have played a crucial role in increasing awareness and accessibility. Furthermore, studies indicated that the COVID-19 pandemic accelerated the adoption of digital transactions due to social distancing norms and lockdown restrictions. This shift demonstrated the potential of digital payments in enhancing financial inclusion if proper infrastructure and awareness campaigns are in place.

RESEARCH METHODOLOGY

Questionnaire is main tool for collecting primary data. Questionnaire has been designed in a systematic manner covering adequate and questions which covers all aspects of the study. It is the foremost Extensively used methodology in varied economic and business surveys. The background of the present study was collected from various sources which includes Books, Journals, Website and other related research work. A sample size of 90 respondents has been taken for the study by applying convenience sampling techniques. The following statistical tools have been used to analyses and interpret the data. Percentage analysis and Likert’s scaling.

ANALYSIS AND INTERPRETATIONS

TABLE: 1
DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Sl. No	Age	No. of Sample Respondents	Percentage
1.	Below 30 Years	7	8
2.	30 – 35 Years	67	74
3.	35 – 45 Years	12	14
4.	45 – 55 Years	4	4
Total		90	100
Sl. No	Gender	No. of Respondents	Percentage
1.	Male	65	24.40
2.	Female	25	75.60
Total		90	100

Sl. No	Income	No. of Respondents	Percentage
1.	Upto ₹20,000	25	28
2.	₹20,001 – ₹30,000	38	43
3.	₹30,001 – ₹50,000	15	16
4.	₹50,001 – ₹1,00,000	12	13
	Total	90	100
Sl. No	Marital Status	No. of Respondents	Percentage
1.	Married	50	84.88
2.	Unmarried	40	15.12
	Total	90	100
Sl. No	Educational Qualification	No. of Respondents	Percentage
1.	Below H.S.C.	1	1
2.	Graduate	7	8
3.	Post-graduate	42	47
4.	Professional Course	38	39
5.	Diploma Holder	5	5
	Total	90	100

Source: Computed Primary Data.

TABLE: 2
DIGITAL PAYMENT DISCOVERY

S. NO	DIGITAL PAYMENT DISCOVERY	NO.OF. RESPONDENTS	PERCENTAGE
1.	Friends/Family	39	44
2.	TV/Radio	1	1
3.	Social Media	44	49
4.	Government Campaigns	2	2
5.	Others (Specify)	4	4
	Total	90	100

Source: Computed Primary Data.

TABLE: 3
DIGITAL PAYMENT PLATFORMS

S. NO	DIGITAL PAYMENT PLATFORMS	NO. OF. RESPONDENTS	PERCENTAGE
1.	UPI (e.g, Google pay, PhonePe)	62	69
2.	Mobile Wallets(e.g., Paytm)	3	3
3.	Internet Banking	11	13
4.	POS Machines	10	11
5.	None	4	4
	Total	90	100

Source: Computed Primary Data

TABLE: 4
DIGITAL PAYMENT INQUIRY

S. NO	DIGITAL PAYMENT INQUIRY	NO. OF. RESPONDENTS	PERCENTAGE
1.	Security Features	50	56
2.	Cost of Transaction	16	17
3.	Benefits and Offers	10	11
4.	How to Use Them	9	10
5.	None	5	6
Total		90	100

Source: Computed Primary Data.

TABLE: 5
DIGITAL PAYMENT MOTIVATION

S. NO	DIGITAL PAYMENT MOTIVATION	NO. OF. RESPONDENTS	PERCENTAGE
1.	Convenience	50	55
2.	Discounts/Offeres	10	11
3.	Safety	20	22
4.	Peer Influence	5	6
5.	Other	5	6
Total		90	100

Source: Computed Primary Data.

TABLE: 6
PREFERRED PAYMENT MODE

S. NO	PREFERRED PAYMENT MODE	NO. OF. RESPONDENTS	PERCENTAGE
1.	Digital Payments	57	63
2.	Cash	22	25
3.	Bank Transfer	10	11
4.	Cheques	1	1
Total		90	100

Source: Computed Primary Data.

FINDINGS OF THE STUDY

The following are the main findings of the study

- It reveals that the majority (80%) of the respondents are female, indicating that women are more engaged in digital payments.
- Most respondents (74%) belong to the age group of 20-30 years, showing that young adults are the primary users.
- Majority (47%) of the respondents have completed graduation, suggesting that educated individuals are more likely to use digital payment systems.
- The majority (43%) falls in the income group of ₹10,000-₹20,000, indicating digital payment adoption among middle-income groups.
- Social media is the primary source (49%) for discovering digital payment platforms, highlighting its role in the digital payment system.
- The majority (69%) use UPI apps like Google Pay and PhonePe, making it the most preferred mode of digital transactions.
- The majority (38%) encounter digital payment advertisements daily, signifying strong marketing efforts.
- Majority (45%) of respondents feel that digital payment platforms are "Good," indicating a generally positive perception.
- It observed that the majority (56%) of the respondents were seeking security features in their Digital payment.
- The majority (55%) of the respondents convenience is the biggest motivator to use the Digital payment system.
- It reveals that the majority (63%) of the respondents felt that they choose Digital payment as their payment mode.
- The majority (48%) of the respondents trust in digital payment systems is an important one.
- Majority (34%) reported no challenges during digital payment registration, indicating ease of onboarding for many users.
- It was found that the majority (56%) of the respondents facing transaction issues encountered are failed transactions.
- The majority (37%) of the respondents are rarely facing security issues in their Digital payment.
- The majority (56%) of the respondents hesitate to use the Digital payment system because of Network issues.

- It inferred that the majority (44%) of the respondents said that Time-Saving is the benefits of the Digital payment system.
- The majority (64%) of the respondents Personal transactions are the most common use case, with using digital payments for such purposes.
- The majority (50%) of the respondents said that the Ease of transaction is the Digital payment benefits over cash.
- The majority (61%) of the respondents' financial access has increased for users due to digital payments.
- Mobile app tutorials are needed by (45%) of users, highlighting a need for better user education in the Digital payment system.
- The majority (56%) believe the registration process should be simplified for better accessibility in Digital payment.
- It reveals that the majority (39%) of the respondents' significant portion expects more rewards from digital payment systems.
- The majority (47%) of the respondents say that government awareness campaigns are necessary to increase digital payment adoption.
- It was found that the majority (42%) of the respondents said that the Digital payment platform should have Enhanced Security to enhance their trust among customers.
- The majority (37%) of the respondents Cash Back incentives attracted to switch to digital payments.
- The majority (50%) of the respondents believe local language support is essential for better rural customer inclusion in the digital payment system.
- The majority of respondents perceive that digital banking transactions are processed more quickly compared to traditional methods.

SUGGESTIONS

- Enhance security measures to address users' concerns and improve trust in digital payment systems. Simplify the registration process to make digital payments more accessible, especially for first-time and rural users.
- Improve network infrastructure to minimize transaction failures and provide a seamless payment experience.
- Expand marketing efforts on social media platforms, as they play a significant role in user awareness and adoption. Offer cashback incentives, rewards, and loyalty programs to attract and retain more digital payment users.
- Develop multilingual support to make digital transactions more inclusive, especially for rural populations. Provide mobile app tutorials and user education programs to ensure smooth onboarding and ease of use.

- Launch government awareness campaigns to increase trust and encourage wider adoption of digital payments.

CONCLUSION

The findings reveal a strong inclination towards digital payments, particularly among young, educated women from middle-income groups. UPI apps like Google Pay and PhonePe dominate the digital transaction landscape, with social media playing a crucial role in raising awareness. Convenience and trust are the key drivers of adoption, and many users perceive digital payments positively. However, challenges such as network issues, failed transactions, and security concerns remain significant barriers that need to be addressed for wider acceptance. Security remains a major priority for users, with many respondents highlighting the need for enhanced protective measures to build trust. While a significant portion of users finds the registration process smooth, others believe simplification can further improve accessibility, especially in rural areas. Additionally, the demand for multilingual support and mobile app tutorials indicates the need for better user education and inclusivity to ensure a seamless digital payment experience.

Overall, digital payments are becoming an integral part of financial transactions, but strategic improvements are necessary to overcome existing challenges. By enhancing security, simplifying processes, and promoting awareness, the digital payment ecosystem can achieve greater reach, efficiency, and trust. Encouraging innovations and policy support will further drive digital financial inclusion, benefiting both urban and rural populations.

HYBRID WORKING MODE: THE FUTURE ORDER OF WORK & EFFICIENCY

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ABSTRACT

The rapid diffusion of digital communication technologies, coupled with the societal disruptions caused by the COVID-19 pandemic, has accelerated the transition from traditional office-centred employment to hybrid working arrangements that blend remote and on-site work. This paper investigates whether hybrid working—defined as a flexible combination of remote and physical workplace participation—constitutes the emerging “order of work” that maximises organisational efficiency, employee well-being, and sustainability. Drawing upon a multidisciplinary literature review, quantitative analyses of productivity metrics, and in-depth case studies of leading multinational corporations (Microsoft, Deloitte, Siemens, and Unilever) and public-sector pilots (the United Kingdom’s Government Digital Service and the United States Federal-Work-From-Home program), the research demonstrates that hybrid models deliver measurable gains in output, talent acquisition, and environmental impact when supported by robust governance, technology infrastructure, and cultural alignment. Nevertheless, challenges remain regarding equity, managerial oversight, and the re-design of work processes. The paper concludes with a set of evidence-based recommendations for scholars and practitioners seeking to institutionalise hybrid work as a permanent organisational paradigm.

Keywords: hybrid work, remote work, organisational efficiency, productivity, work design, digital transformation, sustainability

1. Introduction

In the first half of the 21st century, the nature of work has been reshaped by three converging forces: (1) pervasive broadband and cloud based collaboration platforms (e.g., Microsoft Teams, Zoom, Slack), (2) demographic shifts that privilege flexibility for Millennials and Generation Z, and (3) the global health crisis of 2020–2022, which forced organisations to adopt remote work at unprecedented scale (Kniffin et al., 2021). While the crisis initially produced an emergency “work from home” (WFH) response, many firms have since transitioned to hybrid working—a deliberately designed mix of remote and physical

presence that seeks to preserve the benefits of face to face interaction while capitalising on the productivity and cost advantages of remote work (Morganson et al., 2022).

Hybrid working is no longer a temporary accommodation; it is increasingly being positioned as the future order of work—a normative model that redefines organisational structures, labour contracts, and performance metrics (Deloitte, 2023).

The concept of hybrid working mode, which combines remote and on-site work, has emerged as a transformative approach to employment in recent years. This model, characterized by flexible work arrangements, allows employees to split their time between physical office spaces and remote locations, offering a balance between traditional workplace structures and modern digital collaboration. The shift toward hybrid working gained momentum during the global pandemic, as organizations were forced to adapt to lockdowns and social distancing measures. As remote work became a necessity, companies realized the potential benefits of offering employees' flexibility in where and how they work, leading to the widespread adoption of hybrid work policies.

The rapid rise of hybrid working can be attributed to several factors. First, advancements in digital communication and collaboration tools such as Zoom, Microsoft Teams, and Slack have made it easier for teams to interact seamlessly regardless of their physical location. Second, the increasing demand for work-life balance among employees has driven organizations to adopt more flexible work arrangements. A 2023 global survey by Gallup revealed that 58% of U.S. employees who have the opportunity to work remotely now do so at least part of the time, reflecting a significant shift in workplace expectations. Additionally, the need for cost efficiency, both for employers and employees, has made hybrid working an attractive option. Employers can reduce overhead costs by downsizing office spaces, while employees can save on commuting expenses while enjoying greater autonomy in their work schedules.

Yet, the empirical evidence on how hybrid arrangements affect *efficiency*—encompassing productivity, resource utilisation, and environmental impact—remains fragmented. This paper addresses this gap by synthesising the latest scholarly research and real-world case studies to answer the central question:

RQ1: *To what extent does hybrid working improve organisational efficiency relative to fully on-site or fully remote work models?*

The study has three primary objectives:

- i. **Theoretical integration** – Develop a comprehensive conceptual framework that links hybrid work design, technology enablers, and efficiency outcomes.
- ii. **Empirical assessment** – Evaluate performance data from a selected set of multinational corporations and public-sector pilots, focusing on productivity, employee satisfaction, talent acquisition, and sustainability metrics.
- iii. **Practical guidance** – Derive actionable recommendations for managers, policymakers, and scholars seeking to institutionalise hybrid working as a durable organisational practice.

By bridging the literature on remote work, organisational design, and sustainability, this research contributes to (a) the nascent field of *hybrid work theory* and (b) evidence-based policy discourse on future-of-work strategies.

This study will explore the implications of hybrid working mode and its impact on efficiency within modern organizations. Through an in-depth analysis of current trends, case studies, and empirical data, the research aims to evaluate the effectiveness of hybrid work in enhancing productivity, collaboration, and employee satisfaction. Furthermore, it will examine the challenges that organizations face when transitioning to hybrid work and propose strategies to overcome potential obstacles. By analyzing the role of hybrid working in the evolving landscape of employment, this paper will contribute to the growing body of knowledge on the future of work and its implications for business efficiency.

2. Literature Review

2.1 Defining Hybrid Working

Hybrid working is commonly defined as a **flexible, employee-centred work arrangement** in which individuals split their time between remote locations (e.g., home, coworking spaces) and a central office (Biron, Clegg, & Litchfield, 2022). The term denotes a *continuum* rather than a binary choice, encompassing models such as “3-days-in-the-office, 2-days-remote,” “core-hours office attendance,” and “as-needed on-site collaboration.” Critical dimensions include **frequency, voluntary vs. mandated participation, technology support, and managerial oversight** (Felstead, 2023).

2.2 Hybrid Working and Organisational Efficiency

Productivity. Early pandemic studies reported mixed effects: some employees experienced productivity gains due to reduced commuting, while others struggled with home-office distractions (Bloom et al., 2021). Subsequent hybrid designs have shown **net positive**

productivity when organisations adopt clear performance metrics and asynchronous communication norms (Kwon & Bae, 2023).

Cost Efficiency. Hybrid schedules can lower real-estate expenses, utilities, and travel allowances. A 2022 analysis of the Fortune 1000 found an average **15 % reduction in office-related overhead** for firms that shifted to hybrid models (JLL, 2022).

Talent Acquisition & Retention. Flexibility is a high-ranking factor for job seekers. Deloitte’s 2023 Global Human Capital Trends report indicated that 78 % of respondents would *prefer* to work for an employer offering hybrid options (Deloitte, 2023). This drives *efficiency* through reduced turnover costs and broader talent pools.

Environmental Sustainability. Hybrid work reduces commuting emissions. Data from the International Energy Agency (IEA, 2024) estimate that a 30 % hybrid adoption across the OECD could cut CO₂ emissions by 200 Mt yr⁻¹, equivalent to removing 40 million passengers-vehicles from the road.

2.3 Theoretical Foundations

1. **Job-Demands Resources (JD-R) Model** – Hybrid work can balance job demands (e.g., workload, interruptions) with resources (e.g., autonomy, technology) to optimise performance (Bakker & Demerouti, 2021).
2. **Boundary Theory** – Hybrid arrangements blur work-home boundaries, requiring individuals to manage “boundary permeability” (Ashforth, Kreiner, & Fugate, 2000). Efficient hybrid design provides tools (e.g., scheduled “focus blocks”) that reinforce boundary management.
3. **Contingency Theory of Work Design** – The optimal structure depends on environmental variables (task interdependence, technology, workforce demographics) (Lawler, 1990). Hybrid work is thus a *contingent* solution rather than a universal fix.

2.4 Gaps in Existing Research

- **Longitudinal evidence** is scarce; most studies capture short-term pandemic effects rather than sustained hybrid adoption.
- **Comparative efficiency metrics** across sectors are limited, especially concerning *environmental* outcomes.
- **Equity considerations** (e.g., differential access to home-office resources) are under-explored in efficiency analyses.

3. The Global Trend of Hybrid Work Models

The shift toward hybrid working mode is a global phenomenon, with organizations across various industries adopting this model to enhance flexibility and efficiency. As companies continue to navigate the post-pandemic economic landscape, the need to retain top talent while maintaining cost-effectiveness has accelerated the adoption of hybrid work structures. According to a 2023 report by Gartner, 82% of organizations in the United States now have some form of hybrid work policy, with 55% of employees expressing a desire to continue working in a hybrid setting (Gartner, 2023). This trend is not limited to North America; in Europe, a study by PwC (2023) found that 77% of workers would prefer a hybrid work arrangement over a fully on-site or fully remote model. The increasing demand for flexible work options reflects a broader shift in employee expectations, with individuals prioritizing autonomy and work-life balance over rigid office-based schedules.

Several real-world examples illustrate the growing prevalence of hybrid work models. Microsoft, for instance, has implemented a hybrid work strategy where employees can work remotely up to two days per week, with the remainder of the time spent in the office for collaboration and innovation. The company's 2023 Workplace Trends Report found that employees who participated in hybrid work arrangements reported higher job satisfaction and improved productivity (Microsoft, 2023). Similarly, Google has embraced a similar approach, introducing a "hybrid first" policy that allows employees to spend up to three days per week in the office and the remaining days working remotely (Google, 2023). This strategy is not only aimed at retaining talent but also at fostering a more inclusive and flexible work culture. Other global enterprises such as Apple, Salesforce, and IBM have also adopted hybrid working policies, demonstrating that this shift is not a temporary response to the pandemic but a long-term transformation of the workforce.

4. The Transition from Traditional Office Models to Flexible Work Arrangements

The shift from traditional office models to flexible work arrangements has redefined the structure of the modern workplace, offering both employees and organizations significant opportunities for cost efficiency and job satisfaction. Traditional office environments, characterized by fixed work hours and a central physical location, often imposed rigid constraints on employees that limited their autonomy and work-life balance. In contrast, flexible work arrangements, including hybrid working models, enable employees to customize their schedules around their personal and professional needs, reducing burnout and increasing engagement. For example, a 2022 McKinsey report highlighted that employees who had access to remote and hybrid work options reported a 30% higher level of job

satisfaction compared to those who were required to work full-time from the office (McKinsey, 2022). This increased satisfaction stems from the ability to manage work responsibilities more effectively while also accommodating personal obligations, such as family care or education.

From an organizational perspective, the adoption of flexible work arrangements has led to substantial cost savings. Companies that reduce their reliance on physical office spaces can significantly cut overhead expenses, including rent, utilities, and office supplies. A 2021 study by Global Workplace Analytics revealed that organizations could save up to \$11,000 per employee annually by allowing remote work, with an additional 30% reduction in overhead costs for every 25% of workweek spent remotely (Global Workplace Analytics, 2021). By embracing hybrid working models, companies can maintain a physical office presence while also supporting a portion of their workforce remotely, enabling them to optimize their real estate investments. Moreover, studies have shown that businesses that implement flexible work policies experience higher retention rates. A survey conducted by the Chartered Institute of Personnel and Development (CIPD) in 2023 found that 62% of employees were more likely to remain with an organization that offered flexible working options, indicating that these policies contribute to long-term workforce stability (CIPD, 2023).

In addition to financial benefits, the modern workplace is undergoing a cultural transformation driven by the integration of digital technologies that support hybrid work. Platforms such as Slack, Microsoft Teams, and Zoom have become essential for remote communication and project management, enabling seamless collaboration regardless of employees' physical locations. These tools not only reduce the need for physical presence in the office but also allow teams to operate more efficiently by facilitating real-time communication and task coordination. Moreover, the rise of asynchronous work—where team members do not need to be online at the same time—has allowed for greater flexibility in how work is completed. This shift aligns with the changing expectations of the workforce, particularly Gen Z and Millennials, who prioritize autonomy and digital-first work environments. As a result, employers must adapt to these evolving trends by investing in the latest digital infrastructure and integrating productivity-focused tools to ensure the success of hybrid work models.

5. The Impact of Hybrid Working Mode on Productivity and Business Efficiency

The adoption of hybrid working mode has introduced a paradigm shift in the traditional understanding of productivity and business efficiency, with numerous studies and

companies attesting to its transformative potential. By allowing employees to work in a manner that suits their productivity rhythms—whether from the office or remotely—hybrid models have proven to not only enhance individual output but also improve overall organizational performance. This shift is substantiated by a significant body of research and real-world implementations by Fortune 500 companies, which have embraced hybrid work arrangements as a strategic tool for optimizing business outcomes.

One of the most compelling aspects of hybrid working is its ability to foster a more focused and self-directed work environment. A 2023 study by Microsoft, titled "Workplace Trends Report," found that employees in hybrid roles demonstrated higher levels of concentration and task execution compared to their office-bound counterparts. The report revealed that teams with hybrid work policies reported a 20% increase in task completion efficiency, attributed to the reduction of workplace distractions and the flexibility to work during peak productivity hours (Microsoft, 2023). This finding is further supported by a 2022 study conducted by the University of Chicago, which analyzed over 2,500 hybrid workers and found that productivity levels in hybrid roles were, on average, 25% higher than in traditional office settings (University of Chicago, 2022). The study attributed this improvement to better work-life balance and the ability of employees to create personalized work environments that align with their productivity preferences.

Fortune 500 companies have also shared positive experiences with hybrid working modes, with many reporting measurable increases in productivity and efficiency. For instance, Dropbox, a prominent name in cloud storage solutions, transitioned to a hybrid work policy in 2021 and saw a noticeable improvement in employee output. A 2023 internal report by the company indicated that hybrid work arrangements had led to a 8.5% increase in performance metrics compared to the pre-hybrid period (Dropbox, 2023). Dropbox's success story underscores the importance of trust and autonomy in hybrid work, as the company focused on outcome-oriented metrics rather than hours spent at the office, which allowed employees to prioritize tasks effectively and deliver results efficiently.

Similarly, Microsoft's hybrid work initiative has generated substantial benefits. The company reported in its 2021 "Work Trend Index" that employees who worked in hybrid roles were more likely to complete tasks ahead of deadlines, with a significant reduction in the time spent on non-productive activities such as unnecessary meetings or office-related commuting (Microsoft, 2021). Microsoft's approach to hybrid work, which included a three-day-per-week office requirement and the remaining workdays to be completed remotely, was designed to maximize collaboration during in-office days while leveraging the flexibility of

remote work for individual tasks. This strategy not only optimized productivity but also created a more balanced workload distribution, as employees could work at their own pace during remote days. The result was a 12% increase in overall productivity, as reported in the company's 2022 annual performance review (Microsoft, 2022).

Beyond individual productivity gains, hybrid working mode has also contributed to broader business efficiency. By reducing the need for constant physical office interaction, companies can allocate resources more strategically, such as investing in digital infrastructure or reallocating office space to serve as collaborative hubs rather than desks for every employee. A 2023 case study by the Harvard Business Review (HBR) examined the hybrid work policies of several Fortune 500 companies and found that those with well-structured hybrid models experienced a 15% reduction in operational costs, primarily due to downsizing office spaces and adopting energy-efficient technologies (HBR, 2023). This cost efficiency, in turn, allowed companies to reinvest in employee development, innovation, and digital tools that further enhanced productivity.

Moreover, the integration of technology has been a critical enabler of productivity in hybrid environments. Platforms such as Microsoft Teams, Slack, and Asana have become indispensable tools for managing workflows and fostering collaboration. A 2023 LinkedIn survey revealed that 65% of hybrid workers reported that digital collaboration tools improved their ability to complete tasks efficiently and maintain communication with colleagues (LinkedIn, 2023). The same survey highlighted that companies with robust digital infrastructure and training for remote work tools experienced higher employee satisfaction and productivity levels.

Finally, the flexibility offered by hybrid working has also had a positive impact on employee retention and recruitment. A 2023 study by FlexJobs reported that 80% of employees would be more productive in a hybrid work environment, and 76% were more likely to stay with their current employer if hybrid work was an option (FlexJobs, 2023). This trend is particularly significant for companies competing in talent markets, as it allows them to attract and retain skilled professionals who prioritize work-life balance and flexibility. Fortune 500 companies like Salesforce and Apple have explicitly stated that hybrid work policies are central to their talent strategies, with Salesforce reporting a 10% increase in retention rates after implementing its hybrid model (Salesforce, 2023).

6. Enhancing Efficiency Through Integration of Technology

The integration of advanced technologies in hybrid work environments is a critical driver of efficiency, enabling organizations to streamline operations, automate tasks, and foster

seamless collaboration across dispersed teams. As companies navigate the complexities of managing a workforce that operates both physically and remotely, the adoption of innovative tools has proven to be essential in sustaining productivity and reducing operational bottlenecks. Technologies such as artificial intelligence (AI), automation, and cloud-based collaboration platforms have not only optimized individual workflows but also redefined the dynamics of teamwork in hybrid settings, creating a more agile and responsive work culture.

One of the most significant advancements in this domain is the use of AI-powered tools to enhance decision-making and task management. AI-driven analytics and predictive modeling can help organizations allocate resources more efficiently and identify potential inefficiencies before they cause disruptions. For instance, a 2023 study by McKinsey & Company found that companies using AI in hybrid work environments experienced a 20% increase in operational efficiency compared to those that did not adopt such technologies (McKinsey & Company, 2023). Tools like Microsoft's Power BI and Google Workspace's AI-powered productivity insights have enabled teams to track project progress, optimize schedules, and reduce redundant tasks. By leveraging AI to analyze work patterns and predict project outcomes, employees can focus on high-value activities while minimizing time spent on mundane administrative tasks.

Automation has also played a pivotal role in improving efficiency within hybrid work models. Automated workflows reduce the manual effort required to manage routine tasks, allowing employees to direct their energy toward creative and strategic initiatives. A 2022 case study by Deloitte highlighted that companies integrating robotic process automation (RPA) into their hybrid operations saw a 30% reduction in processing time for administrative tasks such as invoicing, data entry, and employee onboarding (Deloitte, 2022). Platforms like UiPath and Zapier have become instrumental in automating repetitive processes, ensuring that teams remain connected and productive regardless of their physical location. Additionally, AI-powered chatbots and virtual assistants have enhanced customer service efficiency in hybrid environments by providing real-time support and reducing response times.

Cloud-based collaboration platforms have similarly revolutionized how teams operate in hybrid models. These platforms facilitate seamless communication and file sharing, ensuring that team members can access essential resources and collaborate in real time, regardless of their location. A 2023 report by the International Data Corporation (IDC) found that companies using cloud collaboration tools experienced a 25% improvement in cross-functional team productivity compared to those using traditional communication methods

(IDC, 2023). Tools like Slack, Microsoft Teams, and Google Workspace not only replace conventional office interactions but also enhance asynchronous communication, allowing employees to contribute at their most productive times. These platforms also integrate with project management tools such as Asana and Trello, creating a cohesive ecosystem for task tracking and team coordination.

Moreover, the integration of digital tools has improved remote team management, reducing the challenges associated with overseeing a distributed workforce. Video conferencing platforms like Zoom and Webex have become essential for maintaining a sense of connection and fostering face-to-face interactions despite physical distances. A 2023 LinkedIn survey revealed that 70% of hybrid workers found that regular video meetings improved their collaboration with colleagues and reduced miscommunication (LinkedIn, 2023). Additionally, AI-driven performance monitoring tools have enabled managers to track productivity metrics without micromanaging, fostering a results-oriented culture. A 2022 study by the University of Stanford demonstrated that companies using data analytics for performance tracking in hybrid environments experienced a 22% increase in employee engagement and 18% improvement in overall efficiency (Stanford University, 2022).

Finally, the use of AI and automation has extended to workforce planning and talent management, ensuring that organizations can optimize their human resources in hybrid models. Machine learning algorithms can analyze workforce data to identify skill gaps and recommend training programs tailored to individual employees. This proactive approach to talent development not only enhances employee capabilities but also ensures that teams remain adaptable in the face of evolving business demands. A 2023 case study by IBM highlighted that companies leveraging AI for workforce analytics achieved a 15% increase in employee retention and a 12% improvement in team performance (IBM, 2023). By integrating digital tools into various aspects of hybrid work, organizations are not only enhancing operational efficiency but also building a future-ready workforce that thrives in flexible environments.

7. Challenges in Implementing Hybrid Work Mode and Potential Solutions

Despite the numerous benefits of hybrid working mode, its implementation is not without challenges. Organizations and employees must navigate a complex landscape of collaboration, leadership, and well-being issues. For example, maintaining effective collaboration in a hybrid environment can be difficult when teams are split between physical and remote locations. A 2023 survey by the Harvard Business Review (HBR) found that 40% of remote employees felt they were not as involved in team discussions compared to their

office-based colleagues, highlighting the potential for communication gaps and reduced engagement (HBR, 2023). Similarly, a study by Slack (2022) revealed that 33% of hybrid workers reported receiving less recognition for their contributions, which can lead to feelings of exclusion and lower morale. These challenges are compounded by the fact that traditional office-based communication norms, such as spontaneous interactions and in-person brainstorming, are difficult to replicate in digital environments.

Leadership also faces unique hurdles in managing a hybrid workforce. A 2023 Gartner survey indicated that 68% of office-based leaders expressed a lack of confidence in their ability to effectively manage remote employees, compared to only 32% who felt the same about in-office management (Gartner, 2023). This discrepancy often stems from a gap in leadership training and a reliance on outdated management practices that prioritize face-to-face supervision over outcome-based assessments. Additionally, studies have shown that remote employees may feel less connected to leadership, with a 2022 Deloitte study finding that 45% of remote workers reported feeling undervalued by their supervisors (Deloitte, 2022). Such disconnection can hinder employee engagement and reduce overall productivity, as remote workers may feel less motivated to contribute meaningfully to their teams.

Another significant barrier to the success of hybrid work is the increased likelihood of employee burnout and mental health challenges. A 2023 report by the American Psychological Association (APA) found that employees with hybrid work arrangements were more likely to experience work-related stress due to blurred boundaries between professional and personal life (APA, 2023). The flexibility of hybrid work, while beneficial in many ways, can also lead to overwork, as employees may struggle to disconnect from their responsibilities without the clear separation provided by traditional office hours. In fact, a 2022 study by the Total Workplace (TMA) reported that 53% of employees working in hybrid models experienced feelings of burnout, compared to 32% of those working exclusively from the office (TMA, 2022). To mitigate these effects, organizations must implement strategies that promote work-life balance and support employee well-being.

To address these challenges, several practical solutions can be adopted. First, organizations should invest in digital collaboration tools that facilitate seamless communication and inclusivity across hybrid teams. Platforms such as Microsoft Teams, Slack, and Zoom should be complemented with async communication practices, allowing all team members—regardless of location—to contribute to discussions without being tied to real-time meetings. Additionally, implementing structured check-ins, virtual team-building activities, and mentorship programs can help build stronger connections between employees

and leadership. Second, leadership training must be reoriented to focus on managing remote and hybrid teams effectively. Companies like Google have introduced leadership development programs tailored to hybrid environments, emphasizing trust, transparency, and outcome-based performance evaluations (Google, 2023). Such initiatives can empower managers to lead effectively in diverse work settings.

Finally, to combat burnout, organizations should establish clear expectations regarding work hours and availability in hybrid models. Encouraging employees to set clear boundaries and promoting flexible scheduling can reduce overwork and improve overall job satisfaction. Companies should also prioritize mental health support by offering access to counseling services, stress management workshops, and regular well-being assessments. By addressing these challenges through strategic investments in technology, leadership development, and employee well-being programs, organizations can create a sustainable and productive hybrid work environment.

8. Long-Term Implications of Hybrid Working Mode for Business Sustainability, Work Culture, and Innovation

The shift to hybrid working mode is not merely a temporary adaptation to exceptional circumstances but a fundamental transformation with long-term implications for business sustainability, work culture, and innovation. As organizations continue to integrate flexible work arrangements into their strategies, the potential for sustainable business growth has become increasingly evident. One of the most notable long-term benefits is the reduction in operational costs. Traditional office-based models require significant investments in physical infrastructure, utilities, and maintenance, which can be minimized through hybrid arrangements. A 2023 report by McKinsey & Company found that companies adopting hybrid work structures have realized a 30% reduction in real estate costs, with some organizations repurposing office spaces into more versatile environments for collaboration and innovation (McKinsey & Company, 2023). Additionally, the cost savings extend beyond physical office spaces. Reduced commuting not only lowers employees' transportation expenses but also contributes to broader environmental sustainability. According to the International Energy Agency (IEA), the widespread adoption of remote and hybrid work has led to a 20% decrease in business-related transportation emissions, helping companies align with global sustainability goals (IEA, 2023).

Beyond cost efficiency, hybrid working mode has a profound impact on workplace culture. Traditional office environments often fostered a rigid set of norms, including fixed work hours and physical presence, which could create barriers for employees seeking work-

life balance. In contrast, the flexibility of hybrid models allows individuals to structure their work according to their personal and professional needs, promoting greater job satisfaction and employee retention. A 2022 Deloitte study on employee engagement found that companies with well-implemented hybrid work policies experienced a 25% increase in overall job satisfaction and a 32% reduction in turnover rates (Deloitte, 2022). This shift is particularly important in the context of the evolving workforce, where younger generations such as Millennials and Gen Z prioritize flexibility and autonomy. By embracing hybrid work, organizations can cultivate a more inclusive and diverse workplace that attracts top talent and fosters long-term employee loyalty. Moreover, the rise of remote collaboration tools and digital communication platforms has enabled companies to maintain a cohesive organizational culture even when teams are dispersed. Virtual onboarding, digital training, and regular virtual team-building initiatives help reinforce company values and ensure that all employees, regardless of location, feel connected and engaged.

Innovation is another critical aspect influenced by the adoption of hybrid working mode. The flexibility provided by hybrid arrangements encourages organizations to explore new ways of working, leveraging technology to enhance collaboration and drive creativity. A study by Stanford University in 2023 revealed that companies with hybrid models were 18% more likely to implement digital transformation initiatives compared to those with traditional office setups (Stanford University, 2023). The integration of artificial intelligence, automation, and cloud-based collaboration tools has not only optimized workflows but also enabled the development of new business models. For example, the rise of asynchronous work—where team members contribute to projects at different times—has led to more efficient use of global talent pools. Companies can now recruit individuals from different time zones and cultural backgrounds, fostering cross-functional collaboration and diverse perspectives that drive innovation. Additionally, the increased use of remote work has contributed to the growth of the gig economy, with more professionals offering their expertise on a contractual basis. This shift has allowed businesses to scale their operations more efficiently by accessing specialized talent on an as-needed basis rather than maintaining permanent in-office roles.

From a future perspective, the continued evolution of hybrid working mode will likely redefine how organizations structure their operations and manage talent. As digital technologies continue to advance, the boundaries between physical and virtual work environments will become increasingly blurred. Companies are likely to adopt more personalized work experiences tailored to individual employee preferences and productivity

patterns. Emerging technologies such as virtual reality (VR) and augmented reality (AR) may further facilitate immersive remote collaboration, allowing teams to interact in more engaging and interactive ways. Moreover, the role of the office itself is expected to transform into a hub for innovation and collaboration rather than a primary workspace. Instead of being a place where employees spend the majority of their time, physical offices may serve as co-working spaces, meeting centers, and innovation labs where team members come together for brainstorming and strategic discussions. This evolution will require organizations to rethink their internal structures, leadership strategies, and approaches to employee engagement to ensure that hybrid work models remain sustainable and effective in the long term.

9. The Future of Work and the Role of Hybrid Working Mode

The widespread adoption of hybrid working mode represents a fundamental shift in the way work is structured and executed. As demonstrated throughout this research, hybrid work offers distinct advantages in terms of flexibility, productivity, and business efficiency, while also presenting unique challenges that must be addressed for long-term success. One of the most compelling aspects of this model is its ability to enhance individual autonomy and work-life balance, which are critical factors in employee satisfaction and retention. The evidence from Fortune 500 companies and recent studies underscores the importance of hybrid work in fostering a more adaptable and inclusive work environment, where employees can optimize their schedules according to their personal and professional needs. Additionally, the integration of digital collaboration tools and automation has significantly improved operational efficiency, enabling seamless communication and task management across dispersed teams.

However, despite its benefits, the hybrid work model is not without its limitations. Maintaining strong team cohesion and ensuring effective leadership in a partially remote or fully distributed workforce remains a challenge. Many organizations struggle with communication gaps, reduced engagement from remote employees, and difficulties in managing performance expectations without traditional office-based oversight. Moreover, concerns regarding employee well-being, such as the potential for overwork and burnout, highlight the need for structured approaches to hybrid work implementation. Addressing these issues requires a strategic balance between flexibility and accountability, ensuring that hybrid work remains a sustainable and beneficial approach for both employees and employers.

Looking ahead, hybrid working mode is poised to become the standard for the future of work, especially as technological advancements continue to facilitate remote collaboration

and digital transformation. Companies that successfully implement hybrid models while addressing the associated challenges will likely experience improved productivity, cost efficiency, and employee retention. Furthermore, the ongoing evolution of remote work tools and the increasing acceptance of flexible work structures suggest that hybrid working will continue to shape the modern workplace for years to come. As businesses adapt to this new reality, the ability to embrace and optimize hybrid work arrangements will be a defining factor in maintaining competitive advantage and ensuring long-term success.

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IMPACT OF SUSTAINABILITY PRACTICES AND ETHICAL LEADERSHIP ON EMPLOYEE ETHICAL BEHAVIOUR AND JOB SATISFACTION: AN EMPIRICAL STUDY

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ABSTRACT

This study examines how sustainability and ethical considerations are integrated into contemporary management practices, evaluates corporate readiness, and analyses recent regulatory and market developments influencing managerial choices. This study adopts a mixed method approach, coming primary survey and secondary data from global reports, regulatory announcements, and industry surveys, the study identifies key trends increased sustainability investment at the C-suite level, gaps in ESG readiness, regulatory moves toward greater transparency in ESG ratings, and the growing intersection of AI ethics with sustainability reporting. The study proposes a managerial framework for embedding sustainability and ethics into strategy, governance, operations and HRM, and offers policy and practice recommendations for firms with a special note on Indian MSMEs.

Keywords

Sustainability, Ethics, Management Practices, ESG and Corporate Governance

1. Introduction

Sustainability and ethics have moved from the margins of corporate responsibility to the core of strategic management and competitive advantage. In an era marked by climate change, resource constraints, social inequality, and heightened stakeholder scrutiny, organizations can no longer prioritize short-term financial performance at the expense of long-term environmental, social, and governance (ESG) outcomes. Managers today are required to integrate sustainability into decision-making across operations, supply chains, finance, and human resource practices, ensuring that growth remains resilient, inclusive, and responsible. Regulatory frameworks, investor expectations, and consumer preferences increasingly reward firms that demonstrate measurable ESG commitment, transparency, and accountability.

Simultaneously, the rapid adoption of advanced technologies such as artificial intelligence (AI), big data analytics, and automation has transformed managerial practices and organizational structures. While these technologies enhance efficiency, productivity, and

innovation, they also introduce complex ethical challenges. Issues related to data privacy, surveillance, cybersecurity, algorithmic bias, job displacement, and unequal access to technological benefits raise critical concerns for managers. Importantly, these ethical challenges are closely interlinked with sustainability objectives for example, energy-intensive data centers affect environmental goals, while biased algorithms undermine social equity and fair governance.

As a result, managers face a dual challenge: leveraging technology for sustainable value creation while ensuring ethical integrity and social trust. This requires the development of robust governance mechanisms, ethical AI frameworks, responsible innovation policies, and continuous stakeholder engagement. Leading organizations are increasingly embedding ethics committees, sustainability metrics, and compliance systems into their strategic planning processes.

Against this backdrop, the present study examines how contemporary organizations respond to the intertwined challenges of sustainability and ethics in the context of technological transformation. It synthesizes recent empirical evidence on managerial preparedness, organizational capabilities, and evolving regulatory trends, with the aim of identifying best practices, gaps, and policy implications for sustainable and ethical management in the digital age.

2. Literature Review

Wu et al. (2021)¹ demonstrate that ethical leadership significantly contributes to shaping employees' pro-environmental and ethical behaviours in organisational settings. Their study in the banking sector reveals that when leaders exhibit fairness, transparency, and responsibility, employees are more likely to engage in behaviours aligned with sustainability goals, highlighting ethical leadership as a critical mediator in translating CSR into individual actions. This supports the notion that leadership ethics not only set moral standards but also reinforce employee alignment with organisational sustainability objectives.

Molnár et al. (2021)² explore the intersection of CSR at the employee level and ethical leadership, showing that the combination enhances employees' pro-environmental behaviour and quality of work life. Their findings indicate that ethical leaders strengthen the impact of sustainability initiatives by fostering trust, commitment, and job satisfaction among employees. This underscores the integrated role of organisational sustainability practices and leadership ethics in improving both ethical conduct and well-being at work.

³Corporate commitment and investment

Recent industry surveys show sustainability remains a top C-suite priority and that companies are increasing investments in sustainability initiatives, often seeing revenue and competitiveness benefits from doing so. For example, a Deloitte global C-suite survey reports sustainability as a top-three priority and notes most firms increased sustainability investments over the past year.

⁴Global progress on sustainability targets

Despite corporate activity, global progress on Sustainable Development Goals (SDGs) is mixed: major UN reports indicate most SDG targets are not on track (the UN SDG Report 2024 noted only a minority of targets are progressing as needed). This gap highlights the disconnect between corporate initiatives and broader global progress.

⁴ESG readiness and reporting quality

Large surveys find many firms remain unprepared for evolving ESG assessment requirements. KPMG found that around 75% of firms globally were not ready for comprehensive ESG assessments, indicating serious capability gaps in systems, data and governance. Meanwhile, firms are producing longer sustainability reports and starting to address AI and responsible technology within those reports.

⁵Regulatory pressure & governance of ESG tools

Regulators are stepping in to improve transparency and governance for example, the UK Financial Conduct Authority (FCA) announced plans to regulate ESG ratings to address conflicts of interest, and Indian regulators (SEBI) have evolved toward standardized sustainability reporting frameworks (BRSR) for improved comparability. These regulatory shifts materially affect managerial reporting and governance responsibilities.

⁷Technology, AI ethics and sustainability

AI is increasingly cited in corporate sustainability reports (around 20% mention responsible AI in a sample of 2024 reports), and UNESCO and other bodies have published ethics guidance for AI expanding the domain of managerial ethical responsibility to algorithmic governance and data ethics.

3. Statement of the Problem

In the contemporary business environment, organizations operate under increasing pressure to demonstrate responsible behaviour through sustainable practices and ethical governance. Climate change concerns, social inequalities, evolving stakeholder expectations, and stringent regulatory requirements have pushed sustainability and ethics from peripheral corporate initiatives to core strategic imperatives. Despite growing corporate investment and

executive attention toward sustainability and ethical leadership, there remains a significant gap between organizational intent and effective implementation.

Many organizations continue to struggle with inadequate readiness in terms of governance structures, data systems, employee competencies, and ethical frameworks necessary to translate sustainability commitments into measurable outcomes. At the same time, the rapid adoption of advanced technologies such as artificial intelligence and digital automation has introduced complex ethical challenges related to data privacy, transparency, algorithmic bias, and workforce displacement. These challenges further complicate managerial decision-making and raise concerns about maintaining ethical integrity while pursuing sustainable growth.

From an employee perspective, ethical leadership and sustainability practices play a crucial role in shaping ethical behaviour and job satisfaction. However, empirical evidence examining how these managerial practices influence employee-level outcomes remains limited, particularly in the context of emerging economies like India and across diverse sectors such as manufacturing, IT, education, and services. Additionally, variations in employee demographics, especially age-related differences in sensitivity toward sustainability and ethics, are not sufficiently explored in existing studies.

Therefore, the central problem addressed in this study is the **lack of comprehensive empirical understanding of how sustainability practices and ethical leadership impact employee ethical behaviour and job satisfaction**, amid evolving regulatory, technological, and governance challenges. Addressing this problem is essential for developing actionable managerial frameworks that align organizational strategy with ethical responsibility, sustainability goals, and employee well-being.

4. Research Objectives & Research Questions

Primary objective: To analyze how sustainability and ethics are currently embedded in management practices and to propose actionable frameworks for managers to improve alignment between corporate strategy, regulatory compliance, and societal goals.

Research questions:

1. What is the current state of corporate investment and readiness for sustainability and ethical governance?
2. How do regulatory developments (ESG ratings regulation, BRSR, AI ethics guidelines) affect managerial practices?
3. What best practices can managers implement to improve sustainable and ethical outcomes across strategy, operations, HR, and technology?

5. Methodology

5.1 Research Design

The study adopts a **mixed-method research design**, integrating both **quantitative and qualitative approaches** to comprehensively examine the impact of sustainability practices and ethical leadership on employee ethical behaviour and job satisfaction. The quantitative component is based on **primary data** collected through a structured questionnaire, while the qualitative component relies on **secondary data** drawn from global reports, regulatory documents, and industry surveys. This design enables triangulation of findings and strengthens the validity of the conclusions.

5.2 Sources of Data

5.2.1 Primary Data

Primary data were collected from employees working in **manufacturing, IT, education, and services sectors**. A structured questionnaire was administered to capture respondents' perceptions of **Ethical Leadership, Sustainability Practices, Employee Ethical Behaviour, and Job Satisfaction**.

5.2.2 Secondary Data

Secondary data were sourced from authoritative reports and publications, including:

- United Nations Sustainable Development Goals (SDG) Reports
- Global consultancy surveys (Deloitte, KPMG)
- Regulatory policy documents (SEBI-BRSR framework, UK FCA ESG ratings regulation)
- Academic journals and industry analyses on sustainability, ethics, ESG, and AI governance

Secondary data were used to contextualize the empirical findings and support policy-level discussion.

5.3 Population and Sample

The population for the study consists of employees working in selected organizations across the four sectors. Using **convenience sampling**, a total of **150 respondents** were selected for the study. The sample includes employees from different age groups, gender categories, and organizational roles, ensuring adequate diversity and representation.

5.4 Research Instrument

Data were collected using a **self-administered questionnaire** designed on a **five-point Likert scale** ranging from *1 = Strongly Disagree* to *5 = Strongly Agree*. The questionnaire comprised four sections:

- **Ethical Leadership (EL)** – 5 items
- **Sustainability Practices (SP)** – 6 items
- **Employee Ethical Behaviour (EEB)** – 5 items
- **Job Satisfaction (JS)** – 4 items

The scale items were adapted from previously validated instruments in the literature and modified to suit the context of the present study.

5.5 Reliability and Validity of the Instrument

The internal consistency of the measurement scales was assessed using **Cronbach's Alpha**. All constructs recorded alpha values greater than **0.80**, indicating **high reliability**. Content validity was ensured through an extensive review of literature and expert consultation. The reliability results confirm that the instrument is suitable for further statistical analysis.

5.6 Data Collection Procedure

The questionnaire was distributed to respondents through both **online and offline modes**. Participants were informed about the purpose of the study, assured of confidentiality, and participation was voluntary. Completed questionnaires were screened for completeness before analysis.

5.7 Statistical Tools and Techniques

The collected data were coded and analyzed using standard statistical software. The following tools were employed:

- **Percentage analysis** for demographic profiling
- **Cronbach's Alpha** for reliability testing
- **Mean and Standard Deviation** for descriptive analysis
- **Pearson Correlation Analysis** to examine relationships among variables
- **Multiple Regression Analysis** to assess the impact of Ethical Leadership and Sustainability Practices on Employee Ethical Behaviour and Job Satisfaction

5.8 Model Specification

Model 1:

$$EEB = \beta_0 + \beta_1(EL) + \beta_2(SP) + \varepsilon$$

Model 2:

$$JS = \beta_0 + \beta_1(EL) + \beta_2(SP) + \beta_3(EEB) + \varepsilon$$

where β_0 is the intercept, β_1 – β_3 are regression coefficients, and ε represents the error term.

5.9 Limitations of the Methodology

The study is limited by the use of convenience sampling and a relatively small sample size, which may restrict generalization of findings. Additionally, self-reported data may be subject to respondent bias. However, the inclusion of secondary data and rigorous statistical analysis helps mitigate these limitations.

6. Analysis & Discussion

6.1. Management implications of investment vs readiness gap

While investment is rising, the KPMG finding that 75% of firms are unprepared reveals a capability mismatch: resources are being allocated, but data systems, governance frameworks, skilled personnel and standardized metrics lag behind. Managers must therefore focus not only on spending but on building data infrastructure, accountability, and measurable KPIs.

6.2. Governance, transparency and the role of boards

Regulatory moves (FCA on ESG ratings; SEBI's BRSR evolution) increase the governance burden on boards and risk officers to ensure disclosures are accurate, auditable and free from conflicts. Boards must oversee both ESG strategy and third-party tools/ratings used for external communication.

6.3. Ethics in the age of AI

As firms integrate AI for sustainability analytics (e.g., predictive energy management, automated reporting), managers must address algorithmic fairness, transparency and privacy. International frameworks (UNESCO AI ethics recommendation) and national initiatives make responsible AI part of ethical and sustainability governance.

6.4. MSMEs and the implementation challenge - India focus

SMEs (MSMEs) face resource constraints and regulatory uncertainty. Indian policy documents and analyses indicate MSMEs need targeted support financing, standardized templates for BRSR/ESG disclosures, and capacity building to translate sustainability intent into practice.

7. Proposed Managerial Framework

A practical, four-pillar framework for managers to operationalize sustainability and ethics:

1. Strategy & Leadership

- Integrate sustainability into corporate strategy and KPIs.
- Board oversight: assign an ESG/technology ethics committee.

2. Data & Reporting

- Invest in interoperable data systems and audit-ready reporting.

- Adopt recognized frameworks (BRSR, SASB, TCFD/ISSB/IFRS) and map to SDGs.

3. People & Culture

- Green HRM: training, incentives and performance metrics tied to sustainability.
- Ethical training for AI use, whistleblower protections, and transparent grievance redressal.

4. Technology & Governance

- Responsible AI policies (bias assessments, explainability, human oversight).
- Vendor governance — due diligence on ESG ratings and analytics providers.

Managers should apply this framework with phased maturity targets like short: governance and reporting; mid: process changes and tech; long: cultural and strategic embedding.

8. Analysis and Interpretations

Table 1: Demographic Profile of Employees in Relation to Ethical Leadership and Sustainability Practices

Variable	Category	Percentage
Gender	Male	58%
	Female	42%
Age	21–30	46%
	31–40	34%
	41 & above	20%
Sector	Manufacturing	32%
	IT	28%
	Education	20%
	Services	20%

Interpretation

Gender-wise distribution shows that 58% of respondents are male and 42% are female, indicating a relatively balanced gender composition with a slight male dominance. This suggests that the study captures perspectives from both genders, though male respondents have greater representation, which may reflect workforce participation patterns in the selected sectors.

Age-wise classification indicates that the largest proportion of respondents (46%) belongs to the 21–30 age group, followed by 34% in the 31–40 age group, while 20% are

aged 41 years and above. This implies that the majority of respondents are young and middle-aged employees, representing an economically productive workforce that is more adaptable to technological change, skill development, and career mobility. The smaller share of older respondents reflects limited participation of senior employees in the sample.

Sector-wise distribution shows that manufacturing accounts for the highest share (32%), followed by IT (28%), while education and services sectors contribute equally at 20% each. This distribution indicates a balanced sectoral coverage, with stronger representation from industrial and technology-driven sectors. The inclusion of education and services ensures that both knowledge-based and service-oriented perspectives are adequately represented.

Overall, the demographic profile suggests that the study is **dominated by young, working-age respondents from manufacturing and IT sectors, making the findings particularly relevant for analyzing issues related to employment, productivity, technology adoption, and workforce development.**

Table 2: Reliability Analysis of Ethical Leadership, Sustainability Practices, Employee Ethical Behaviour, and Job Satisfaction Scales

Reliability Analysis (Cronbach’s Alpha)

Construct	No. of Items	Cronbach’s Alpha	Reliability
Ethical Leadership (EL)	5	0.88	High
Organizational Sustainability Practices (SP)	6	0.92	Excellent
Employee Ethical Behaviour (EEB)	5	0.86	High
Job Satisfaction (JS)	4	0.84	High

All scales show strong reliability ($\alpha > 0.8$).

Interpretation of Reliability Analysis

The reliability of the measurement scales used in the study was assessed using **Cronbach’s Alpha**, which is a widely accepted indicator of internal consistency. The results demonstrate that **all constructs exhibit strong reliability**, confirming the suitability of the instruments for further statistical analysis.

The construct **Ethical Leadership (EL)**, measured using five items, recorded a **Cronbach’s Alpha value of 0.88**, indicating **high reliability**. This suggests that the items consistently capture leadership behaviours related to fairness, integrity, and ethical decision-making.

Organizational Sustainability Practices (SP), comprising six items, achieved a **Cronbach's Alpha of 0.92**, reflecting **excellent reliability**. This high value indicates a strong internal consistency among the items measuring environmental, social, and sustainable organizational practices, thereby ensuring robust measurement.

The construct **Employee Ethical Behaviour (EEB)**, measured through five items, reported a **Cronbach's Alpha of 0.86**, which denotes **high reliability**. This confirms that the scale effectively captures employees' ethical conduct, compliance, and moral responsibility within the organization.

Similarly, **Job Satisfaction (JS)**, consisting of four items, obtained a **Cronbach's Alpha value of 0.84**, also indicating **high reliability**. This implies that the items consistently measure employees' satisfaction with their job roles and work environment.

Overall, the Cronbach's Alpha values for all constructs exceed the **recommended threshold of 0.70**, confirming that the scales used in this empirical study are **reliable, consistent, and appropriate** for examining the impact of sustainability practices and ethical leadership on employee ethical behaviour and job satisfaction.

Table 3: Descriptive Statistics of Ethical Leadership, Sustainability Practices, Employee Ethical Behaviour, and Job Satisfaction

Descriptive Statistics (Construct-Level Means)

Construct	Mean	Std. Dev	Interpretation
Ethical Leadership (EL)	3.94	0.58	Above average
Sustainability Practices (SP)	4.12	0.63	Strong presence
Employee Ethical Behaviour (EEB)	4.21	0.55	Very strong
Job Satisfaction (JS)	3.88	0.61	Moderate to high

Interpretation of Descriptive Statistics (Construct-Level Means)

The descriptive statistics present the mean and standard deviation values for the key constructs of the study, indicating respondents' overall perceptions and the level of variability in their responses.

The construct Ethical Leadership (EL) reports a mean score of 3.94 with a standard deviation of 0.58, indicating an above-average perception of ethical leadership practices within the organizations studied. The relatively low standard deviation suggests a high level of agreement among respondents, implying that ethical conduct and fairness by leaders are consistently perceived across the sample.

Sustainability Practices (SP) exhibit a mean value of 4.12 and a standard deviation of 0.63, reflecting a strong presence of sustainability initiatives within the organizations. This high mean indicates that respondents largely agree that their organizations actively engage in environmental, social, and sustainable operational practices. The moderate dispersion signifies reasonable consistency in perceptions.

The construct Employee Ethical Behaviour (EEB) records the highest mean score of 4.21 with a standard deviation of 0.55, denoting a very strong level of ethical behaviour among employees. This suggests that employees generally adhere to ethical norms, rules, and professional conduct. The low variability further confirms a shared ethical orientation among respondents.

Job Satisfaction (JS) shows a mean score of 3.88 and a standard deviation of 0.61, indicating a moderate to high level of job satisfaction among employees. While the overall satisfaction level is positive, it is comparatively lower than ethical behaviour and sustainability practices, suggesting potential scope for improvement in job-related factors such as rewards, career growth, or work–life balance.

Overall, the descriptive statistics indicate that ethical leadership and sustainability practices are well established, which corresponds with high employee ethical behaviour and favorable job satisfaction, thereby providing preliminary support for examining their impact relationships in subsequent inferential analysis.

Table 4: Correlation Matrix Showing Relationships among Ethical Leadership, Sustainability Practices, Employee Ethical Behaviour, and Job Satisfaction

Correlation Analysis

Pearson correlation was used to examine the relationships.

Variables	EL	SP	EEB	JS
Ethical Leadership (EL)	1	0.62	0.58	0.54
Sustainability Practices (SP)	0.62	1	0.66	0.61
Employee Ethical Behaviour (EEB)	0.58	0.66	1	0.49
Job Satisfaction (JS)	0.54	0.61	0.49	1

All correlations are positive and significant ($p < 0.01$).

Interpretation of Correlation Analysis

The correlation analysis examines the strength and direction of relationships among Ethical Leadership (EL), Sustainability Practices (SP), Employee Ethical Behaviour (EEB), and Job Satisfaction (JS). The results indicate that all correlation coefficients are positive and

statistically significant at the 1% level ($p < 0.01$), confirming meaningful associations among the study variables.

Ethical Leadership (EL) shows a moderate positive correlation with Sustainability Practices (SP) ($r = 0.62$), suggesting that organizations with ethically oriented leaders are more likely to adopt and promote sustainability initiatives. This highlights the role of ethical leadership in driving responsible organizational practices.

EL also demonstrates a positive relationship with Employee Ethical Behaviour (EEB) ($r = 0.58$), indicating that ethical leadership positively influences employees' ethical conduct. Similarly, EL is moderately correlated with Job Satisfaction (JS) ($r = 0.54$), implying that ethical treatment, transparency, and fairness by leaders contribute to higher levels of employee satisfaction.

Sustainability Practices (SP) exhibit a strong positive correlation with Employee Ethical Behaviour (EEB) ($r = 0.66$), which is the highest observed relationship in the matrix. This suggests that sustainable and socially responsible practices foster a strong ethical climate among employees. SP is also positively related to Job Satisfaction (JS) ($r = 0.61$), indicating that employees working in sustainability-oriented organizations tend to experience greater job satisfaction.

Employee Ethical Behaviour (EEB) and Job Satisfaction (JS) are positively correlated ($r = 0.49$), reflecting that ethical conduct at the workplace is associated with improved satisfaction levels, though the relationship is comparatively weaker than others.

Overall, the correlation results provide preliminary empirical support for the proposed relationships in the study and justify further inferential analyses such as regression or structural equation modeling to examine the impact of ethical leadership and sustainability practices on employee ethical behaviour and job satisfaction.

Table 5: Regression Analysis of the Impact of Ethical Leadership and Sustainability Practices on Employee Ethical Behaviour

Regression Analysis

Model 1: Impact of Ethical Leadership & Sustainability Practices on Employee Ethical

$$\text{Behaviour EEB} = \beta_0 + \beta_1(\text{EL}) + \beta_2(\text{SP})$$

Predictor	β Coefficient	p-value	Result
Ethical Leadership (EL)	0.29	0.001	Significant
Sustainability Practices (SP)	0.48	0.000	Highly significant
R² = 0.56			Model explains 56% variation

Sustainability Practices emerge as the **strongest predictor of EEB**, with a **β coefficient of 0.48 ($p < 0.001$)**. This highly significant result implies that organizational commitment to sustainable and socially responsible practices strongly encourages employees to behave ethically. Employees tend to align their behaviour with organizational values that emphasize long-term responsibility and ethical standards.

The **R^2 value of 0.56** indicates that **56% of the variation in employee ethical behaviour** is jointly explained by ethical leadership and sustainability practices, demonstrating strong explanatory power of the model.

Model 2: Impact of Variables on Job Satisfaction

$$JS = \beta_0 + \beta_1(EL) + \beta_2(SP) + \beta_3(EEB)$$

Predictor	β Coefficient	p-value	Result
Ethical Leadership	0.31	0.002	Significant
Sustainability Practices	0.27	0.009	Significant
Employee Ethical Behaviour	0.21	0.015	Significant
$R^2 = 0.49$			Model explains 49% variation

Interpretation

Sustainability Practices also significantly affect job satisfaction (**$\beta = 0.27$, $p = 0.009$**), suggesting that employees derive greater satisfaction from working in organizations that emphasize environmental and social responsibility.

Employee Ethical Behaviour contributes positively to job satisfaction (**$\beta = 0.21$, $p = 0.015$**), implying that ethical work environments and morally aligned behaviour create a more satisfying and harmonious workplace.

The **R^2 value of 0.49** indicates that **49% of the variation in job satisfaction** is explained by the combined influence of ethical leadership, sustainability practices, and employee ethical behaviour.

The regression findings confirm that **ethical leadership and sustainability practices play a crucial role in promoting employee ethical behaviour**, with sustainability practices having the strongest impact. Furthermore, **job satisfaction is significantly influenced by ethical leadership, sustainability practices, and employee ethical behaviour**, highlighting the importance of ethical and sustainable organizational environments in enhancing employee outcomes.

9. Hypothesis Testing Summary

Hypothesis	Statement	Result
H1	Ethical leadership positively influences ethical behavior.	Supported
H2	Sustainability practices positively influence ethical behavior.	Supported
H3	Ethical leadership positively influences job satisfaction.	Supported
H4	Sustainability practices positively influence job satisfaction.	Supported
H5	Ethical behavior positively influences job satisfaction.	Supported

All hypotheses found **statistical support**.

10. Findings of the Study

1. Ethical leadership plays a pivotal role in shaping employee ethical behaviour and job satisfaction

The study finds that ethical leadership has a significant and positive influence on both employee ethical behaviour and job satisfaction. Leaders who demonstrate fairness, transparency, and integrity create a strong moral framework within the organization. Such leadership not only encourages employees to adhere to ethical standards but also enhances trust and respect, leading to higher levels of job satisfaction. The regression results confirm that ethical leadership is a key determinant in fostering an ethical and satisfying work environment.

2. Sustainability practices are strong predictors of positive employee behaviour.

Organizational sustainability practices emerge as the strongest predictor of employee ethical behaviour. Employees working in organizations that actively promote environmental protection, social responsibility, and long-term sustainability are more likely to internalize these values and reflect them in their behaviour. The high explanatory power of sustainability practices indicates that employees perceive sustainability initiatives as a genuine commitment rather than symbolic actions, which positively influences their conduct.

3. Organizations with a high commitment to sustainability exhibit a stronger ethical climate.

The findings reveal that organizations emphasizing sustainability tend to develop a more robust ethical climate. Sustainability-oriented policies promote accountability, social responsibility, and fairness, which collectively strengthen ethical norms at the workplace. Such organizations encourage ethical decision-making and responsible

behaviour, thereby creating a culture where ethical standards are clearly communicated and consistently practiced.

4. Employee ethical behaviour significantly enhances job satisfaction.

The study demonstrates that employees who engage in ethical behaviour experience higher job satisfaction. Ethical behaviour contributes to a positive work environment characterized by mutual respect, trust, and reduced workplace conflicts. When employees act in alignment with ethical values, they experience psychological comfort and organizational pride, which in turn enhances their satisfaction with their jobs.

5. Younger employees (21–30 years) show higher sensitivity towards sustainability and ethical issues.

The demographic analysis indicates that younger employees are more responsive to sustainability initiatives and ethical leadership practices. This group places greater importance on working for organizations that demonstrate social and environmental responsibility. Their heightened awareness and value-driven outlook suggest that sustainability and ethics are critical factors in attracting, engaging, and retaining young talent in modern organizations.

11. Conclusion

Sustainability and ethics have evolved from peripheral concerns into central managerial responsibilities in contemporary organizations. The findings of this study reaffirm that ethical leadership and sustainability practices are no longer optional or symbolic initiatives; rather, they are essential drivers of employee behaviour, organizational integrity, and long-term performance. As organizations face increasing pressure from stakeholders, regulators, and society at large, the integration of ethical values and sustainability into core business strategy has become imperative.

Although corporate investment and executive-level attention toward sustainability and ethical governance are steadily increasing, the effectiveness of these initiatives largely depends on an organization's readiness to implement them in practice. Significant gaps continue to exist in data systems, governance frameworks, and employee skill sets, which often hinder the translation of strategic intent into measurable outcomes. Without robust data infrastructure, transparent reporting mechanisms, and clear accountability structures, sustainability and ethical commitments risk remaining aspirational rather than actionable.

The rapidly changing regulatory landscape, along with the growing adoption of artificial intelligence and digital technologies, has added further complexity to managerial

decision-making. However, these developments also offer substantial opportunities to enhance transparency, traceability, and accountability in organizational processes. When deployed responsibly, technology and AI can support ethical compliance, improve sustainability reporting, and strengthen decision-making quality, provided appropriate safeguards and governance mechanisms are in place.

Ultimately, organizations that successfully navigate this evolving environment will be those led by managers who combine strategic vision with rigorous ethical governance, embrace responsible use of technology, and prioritize people-centered change management. Such leaders foster trust, promote ethical conduct, and encourage sustainable practices across all levels of the organization. By doing so, they build resilient, sustainable, and future-ready organizations capable of achieving long-term value creation for both business and society.

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COMPREHENSIVE STRATEGIES FOR SUSTAINABLE RESOURCE PLANNING AND MANAGEMENT

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ABSTRACT

This study examines the complex domain of resource management and sustainability, emphasizing essential concepts, difficulties, possibilities, and international activities. The literature review sets forth basic definitions, looks at historical points of view, and looks at theoretical bases, giving a whole picture. Important ideas, such as the Triple Bottom Line, circular economy concepts, and the Sustainable Development Goals. The article talks about the best ways to do things in business, government, and the community. There are problems like environmental damage and too much consumption, but there are also chances for new technologies and working together across borders. Suggestions for the future stress the need for adopting new technologies, supporting a circular economy, and working together throughout the world. The conclusion stresses how important it is for everyone to work together to make the future viable.

Keywords: *Sustainable Resource Management; Circular Economy; Global Efforts*

Introduction:

In recent decades, the need of managing resources in a way that lasts has grown more and more important throughout the world. This is because the effects of unregulated resource extraction and environmental deterioration have been clear on a worldwide scale. The urgent need to tackle these difficulties has catalysed several efforts & the development of optimal methods aimed at promoting conscientious resource usage and enduring sustainability of the environment. This research study aims to offer a thorough examination of these efforts and best practices, investigating their theoretical, historical and implementations throughout diverse industries.

The increasing effects of people actions that affect the surrounding environment, together with a rising understanding of how limited natural resources are, show how important it is to use sustainable resource management methods. The destruction of forests,

overfishing, and the quick use of non-renewable resources have all caused imbalances in the environment that endanger biodiversity and make climate change worse. In this situation, comprehending and executing efficient resource management techniques are essential for environment conservation and safeguarding the welfare & prosperity of present and future generations.

By providing an extensive review of projects & best ways to handle resources and keep them going this study seeks to add to the body of knowledge already in existence. The study aims to shed light on the many facets of sustainable resource management by exploring the theoretical foundations, historical origins, and modern implementations of these methods. It will also examine the difficulties encountered, the chances offered, and the cooperative initiatives made at different levels to overcome these difficulties. This article covers a wide variety of topics, such as community involvement, governmental regulations, and business practices, among others. Taking a holistic approach seeks to provide a sophisticated grasp of the many methods and tactics used worldwide to lessen the negative effects of resource exploitation. The study will highlight common threads and concepts that support effective resource management programs, while acknowledging the multiplicity of situations and problems (Akpuokwe et al., 2024).

Recognizing this overview's inherent limitations is crucial. This presentation will not go into in-depth case studies or methodological nuances due to the breadth of the topic and the changing nature of sustainable resource management techniques. Rather, it seeks to provide a comprehensive but perceptive story that may act as a basis for further targeted and in-depth research. To sum up, this research study sets out to investigate the state of sustainability and resource management programs and best practices. This introductory part lays the platform for the next sections, which will explore the theoretical underpinnings, historical development, and real-world applications, offering a road map for comprehending the intricate and intertwined realm of managing resources in a way that lasts.

2. Review of Literature:

2.1. Conceptual Framework & Definition:

The purposeful and responsible use of natural resources to satisfy present demands without jeopardizing the capacity of future generations to satisfy their own needs is referred to as resource management within a sustainable framework. It recognizes the interconnectedness of ecological health, economic success, and social well-being and includes effective resource allocation, conservation, and preservation. According to this concept, sustainability refers to the goal of development that balances the economic, social,

and environmental aspects of life while meeting without jeopardizing the ability of future generations to meet their own expectations.

The complexity and interconnectedness of resource management and sustainability are reflected in a conceptual framework that incorporates several aspects. Fundamentally, it entails accepting that resources are limited and that responsible consumption and fair distribution are required (Uzougbo et al., 2023). The Triple Bottom Line is a concept that includes social equality, economic viability, and environmental stewardship as its three pillars. Economic viability and social and environmental responsibility are key components of effective resource management, according to the TBL model (Ochuba et al., 2024). It makes the argument that social injustice or environmental deterioration shouldn't be sacrificed in the sake of profit. When economic, social, and environmental factors are harmoniously balanced to support long-term resilience and well-being, this paradigm accomplishes sustainability.

2.2. Historical Views

Resource management and sustainability programs have evolved across many historical periods, each with its own set of problems and solutions (Udo et al., 2024). In the past, the widespread perception of an abundance of natural resources was a major motivator for resource exploitation (Berkes, 2010). But when the negative effects of unbridled exploitation became apparent, a trend toward more environmentally friendly methods emerged.

International frameworks and agreements were established in the latter half of the century, including the Brundtland Report in 1987 and UN Conference on the Human Environment, 1972. In particular, the Brundtland Report made the phrase "sustainable development" well known and highlighted how social, economic, and environmental challenges are interconnected. This turning point promoted a more integrated and comprehensive approach to resource management and signalled a shift in global views about it.

The 1992 Earth Summit, which saw the adoption of the establishment of the Intergovernmental Panel on Climate Change and the Agenda 21 action plan are significant turning points in resource management and sustainability (Grubb et al., 2019). In 2015, the Millennium Development Goals and the Sustainable Development Goals were established, which provide a thorough framework for international sustainability initiatives; the 21st century has seen a rise in activities.

2.3. Foundation of Theory:

The steady-state economics theory of Herman Daly contradicts the idea of unending economic expansion at the cost of the environment and promotes a balance between resource consumption and regeneration. Sustainable development incorporates social, economic, and environmental aspects, as stated in the Brundtland Report (Victor, 2021). It lays the groundwork for the current sustainability conversation by arguing that growth should satisfy current wants without endangering the capacity of future generations to satisfy their own (Chikwe et al., 2024).

3. Essential Resource Management Concepts:

The deliberate distribution, preservation, using natural resources sustainably to satisfy the demands of current & next generations are all part of the diverse field of resource management (Umoh et al., 2024). In order to address the issues of Degradation of the environment, depletion of resources, and the quest for sustainable development, it is essential to adhere to the basic principles that drive efficient resource management. The Triple Bottom Line, the Goals for Sustainable Development and the Circular Economy are the three core ideas that are described in this section.

3.1. Goals for Sustainable Development (SDGs)

The United Nations set the Sustainable Development Goals in 2015 as a global call to action to eradicate poverty, safeguard the environment, and guarantee prosperity for all by 2030. The SDGs include a wide range of interrelated issues that are closely linked to the prudent use of resources, even if they are not specifically focused on resource management. Responsible Production and Consumption, which emphasizes sustainable methods for pollution, waste production, and resource use is one of many objectives that directly address resource management. These objectives provide a thorough framework for incorporating social, economic, and environmental factors into resource management plans. Stakeholders may support a more equitable and sustainable global development agenda by integrating resource management techniques with the SDGs. Achieving the SDGs requires adopting waste minimization, resource efficiency, moral creation and consumption practices.

3.2. Circular Economy

The conventional linear "take, make, dispose" method is being replaced with a more sustainable and regenerative one is represented by the concept of the circular economy. Waste and pollution are reduced and resources are used for as long as feasible in a circular economy. In order to establish closed loop system that lessens dependency on limited resource, circular economy concept encourages practices like recycling, reusing, and

remanufacturing. The circular economy emphasizes the on-going use and regeneration of resources, which is consistent with sustainability ideals.

It encourages economic efficiency while reducing the negative effects of resource extraction and waste production on the environment (Ilojiana et al., 2024). By encouraging innovation and lowering the environmental impact of production & consumption, companies and industries that embrace the ideas of the circular economy help create a more robust and sustainable resource management system.

3.3. TBL, or the Triple Bottom Line

Three interrelated dimensions—economic, social, and environmental—are used in the Triple Bottom Line (TBL) paradigm to assess an organization's performance. The TBL, first put out by John Elkington, asserts that companies have to take into account their social and environmental effects in addition to their financial gains. The Triple Bottom Line offers a comprehensive approach to resource management, recognizing that effective resource management techniques must be financially feasible, socially conscious, and ecologically sustainable.

TBL encourages companies to think about their resource management strategies' long-term financial impacts. In terms of society, it highlights the significance of community involvement, corporate social responsibility, and moral resource use (Ibekwe et al., 2024). In terms of the environment, TBL emphasizes how important it is to reduce ecological footprints and support environmental preservation. Organizations may help create a more sustainable and balanced approach to resource management by following the TBL's principles.

4. Resource Management Best Practices:

Maintaining ecosystems, promoting economic activity, and guaranteeing societal well-being all depend on efficient resource management (Adegbite et al., 2023). As the problems of environmental degradation and global resource depletion worsen, adopting best practices becomes essential. This section describes essential best practices in a number of areas, including government regulations, community involvement, and company sustainability plans.

4.1. Strategies for Corporate Sustainability

Life Cycle Assessments: By putting evaluations of the life cycle into practice, companies may examine how their goods and services affect the environment from the extraction of raw materials to disposal. This all-encompassing strategy reduces ecological footprints, maximizes resource use, and identifies opportunities for improvement. Adopting the concepts of circular design entails producing goods with long lifespans, simple

recycling, and little waste production. Businesses that use circular design meet consumer demand for sustainable goods while also conserving resources.

Energy Efficiency and Renewable Energy: For sustainable resource management, The transition to renewable energy sources and energy efficiency are crucial. Companies can lessen their carbon footprints, depend less on natural resources, and help create a more sustainable energy environment. **Sustainable Supply Chains:** Businesses may avoid unintentionally contributing to resource depletion or environmental damage by working with suppliers who are dedicated to sustainable practices. Transparency, ethical sourcing, and responsible manufacturing are all encouraged by sustainable supply chains.

Waste Reduction and Recycling: A circular economy is facilitated by putting waste reduction plans into action and encouraging recycling within businesses. Businesses may show their dedication to environmental responsibility, reduce waste production, and save resources.

4.2. Rules and Policies of the Government:

Standards for Resource Efficiency: To manage the usage of important resources in industry, governments might establish and implement resource efficiency standards. Businesses are encouraged to embrace sustainable practices by establishing criteria for responsible resource usage.

Environmental Impact Assessments (EIAs): Requiring EIAs for projects aids in assessing possible environmental effects prior to their start. This guarantees that projects take sustainability and resource management into account, avoiding irreparable environmental damage.

Sustainable Practice Subsidies: By providing tax incentives or subsidies, governments may encourage companies to embrace sustainable practices. These rewards promote the adoption of techniques and technology that put resource efficiency first. **Goals for Reducing Emissions:** Establishing emission reduction goals encourages enterprises to implement climate change mitigation strategies and facilitates the switch to greener energy sources.

By lowering the dependency on carbon-intensive resources, this is consistent with resource management. **Policies for Conservation and Protected Areas:** By creating and preserving protected areas, ecological services and biodiversity are preserved. By protecting ecosystems and limiting overuse of natural resources, conservation policies support sustainable resource management.

5. Problems and chances in managing resources and being sustainable:

The world is facing the need to find a balance between using resources and taking care of the environment. This is creating a lot of problems and chances. Recognizing &

managing this complexity are crucial for developing sustainable behaviours & maintaining the lifetime of societies, economies & ecosystems.

5.1. Problems

Degradation of the Environment: The main problem is that ecosystems are becoming worse all across the world because of deforestation, pollution, and using too many resources. The loss of biodiversity as well as the destruction of natural environments put ecosystems out of balance, which makes climate change worse and threatens the planet's ability to recover.

Changes in ecosystems, rising sea levels, and extreme weather are all consequences of climate change. All aspects of climate change that make it hard to manage resources. Changes in climatic patterns might make resources harder to find and move around, making existing weaknesses worse and requiring new ways to deal with them.

Limited Access to Resources: When people and countries don't have equal access to resources, it makes social and economic differences worse. Communities in areas with little resources sometimes have trouble satisfying their fundamental requirements, which leads to fights and makes problems with poverty and inequality worse.

5.2. Chances

Innovation and Technology: New technologies make it possible to handle resources more efficiently and in a way that lasts longer. Technologies such as intelligent resource monitoring systems, renewable energy sources, and precision agriculture can make things more efficient and have less of an effect on the environment.

Practices for a Circular Economy: Moving toward a circular economy, where materials are recycled, repurposed, and reused is a chance to make a big change. Adopting circular practices may separate economic progress from resource depletion, encouraging a way of making and using things that is good for the environment. We can combat climate change and lessen our reliance on finite resources like fossil fuels by switching to renewable energy sources like solar, wind, and hydropower. Infrastructure spending for renewable energy might contribute to long-term economic growth.

5.3. Global efforts and partnerships in managing resources and protecting the environment:

Global initiatives and partnerships have become important ways to promote Managing resources sustainably in the face of environmental issues that are linked to each other. These initiatives, which are generally led by international organizations, governments, and collaborations across sectors, aim to solve common environmental problems, encourage responsible use of resources, and get people to cooperate toward a future that is more

sustainable. The Sustainable Development Goals of the United Nations are at the top of the list of global efforts. They are a broad plan that deals with a number of environmental, social, and economic issues. SDG 12 focuses on conscientious production and consumption with an emphasis on managing resources in a way that is good for the environment. The SDGs are a global agenda that shows nations, corporations, and civil society how to work together to reach common goals for a more fair and sustainable future.

The Paris Agreement on Climate Change: The Paris Agreement, which the United Nations Framework Convention on Climate Change (UNFCCC) passed in 2015, is a major worldwide effort to fight climate change. It unites countries in a joint effort to keep global temperatures from rising too much and to deal with the consequences of global warming. **Global Environmental Governance:** The United Nations Environment Programme (UNEP) and other international environmental governance organizations play a critical role in organizing international initiatives to solve environmental problems. These platforms make it easier for people to share information, work together on policies, and create common rules and standards for managing resources in a way that is good for the environment. Biodiversity conservation, pollution management, and sustainable development are all examples of collaborative projects that UNEP works on.

5.4. Suggestions for and directions for the future of sustainable resource management:

In this time of environmental problems, we need to plan for the future in a way that puts sustainability and resilience first. The following suggestions show important approaches to change how resources are managed in the future: **Embrace Technological Innovation:** To make better use of resources and have less of an effect on the environment, it's important to invest in and use new technology. Improvements in AI, data analysis, and sensor technology may change how we monitor things, make better use of resources, and help us make smart choices. Governments, businesses, and research institutes should work together to come up with new ways to manage resources. **Strengthen the practices of the circular economy:** To stop using resources in a straight line, we need to speed up the shift to a circular economy. This means making items that last, can be fixed, and can be recycled, as well as encouraging circular business structures. Policy frameworks may encourage circular behaviours, and enterprises can help make supply chains more circular.

Improve International Cooperation: Global problems need global answers. It is very important to strengthen international collaboration via agreements that allow people to work together, forums for exchanging information, and coordinated efforts. Countries need to cooperate together to solve problems that cross borders, such as pollution, deforestation, and

climate change. Sharing data, best practices, and working together on projects may make resource management efforts more effective.

6. Conclusion

The problems and possibilities listed in the search for sustainable resource management show how important it is for countries to work together and use strategic methods. The destruction of the environment, the effects of climate change, and socioeconomic inequalities all call for a change in the way we use resources that are responsible and regenerative.

The global projects that show how people from different countries may work together. These efforts stress the need to deal with problems connected to resources right now and encourage people to work together and share responsibility across boundaries. The future of resource management depends on accepting new ideas, encouraging circular economies, and making climate resilience a part of decision-making. A complete plan for using resources sustainably must include using technology, changing how people use things, and giving power to local communities.

As we deal with the problems of the next several decades, we need to find a way to meet human demands while also protecting the planet's ecosystems. The suggestions for future orientations stress how important it is to have a comprehensive, inclusive, progressive approach that prioritizes the well-being of society and the environment. Fundamentally, the path to sustainable resource management is a collaborative endeavour requiring the commitment of individuals, organizations, governments, and communities. If we make sure that our policies, practices, and behaviours are in line with sustainability principles, we can make sure that for the sake of the present and next generations, earth's resources are cherished, conserved, and properly managed.

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EMERGING MANAGEMENT PRACTICES IN THE DIGITAL ERA

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ABSTRACT

The digital era has brought significant transformations in management practices, driven by technological advancements, globalization, and changing workforce expectations. Traditional hierarchical and control-based management models are increasingly being replaced by flexible, technology-enabled, and people-centric approaches. This chapter examines emerging management practices with particular emphasis on remote and hybrid work models, artificial intelligence and automation, sustainability-oriented strategies, and ethical governance. It highlights how these trends are reshaping managerial roles, organizational culture, and decision-making processes. The chapter also discusses the skills and competencies required for future managers to effectively navigate complexity and uncertainty. Overall, it emphasizes the need to balance technological innovation with human values to achieve sustainable organizational growth.

Keywords: Digital Transformation, Remote and Hybrid Work, Artificial Intelligence, Sustainability, Ethical Management

1. Introduction

The digital era has fundamentally transformed the way organizations operate, compete, and manage their human and technological resources. Rapid advancements in information technology, globalization, and changing workforce expectations have disrupted traditional management models that were largely hierarchical, control-oriented, and process-driven. In their place, modern organizations are embracing flexible, technology-enabled, and people-centric management practices to remain competitive in an increasingly dynamic business environment. Emerging management practices emphasize agility, innovation, collaboration, and ethical responsibility. Managers are no longer confined to supervisory roles but are expected to act as facilitators, change agents, and strategic leaders. This chapter

explores how digital transformation has reshaped management practices, focusing on remote and hybrid work models, artificial intelligence and automation, sustainability, and ethical governance. It also highlights the competencies required for future managers to navigate complexity and uncertainty.

2. Evolution of Management Practices in the Digital Age

Traditional management practices were designed for stable environments where efficiency, standardization, and control were prioritized. Classical theories of management emphasized division of labor, centralized authority, and rigid organizational structures. However, the digital revolution has challenged these assumptions by introducing speed, connectivity, and continuous change. In the digital age, organizations operate in volatile, uncertain, complex, and ambiguous (VUCA) environments. As a result, management practices have evolved toward decentralization, empowerment, and real-time decision-making. Digital tools enable instant communication, cross-functional collaboration, and access to vast amounts of data, allowing managers to respond quickly to market changes. The emphasis has shifted from managing tasks to managing knowledge, innovation, and relationships.

3. Remote and Hybrid Work as Emerging Management Practices

3.1 Concept and Growth of Remote and Hybrid Work

Remote and hybrid work models have emerged as prominent management practices due to advancements in digital communication technologies and changing employee preferences. Remote work allows employees to perform their duties outside traditional office settings, while hybrid work combines remote and on-site work arrangements. These models have gained widespread acceptance, particularly after the COVID-19 pandemic, which accelerated digital adoption across industries.

3.2 Managerial Challenges and Opportunities

Managing remote and hybrid teams requires a shift from time-based supervision to performance-based evaluation. Managers must focus on outcomes rather than physical presence. Effective communication, trust-building, and employee engagement become critical in virtual environments. At the same time, remote work offers opportunities such as access to global talent, reduced operational costs, and improved work–life balance for employees.

3.3 Impact on Organizational Culture

Remote and hybrid work arrangements influence organizational culture by promoting autonomy and flexibility. However, they also pose risks of employee isolation and weakened

team cohesion. Managers must proactively foster inclusion, collaboration, and a shared sense of purpose through digital platforms and inclusive leadership practices.

4. Artificial Intelligence and Automation in Management

4.1 Role of Artificial Intelligence in Decision-Making

Artificial intelligence (AI) has become a powerful tool in modern management, enabling data-driven decision-making and predictive analytics. AI systems assist managers in areas such as demand forecasting, customer behavior analysis, and financial planning. By processing large volumes of data, AI enhances accuracy and reduces uncertainty in managerial decisions.

4.2 Automation of Managerial Functions

Automation has streamlined many routine managerial tasks, including scheduling, reporting, recruitment screening, and performance monitoring. This allows managers to focus more on strategic thinking, innovation, and people management. In human resource management, AI-powered tools improve efficiency and objectivity in talent acquisition and workforce planning.

4.3 Human–AI Collaboration

Despite its advantages, AI cannot replace human judgment, creativity, and ethical reasoning. The future of management lies in effective collaboration between humans and intelligent systems. Managers must develop digital literacy and ensure responsible use of AI while maintaining transparency and accountability.

5. Sustainability-Oriented Management Practices

5.1 Sustainability as a Strategic Priority

Sustainability has emerged as a central theme in modern management practices. Organizations are increasingly expected to balance economic performance with environmental protection and social responsibility. Sustainable management focuses on long-term value creation rather than short-term profits.

5.2 Green and Responsible Management

Managers play a key role in implementing environmentally responsible practices such as energy efficiency, waste reduction, and sustainable supply chains. Digital technologies support sustainability initiatives by enabling better resource monitoring and optimization.

5.3 Sustainability and Competitive Advantage

Organizations that integrate sustainability into their management practices enhance brand reputation, stakeholder trust, and long-term competitiveness. Sustainable management is no longer a cost but a source of innovation and differentiation.

6. Ethics and Responsible Management in the Digital Era

6.1 Importance of Ethical Leadership

Ethical responsibility has become increasingly important as organizations adopt advanced technologies and flexible work models. Ethical leadership emphasizes fairness, transparency, accountability, and respect for stakeholders. Managers must ensure that organizational practices align with ethical standards and societal values.

6.2 Ethical Challenges of Digitalization

The use of AI and data analytics raises ethical concerns related to data privacy, surveillance, algorithmic bias, and job displacement. Managers must establish ethical guidelines and governance frameworks to address these challenges responsibly.

6.3 Corporate Social Responsibility

Corporate social responsibility (CSR) initiatives are integral to ethical management. Organizations are expected to contribute positively to society by supporting employee well-being, community development, and social inclusion.

7. Skills and Competencies for Future Managers

Emerging management practices require a new set of managerial competencies. Future managers must possess digital literacy, adaptability, emotional intelligence, strategic thinking, and ethical judgment. Continuous learning and upskilling are essential to cope with technological advancements and evolving workforce expectations. Leadership in the digital era demands the ability to inspire trust, manage diversity, and foster innovation.

8. Challenges and Opportunities in Adopting Emerging Practices

While digital-era management practices offer significant benefits, organizations face challenges such as resistance to change, skill gaps, cybersecurity risks, and high implementation costs. However, these challenges also present opportunities for organizational learning, innovation, and competitive advantage. Proactive change management and leadership commitment are crucial for successful adoption.

9. Conclusion

Emerging management practices in the digital era reflect a fundamental shift toward flexibility, intelligence-driven decision-making, sustainability, and ethical responsibility. Rapid technological advancements and increasing globalization have altered organizational structures, leadership styles, and workforce expectations. The widespread adoption of remote and hybrid work models has transformed traditional workplace dynamics, requiring managers to focus on trust, collaboration, and performance outcomes rather than physical supervision. Simultaneously, artificial intelligence and automation are enhancing managerial decision-

making by enabling data-driven insights, predictive analysis, and operational efficiency. Sustainability-oriented strategies have become integral to management, encouraging long-term value creation and responsible resource utilization. Ethical responsibility has also gained prominence, particularly in the use of digital technologies and workforce management. Effective future managers must therefore balance technological innovation with empathy, inclusiveness, and social accountability. By embracing these evolving practices, organizations can strengthen resilience, enhance competitiveness, and contribute meaningfully to sustainable societal development.

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FUTURE TRENDS IN MANAGEMENT PRACTICES

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ABSTRACT

The rapid evolution of technology, workforce expectations, and global sustainability concerns has significantly transformed traditional management practices. Organizations are increasingly adopting flexible work models, artificial intelligence–driven decision-making, and ethical governance frameworks to remain competitive and resilient. This chapter explores emerging trends in management practices, focusing on remote and hybrid work environments, artificial intelligence and automation, and sustainability-driven ethical management. It examines how these trends reshape leadership, organizational culture, employee engagement, and strategic decision-making. The chapter further highlights challenges and opportunities associated with future-oriented management approaches. Ultimately, it provides insights into how organizations can align innovation with human values to achieve long-term success.

Keywords: Future Management Practices, Remote Work, Artificial Intelligence, Automation, Sustainability and Ethics

1. Introduction to Future Management Practices

Management practices are undergoing a profound paradigm shift driven by globalization, rapid digital transformation, and continuously evolving workforce dynamics. Increased global competition, cross-cultural work environments, and technological interconnectivity have compelled organizations to rethink conventional management philosophies. Traditional hierarchical and command-and-control models are gradually giving way to agile, decentralized, technology-enabled, and employee-centric approaches that prioritize flexibility, collaboration, and innovation. Modern organizations increasingly value empowerment, autonomy, and continuous learning over rigid supervision and standardized procedures.

The future of management places strong emphasis on adaptability, inclusiveness, and sustainability as core organizational principles. Managers are expected to respond proactively to volatile market conditions, technological disruptions, and changing employee expectations while fostering inclusive workplaces that respect diversity and promote equity. Sustainability-oriented management further extends responsibility beyond profitability, encouraging long-term value creation that balances economic performance with social and environmental accountability.

In this dynamic context, organizations must demonstrate the ability to respond swiftly to external and internal environmental changes without compromising operational efficiency or ethical standards. Decision-making is increasingly data-driven, real-time, and collaborative, requiring managers to integrate technological tools with human judgment. Ethical responsibility has also emerged as a central concern, particularly in areas such as artificial intelligence usage, employee well-being, and corporate social responsibility. This chapter sets the conceptual foundation by emphasizing why future-focused management practices are essential for organizational survival, competitiveness, and sustainable growth. By embracing innovation while upholding human values, organizations can build resilient systems capable of thriving in an uncertain and rapidly changing global business environment.

2. Evolution of Management Practices in the Digital Era

Historically, management focused on supervision, standardization, and efficiency. However, technological advancements have reshaped managerial roles from controllers to facilitators and strategists. Digital tools enable real-time communication, data-driven decisions, and decentralized authority. Managers are now expected to lead innovation, foster collaboration, and manage knowledge rather than merely oversee tasks. This evolution highlights the growing importance of flexibility, emotional intelligence, and continuous learning in management.

3. Remote and Hybrid Work Models

3.1 Concept and Growth of Remote and Hybrid Work

Remote and hybrid work models have gained prominence due to advancements in communication technology and changing employee expectations. Hybrid work combines in-office and remote work, offering flexibility while maintaining organizational connectivity. These models reduce geographical constraints, enhance work-life balance, and broaden talent access.

3.2 Managerial Implications of Flexible Work

Managing remote teams requires trust-based leadership, outcome-oriented performance measurement, and effective digital communication. Managers must shift focus from monitoring attendance to evaluating productivity and results. Building team cohesion, maintaining motivation, and preventing employee isolation are key challenges.

3.3 Benefits and Challenges

While flexible work increases employee satisfaction and reduces operational costs, it also poses challenges such as cybersecurity risks, coordination issues, and blurred work-life boundaries. Successful future managers must design policies that balance flexibility with accountability.

4. Artificial Intelligence (AI) and Automation in Management

4.1 Role of AI in Decision-Making

Artificial intelligence enables managers to analyze vast data sets, predict trends, and support strategic decision-making. AI tools enhance accuracy, reduce human bias, and improve forecasting in areas such as finance, marketing, and human resources.

4.2 Automation of Managerial Processes

Automation streamlines repetitive tasks like scheduling, reporting, and performance tracking, allowing managers to focus on strategic and creative activities. In human resource management, AI-driven recruitment systems improve efficiency by screening candidates objectively.

4.3 Human–Machine Collaboration

The future of management lies not in replacing humans but in integrating human judgment with machine intelligence. Managers must develop digital literacy and ensure ethical use of AI to avoid over-dependence and loss of human insight.

5. Sustainability-Oriented Management Practices

5.1 Importance of Sustainability in Modern Organizations

Sustainability has become a core strategic priority as organizations face pressure from stakeholders, regulators, and society. Sustainable management emphasizes long-term value creation rather than short-term profits.

5.2 Green Management and Resource Optimization

Future managers are expected to adopt eco-friendly practices, reduce carbon footprints, and promote responsible resource usage. Sustainable supply chains, green innovation, and circular economy models are becoming integral to organizational strategies.

5.3 Sustainability as a Competitive Advantage

Organizations that embed sustainability into their management practices enhance brand reputation, customer loyalty, and investor confidence. Managers play a critical role in integrating environmental and social goals with business objectives.

6. Ethics and Responsible Management

6.1 Ethical Leadership in the Future Workplace

Ethical leadership emphasizes fairness, transparency, and accountability. Future managers must ensure ethical decision-making while managing diverse workforces and advanced technologies.

6.2 Managing Ethical Challenges in AI and Automation

The use of AI raises ethical concerns such as data privacy, algorithmic bias, and job displacement. Managers must establish ethical guidelines, governance frameworks, and compliance mechanisms to ensure responsible technology usage.

6.3 Corporate Social Responsibility (CSR)

CSR initiatives are no longer optional but essential components of management practice. Ethical management involves contributing to social welfare, employee well-being, and community development.

7. Skills Required for Future Managers

Future managers require a blend of technical, interpersonal, and ethical skills. Critical competencies include digital literacy, adaptability, emotional intelligence, strategic thinking, and ethical judgment. Continuous learning and upskilling are essential to cope with technological disruptions and dynamic business environments.

8. Challenges and Opportunities in Adopting Future Management Practices

While future-oriented management practices offer numerous benefits, organizations face challenges such as resistance to change, skill gaps, and technology implementation costs. However, these challenges also present opportunities for innovation, organizational learning, and competitive differentiation. Managers who proactively embrace change can position their organizations for sustainable success.

9. Conclusion

Future trends in management practices signify a fundamental shift toward flexibility, intelligence-driven decision-making, and heightened ethical responsibility. The increasing adoption of remote and hybrid work models, the integration of artificial intelligence and automation, and the growing emphasis on sustainability and ethical governance are collectively reshaping how organizations are structured, managed, and led. These

developments require managers to move beyond traditional supervisory roles and adopt more strategic, adaptive, and people-oriented leadership approaches.

Effective future managers must skillfully balance technological advancement with human values to foster resilient, inclusive, and high-performing organizations. By aligning innovation with ethical principles and social responsibility, organizations can enhance employee well-being, strengthen stakeholder trust, and improve long-term competitiveness. Ultimately, the proactive adoption of these emerging management practices enables organizations not only to achieve sustainable growth but also to generate meaningful societal impact in an increasingly complex global environment.

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**HUMAN RESOURCE MANAGEMENT PRACTICES FOR EMPLOYEE
EMPOWERMENT AND INVOLVEMENT: IMPACT ON PRESENT
ORGANISATIONAL STRUCTURE AND PERFORMANCE**

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ABSTRACT

Human Resource Management (HRM) practices plays important role in shaping employee attitudes and organisational outcomes in present organisations. Employee engagement and performance is essential for organisation success. Effective HRM practices create a positive work environment where as employee feel supported and motivated in organisation. The paper discusses several HRM practices like employee engagement and performance, such as effective communication, health and wellness programs, workload management, training and development opportunities, a positive work environment. Sustainable employee performance has become more important it focus on human resource management. Employee performance reflects the level of achievement derived from programs, policies, and resource utilization for achieving organisational goals. In the present world advanced technology have significantly changed the way of work. The development of information and communication technology has allowed employees to work from anywhere, any time, it is very easy to access the advanced internet and mobile devices these tools make work as done very easy in work place or in organisations. The idea of empowerment refers to ability to work, make decision and interest of participation. Empowerment is a part of development activities through employee involvement, providing sufficient authority and responsibility to complete tasks and make decisions. Overall, the study highlights HRM practise with employee empowerment and involvement in present organisational structure enhances performance and promote sustainable growth.

Key words: Human Resource Management (HRM), organisational, sustainable, performance, employee engagement, employee involvement.

Introduction:

Employee engagement and involvement are important factors for the success of all organisation. A highly engaged and motivated employees can improve organisational

performance, productivity. On the other hand, disengaged and unmotivated employees can have a negative impact on the organisation success. Human Resource Management (HRM) practices play a important role in employee engagement and involvement and HRM practices can create a positive work environment. Employees are the important asset for organisation, If employees are motivated in work place can improve performance, higher productivity these are significant benefits for the organisation. HRM Practices include effective health and wellness programs, workload management, continuous learning opportunity, positive work environment and improved performance. By implementing HRM practices that focus on employee development and growth, organisations can create a highly skilled, motivated, and committed workforce, driving sustained organizational success. (Mr. Mallikarjun Konade et al.) Employees are unique because they have the power to choose whether want to work or not and that managers need to motivate them to put in their best effort. The effective use of human resource management practices encourages employee engagement, employee engagement as three specific elements which are psychological, behavioural, and trait engagement The psychological factors of meaningfulness, safety, and availability play important role in employee engagement at work, Behavioural engagement focuses on the actions and behaviour of employees at work and Trait Engagement refers to stable personality traits characteristics that employee to be engaged at work. (Sania Khan et al.) Employee engagement is mainly enhanced due to efforts made by the organisation related activities like career development, training programs, job security, job clarity and involvement in shaping decisions (Pradhan et al., 2019). Based on employee engagement and involvement the Organisational performance is achieving goals and increase productivity. Organisational performance indicates the impact that existing organisational factors such as organisational structure, leadership, policies. Current level of organisational effectiveness is based on human resource practices. A positive impact improves performance through better coordination and clear roles for employees in organisation. In recent years Organisation encourage employees to provide sustainable performance like maintaining high levels of work performance over the long term while balancing economic, social, and environmental activities. Focusing on long term success involves efficient resource use, employee well-being and ethical practices. These supports sustained adaptability and strengthens business environment. (Muhammad Irfani Hendri). HRM Continuously shows a positive influence, in achieving sustainability performance in organisations.

LITERATURE REVIEW

Human Resource Management (HRM)

Saifalislam (2014) stated Human resource management (HRM) refers to practices, used in organisations to manage employee's performance, need, recruitment, selection, training and development, compensation, health and safety at work. HR practices as competitive advantage and has a positive relationship with organisation performance. Developing countries like Jordan influencing modern HR practices such as recruitment and selection, training and development. Therefore, Jordan context is important for considering technological and economic changes. Multi policy is followed by Jordanian private sector like organisation should adopt effective recruitment and selection, training practices from the approach of job applicants. These approach helps organisations to develop and changes in environment.

Bhagyashree Shinde & Dr. Tanuja Devi (2025) Examined Present Strategies for Growth, Development and Sustainability in Human Resource Management (HRM) This study refers innovation in HR strategies help organisation to develop their human capital while enhancing their competitive advantages like Technological Advancements, Requirement, Employee Engagement, performance management, Flexible work arrangements, personalized employee experience.

Owalo Eliud Okech (2025) Analysed strategic planning as an intentional, focused process that helps and organisation to make important decisions about activities and direction. It determines what organisation is, what it does, and why it does it, guiding for future actions. Strategic planning involves making plans and making different situations according to the market. That provides a strategic, technical, and operational framework for the organisation.

Employee Empowerment & Involvement

Maiorano et al., (2021) Stated that empowerment comes from word power, The idea of empowerment refers to ability to work, make decision and interest of participation. Empowerment is continuous, dynamic activity that encourages the involvement of all existing potential in an evolutionary way through the involvement of all existing potential in a gradual way the participation of all stakeholders. Empowerment is a part of development activities through employee involvement, providing sufficient authority and responsibility to complete tasks and make decisions. Every employee as to contribute to work and decision making. Empowerment is showing of decentralized system that involves subordinates to make decisions.

Obiekwe & Onyebuchi (2019) Stated employee involvement is the process by which employees are empowered to make decision and involvement in organisation. It includes participation, communication decision making which together promote industrial democracy. In this study employee motivation is enables them to perform their work effectively and successfully add value to the organisation. Employee involvement refers to allowing employees to take part in decision-making, which increases their commitment to work. Management plays an important role in motivating employees in the workplace, and continuous motivation along with other benefits encourages employees to perform better. As a result, employee involvement leads to higher job satisfaction within the organization.

Organizational Structure and Performance

Dr. Khemraj Sharma & Dr. Chhaya Kishor Joshi (2025) Examined modern organisations give more attention to employee performance and productivity for organisational success. Organisation culture includes values, beliefs, norms, and practice employees interact and perform their work in work place. Many studies have highlighted that organisational culture plays a important role in determining overall organisational effectiveness mainly on employee performance. Employee performance include employee carry out their duties assigned for them and meet job satisfaction. A positive organisational culture improves employee motivation, job satisfaction, and engagement these leads higher productivity. A negative culture can reduce turnover and negatively affect organisational performance.

Muhammad Irfani Hendri (2025) Analysed Sustainable employee performance has become more important it focus on human resource management. Employee performance reflects the level of achievement derived from programs, policies, and resource utilization for achieving organisational goals. Employee performance is the process of evaluating employee's appraisal similarly the process of collecting analysing and documenting employees' contribution in business activities these becomes employee fulfilling their job tasks and responsibilities. Sustainable employee performance is individual productivity, emphasizing long term positive impacts on organisation and work environment in work place. Employees continuously performing tasks minimizing negative effects on the organisation and requiring employee to adapt new technologies continuously this influence sustainable performance like work environment and external elements. These prioritize to achieve organisational goals and ensure sustainability.

Sunday C. Eze (2017) Stated organisational structure is a group of people occupying a formal structure of position to achieve a common goal. Organisational structure involves

multiple workers working together. The study clearly defines job role, responsibilities, authority and performance standards to avoid confusion and conflict. Organisation structure determines dividing tasks into groups and coordinate within organisation. Every management has to establish its own organisation structure for efficient handling of business activities. Organisation Structure become more important in the business world.

Study objective:

To explore the HRM Practices on Employee Engagement and involvement.

To study the present organisation structure and promote sustainability.

To examine the concept of employee's involvement in organisation.

HRM Practices:

Recruitment and selection:

Recruitment and selection involve selecting candidate for Job positions in organisation. . Effective recruitment and selection ensure that employees have the right skills, knowledge, and attitudes, which helps in improving employee engagement and involvement.

Employee Training and development:

Training and development focus on Developing employees skills, knowledge, and Talents. These practices help employees perform their jobs effectively, adapt to changes, and feel more confident and involved in organisational activities.

Employee Performance appraisal:

Performance appraisal is the systematic evaluation of employee performance. It provides feedback, recognises achievements, and identifies areas for improvement and motivating employees and increasing their engagement and participation.

Employee Compensation and reward system:

Compensation and rewards include financial and non-financial benefits provided to employees in the organisation for their contributions. Fair and competitive compensation motivates employees to improve job satisfaction and encourage employee involvement in work.

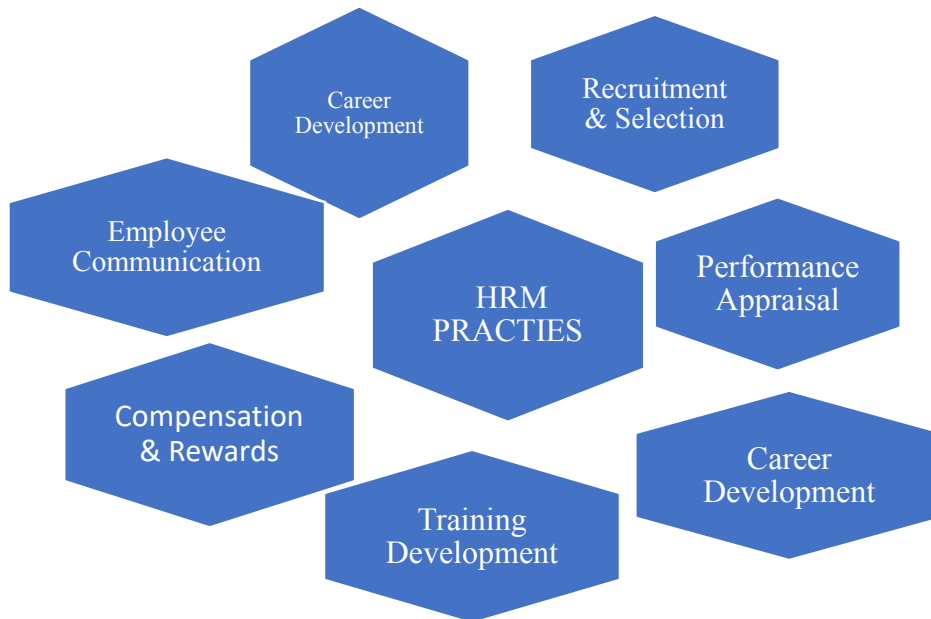
Employee Career development:

Career development refers to opportunities provided to employees for growth and advancement within the organisation. It enhances job satisfaction, commitment, and long-term employee engagement in organisation.

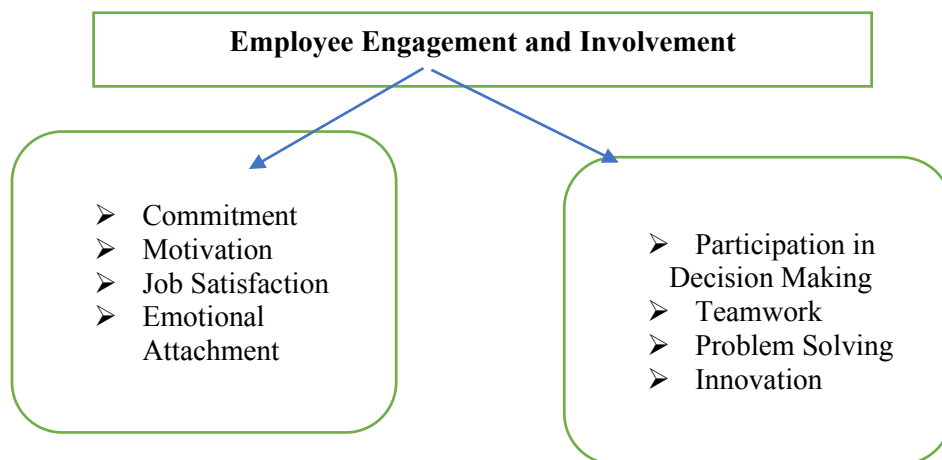
Employee communication in organisation:

Employee communication involves the exchange of information between management and employees. Effective communication promotes transparency, trust, and

participation. Higher level of employee engagement and involvement in organisation gives effective communication.



Employee Engagement and Involvement:



Employee Engagement

Commitment:

Commitment refers to which employees feel faithful and responsible in the organisation. Committed employees are more willing to put extra effort and remain dedicated to achieving organisational goals.

Motivation:

Motivation is the internal desire that encourage employees to perform their tasks effectively. Motivated employees show higher energy, enthusiasm, and active participation in their work. Superior can motivate employee in the work place.

Job satisfaction

Job satisfaction is the level of comfort employees experience with their job roles, work environment, and organisational practices. Higher job satisfaction gives better performance and increased employee engagement in their work.

Emotional attachment

Emotional attachment refers to the emotional bond between employee develop and their organisation. Employees with strong emotional attachment feel valued, connected, and are more likely to be engaged and involved in organisational activities.

Employee Involvement

Participation in decision making

Participation in decision making refers to the involvement of employees in Influencing organisational policies, strategies, and day-to-day decisions. When employees are included in decision making, they feel valued, motivated, and more committed to organisational goals and employees give better performance in organisation.

Teamwork

Teamwork is the collaborative effort of employees working together to achieve common goal. Effective teamwork enhances coordination, communication, and productivity while encouraging a sense of belonging and engagement in organisation.

Problem solving

Problem solving involves employees actively identifying, analysing, and resolving work-related problems in organisation. Encouraging problem-solving skills empowers employees to improve organisational efficiency and promotes a proactive work culture.

Innovation

Innovation refers to the implementation of new ideas, methods, or processes within the organisation. Supporting innovation motivate employees to think creatively, and drive organisational growth.

Organisational Communication

Effective communication is essential for employee engagement and involvement. HRM communication can create a positive work environment where as employee feel motivated and engaged in work. Regular communication from managers can also help employees understand their role in achieving the organisational goals.

Sustained learning: Continuous learning can improve engagement and involvement. Organisations provide new skills for employees to learn and develop in the work. This can

lead to improve performance and career development opportunity, this resulting employee engagement in the organisation.

Employee welfare

Employee welfare provides that HRM practices, such as health care, insurance, retirement plans, can improve employee engagement in organisation. Employee who accesses the benefit and feels valued and satisfied with the job.

Employee involvement

In HRM practices Employees can make decisions and take ownership of their work can improve engagement and involvement. Empowered employees are more likely to be motivated to succeed job satisfaction in their work. Employees involvement in decision making processes can encourage their participation to improve performance and committed to the organisational goals.

HR Management

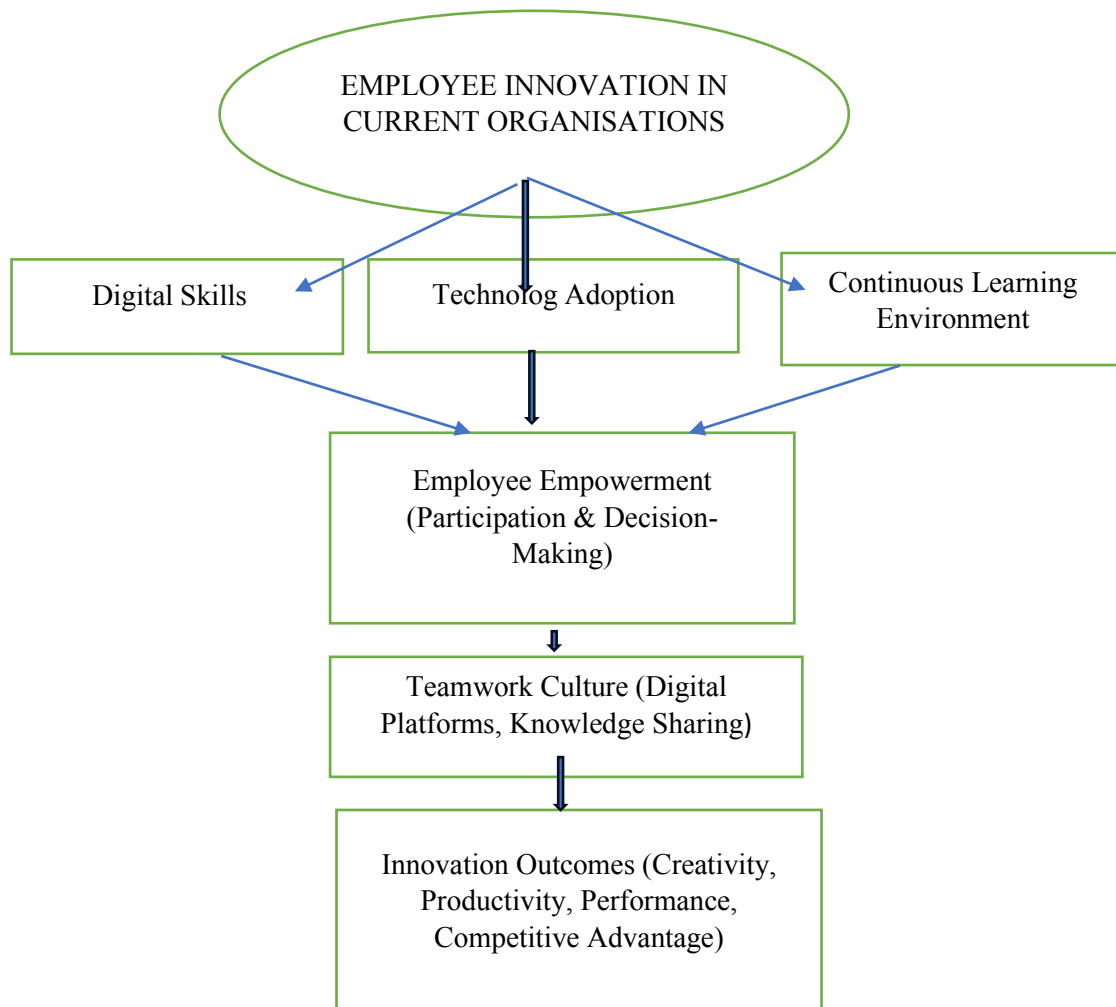
Human Resource Management (HRM) activities can be related to the management of people and employees in organisations. Which can also define as a strategic approach to managing employee's relationship in organisations these essentials to achieve sustainable competitive advantage, this achievement is achieved through policies, programs with connect to integrated work practices. Organisation and involvement can be improved as much as possible in carrying out daily work so that company goals can be achieved and employee development can be carryout. HRM process that begins with planning, organising, controlling, implementing so that company goals can be achieved effectively. (Mashudi et al.,) In the role HR management employees need to train to use new technology effectively, and to develop soft sills like communication, time management. Organisations should give training and development programs to employees for rapid changes in the world of work. (Aprilya Fitriani).

Work Transformation in the current era

In the present world advanced technology have significantly changed the way of work. The development of information and communication technology has allowed employees to work from anywhere, any time, it is very easy to access the advanced internet and mobile devices these tools make work as done very easy in work place or in organisations. Employees who feel engaged in their work schedule to be motivated. The transformation of work in this current era not only changes the daily work but also creates new model in HRM. Organisations should adopt innovative technology effectively to overcome the challenges and maximize the benefit create more productivity, flexible and

supportive work environment for the employees, and ensuring long term success in the current digital world.

Current Innovative in HRM Approaches to Enhance Employee Engagement:



In growing era of HRM approaches is important to empowering employees and motivate in organisation. An adaptive HR management approach is the first step in creating a supportive work environment (Mashudi et al.,) Employee management is main strategies in this approach that focus on control of working hours and employees are given freedom to work more flexible and adjust their schedules according to their needs. Organisations can increase employee’s responsibility and commitment work at the work place. Recognition rewards can improve employee motivation and feel encouraged to perform better in their work this shows their efforts and valued, loyalty and dedication in the organisation. Employee involvement is very important for making decision and solving problems this makes employees feel responsible and ensures that their needs and expectations are considered in the organisation. Over all innovation in HR management focuses on employee engagement is important for creating work environment more effective. In modern

technology employee engagement strategies plays very important in organisation. By continuously developing and applying innovative HR practices in organisation can ensure employees work efficiently and also feel motivated, valued, and engaged to achieve full potential.

Strategic planning and Organizational Structure:

Strategic planning and organisational structure are closely interconnected each other and these plays a important role in organisation effectiveness. Strategic planning is long term goal in organisation. Organisation structure provides a formal system that defines employees roles, responsibility, authority, communication channels with in organisation. An effective organisational structure provides strategic planning by enabling efficient coordination of resources and decision making. Organisations can respond more efficiently to environmental changes and improve coordination among employees based on departments and improve overall performance and sustainability.

Suggestions for Further Study:

Further research can analyse HRM practices on employee empowerment and involvement in different sectors such as service sector, education, healthcare. Based on these sectors future studies can provide deeper insights into HRM practices based on organizational structure and performance over time. Comparative studies can also be conduct on sustainability practices across different sectors and their impact on organisational outcomes.

Conclusion

Human Resource Management practices play important role in employee empowerment and involvement. These significantly influence organisational structure and performance. Effective HRM practices like training and development decision making, performance appraisal, reward system encourage employee more involvement in the organisational task. These practices Encourage employees to take ownership of their roles and support employee's problem solving within the organisation. Overall, the study highlights HRM practise with employee empowerment and involvement in present organisational structure enhances performance and promote sustainable growth.

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IMPACT OF AI ON ENHANCING EMPLOYEE PERFORMANCE IN INSURANCE INDUSTRY

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ABSTRACT

Technology's impact on the insurance sector brings important changes that boost efficiency, offer personalized services, and improve the customer experience. The Indian government has promoted digitization as a key step to enhance efficiency, accessibility, and transparency in this field. The researcher examines how digitalization has affected employee performance in the insurance sector. Data was collected from 110 employees working at various insurance companies in Virudhunagar District using a stratified random sampling method. The findings show that digital transformation enhances employee performance by speeding up task completion, improving communication among colleagues, and motivating employees to perform better by fostering an engaging work environment. Suggestions include providing support and training to help employees adjust to the changes they face with these digital tools. This approach will increase employee satisfaction and effectiveness.

Keywords: Efficiency, Customer Experience, Accessibility, Transparency, Employee Performance.

Introduction

Digital transformation in insurance improves employee performance by smoothing the processes with automation, making better decisions with the help of analytics, and allowing collaboration among employees with the help of digital tools. Continuous skill development is required, too, and it raises employee performance by minimizing routine tasks and enabling remote work thanks to advanced technologies. Though it implies a number of challenges-a resistance to change, cybersecurity risks, and skill gaps-effective change management, robust measures of security, and ongoing training overcome these problems and create a more efficient, involved, and future-oriented workforce.

Statement of the Problem

The immense digital revolution taking place in the insurance sector is attributed to altered customer expectations, business efficiency needs, and technological revolution. The trend of growing use of digital technologies in the insurance industry has become a matter of concern on how it is affected on the performance of the employees. The transition to the digital system could result in new work setting, technologies, and job descriptions that may have a positive or negative impact on the performance of employees. This study seeks to examine the impact that the process of adopting new digital technology by the insurance sector has on the skills expectations and employee performance.

Review of Literature

Buthina Alobidyeen et al. (2022) examined the fact that the digitization affects the performance of the employees in Greater Tafila Municipality in a positive way. It offers psychological services to ease the stress, which is related to technology among the municipal workers. Equally important, Enrico Battisti et al. (2022) stressed that psychological and behavioural factors, including technostress and job satisfaction can make employees decide to stay at home and continue working during the COVID-19 pandemic with the help of digital tools, including CRM, mobile quoting, and e-signatures. Nonetheless, the digital stress that comes as a result of information overload and switching between different platforms may result in a decrease in performance and the quality of client interactions. According to Gupta et al. (2022), AI tools can increase employee productivity only after they are trusted and accepted by them; otherwise, overall productivity may decrease due to resistance and lack of training. Dariusz Pauch and Anna Bera (2022) noted that the increased usage of new technologies and digitization impressively affects the expectations of the policyholder, even in the post-pandemic setting. Technology can be used to support the market consumer by enhancing accessibility to services, social media communications, and recognition tools. Smadi, M. (2025) explored the influence organizational readiness has on the success of digital transformation in insurance companies, such as infrastructure, culture, and skills of employees. Wanyan et al. (2025) indicated that in the short term, digital transformation can lead to a temporary fall in performance, but in the long run, when the employees are accustomed to it and the systems are well developed and developed, the productivity, and performance can rise significantly, which is why a gradual implementation and powerful transition support is necessary. Pereira and Oliveira (2023) also stressed that employees work more effectively when leadership promotes a digital culture and offers them opportunities to learn on a continuous basis. Ofori and Boateng (2024) discovered that the proper application

of digital tools, i.e., mobile apps and CRM, facilitates the quality of the service delivery, although the efficiency of the employees requires appropriate training and engagement; otherwise, it may decrease the effectiveness.

Objectives of the Study

- To Find out the socio-economic variables of respondents.
- To examine the correlation between the nature of digital services utilised and employee performance.
- To understand the difficulties of the employees in the wake of the digitalisation of work.
- To formulate appropriate recommendations towards improving the employee performance.

Hypothesis

- There is no relationship between type of digital services engaged and employee performance

Area of the Study

There are eleven (public and private) insurance companies with 305 employees in the study area. Stratified random sampling was employed to choose the employees from this. The following table shows these specifics.

Table 1: Sampling Design

S.No.	Taluk	Total Population in Insurance Sector		Sample Taken
		Public	Private	
1	Virudhunagar	48	34	23
2	Sivakasi	41	26	20
3	Sattur	28	12	18
4	Arupukottai	16	10	12
5	Srivilliputtur	22	13	15
6	Rajapalayam	37	18	22
Total		192	113	110

Source: Official Records in Various Insurance Companies

Methodology

The research is based on primary and secondary data. Employees of the insurance company provided primary data using a well-organized interview schedule. Secondary data can be found in books, journals, textbooks, reports, websites, and other sources.

Results and Discussion

Table 2: Socio Economic Profile of the Respondents

S.No	Details	No.of.Respondents	%
Gender			
1	Male	80	72.73
2	Female	30	27.27
Age			
1	25-35 Years	45	40.91
2	36-45 Years	37	33.64
3	Above 45 Years	28	25.45
Marital Status			
1	Married	74	67.27
2	Unmarried	36	32.73
Experience			
1	Below 5 Years	28	25.45
2	5-10 Years	34	30.91
3	11-15 Years	26	23.64
4	16 Years & above	22	20.00
Monthly Income			
1	Below Rs.25000	37	33.64
2	Rs.25000 – 40000	31	28.18
3	Rs.40001 – 55000	24	21.82
4	Above Rs.55000	18	16.36

Source: Primary Data

Testing of Hypothesis

- Ho: There is no relationship between type of digital services engaged and employee performance

Table 3: Type of Digital Services Engaged – Frequency Table

S.No	Digital Services	SA	A	N	DA	SDA
1.	Quick SMS Service	24 (21.82%)	20 (18.18%)	36 (32.73%)	18 (16.36%)	12 (10.91%)
2.	Track Client Proposal	34 (30.91%)	27 (24.55%)	25 (22.73%)	22 (20%)	2 (1.82%)
3.	Online Premium Payment	36 (32.73%)	28 (25.45%)	14 (12.73%)	15 (13.64%)	17 (15.45%)
4.	Policy Fund Details	25 (22.73%)	42 (38.18%)	20 (18.18%)	13 (11.82%)	10 (9.09%)
5.	Policy Alteration	23 (20.91%)	35 (31.82%)	30 (27.27%)	14 (12.73%)	8 (7.27%)
6.	Premium Paid Certificate	36	24	18	19	13

	through Online	(32.73%)	(21.82%)	(16.36%)	(17.27%)	(11.82%)
7.	Digi locker	25 (22.73%)	37 (33.64%)	22 (20%)	14 (12.73%)	12 (10.90%)
8.	Plans Details	23 (20.91%)	32 (29.09%)	30 (27.28%)	17 (15.45%)	8 (7.27%)
9.	Change of Address for Clients	24 (21.82%)	32 (29.09%)	26 (23.63%)	15 (13.64%)	13 (11.82%)
10.	Policy E- Document	21 (19.09%)	33 (30.1%)	29 (26.36%)	15 (13.64%)	12 (10.90%)
11.	Renewal of Policy	27 (24.55%)	25 (22.73%)	30 (27.28%)	20 (18.17%)	8 (7.27%)
12.	File Claim and Know more about claim settlement process	30 (27.27%)	23 (20.91%)	28 (25.47%)	17 (15.45%)	12 (10.90%)
13.	Track Existing Claim	24 (21.82%)	32 (29.09%)	30 (27.28%)	20 (18.18%)	4 (3.63%)
14.	Policy Guidelines & Helpline	31 (28.18%)	30 (27.28%)	23 (20.91%)	14 (12.73%)	12 (10.90%)

Source: Primary Data

Table 4

Employee Engagement After Digitalisation - Frequency Table

S.No	Employee Engagement	SA	A	N	DA	SDA
1.	I complete my work easily after digitalisation	25 (22.73%)	24 (21.82%)	23 (20.91%)	24 (21.82%)	14 (12.72%)
2.	I have sufficient time to complete my job	25 (22.73%)	26 (23.64%)	37 (33.64%)	21 (19.09%)	1 (0.9%)
3.	I work enthusiastically	36 (32.73%)	14 (12.73%)	20 (18.18%)	17 (15.45%)	23 (20.91%)
4.	I am able to contribute more to the company	24 (21.82%)	23 (20.91%)	29 (26.36%)	25 (22.73%)	9 (8.18%)
5.	I am capable of learning new things	35 (31.82%)	23 (20.91%)	27 (24.55%)	20 (18.18%)	5 (4.54%)
6.	My concentration in the job has increased	24 (21.82%)	23 (20.91%)	29 (26.36%)	25 (22.73%)	9 (8.18%)
7.	Time flies when I am at work	30 (27.27%)	40 (36.36%)	21 (19.09%)	11 (10%)	8 (7.27%)
8.	I am empowered with necessary knowledge to do the work	37 (33.65%)	24 (21.82%)	19 (17.27%)	18 (16.36%)	12 (10.90%)
9.	I possess a sense of responsibility for the success of the organisation	36 (32.73%)	14 (12.73%)	22 (20%)	20 (18.18%)	18 (16.36%)
10.	Automation in fraud prevention helps to perform other value-added jobs.	24 (21.82%)	23 (20.91%)	29 (26.36%)	25 (22.73%)	9 (8.18%)
11.	I am willing to sacrifice holidays for the sake of my company	20 (18.18%)	23 (20.91%)	40 (36.36%)	22 (20%)	5 (4.55%)
12.	I adopt various strategies	31	33	22	15	9

	to improve my performance	(28.18%)	(30%)	(20%)	(13.64%)	(8.18%)
13.	After digitalization, my performance output is consistently good even when I work alone.	34 (30.91%)	39 (35.45%)	18 (16.36%)	12 (10.92%)	7 (6.36%)
14.	I may not leave this company in near future	41 (37.27%)	28 (25.45%)	17 (15.45%)	20 (18.18%)	4 (3.65%)

Source: Primary Data

Table 5: Result of Regression Analysis

Type of digital services engaged and employee Performance after digitalization –

Model Summary

Model	R	R²	Adjusted R²	Standard error of the estimate
1	0.865	0.748	0.746	7.38128

Source: Computed Primary Data

These results demonstrate how well the regression model fits the data. With an R-squared (R²) of 0.748, the independent variable the kind of digital services utilized can account for roughly 74.8% of the variance in employee performance, which is the dependent variable.

ANOVA between the Type of digital services engaged and employee engagement after digitalization

The fitness of this model of regression analysis is examined and the result of ANOVA is presented in the Table 6

Table 6

Type of Digital Services Engaged and Employee Engagement after Digitalization – ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19102.138	1	19102.138	350.605	0.000
	Residual	6429.029	118	54.483		
	Total	25531.167	119			

Source: Computed Primary Data

Dependent Variable: Employee Performance

Predictors: (Constant), Digital services engaged

It shows that the F value of 350.605 has a significance level (.000) that is lower than the significant level of 0.05. As a result, the null hypothesis is disproved, and it is determined that the kind of digital services used and the amount of work done following digitalization are significantly correlated.

Ranking of Benefits Obtained from Digital Transformation on Work

Respondents are asked to order their answers based on the advantages of digital transformation at work. The researcher used Garret's ranking test to determine the main advantages. Table 7 below illustrates which benefits were most frequently used by workers in the insurance sector.

Table 7

Ranking of Benefits Obtained from Digital Transformation on Work- Result

S. No	Facilities	Garret Scores	Average Scores	Rank
1	Easy accessibility	8654	72.12	I
2	Flexible Working hours	7208	60.07	VI
3	Create Interest in Job	7469	62.24	III
4	More Productive	6181	51.51	XI
5	Enhance experience	6423	53.53	X
6	Bringing Transparency and openness	7049	58.74	VII
7	Able to work better and faster	7315	60.96	IV
8	Easy communication during emergencies	7597	63.31	II
9	Reduction in attrition	5599	46.66	XII
10	Improved customer service	7287	60.73	V
11	Improved work-life balance	6853	57.11	VIII
12	Improves confidence of employees through learning and development	6650	55.42	IX

Source: Computed Data

Both the average and Garret scores are displayed. The values of the average scores are used to rank them. "Easy accessibility" is ranked first, followed by "Easy communication during emergencies," "Create Interest in Job," "Able to work better and faster," "Improved customer service," and "Reduction in attrition."

Challenges faced by the respondents using Digital Tools

The researcher studied the problems faced by the employees while using a digital tool at the work place. The respondents' challenges using digital tools has been analyzed with the help of 9 statements which is shown in Table 8.

Table 8
Opinion Regarding Challenges Faced by the Respondents using Digital Tools

S. No	Statements	SA	A	N	DA	SDA
1.	Technical Issues	21 (19.09%)	26 (23.64%)	28 (25.45%)	30 (27.27%)	5 (4.55%)
2.	Digital Fatigue	33 (30%)	23 (20.91%)	25 (22.73%)	19 (17.27%)	10 (9.09%)
3.	Increased work load/working hours	29 (26.36%)	18 (16.36%)	16 (14.55%)	28 (25.45%)	19 (17.27%)
4.	Resistance to change	17 (15.45%)	37 (33.64%)	19 (17.27%)	24 (21.82%)	13 (11.82%)
5.	Communication Breakdown	16 (14.55%)	15 (13.64%)	14 (12.73%)	33 (30%)	32 (29.09%)
6.	Lack of privacy and Data security concerns	21 (19.09%)	37 (33.64%)	12 (10.91%)	30 (27.27%)	10 (9.09%)
7.	Lack of work life balance	20 (18.18%)	40 (36.36%)	11 (10%)	30 (27.27%)	9 (8.18%)
8.	Inadequate training and support	23 (20.91%)	31 (28.18%)	15 (13.64%)	27 (24.55%)	14 (12.73%)
9.	Job insecurity	26 (23.64%)	27 (24.55%)	18 (16.35%)	26 (23.64%)	13 (11.82%)

Source: Computed Data

Based on the survey results, the things employees are most concerned about are digital fatigue, work-life balance, and privacy/data security issues. Most respondents said they agree or strongly agree with these statements. The technical issues, increased workload, or resistance to change is definitely a significant challenge but does have varied reactions. Most employees disagree or strongly disagree that communication breakdown is a serious issue. Enhancing employee performance and satisfaction can be done through issue addressing.

Table 9
Descriptive Statistics for Challenges faced by the respondents using Digital Tools

S. No	Statements	N	Mean	SD
1.	Technical Issues	110	2.7500	1.12459
2.	Digital Fatigue	110	2.9000	1.18393
3.	Increased work load/working hours	110	2.9667	1.37769
4.	Resistance to change	110	2.8250	1.22071
5.	Communication Breakdown	110	2.9000	1.20503
6.	Lack of privacy and Data security concerns	110	2.8833	1.21048
7.	Lack of work life balance	110	2.8917	1.17963
8.	Inadequate training and support	110	2.8667	1.28947
9.	Job insecurity	110	2.7750	1.30585

Source: Computed Data

The findings point out that the respondents face moderate challenges in the use of the digital media across the dimensions. On average, the above would include technical issues. Digital Fatigue, increase in workload or hours, resistance to change, communication Breakdown, privacy and data security, and perceived lack of work-life balance. Finally, inadequate training and support and a certain degree of job insecurity. According to the findings, the statement with the highest mean value is “Increased work load/working hours” with a mean value of 2.9667. The lowest standard deviation of 1.12459 was obtained for Technical Issues. The average ratings given for the statements indicate that employees face the following moderate challenges: technical glitches, digital fatigue, increased work demand, resistance to change, communication breakdown, data privacy threats, and work-life imbalance. The high standard deviation observed in most of these statements indicates the presence of significant differences in the responses to these statements by various respondents. It shows that while the experiences of some employees are affected considerably by these challenges, that is not the case for many others. The findings indicate a need for intervention on certain problem statements and support for the general experience of using digital tools at work.

Suggestions

- Ensuring constant availability, frequent updating of the system, and training of staff to enable them to solve frequent end-user problems.
- Reviewing workloads, hiring more staff or automating mundane work and also establishing policies against employee fatigue.
- Involve staff in the decision-making process and communicate transparently about future changes.
- Organizing regular team meetings and establishing feedback mechanisms in order to resolve any breakdown in communication.
- Information on company performance should be clearly and transparently communicated, career development opportunities provided, and development programmes offered for employees whose job may be uncertain.
- Periodically monitor and assess the changes of digital tools on performance and satisfaction.
- Majority of the employees are male in the insurance sector and, therefore, efforts shall be made to develop a more balanced workforce.

- Implement regular feedback mechanisms to understand and address individual employee concerns to improve overall job satisfaction.

Conclusion

Digital tools and technology have a huge impact in enhancing the performance of an employee. They make information quick, communication better, and job more interesting. Nonetheless, taking advantage of these advantages will require a fight against increasing workloads, resistance to change, and insufficient training. The insurance industry can promote a supportive workplace by fostering open communication, creating balanced workloads, providing IT supports, involving employee decision-making, offering regular training, assessing technology disruption, and encouraging a feedback mechanism. In the long run, this will enhance employee engagement and satisfaction, thus improving effectiveness.

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INCORPORATION OF AI IN MANAGEMENT PRACTICES

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ABSTRACT

The rapid advancement of Artificial Intelligence (AI) has brought significant changes to contemporary management practices across organizations. AI technologies are increasingly integrated into managerial decision-making, planning, organizing, staffing, leading, and controlling functions. This paper examines the incorporation of AI in management by analyzing its conceptual foundations, historical evolution, and practical applications across key managerial domains. Based on an extensive review of scholarly literature published between 2010 and 2024, the study highlights how AI tools such as machine learning, decision support systems, robotic process automation, and advanced analytics enhance operational efficiency, strategic decision-making and human resource management.

The paper also critically evaluates the advantages and limitations of AI adoption, including issues related to implementation costs, data privacy, ethical concerns, job displacement, and the inability of AI systems to replicate human judgment and emotional intelligence. Furthermore, the study clarifies that AI does not replace classical management theories proposed by Taylor, Fayol, and Mayo; rather, it strengthens and modernizes their principles. The paper concludes that successful integration of AI in management requires a balanced approach that combines technological capabilities with human expertise to achieve sustainable organizational performance and long-term competitive advantage.

Keywords: Artificial Intelligence, Management Practices, Decision-Making, AI Tools, Modern Management.

INTRODUCTION

Management practices

Management practices play a vital role in guiding organizations toward sustainable growth and long-term success. In an increasingly competitive and dynamic business environment, management is no longer limited to traditional functions such as planning and control. It now encompasses leadership, strategic decision-making, effective communication, and optimal utilization of organizational resources. High-quality management practices enable organizations to align strategic goals with employee performance, adapt to environmental changes, and maintain operational efficiency.

Modern organizations face numerous challenges, including globalization, rapid technological advancement, workforce diversity, and volatile market conditions. As a result, managers are required to adopt innovative and flexible management approaches that promote collaboration, accountability, and continuous improvement. In this context, Artificial Intelligence (AI) has emerged as a powerful technological force that significantly influences managerial practices and organizational effectiveness.

Artificial intelligence (AI)

Artificial Intelligence refers to the capability of machines and systems to simulate human intelligence by learning from data, recognizing patterns, making decisions, and solving complex problems. From virtual assistants and predictive analytics to automated decision-support systems, AI is reshaping industries and redefining managerial roles. Understanding the role of AI in management practices is therefore essential for organizations seeking to remain competitive in the digital era.

REVIEW OF LITERATURE

Davenport and Ronanki (2018) examined the application of AI technologies such as machine learning and natural language processing in business management. Their study highlighted how AI automates routine managerial tasks and enhances decision-making while also addressing organizational challenges associated with AI adoption.

Chen and Ji (2021) analyzed the evolving role of AI in performance management. The authors emphasized AI's ability to analyze large datasets for performance prediction and continuous feedback, while also stressing the importance of ethical considerations and employee acceptance.

Aksoy (2023) focused on the application of AI in human resource management, demonstrating how AI improves efficiency in recruitment, training, and performance evaluation. The study highlighted AI's contribution to enhancing employee experience in competitive business environments.

Babashahi et al. (2024) emphasized the growing importance of human–AI collaboration in the workplace. Their research identified new competencies required for employees and managers to work effectively alongside AI systems.

Zhai, Zhang, and Yu (2024) conducted a comprehensive review of AI applications in HRM, identifying key areas such as automation, predictive analytics, and personalized employee experience.

Santoso, Efendi, and Nurwulandari (2024) explored the integration of AI and big data in talent management, highlighting improvements in workforce forecasting and strategic planning.

Boudraa and Helmi (2024) used bibliometric analysis to identify emerging themes in AI–management research, including ethical considerations, decision-support systems, and human interaction.

Arora (2024) examined the influence of AI on organizational leadership, noting both the benefits and challenges of integrating AI into leadership roles.

EVOLUTION OF ARTIFICIAL INTELLIGENCE IN MANAGEMENT PRACTICES

- The evolution of AI in management practices has progressed gradually alongside advancements in computing technology and data availability. In the early stages, organizations relied primarily on manual processes and basic computer systems for administrative tasks such as payroll and record-keeping.
- During the 1980s and 1990s, the introduction of Management Information Systems (MIS) and Decision Support Systems (DSS) marked a significant advancement. These systems enabled managers to analyze structured data, generate reports, and improve planning and control. Expert systems were also introduced to replicate human expertise in specific domains, although their adoption remained limited due to high costs and technical constraints.
- The early 2000s witnessed rapid growth in data storage capacity, internet connectivity, and enterprise software. Business intelligence tools emerged during this period, enabling managers to analyze historical data and monitor organizational performance. These developments laid the foundation for AI-driven analytics.
- From the 2010s onward, major breakthroughs in machine learning, big data, and cloud computing transformed AI's role in management. AI systems became capable of predictive analysis, real-time decision support, and automation of routine tasks. In the current era, AI is deeply embedded in management practices, supporting strategic decision-making, organizational agility, and personalized employee and customer experiences.

HOW AI INFLUENCES THE PRINCIPLES OF BUSINESS MANAGEMENT

(A) Planning

AI is used in planning, a fundamental management principle, to enhance decision-making, forecast outcomes, and optimizes strategies. Here are some specific ways in which AI is applied to planning in the context of business management:

(i) Predictive analytics:

AI algorithms can analyze historical data and patterns to predict future outcomes. In the context of planning, this can involve predicting customer demand, sales trends, and market fluctuations. For example, managers in the retail sector can use predictive analytics to forecast which products will be in high demand during specific seasons, helping them plan inventory and marketing strategies accordingly.

(ii) Demand forecasting:

AI-driven demand forecasting models analyze historical sales data, market conditions, and other factors to predict future demand for products or services. This is crucial for higher management when planning production, inventory, and resource allocation.

(iii) Strategic planning:

AI models can assist in strategic planning by simulating different business strategies and their potential outcomes. This allows management to explore various scenarios and decide which strategies to pursue. For example, AI can help identify the optimal product mix or market expansion opportunities.

(iv) Risk assessment:

AI assesses risks associated with different planning scenarios. By analyzing historical data and identifying potential threats and vulnerabilities, AI can help management make contingency plans and mitigate risks before they become critical.

(v) Market research:

AI can automate the collection and analysis of market data from diverse sources, such as social media, news articles, and customer reviews. This data is valuable for conducting market research and gaining insights into consumer sentiment. By understanding the preferences and opinions of consumers, managers can make informed decisions regarding product development, marketing strategies etc., ultimately leading to more effective and customer-centric approaches.

(vi) Scenario analysis:

AI can create multiple scenarios for planning purposes, enabling management to evaluate the impact of different factors on the organization's future. For instance, AI can model the consequences of changes in pricing, market conditions, or production levels.

(B) Organizing

In organizing, the second principle of management, AI plays a crucial role by streamlining the structuring of an organization's resources and processes. Below, we explore how AI is implemented to enhance organizational efficiency:

(i) Optimizing resource allocation:

AI algorithms can help higher management make informed decisions about resource allocation. This includes assigning human resources, budget allocation, and other assets to various projects and departments. AI can consider historical data, market trends, and the organization's strategic objectives to recommend the most efficient allocation of resources.

(ii) Workflow automation and streamlining:

AI-driven tools can automate routine and rule-based tasks across different departments. This reduces human labor and ensures that repetitive tasks are performed consistently and without errors, leading to greater organizational efficiency.

(iii) Enhancing decision-making in organizational design:

AI can assist in designing organizational structures better aligned with the business goals. It can simulate different organizational structures and their potential impact on performance, helping businesses choose the most effective design.

(iv) Improving communication and collaboration:

AI tools can facilitate organizational communication and collaboration by integrating intelligent chatbots and virtual assistants into their digital platforms. These tools help employees access information, schedule meetings, and share knowledge more efficiently, fostering a well-organized and interconnected workforce.

(v) Process improvement:

AI can identify inefficiencies in organizational processes by analyzing data and suggesting improvements. It can recommend workflow changes, resource allocation, and task distribution to optimize organizational efficiency.

(C) Staffing

AI proves to be an invaluable asset in the third principle of management: staffing. This crucial phase involves the strategic selection and placement of candidates in roles that

best suit their skills within the organization. Especially for higher management roles, AI's applications are manifold, offering sophisticated methods for:

(i) Talent sourcing and recruitment:

AI-powered tools can help identify and attract top-level talent by analyzing resumes, online profiles, and other sources to match candidates' skills and experience with the job requirements. These tools can also help HR teams to create a shortlist of candidates quickly and efficiently.

(ii) Assessment and selection:

AI can assist in the assessment and selection process. For higher positions, this may involve conducting personality assessments, cognitive ability tests, and structured interviews. AI can help design and administer these assessments, reducing bias and ensuring a fair and objective evaluation of candidates.

(iii) On boarding and training:

AI can assist in the onboarding and training process for new managers. It can provide personalized training modules and resources based on the individual's strengths and weaknesses, thus accelerating the learning curve.

(iv) Performance management:

AI-driven tools can help in performance evaluation and management for higher management positions by providing real-time feedback and data-driven insights on their performance.

(v) Succession planning:

AI can identify potential successors for key positions by analyzing existing employees' skills, performance, and potential. It can help ensure a smooth transition when higher management positions become vacant.

(vi) Workforce analytics:

AI can provide insights into workforce trends, helping managers make data-driven decisions regarding staffing levels, skill gaps, and organizational structure.

(vii) Workforce diversity and inclusion:

AI can ensure diversity and inclusion in higher management by analyzing data to identify biases in recruitment and promotion processes.

(viii) Communication and collaboration:

AI tools can enhance communication and collaboration within the management team by providing data analytics, scheduling assistance, and facilitating virtual meetings.

(D) Leading

Artificial Intelligence is reshaping the principle of ‘Leading’ in business management by equipping leaders with predictive insights for better decision-making and enabling real-time, data-driven guidance to their teams. AI-driven analytics and leadership tools are fostering more proactive and adaptive management practices in the modern business era.

(i) Leadership assessment and development:

AI tools can assess leadership qualities and performance, providing feedback and personalized development plans to help leaders grow and become more effective.

(ii) Emotional intelligence support:

AI can assist leaders in recognizing and managing emotions in themselves and others, enhancing their emotional intelligence and interpersonal skills.

(iii) Decision support for ethical dilemmas:

AI can help leaders navigate complex dilemmas by providing data on potential consequences and ethical frameworks, facilitating more responsible decision-making.

(iv) Time management and prioritization:

AI-driven time management tools can assist leaders in prioritizing tasks and managing their schedules to focus on high-impact activities.

(v) Crisis leadership simulation:

AI can create realistic crisis scenarios for leadership training, allowing leaders to practice decision-making under high-pressure situations.

(vi) Cross-functional collaboration:

AI tools can facilitate cross-functional collaboration by identifying opportunities for synergy and efficient resource allocation among different teams and departments.

(vii) Leadership coaching and feedback:

AI can provide real-time feedback to leaders during presentations, meetings, or public speaking engagements, helping them improve their communication and leadership skills.

(E) Controlling

Artificial Intelligence transforms the ‘Controlling’ aspect of business management by providing sophisticated monitoring tools that track performance metrics and process adherence, thereby ensuring that organizational activities meet set standards and objectives.

(i) Strategic quality assurance:

AI in quality control provides a strategic advantage by ensuring that products or services consistently meet high standards. This strategic assurance aligns with the organization’s

commitment to quality and can be crucial to the company's brand and reputation management.

(ii) Compliance monitoring:

AI is a valuable ally in upholding regulatory compliance and standards. It swiftly identifies deviations or violations by automatically scrutinizing documents and processes. This capability ensures legal adherence and minimizes potential legal and reputational risks. It empowers higher management to maintain a proactive and compliant organizational culture, fostering stakeholder trust and confidence.

(iii) Cost control:

AI's ability to monitor and control costs is a strategic advantage. AI analyzes expenses, identifies potential cost-saving opportunities, and recommends timely budget adjustments. This empowers senior leaders to ensure efficient resource allocation and profitability, ultimately supporting the organization's financial health and long-term sustainability.

(iv) Risk control:

AI's ability to monitor financial data, cyber security threats, and market dynamics equips leaders with the insights to implement proactive risk mitigation strategies. This safeguards the organization's assets and reputation and ensures that strategic decisions are made with a comprehensive understanding of potential risks, contributing to long-term stability and success.

(v) Performance monitoring:

AI's real-time performance dashboards are valuable tools for comprehensively viewing the organization's key performance indicators (KPIs). These dashboards empower leaders to swiftly identify deviations from expected targets or benchmarks, allowing for timely interventions and strategic adjustments.

They offer a vital means of ensuring that overarching objectives are being met and that the company remains agile and responsive in today's dynamic business landscape.

VARIOUS AI TOOLS USED BY DIFFERENT DEPARTMENTS IN BUSINESS

AI-Based Decision Support Systems (DSS)

AI-powered decision support systems help managers analyze complex data and evaluate multiple alternatives. These tools use predictive analytics and simulations to support strategic planning, risk assessment, and problem-solving.

Machine Learning and Predictive Analytics Tools

Machine learning tools analyze historical data to predict future trends such as sales demand, employee turnover, and market behavior. Managers use these tools for forecasting, budgeting, and performance management.

Chatbots and Virtual Assistants

AI-driven chatbots assist managers by handling routine queries, scheduling meetings, and providing real-time information. In human resource management, chatbots support employee services, recruitment inquiries, and onboarding processes.

AI Tools in Human Resource Management

AI tools such as resume screening software and performance analytics systems help managers recruit suitable candidates, evaluate employee performance, and plan training programs. These tools improve efficiency and reduce bias in HR decisions.

Customer Relationship Management (CRM) Tools

AI-enabled CRM systems analyze customer data to understand preferences and behavior. Managers use these insights to improve customer engagement, personalize marketing strategies, and enhance customer satisfaction.

AI Tools for Operations and Supply Chain Management

AI tools optimize inventory management, demand forecasting, and logistics planning. These systems help managers reduce costs, avoid delays, and improve overall operational efficiency.

Robotic Process Automation (RPA)

RPA tools automate repetitive administrative tasks such as invoice processing, report generation, and data entry. This reduces manual effort and allows managers to focus on strategic and value-added activities.

Business Intelligence (BI) and AI Analytics Tools

AI-integrated BI tools provide dashboards and visual reports that help managers monitor key performance indicators (KPIs). These tools support data-driven management and real-time performance tracking.

AI Tools for Financial Management

AI systems assist in budgeting, fraud detection, and financial forecasting. Managers use these tools to improve financial planning, reduce risks, and ensure better control over organizational finances.

AI TOOLS THAT RESEMBLE OLDEN MANGEMENT THEORIES

There is no specific AI tool that completely replaces the classical management models proposed by **Frederick Taylor** (Scientific Management), **Henri Fayol** (Administrative Management), and **Elton Mayo** (Human Relations Model). These models are theoretical frameworks that explain how organizations should be managed, while AI tools are technological enablers that support or enhance managerial functions.

However, modern AI tools can be seen as digital extensions of these models by automating, optimizing, and improving their core principles.

(a) AI in Relation to Taylor's Scientific Management

Taylor emphasized efficiency, task optimization, standardization, and performance measurement. AI tools such as:

- Robotic Process Automation (RPA)
- Workflow optimization software
- AI-driven productivity analytics

Perform similar functions by analyzing tasks, reducing waste, and improving efficiency. Unlike Taylor's rigid approach, AI systems can adapt dynamically rather than relying on fixed standards. AI enhances but does not replace Taylor's principles.

(b) AI in Relation to Fayol's Administrative Management

Fayol focused on planning, organizing, commanding, coordinating, and controlling. AI tools that support these functions include:

- AI-based planning and scheduling tools
- Enterprise Resource Planning (ERP) systems with AI
- Business Intelligence (BI) dashboards

These tools assist managers in forecasting, coordination, and control, but human judgment is still required for leadership and policy decisions. AI supports Fayol's functions but does not substitute managerial authority.

(c) AI in Relation to Mayo's Human Relations Model

Mayo highlighted the importance of employee motivation, morale, social interaction, and emotional factors. AI tools such as:

- Employee engagement analytics
- Sentiment analysis tools
- AI-powered HR platforms

Help managers understand employee behavior and satisfaction. However, AI lacks emotional intelligence, empathy, and ethical reasoning. AI can analyze human behavior but cannot replace human relations.

STEPS FOR ADOPTION OF AI IN MANAGEMENT PRACTICES

1. Identify Business Needs

Analyze management areas where AI can add value.

Examples: decision-making, HR, operations, customer service. Start with problems, not technology

2. Build Management Awareness & AI Literacy

Train managers on:

- i. Basics of AI
- ii. Capabilities and limitations

Encourage data-driven thinking. Managers must understand AI to use it effectively.

3. Assess Data Readiness

Ensure availability of:

- i. Quality data
- ii. Clean and structured databases

Establish data governance policies. AI success depends on good data

4. Choose the Right AI Tools & Technologies

Select tools aligned with business goals:

- i. Analytics tools
- ii. HR AI systems
- iii. Automation software

Avoid over-complex or unnecessary AI

5. Pilot Testing & Small-Scale Implementation

Start with pilot projects, Test AI in limited departments. Measure performance and impact, Reduce risk before full implementation

6. Integrate AI with Existing Systems

Align AI tools with current management processes. Ensure smooth workflow integration.

7. Train Employees & Managers

Up skill workforce to:

- i. Work with AI systems
- ii. Interpret AI outputs

iii. Promote human–AI collaboration.

8. Address Ethical, Legal & Security Issues

- i. Ensure:
- ii. Data privacy
- iii. Fairness and transparency
- iv. Cyber security

9. Monitor, Evaluate & Improve

Continuously review AI performance. Update models and strategies and Improve based on feedback.

ADVANTAGES OF AI IN MANAGEMENT PRACTICES

Enhanced Decision-Making

AI enables managers to process and interpret vast and complex datasets efficiently, supporting faster and more informed managerial decisions. By identifying patterns and predicting future outcomes, AI supports accurate and timely decision-making, reducing uncertainty and human bias in managerial decisions.

Increased Operational Efficiency

AI-driven systems streamline routine managerial activities, including scheduling, reporting, and data handling, thereby enhancing productivity. This improves productivity, minimizes errors, and allows managers to concentrate on strategic planning and leadership activities.

Improved Human Resource Management

In HR functions, AI assists in recruitment, training, and performance management. It helps identify suitable candidates, predict employee performance, and reduce employee turnover, making workforce management more effective. Offers objective, data-based performance feedback, personalized development plans, and helps manage workloads for better work-life balance.

Cost Reduction and Resource Optimization

AI enables efficient allocation of resources by optimizing inventory, production schedules, and budgeting processes. This leads to reduced operational costs and improved financial management.

Better Customer Relationship Management

AI tools analyze customer behavior and preferences, allowing managers to design personalized marketing strategies. This improves customer satisfaction, loyalty, and overall business performance.

DISADVANTAGES OF AI IN MANAGEMENT PRACTICES

High Implementation and Maintenance Costs

The adoption of AI requires significant investment in technology, infrastructure, and skilled professionals. Continuous maintenance and system upgrades further increase costs, especially for small organizations.

Data Privacy and Security Concerns

AI systems depend on large amounts of data. Improper data handling or security breaches can result in loss of confidential information and legal complications for organizations.

Lack of Human Judgment and Emotional Intelligence

AI systems cannot fully understand emotions, ethical considerations, or organizational culture. This limits their effectiveness in areas requiring empathy, leadership, and moral decision-making.

Risk of Job Displacement

Automation through AI may replace certain managerial and administrative roles, leading to job insecurity and resistance among employees. Organizations must focus on reskilling and upskilling the workforce.

Dependence on Data Quality and Algorithms

AI outcomes depend heavily on the quality of data and algorithms used. Biased or inaccurate data can lead to flawed decisions, affecting organizational performance.

FUTURE SCOPE OF ARTIFICIAL INTELLIGENCE IN MANAGEMENT

The future of Artificial Intelligence in management practices is expected to be highly transformative and multidimensional. Emerging technologies such as generative AI, autonomous decision-making systems, and advanced human–AI collaboration platforms are likely to redefine managerial roles and organizational structures. AI is expected to support strategic foresight, innovation management, sustainability initiatives, and real-time organizational intelligence.

In the coming years, AI-driven tools may assist managers in addressing complex global challenges such as climate change, supply chain disruptions, and workforce well-being. As AI systems become more explainable and transparent, their acceptance in managerial decision-making is likely to increase. Future research may focus on measuring the long-term impact of AI on managerial effectiveness, leadership styles, organizational culture, and employee well-being, particularly in developing economies.

APPLICATION OF AI IN MANAGEMENT: AN INDIAN CONTEXT

In the Indian business environment, the adoption of Artificial Intelligence in management practices has gained momentum across sectors such as banking, healthcare, education, manufacturing, and information technology. Indian organizations increasingly use AI for talent acquisition, customer relationship management, financial forecasting, and operational efficiency.

Government initiatives promoting digital transformation, such as Digital India and smart governance programs, have further accelerated AI adoption. However, challenges such as skill gaps, data quality issues, and infrastructure limitations remain. Managers in Indian organizations must therefore adopt a context-specific approach to AI implementation that considers socio-economic conditions, workforce diversity, and ethical responsibilities.

CONCLUSION

The incorporation of Artificial Intelligence in management practices has significantly transformed organizational decision-making, efficiency, and strategic planning. By automating routine tasks and providing predictive insights, AI supports managers across various functional areas. However, AI should be viewed as a complementary tool rather than a replacement for human managers.

Human judgment, creativity, ethical reasoning, and emotional intelligence continue to play a critical role in effective management. Therefore, organizations must adopt a balanced approach that integrates AI capabilities with human expertise. When implemented responsibly and strategically, AI can drive sustainable growth, innovation, and long-term competitive advantage in modern organizations.

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LEADERSHIP IN TIRUKKURAL

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Abstract

Personality is an individual trait. It differs from one person to another. Those who possess strong personality traits are capable of leading and influencing the world. This quality can be developed by anyone, enabling them to bring themselves to the forefront. Leadership qualities play a vital role in the development of both the individual and society. Many literary works have highlighted such leadership qualities. In this tradition, the Tirukkural, regarded as a universal scripture, presents personality traits in several places. This article aims to discuss a few such leadership qualities with suitable references. There is no difference of opinion that anyone who follows the principles advocated by Valluvar will emerge as a person of excellent personality.

Keywords: Personality- leadership- Tirukkural – Valluvar -

Tirukkural, a book written for the lives of all the people living in the world, is called the universal scripture. The author of this book is Thiruvalluvar. There is no untold story in the book, which contains 1330 poems. In Tirukkural, composed by Thiruvalluvar, he beautifully describes the leadership qualities required for people based on three pillars: the individual, the family, and society.

Leadership refers to the qualities of a leader. Leadership qualities plays an significant role in individual life, family life, and for those in other areas of the organization.

It is essential for an individual to have good qualities. Just as there is no reward without hard work and no success without effort, there is no unique identity without leadership qualities. Living in a large society, it is imperative for us to understand the human mind and their feelings. Tirukkural depicts the daily lives of Tamil people. In addition, there is a wealth of thought on leadership, from writings dating back to the Sangam period to today's modern literature. The ancient Tamilians were seen as having personality traits in all capacities, and the world still speaks of their glory to this day. To go one step further, the Tamil language itself can be said to be a unique personality language.

Leadership qualities such as bravery, courage, and boldness are the most essential qualities one should possess. Leadership concepts are present in everything like that of a musical instrument, from local literature to world literature. When someone picks up those musical instruments, they can bring joy to oneself and others. When used properly, they can

bring joy to everyone's hearts. These leadership qualities, like the musical instruments manifests itself according to one's interests and the way it is handled.

Leadership includes qualities such as vision bearing, knowledge, concern for others, openness, decision-making, being a role model, patience, courage, self-confidence, trustworthiness, planning, clarity, organising, Participation, sharing, accessibility, sense of humor, social skills, justice, financial management, creativity, polite behavior, love for others, Self-control, self- confidence, understanding, ability to attract others, generosity, humility, understanding of smiles, curiosity, good manners, reaching the goals, rehearsing the task, organizing, positive thinking, thinking about the future, and mindfulness. This article will show the following leadership qualities such as self-confidence, honesty, the appearance of a leader, courage before council, enhancing knowledge, ability to understand, modesty, planning that are found in Tirukkural.

Leadership in Literature

Humans have lived well since before the advent of literature, acquiring the trait of leadership. They have created literature with virtue and love, considering that future generations should learn about this leadership traits. In that order, it can be said that various leadership traits are beared and carried in Tamil literature.

To achieve one's goals, effort and self-confidence are necessary qualities. Gandhiji said that faith is not a delicate flower that falls in a storm. It is like the stable Himalayas. These two volumes of books explain the highest goals, virtues, and behaviors of human life. The The Purananuru, which is found in the Ettuththokai books,beautifully explains self-confidence.

Leave aside the doubt about the results rewards. If you do good, it will come back to you in the next life as a reward. It says, "Do good while you are in this world." Avvaiyar who believed in leadership, in her poem she says "Whom ever you might be! Stop trying to fight and win with the army of cowards following you."

**“ Whoever you may be,
if you defend your words,
“We will fight with his foot
soldiers and the rest of his army”,
you haven’t seen my lord who”
celebrates victories with festivals”¹ - (Purananuru:88)**

This song says "My lord is a shining one, with a noble brave background, with a wide chest like drums.

1.Honesty (Justice)

Honesty (Justice) is an essential quality to excell in leadership. Thoughts on honesty abound in literature. In the literature available to us, we find that the leaders who ruled our countries, followed honesty and justice. That is, they always wanted a warrior who was excellent in physical strength, intelligence, and guarding skills. A person who had all these three qualities was called as a guard. All three are important qualities of leadership.

Thiruvalluvar associates the king who rules with a scepter with God.

**"Who guards the realm and justice strict maintains,
That king as god o'er subject people reigns"² (Tirukkural:388)**

In these lines, he says that, the one who protects the country without any distortion of justice is considered as God.

Justice is the same for everyone. Not backing down in the condition when anyone who commits an offence must be punished adds more strength to a leadership quality.

The Silappadhikaram mentions a story about the justice of Manu Neethi Chozha. That is, while the prince was riding in his chariot, a calf gets stuck between the chariot wheels and dies. The king, without considering that it was his son, acted with justice and gave the right verdict.

"The bell at the palace gate trembles, making the tongue falter/quiver," These lines emphasises the justice of the king Manu Neethi Chozha.

2.The Appearance of a Leader

Tirukkural beautifully describes how a person with leadership qualities should look like. One of the highest qualities of a leader is to be simple in appearance and should speak kind words, so that everyone can be approachable by everyone. If he possesses this quality, his pride would be something everyone would talk about.

**"Where king is easy of access, where no harsh word repels,
That land's high praises every subject swells"³ (Tirukkural:386)**

A leader must be eloquent. It is difficult for anyone to defeat a person who can clearly convey their vision, who is not tired, and who does not get discouraged.

**"Mighty in word, of unforgetful mind, of fearless speech,
'Tis hard for hostile power such man to overreach"⁴ (Tirukkural:647)**

3. Courage before council

A person with leadership qualities must speak without hesitation, anywhere and to everyone. One should cast aside fear, timidity, and trembling and speak with boldness. Such

a person will be respected by the learned and called superior to all others. Valluvar explains this through the following lines

**“Who what they've learned, in penetrating words heve learned to say,
Before the learn'd among the learn'd most learn'd are they”⁵**
(Tirukkural:722)

Through the following lines, He also extends to explain that the one who speaks in such a way is the right person to be a leader,

**“Many encountering death in face of foe will hold their ground;
Who speak undaunted in the council hall are rarely found”⁶** (Tirukkural:723)

4.Enhancing knowledge

Those in leadership position should strive to increase their knowledge. They should update their knowledge with time. A leader should have knowledge of all fields. One should learn without any flaws and stand by what they have learned.

This quality of a leader is shown in the lines of tirukkural.

**“So learn that you may full and faultless learning gain,
Then in obedience meet to lessons learnt remain”⁷** -(Tirukkural:391)

One should learn about various fields by reading many books and act accordingly. Just as water seeps deeper into a well, so as the knowledge increases when we keep reading. When you are unable to study such books, asking knowledgeable poets for advice can be helpful in times of trouble.

**“Though learning none hath he, yet let him hear alway:
In weakness this shall prove a staff and stay”⁸** (Tirukkural:414)

These lines of thirukkural explains the above mentioned leadership quality.

5.Ability to understand

One of the qualities of leadership is the understanding skill. It is good for a leader to have the ability to observe and understand people and various information. The quality of leadership of one who does not reach such level is not a virtue. For a leader, information about a particular subject is not enough but the best quality is to know and express the truth in it with credibility, clarity, and subtlety. The following lines of Thirukural reveals this quality

**“Though things diverse from divers sages' lips we learn,
'Tis wisdom's part in each the true thing to discern”⁹** (Tirukkural:423)

One should also speak in a way that others can understand, just as understanding others. If a leader understands and prepares himself for the hardships ahead, he will have nothing to fear.

“The wise with watchful soul who coming ills foresee;

From coming evil's dreaded shock are free”¹⁰ (Tirukkural:429)

These lines explain. Therefore, leadership requires understanding skills.

6. Modesty

No matter how high you rise, it is essential to have the quality of modesty. It is especially important for those in leadership positions. A leader should consider modesty as wealth and protect it. Valluvar says that there is no greater wealth than that.

“Guard thou as wealth the power of self-control;

Than this no greater gain to living soul!”¹¹ (Tirukkural:122)

He points out in these lines, "Similarly, a person who wants to be a leader should have control over his tongue. On the contrary, if he does not control his tongue, he will be subject to slander."

“Whate'er they fail to guard, o'er lips men guard should keep;

If not, through fault of tongue, they bitter tears shall weep”¹² -(Tirukkural:127)

He has also warned through the above lines, "So self-control and modesty are important for those in leadership."

7. Planning

Planning before undertaking any activity is essential. Valluvar states that when any task is done with proper planning, the matter will be completely successful.

Before deciding to do something, one should think carefully, without anxiety or haste. It is useless to think after making a decision. Valluvar points out that it could go wrong. Thus he mentions in the chapter 'Modes of Action. The following lines clearly explain this thought.

“Think, and then dare the deed! Who cry,

'Deed dared, we'll think,' disgraced shall be”¹³- (Tirukkural:467)

The ability to complete a task successfully represents a person's determination. Determination is what makes everything possible. Everything else comes secondary to that. This thought is conveyed through the following lines of Thirukural.

“What men call 'power in action' know for 'power of mind'

Externe to man all other aids you find”¹⁴ - (Tirukkural:661)

Finally, anyone with good leadership qualities has the right and responsibility to take on leadership roles. For anyone who wants to achieve leadership position, practicing determination, dedication is more essential. So, let's think and act diligently to become a good leader from today. It is our responsibility to develop leadership qualities. There is no

difference of opinion that anyone who follows the principles advocated by Valluvar will emerge as a person of excellent leadership personality.

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INFLUENCE OF AI IN KNOWLEDGE MANAGEMENT AND TRANSFER PROCESS

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Knowledge Management (KM) is the systematic lifecycle of an organization's intellectual capital. By identifying and capturing both digital data and human expertise, KM ensures that vital insights are organized, stored, and accessible. This framework transforms raw information into a strategic asset, fostering a culture of continuous learning and collaborative innovation that drives smarter decision-making and a distinct competitive edge

Think of **Knowledge Management** as the process of turning individual "know-how" into collective power. It's about building a bridge between what your people know and how the organization acts. By effectively capturing expertise and encouraging team-wide sharing, KM breaks down silos—allowing your community to learn faster, work more efficiently, and innovate more naturally.



Knowledge Management is the practice of maximizing an organization's "IQ." It involves:

- **Harvesting:** Capturing expertise and data from across the organization.
- **Curating:** Organizing and storing information so it's easy to find and use.
- **Activating:** Leveraging shared knowledge to boost efficiency and outpace the competition.

Knowledge Management shifts the view of information from a static library to a living ecosystem. It treats knowledge as a strategic, high-value asset that gains power through movement rather than storage. By intentionally nurturing how insights flow between individuals and the collective, KM transforms "what we know" into "how we evolve," fueling a continuous cycle of innovation and shared learning.

The core of **Knowledge Management** is the realization that an organization's greatest strength isn't just in what its people know, but in how that expertise is interconnected. KM moves beyond simple data retrieval to manage the "living intelligence" held by teams and communities. It recognizes that when individual expertise is systematically shared and applied, it becomes a dynamic force that drives collaborative growth and competitive resilience.

Knowledge Management is the strategic practice of activating an organization's intellectual capital. Rather than viewing knowledge as a fixed resource, KM treats it as a versatile tool for innovation. By bridging the gap between individual expertise and collective action, KM ensures that knowledge is purposefully captured, evolved, and applied to solve complex problems and create new value.

It sounds like you've provided a solid foundational definition of **Knowledge Management (KM)**. You've touched on the three pillars that make KM successful: **People** (culture), **Process** (creation/capture), and **Technology** (implementation).

To help visualize how these moving parts work together, we can look at some of the core frameworks used in the industry to turn raw information into a competitive advantage.

The SECI Model: How Knowledge is Created

One of the most recognized frameworks in KM is the **SECI Model** (Socialization, Externalization, Combination, Internalization). It explains how knowledge moves between "Tacit" (what's in our heads) and "Explicit" (what's written down).

- **Socialization (Tacit to Tacit):** Sharing experiences through face-to-face communication (e.g., brainstorming or mentoring).
- **Externalization (Tacit to Explicit):** Converting ideas into documents, manuals, or diagrams.
- **Combination (Explicit to Explicit):** Organizing and merging different sources of documented knowledge.
- **Internalization (Explicit to Tacit):** Learning by doing or reading, where documented knowledge becomes part of an individual's skill set.

The KM Cycle: A Practical Flow

In an organizational setting, the activities you mentioned usually follow a continuous loop. If any part of this cycle breaks, the organization suffers from "corporate amnesia."



Knowledge Management Process:

Knowledge Management (KM) is a continuous cycle rather than a one-time project. While different frameworks exist, the process generally follows a standard lifecycle designed to turn individual insights into organizational power.



The following are the basic steps involved in the knowledge management process:

1. Discovery and Identification

Before you can manage knowledge, you must find it. This step involves auditing the organization to see what information exists and where the gaps are.

- **Tacit Knowledge:** Identifying the "tribal knowledge" held in employees' heads (expertise, experience, and intuition).
- **Explicit Knowledge:** Locating existing documents, databases, and manuals.
- **Knowledge Gaps:** Determining what information is missing that is critical for business goals.

2. Knowledge Capture and Creation

Once identified, knowledge must be "captured" so it isn't lost when an employee leaves.

- **Capture:** Recording interviews, documenting workflows, or transcribing meetings.
- **Creation:** Generating new insights through research, development, and collaborative brainstorming sessions.

3. Organization and Structuring

Raw information is useless if it cannot be found. This step involves categorizing the captured knowledge.

- **Taxonomy:** Creating a logical folder or category structure.
- **Metadata & Tagging:** Adding keywords so that search engines can easily retrieve the right file.
- **Codification:** Converting complex personal experiences into easy-to-follow standard operating procedures (SOPs).

4. Storage

Knowledge needs a "single source of truth." This is typically a centralized digital repository.

- **Systems:** Utilizing tools like internal Wikis, Document Management Systems (DMS), or specialized KM software (e.g., SharePoint, Guru, or Notion).
- **Security:** Ensuring sensitive information is only accessible to those with the proper permissions.

5. Sharing and Dissemination

The goal is to get the right knowledge to the right person at the right time.

- **Push Systems:** Actively sending out information via newsletters, training, or alerts.
- **Pull Systems:** Providing a searchable database where employees can find answers on demand.
- **Collaboration:** Fostering a culture where teams feel encouraged to share "lessons learned" after a project.

6. Application and Utilization

Knowledge only has value when it is put into practice.

- **Decision Making:** Using stored data to make more informed strategic choices.
- **Problem Solving:** Referencing past "post-mortems" to avoid repeating mistakes.
- **Innovation:** Combining shared insights to create new products or services.

7. Refinement and Evolution

Knowledge becomes obsolete quickly. This final step ensures the system stays relevant.

- **Reviewing:** Periodically checking articles for accuracy.

- **Updating:** Adding new information as technology or processes change.
- **Archiving:** Removing or "retiring" outdated information to prevent clutter.

Significance of Knowledge Management (KM)

Knowledge management (KM) is a critical process for any organization because it allows them to effectively utilize the knowledge that exists within the organization. By treating knowledge as a strategic asset, companies can ensure that insights from one department or individual benefit the entire enterprise.

The following are the key benefits of knowledge management:



Other important benefits:

1. Improved Decision-Making

KM provides employees and leaders with streamlined access to the organization's collective expertise. Instead of relying on "gut feelings," decision-makers can use historical data, past project outcomes, and expert insights to make informed, data-driven choices.

- **Significance:** Reduces the risk of repeating past mistakes and increases the accuracy of strategic planning.

2. Enhanced Operational Efficiency

By centralizing information, KM eliminates the time employees spend "reinventing the wheel." When solutions to common problems are documented and easily searchable, staff can resolve issues faster and focus on higher-value tasks.

- **Impact:** A McKinsey study highlighted that employees spend nearly **20%** of their work week just searching for internal information; KM significantly reclaims this lost time.

3. Preservation of Institutional Knowledge

Organizations often face "brain drain" when experienced employees retire or leave. A robust KM system captures both **explicit knowledge** (manuals, documents) and **tacit knowledge** (personal experience, intuition) before it walks out the door.

- **Significance:** Ensures business continuity and makes the organization resilient to turnover.

4. Accelerated On-boarding and Training

For new hires, the learning curve can be steep. KM systems provide a "single source of truth" where new employees can find training manuals, FAQs, and best practices on demand.

- **Impact:** Reduces the "time to proficiency," allowing new staff to become productive contributors much sooner.

5. Increased Innovation and Collaboration

KM breaks down "knowledge silos" by encouraging information sharing across different departments. When diverse teams have access to the same pool of ideas, it fosters a collaborative environment where new products or process improvements can emerge.

That is an excellent summary of Knowledge Management (KM). You've captured the core "lifecycle" of knowledge that turns raw information into a strategic asset.

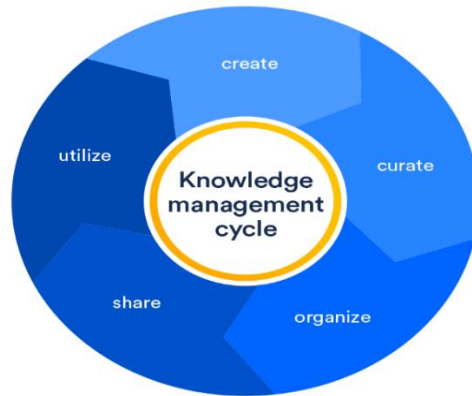
As of 2026, this field has shifted from being a "nice-to-have" library function to the backbone of organizational agility, largely due to the integration of AI and the need for "digital sovereignty."

Here is a breakdown of how those processes work and why they are more critical than ever:

1. The 5 Pillars of the KM Process

To make knowledge "flow" like a utility, organizations typically follow these steps:

- **Create:** Generating new insights through R&D, project post-mortems (lessons learned), or daily problem-solving.
- **Curate:** Filtering out the noise. This ensures that only accurate, high-value, and up-to-date information reaches the "source of truth."
- **Share:** Moving knowledge from "silos" (individual minds or private folders) to accessible platforms like wikis, intranets, or AI-powered hubs.
- **Use:** The ultimate goal. Knowledge is only valuable if it informs a decision, speeds up on boarding, or prevents a repeated mistake.
- **Manage:** Ensuring governance, security, and regular audits so the system doesn't become a "data graveyard."



That is a core definition from ITIL 4 that highlights a major shift in how modern organizations view "data" versus "wisdom." In the past, Knowledge Management (KM) was often treated as just maintaining a database of manuals. ITIL 4 recognizes that knowledge is a **dynamic asset** that must flow to the right people to create value.

To understand how this works in practice, it helps to look at the transition from raw data to actionable insight, often represented by the **DIKW pyramid**.

1. The DIKW Pipeline

The "procedure for acquisition" mentioned in the quote is essentially the process of moving up this pyramid:

- **Data:** Raw facts and figures (e.g., a timestamp of a server error).
- **Information:** Data with context (e.g., "The server is crashing every Tuesday at 2:00 PM").
- **Knowledge:** Information combined with experience and reflection (e.g., "We know that a scheduled backup runs at that time, which likely causes the crash").
- **Wisdom:** The ability to use knowledge to make the right decisions (e.g., "We should reschedule backups to 3:00 AM to avoid user impact").



2. Explicit vs. Tacit Knowledge

The ITIL 4 excerpt specifically mentions "formal and documented" versus "informal and tacit" knowledge. Distinguishing these is crucial for a successful KM strategy:

Feature	Explicit Knowledge (Formal)	Tacit Knowledge (Informal)
Nature	Codified, documented, and easy to share.	Personal, experiential, and "in the head."
Examples	Standard Operating Procedures (SOPs), manuals, FAQs.	"Gut feelings," expert intuition, years of experience.
Challenge	Keeping it updated and accurate.	Capturing it before an employee leaves the company.

3. Key Success Factors in ITIL 4

For knowledge management to meet the "right information, right time" goal, organizations must focus on:

- **Culture:** Encouraging people to share what they know rather than hoarding information for job security.
- **Accessibility:** Using search-driven tools so users don't have to hunt through deep folder structures.
- **Feedback Loops:** Allowing stakeholders to flag when a piece of knowledge is outdated or incorrect.

Key Takeaway: Knowledge Management isn't about building a library; it's about building a **nervous system** for the organization where information flows where it is needed most.

That is a perfect definition of a modern IT knowledge base (KB). It transforms **tribal knowledge** (information trapped in the heads of a few experts) into **shared assets** that empower everyone.

To build on your point, a truly effective knowledge base functions as the "single source of truth" for an organization. Here is a breakdown of how those components usually function in practice:

Common Components of an IT Knowledge Base

- **How-To Guides:** Step-by-step instructions for common tasks (e.g., "How to set up your VPN").
- **Troubleshooting Articles:** Symptoms, causes, and solutions for known technical issues.

- **Reference Docs:** Technical specifications, API documentation, or policy details.
- **On boarding Checklists:** Standardized lists for new hires or new project setups.

Why It Matters (The "Value Add")

Beyond just storing information, a well-maintained KB provides three major benefits:

1. **Reduced Ticket Volume:** Users find their own answers (Self-Service), freeing up the IT team for complex projects.
2. **Consistency:** Every user gets the same accurate answer, rather than different advice from different technicians.
3. **Faster Training:** New employees can get up to speed by reading documented processes instead of shadowing senior staff for weeks.

It is fascinating how search engines have set such a high bar for our expectations of "finding information." They've turned the chaos of the internet into a giant, indexed library where the answer is always just a few keystrokes away.

However, as you pointed out, translating that "Google-like" ease to an internal IT environment is where the real challenge lies. While a public search engine crawls a massive, open web, an IT team has to build, curate, and maintain their own "mini-internet" from scratch.

The Complexity Gap

The reason IT knowledge management (KM) feels so much harder than a simple Google search usually comes down to three things:

- **Context Sensitivity:** A search engine doesn't care if you're an employee or a customer; it just gives the most popular result. In IT, a "password reset" guide for an admin is vastly different from one for a standard user.
- **Accuracy vs. Popularity:** Search engines prioritize what is clicked most. In IT, the most "popular" solution might be an outdated workaround that actually creates more security vulnerabilities.
- **The Lifecycle of Knowledge:** Information in IT has a shelf life. Software updates, hardware sunsets, and policy changes mean that content must be actively managed, not just hosted.

Key Aspects of knowledge management

- **Capture & Create:** Documenting explicit knowledge (documents, databases) and tacit knowledge (expert experience, skills).
- **Organize & Store:** Centralizing information in accessible systems like knowledge bases or intranets.

- **Share & Distribute:** Facilitating collaboration and access so employees can find and use knowledge.
- **Utilize & Apply:** Applying insights to make better decisions, solve problems, and improve processes.

Core Goals

- **Improve Efficiency:** Faster access to information speeds up tasks, onboarding, and decision-making.
 - **Enhance Innovation:** Sharing ideas and expertise sparks new solutions and growth.
 - **Retain Institutional Memory:** Prevents loss of critical knowledge when employees leave.
- Boost Performance:** Drives better business outcomes and customer satisfaction.

Building a knowledge management strategy

Building a robust Knowledge Management (KM) strategy is less about a one-time setup and more about creating a **living ecosystem**. As you noted, the real challenge lies in the "constant cycle" of maintenance.

To move from a static repository to a dynamic strategy, you can break the process down into four essential stages.

1. Capture: Finding the "Hidden Knowledge"

The most valuable knowledge often lives in people's heads (tacit knowledge) rather than in documents (explicit knowledge).

- **Identify Knowledge Silos:** Determine which departments hold critical info that isn't being shared.
- **Standardize Input:** Create templates or simple forms to make it easy for employees to contribute without it feeling like a chore.
- **Interview Subject Matter Experts (SMEs):** Periodically "mine" the expertise of your veterans through recorded sessions or Q&As.

2. Organize: Ensuring Findability

A library is useless if the books aren't indexed.

- **Taxonomy & Tagging:** Develop a clear folder structure and use metadata (tags) so users can find information using their own language.
- **Search Optimization:** Ensure your KM tool has a powerful search function that crawls document text, not just titles.

3. Refine: The "Cycle of Elimination"

This is the part most organizations skip, leading to "knowledge bloat."

- **Scheduled Audits:** Assign "owners" to specific topics who must review and verify the accuracy of the content every 6–12 months.
- **Archiving Protocol:** Don't just delete; move outdated material to an archive folder so the history is preserved without cluttering daily search results.
- **Verification Badges:** Use visual cues (like a green checkmark) to show users that a piece of information is "Current" and "Verified."

4. Culture: Encouraging Adoption

The best system in the world will fail if the culture doesn't value sharing.

- **Incentivize Contribution:** Recognize "Top Contributors" in company meetings.
- **Integrate into Workflow:** The KM system should live where people work (e.g., integrated into Slack, Teams, or your Project Management tools) rather than being a separate destination they have to remember to visit.

Implementaion:

Implementing a knowledge management (KM) system is as much about people and culture as it is about the software itself. To ensure your technology actually makes knowledge management "simple" rather than just adding another layer of digital clutter, consider these critical questions:

1. The Strategy: Why are we doing this?

Before looking at features, ensure the tool aligns with your business objectives.

- **What specific outcome are we chasing?** Are you trying to reduce customer support tickets, speed up employee onboarding, or prevent "knowledge loss" when experts retire?
- **What is the cost of doing nothing?** Quantify how much time is currently wasted searching for information or repeating mistakes.
- **How will we measure success?** Will you track "search success rates," "time to proficiency" for new hires, or "content freshness"?

2. The User Experience: Will they actually use it?

A system is only as good as the data people put into it. If it's hard to use, it will become a "ghost town."

- **Is it as easy as a Google search?** Can users find what they need using natural language, or do they need to know exact file names and folder structures?
- **Does it integrate into current workflows?** Can employees access knowledge directly within Slack, Microsoft Teams, or their CRM, or do they have to switch tabs and lose focus?

- **Is it "mobile-first" or "mobile-friendly"?** For deskless or field workers, can they access and contribute knowledge on the go?

3. The Content: Is the knowledge "alive"?

Static documents become obsolete the moment they are saved. Your tech should help keep information relevant.

- **Who owns the content?** Does the software allow for clear roles (Authors, Editors, Verifiers) to ensure accuracy?
- **Does it have a "Verification" heartbeat?** Will the system nudge experts to review an article every 6 months to ensure it's still valid?
- **How does it handle "Tacit" knowledge?** Can the tool capture the "how-to" (videos, Q&A threads, or call recordings) rather than just the "what" (PDFs and manuals)?

4. The Technical Fit: Is it future-proof?

Ensure the software scales with your organization and stays secure.

- **Is it AI-ready?** Can the system use LLMs to summarize long documents or suggest answers automatically to save users time?
- **Are the permissions granular?** Can you restrict sensitive HR or financial data while keeping general SOPs open to everyone?
- **Is it a "walled garden"?** How easy is it to export your data if you decide to change providers in three years?

Building a knowledge management (KM) system that moves beyond a simple "digital filing cabinet" requires a shift from **collection** to **connection**. To be truly effective, the system must act as a living ecosystem that drives innovation and community.

Here is a summary of the core pillars for a needs-driven KM system:

1. Driving Innovation and Idea Generation

Instead of just storing past data, the system should act as a springboard for new thoughts.

- **Associative Thinking:** Use tools like "backlinking" or "knowledge graphs" that show how different concepts relate, helping users see patterns they might have missed.
- **Low Friction:** Make it easy to capture "seeds" of ideas before they are fully formed.

2. Fostering Culture and Community

Knowledge is inherently social. A system succeeds when people feel they are part of a shared mission.

- **Social Integration:** Include features like "likes," comments, and shared workspaces to make knowledge feel collaborative rather than solitary.

- **Psychological Safety:** Encourage a culture where "work in progress" is shared, reducing the fear of perfectionism.

3. Expert Discovery and Building

The system should help users find **who** knows what, not just **what** is written.

- **Expertise Mapping:** Automatically link contributors to topics so others can find a mentor or subject matter expert (SME) instantly.
- **Skill Growth:** Provide pathways for junior members to learn through documented "lessons learned" and best practices.

4. Continuous Feedback Loops

A static system becomes obsolete quickly. Feedback ensures the knowledge remains relevant and accurate.

- **Iterative Content:** Allow users to flag outdated information or suggest improvements to existing entries.
- **Analytics:** Use data to see what questions are being asked most frequently and fill those gaps proactively.

That is a great perspective on **Knowledge Management (KM)**, It highlights a shift in how we view corporate "intelligence"—it's not just a database for the IT team; it's the lifeblood of every department.

When you break down silos, you aren't just sharing information; you're building **organizational resilience**. Here is how that value actually manifests across the departments you mentioned:

The Value of KM Across the Organization

Department	What they share	The Impact
Customer Support	Solution articles and "hacks"	Faster resolution times and higher customer satisfaction.
IT & Engineering	Troubleshooting logs and system docs	Reduced downtime and fewer repetitive support tickets.
HR & Legal	Compliance guides and onboarding information	Consistent culture and reduced legal/regulatory risk.
Marketing	Brand voice and persona research	Unified messaging across all customer touchpoints.
Finance	Expense policies and budget workflows	Less friction in procurement and fewer audit errors.

Why a "Plan" Changes Everything

As you noted, having a plan is the difference between a cluttered digital junk drawer and a searchable asset. A solid KM strategy usually focuses on three pillars:

- **Capture:** Making it easy for a busy employee to document a "lesson learned" without it feeling like a chore.
- **Curation:** Ensuring the information remains accurate, updated, and tagged so it can actually be found.
- **Culture:** Rewarding people for sharing what they know, rather than hoarding knowledge for job security.

The "Solve Once, Use Many" Principle: The ultimate goal of KM is to ensure that a problem solved by one person in the company never has to be "re-solved" by someone else.

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ABSTRACT

The managerial techniques of the past are examined in this essay. Business success is attributed to effective management, which uses strategic thinking, coordinated efforts, and effective resource utilization to accomplish organizational objectives. Despite criticism, the principles of classical theories remain relevant today. Taylor’s Scientific Management, for example, lays the foundation for modern techniques such as lean management and systematic HR processes. Fayol's framework provides clarity and alignment in organization-wide governance. The Human Relations theory complements these by prioritizing employee engagement, communication, and psychological safety, which are essential for effective human resource management. Contemporary management practices now emphasize flexibility, innovation, employee engagement, and sustainable performance.

Key words: Management, Scientific management, Administrative management, Human relation management.

INTRODUCTION

Business plays a crucial role in the economic and social development of nations, and effective management acts as the driving force behind business success. Management involves coordinated efforts, strategic thinking, and efficient utilization of resources to achieve organizational goals. Over time, management practices have continuously evolved in response to changes in technology, industrial growth, and human behavior. This paper examines the evolution of management practices with particular reference to classical theories and their relevance in modern organizations.

BACKGROUND OF MANAGEMENT PRACTICES

- **Ancient Roots:** Early forms seen in large projects (pyramids) needing coordination.

- Industrial Revolution (Late 19th/Early 20th Century): Formalization driven by factory efficiency needs.
- Classical Theories (Early 20th Century):
- Scientific management theory (Taylor): Focus on efficiency through work study, standardization.
- Administrative Theory (Fayol): Emphasized universal principles of management.
- Human Relations Movement (Mid-20th Century): Acknowledged human factors, motivation, and social needs (Hawthorne Studies).

REVIEW OF LITERATURE

Frederick Winslow Taylor (1903) this paper details the methods Taylor used to implement science-based management in factories. Taylor observed significant inefficiency due to workers limiting their output and management's failure to structure work effectively. The text lays out systems for optimizing machine efficiency, standardizing tasks, and using time studies to develop more productive methods.

Frederick Winslow Taylor (1911) Taylor argues that immense national loss occurs due to inefficiency in all daily acts, and the remedy lies in systematic management rather than searching for extraordinary individuals. He posits that the best management is a true science with clearly defined principles.

Elton Mayo (1933) the industrial world suffers from human problems, such as monotony and boredom, which arise from repetitive work and social disorganization. Mayo concludes that the primary need is to develop a management technique that allows people to live in easy social relationships, recognizing that employees desire a sense of belonging and significance within the workplace.

Soni Taneja, Mark G. Pryor, and Lanny A. Toombs (2011) the paper argues that scientific management should not be dismissed as outdated and aims to explore its ongoing relevance and validity in modern workplace culture. It suggests that many contemporary management techniques, such as lean management and standardized work procedures, draw heavily from Taylor's original insights into efficiency and process optimization.

Hakan Turan (2015) the evaluation of the harmony of Taylor's insights and techniques in modern management portrays the contributions of Taylor to human resources management in the personnel selection process.

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Samuel Ayodeji Omolawal, PhD (2021) the effective and good management of human resources is hinged on the basic understanding of the nature of workers first as human beings with peculiarities, and that such an understanding can only be possible with the adequate knowledge of the basic tenets and contributions of the human relations theory pioneered by Elton Mayo.

SCIENTIFIC MANAGEMENT

BACKGROUND OF FREDERICK WINSLOW TAYLOR

We have been managing the work for hundreds of years, and we can trace formal management ideas to the 1700s. But the most significant developments in management theory emerged in the 20th century. We owe much of our understanding of managerial practices to the many theorists of this period, who tried to understand how best to conduct business.

One of the earliest of these theorists was **Frederick Winslow Taylor**. He started the Scientific Management movement, and he and his associates were the first people to study the work process scientifically. They studied how work was performed, and they looked at how this affected worker productivity. Taylor's philosophy focused on the belief that making people work as hard as they could was not as efficient as optimizing the way the work was done.

In 1909, Taylor published the book named "The Principles of Scientific Management". In this, he proposed that by optimizing and simplifying jobs, productivity would increase. He also advanced the idea that workers and managers needed to cooperate with one another. This was very different from the way work was typically done in businesses beforehand. A factory manager at that time had very little contact with the workers, and he left them on their own to produce the necessary product. There was no standardization, and a worker's main motivation was often continued employment, so there was no incentive to work as quickly or as efficiently as possible.

Taylor believed that all workers were motivated by money, so he promoted the idea of "a fair day's pay for a fair day's work." In other words, if a worker didn't achieve enough in a day, he didn't deserve to be paid as much as another worker who was highly productive.

TAYLOR'S FOUR PRINCIPLES OF SCIENTIFIC MANAGEMENT

1. Science, Not a Rule of Thumb

Taylor says that employers ought to examine each element of a job scientifically. He maintained that scientific investigation should be employed to back up management decisions. This principle ensures that minimum human effort is exerted while maximum output is produced.

2. Harmony or Cooperation between Employer and Workers

The employer and workers relationship should be maintained, and works should be treated in accordance to standards. This would ensure that the job is done in a best possible way. The cooperation between employers and workers eliminates conflict and ensures smooth working environment.

3. Scientific Selection, Training and Development Of Workers

The employees should have qualities and skills required for the job, therefore, capable workers should be taken, and incapable workers should be taken out of work. This is done in a systematic way to ensure that workers who are capable and suited for the job will stay and become more prosperous. Workers with physical and intellectual abilities speed up the productivity and are paid piece rate system to motivate them.

4. Division of Work

Tasks are broken down into smaller components to find an optimal method of performing a task. Division of work provides clarity for employers on how the job should be done and in turn giving workers responsibility what job to be done.

CRITICISM OF TAYLOR'S WORK

Taylor's work was criticized for not acknowledging human aspects and social context. His work only focused on the tasks rather than individuals who are performing the tasks. This may led to reductionism approaches which degrade the workers. Task allocation and time allowed doing the tasks make the worker to think, it seems workers to operate like machines. Taylor also did not acknowledge variance among individuals and tend to regard workers as uninformed and ignore their ideas and suggestions. Taylor's work hypothesized that workers motive is income without an acknowledgement of other factors that influence performance.

ADVANTAGES OF TAYLOR'S THEORY

- **Increased efficiency:** Work processes are optimized through the scientific analysis of work processes and the decomposition of complex tasks into simpler units. This systematization enables work processes to be executed quickly.

- **Cost reduction:** By increasing productivity, manufacturing costs can also be reduced.
- **Easy training:** Since tasks are broken down into simpler processes, it is easier to train new employees. This saves time and resources during training.
- **Specialization:** Employees can focus on specific tasks and perform them more efficiently. As a result, they develop a high level of expertise in their respective field.
- **Control and monitoring:** The precise definition of work processes facilitates, control and monitoring. This minimizes errors and improves the quality of the end product.

DISADVANTAGES OF TAYLOR'S THEORY

- **Human factors:** Taylorism tends to neglect the psychological and social aspects of work. This can lead to a deterioration of the working climate.
- **Monotony:** Breaking down work into simple, repetitive tasks can lead to monotony and thus employee dissatisfaction. This monotony can also have a negative impact on productivity in the long term.
- **Disenfranchisement of workers:** The strict separation of thinking and acting can limit the creativity and initiative of workers. Employees often feel less valued as a result.
- **Short-sightedness:** The focus on efficiency can lead to long-term goals and sustainable developments being neglected. There is a risk that quality and innovation will suffer.
- **Vulnerability to errors:** Because the work is highly specialized, an error in a small task can affect the entire process. This specialization increases the risk of a chain reaction when errors occur.

IMPACT OF TAYLOR'S PRINCIPLES IN PRESENT ORGANIZATIONAL ACTIVITIES

Taylor's work was prominent in the 20s century, it is still relevant today and it is reflected in the organizational activities in varying advanced techniques. The way work is organized today resembles Taylor scientific principles to a certain extent. These principles shall be discussed in relation to the impact they have in management practices today.

1. Division of Work or Responsibility

Organizations of today have segregated departments with distinct individuals who occupy different functional areas within the organization. The segregation ranges from interns, employees, management, and employers performing distinct functions that lead to

overall organizational performance. Separation of planning and doing is a core principle of Scientific Management.

For example, McDonald's as a food industry provides specialized tasks with movement of workers. Specialized management serves the purpose of effective planning to achieve the desired organizational goals while subordinates perform the tasks.

2. Harmony between Employers and Workers

Organizations of today have Human Resources departments that ensure cooperation between employers and workers. Both management and employees understand each other to improve productivity and profits. However, this principle has evolved to an extent that it includes autonomy and discretion of employees which was not the case in Taylor's initial establishment of this principle.

For Example: The involvement of trade unions, establishment of collective bargaining and workplace forums.

3. Scientific Selection and Training of Workers

This principle maintains that highly qualified person should occupy the top positions in the organization. Management practices within rewards system include performance-based pay, bonus pay, and payment based on commission to increase output and productivity. Human resource department recruit employees in a systematic and scientific way. The use of job analysis to ensure congruence between the requirement of the job and skills, knowledge, abilities, and other characteristics and experience of a candidate is prominent in today's organizations. In addition, organizations invest in training. According to Eduardo, Scott, Kurt & Kimberly (2012), organizations in the United States invest billions on training each year.

4. Replacing Rule Of Thumb with Science

Organizational activities and human resources practices are thoroughly planned with an application of science. For instance, marketing personnel relies on market surveys prior and during the release of a product or services, it is important to gather information about customer's interest and expectation to avoid failure in this hyper competitive business ecosystem. Taylor's work sets the base for present knowledge and its effect is being felt today. Most changes in management practices today are grounded in Frederick Winslow Taylor's Scientific Management.

ADMINISTRATIVE THEORY

Background of Henri Fayol

Fayol is known as the "father of modern management" because his theory tasked leaders with setting the tone for the rest of the organization. He was born on 29 July, 1841 at

Istanbul and died on 19 November, 1925 at Paris. He graduated from the mining academy "Ecole National Superior des Mine" in Saint-Etienne in 1860. In the same year, he stated working at mining-company named "Compagnie de Commentary - Fourchambault-Decazeville" in Commentary as the mining-engineer and retired as managing-director of the company.

He worked as a French mining-engineer, executive, author and director of mines. He develops a general-theory of business administration and management that is called Fayolism. His theory is based on his own experiences. In 1916, he published a book named "Administration Industrielle et Generale".

Concept of Management

For Fayol, "to manage is to forecast and plan, organize, command, co-ordinate and control".

1. Management is an activity like all other activities, between head and members of the body corporate. It is concerned with drawing up the broad-plan of operations of the business with assembling personnel, coordinating and harmonizing effort and activity.
2. It is operated through people; it is concerned with objects and things only as they are associated with people and are acted on by them. His concept of management is one of the first comprehensive statements of a general-theory of management.
3. He divides all activities of an industry into six separate-categories.
 - Technical-activities (production, manufacture and adaptation)
 - Commercial-activities (buying, selling and exchange)
 - Financial-activities (search for an optimum-use of capital)
 - Security-activities (protection of property and persons)
 - Accounting-activities (stock-taking, balance-sheets, costs and statistics)
 - Managerial-activities (planning, organization, command, co-ordination and control).
4. He asserts, management is neither an exclusive-privilege nor a particular responsibility of the head or senior-members of the business. In this way, it can be said, Fayol takes management in a macro-sense.

FAYOL'S 14 PRINCIPLES OF MANAGEMENT

1. **Division of work:** Dividing work among employees helps improve the turnover, accuracy and efficiency.
2. **Authority:** Managers have the authority to enforce processes that make employees work as efficiently as possible; they are responsible for their team's output.

3. **Discipline:** It is up to managers to discipline workers to ensure compliance and collaboration.
4. **Unity of command:** To streamline the chain of command and avoid confusion, employees should answer to only one manager.
5. **Unity of direction:** Everyone in an organization should work toward the same goal.
6. **Subordination of individual interest:** All employees, including managers, should set aside their personal interests and focus solely on the company's success.
7. **Remuneration of employees:** Managers need to reward their employees, monetarily or otherwise, for their efforts.
8. **Centralization:** Management's authority should be centralized, but decision-making should be divided equally among leaders so no single entity has the autonomy to make decisions unilaterally.
9. **Scalar chain:** Managers must communicate the leadership hierarchy across the company so everyone knows whom they report to.
10. **Order:** Maintaining order across the business increases productivity and output.
11. **Equity:** All employees should be treated equally and it is managers' responsibility to protect their teams from disputes.
12. **Stability:** Employees who feel secure in their positions perform better and managers are responsible for providing job security to their teams.
13. **Initiative:** Managers should encourage employees to be proactive whenever possible.
14. **Esprit de corps:** Managers are responsible for motivating their teams and setting a positive, supportive and collaborative tone.

CRITICISM OF FAYOL'S PRINCIPLES OF MANAGEMENT

Some detractors claim that: this theory was unscientific. Fayol's critics question whether you can ground a theory in the observations of one person. But Fayol stressed that he was laying a foundation for others to build on.

Some told this theory was too prescriptive. If some of Fayol's Principles look dated, there's a reason for that. Many critics argue that one set of Principles can't govern all managers. In fact, Fayol wrote that his list was "incomplete," and that the Principles were flexible and adaptable.

ADVANTAGES

- **Increased Productivity & Efficiency:** Replaces "rule of thumb" with science, finding the "one best way" to do tasks, significantly boosting output.

- **Better Resource Utilization:** Optimizes use of materials, tools, and time through scientific methods.
- **Standardization:** Creates uniform processes, tools, and working conditions, reducing defects.
- **Worker Training & Development:** Focuses on scientifically selecting and training workers for specific tasks, improving skills.
- **Higher Wages:** Incentive-based pay for higher output motivates workers and provides fair compensation.
- **Reduced Costs:** Efficiency gains lower overall production costs, benefiting consumers with lower prices.
- **Clearer Responsibility:** Divides planning (management) from execution (workers), creating clear roles.

DISADVANTAGES

- **Dehumanization & Monotony:** Treats workers like machines, leading to repetitive, boring tasks and low morale.
- **Loss of Initiative/Creativity:** Workers just follow instructions, stifling innovation and problem-solving.
- **Job Insecurity/Unemployment:** Increased efficiency with fewer people can lead to layoffs.
- **Autocratic Control:** Management dictates, creating an authoritarian atmosphere and ignoring worker input.
- **Mental/Physical Strain:** High-pressure, fast-paced demands can cause stress and burnout.
- **Rigid & Inflexible:** Specialization makes workers, and the system, unable to adapt easily to new challenges.
- **Focus on Individualism:** Ignores teamwork and group dynamics, creating a "survival of the fittest" culture.

COMPARISON OF FAYOL'S THEORY WITH OTHER MANAGEMENT THEORIES

Fayol's theory vs. Taylor's scientific management theory

Focus: Fayol provides a broad administrative blueprint for how managers should run organizations; Taylor concentrates narrowly on optimizing individual tasks and worker efficiency at the floor level.

Methods: Fayol emphasizes managerial functions and principles (e.g., planning,

structure, unity); Taylor relies on time and motion studies, standardization and incentive pay to raise output.

People and structure: Fayol balances structure with morale (e.g., equity, esprit de corps); Taylor treats labor as a system to engineer, often reducing worker autonomy.

Best use: Fayol suits organization-wide governance and coordination; Taylor suits repetitive, measurable processes needing productivity gains.

Fayol's theory vs. Mayo's human relations management theory

Focus: Fayol centers on managerial control and structure; Mayo spotlights social needs, motivation and group dynamics as performance drivers.

Methods: Fayol emphasizes top-down principles; Mayo encourages supervisor support, communication and participative climates to elevate morale and output.

People and structure: Fayol includes equity and esprit de corps; Mayo prioritizes worker engagement, informal norms and psychological safety.

Best use: Fayol provides clarity and alignment; Mayo complements it by improving motivation and retention. Together, they enable order and engagement.

Fayol's theory vs. Weber's bureaucratic management theory

Focus: Fayol outlines what managers should do and the principles guiding them; Weber designs the ideal organizational form based on rules, hierarchy and impersonal authority.

Methods: Fayol blends flexibility (e.g., initiative and unity of direction) with control; Weber prioritizes formal rules, clear roles and merit-based appointment to minimize favoritism.

People and structure: Fayol acknowledges morale and cohesion; Weber emphasizes predictability and legal-rational authority, which can curb discretion.

Best use: Fayol helps leaders orchestrate strategy and coordination; Weber fits large, compliance-heavy entities needing consistency and accountability.

HUMAN RELATION MANAGEMENT

Background of Elton Mayo

Elton Mayo was an Australian – born psychologist, industrial and organizational theorist. Mayo was formally trained at the University of Adelaide, acquiring a Bachelor of Arts Degree and was later awarded an honorary Master of Arts Degree from the University of Queensland (UQ).

In 1927, a group of researchers led by Elton Mayo and Fritz Roethlisberger of the Harvard Business School were invited to join in the studies at the Hawthorne Works of

Western Electric Company, Chicago. The experiment lasted up to 1932. At that time, Taylorism, or the application of science in the workplace to improve productivity, viewed individuals as machines that could work in unethical or unrealistic environments. Mayo, in contrast, popularized the idea of the “social person”, meaning organizations should treat people as individuals, not machines, with individual needs.

The Hawthorne Experiment brought out that the productivity of the employees is not the function of only physical conditions of work and money wages paid to them. Productivity of employees depends heavily upon the satisfaction of the employees in their work situation. Mayo’s idea was that logical factors were far less important than emotional factors in determining productivity efficiency.

CHARACTERISTICS OF ELTON MAYO'S THEORY OF HUMAN RELATIONS

- **Coordinating Process:** You will come to know about eliminating the communication gap between the people and the organization. You will receive higher targets and greater efficiency from the employees if you conduct proper communication with them.
- **Job Satisfaction:** With the help of human relation theory, you will get to know how people can get job satisfaction. People need to have a better focus on their social and psychological needs. They must be some non-monetary initiatives that enhance their morale and increase employee relations. It also enhances the productivity and efficiency of the employees.
- **Human Aspects:** The human relations theory by Elton Mayo was developed to get the responses related to the human aspects and their management. Employees must identify their basic needs and should have the willingness to work, which improves their work quality.

CRITICISM OF MAYO'S HUMAN RELATION THEORY

- **Lack of Scientific Validity:** The human relation drew conclusions from Hawthorne studies. These conclusions are based on clinical insight rather than on scientific evidence. The groups chosen for study were not representative in character. The findings based upon temporary groups do not apply to groups that have continuing relationship with one another. Moreover, the experiments focused on operative employees only.

- **Over-Emphasis on Group:** The human relations approach over-emphasizes the group and group decision-making. But, in practice, groups may create problems for the management and collective decision-making may not be possible.
- **Over-Stretching of Human Relations:** It is assumed that all organizational problems are amenable to solutions through human relations. This assumption does not hold well in practice. The satisfied workers may not be more productive workers.
- **Limited Focus on Work:** The human relations approach lacks adequate focus on work. It puts all the emphasis on interpersonal relations and on the informal group. It tends to overemphasize the psychological aspects at the cost of the structural and technical aspects.

ADVANTAGES

- **Boosts Satisfaction:** Focuses on social/psychological needs (belonging, recognition), making employees feel valued and increasing job satisfaction.
- **Increases Productivity:** Happy, engaged employees often work more efficiently.
- **Better Communication:** Encourages upward communication, giving employees a voice and improving decision-making.
- **Teamwork & Collaboration:** Promotes social groups and collaboration, fostering a positive environment.
- **Recognizes the "Whole Person":** Acknowledges employees have lives outside work, promoting work-life balance.

DISADVANTAGES

- **Unscientific Basis:** Relied heavily on the Hawthorne Studies, this had methodological flaws (observer effect, small sample size).
- **Neglects Task/Structure:** Overemphasis on human relations can sideline crucial factors like work design, resources, and structural problems.
- **Ignores Economic Incentives:** Downplays the vital role of financial rewards, which remain a strong motivator.
- **Potential for Manipulation:** "Employee-of-the-month" or feeling noticed (Hawthorne Effect) can be seen as manipulative ways to get more work.
- **Risk of Favoritism:** Focusing too much on interpersonal dynamics can lead to unfair treatment or cliques.

HUMAN RELATION SKILLS

1. Emotional Intelligence

Emotional intelligence is the ability to be aware of and manage your own emotions, as well as the emotions of others. In the workplace of the future, where change will be constant, emotional intelligence will be a key skill for managing stress and maintaining morale.

2. Active Listening

Active listening is the ability to truly listen to what someone else is saying, without letting your own biases, judgment or assumptions get in the way. It involves taking the time to understand another person's perspective, and then responding in a way that acknowledges their feelings and point of view.

3. Conflict Resolution

Conflict resolution is the ability to identify and manage conflict in a constructive way that leads to a positive outcome. It involves understanding the root causes of conflict, as well as the different perspectives of those involved.

4. Empathy

Empathy plays out big with conflict resolution because it's the ability to understand and share the feelings of another person. In the workplace, empathy can mean understanding what someone is going through, whether it's a difficult work situation or a personal issue. It can also mean being sensitive to the needs of others, both in terms of work demands and personal preferences.

5. Cultural competence

Cultural competence is the ability to understand and work effectively with people from different cultures. In the diverse workplace of the future, this skill will be essential for building positive relationships among multifaceted teams and remote workers from different cultures.

STRATEGIES TO IMPROVE HUMAN RELATION

1. Human Relations improve Communication

The main way human relations can improve communication and avoid miscommunication in the workplace is by increasing transparency. This can be done by having clear policies and procedures that are readily available to all employees, as well as regular communication between management and employees.

Human relations can also help to resolve conflict when it does occur. By having a well-defined process for handling disputes, employees will know exactly what to do if they find themselves in a disagreement with another employee.

2. Boosting Motivation and Productivity

By providing opportunities for personal growth, companies will be able to create a sense of purpose at their jobs. Human Relations can help them find meaning at work by fostering cultures that promote trustworthiness across all levels within an organization including leadership teams workers feel comfortable taking risks or sharing new ideas. This ultimately leads towards more productivity within the workplace.

3. Scaling Employee Retention

Human Relations can improve Employee Retention by creating a positive work environment. This can be done by fostering a sense of community among employees, providing clear and concise communication, and offering opportunities for growth and development. By creating a positive work environment, Human Relations can help to create an atmosphere in which employees are more likely to stay with the company for the long-term.

Over and above, Human Relations can improve Employee Retention by providing support during difficult times. This may include offering counseling or financial assistance during periods of unemployment or when an employee is facing personal challenges.

4. Managing Diversity

Strategies for managing diversity in the workplace can include policies and procedures that value and respect diversity, training and development opportunities that focus on cultural competence, recognition and reward systems for employees who demonstrate successful intercultural interactions, and assistance in resolving conflicts that may arise due to differences in cultural background or perspective. Similarly, human relations professionals can work to create a culture of inclusion in the workplace that can help eliminate feelings of exclusion or discrimination among employees.

5. Accelerate employee development

A positive working environment in which employees feel valued and appreciated also means a working environment that is conducive to employee development. Mentoring and guiding employees in developing the skills and knowledge they need for their professional development is very important in this regard. In this way, Human Relations plays a key role in promoting the professional development of employees.

CONCLUSION

Management practices refer to the structured methods and approaches adopted by managers to plan, organize, lead, and control organizational resources effectively. These practices have evolved from simple administrative techniques used in ancient civilizations to

scientifically developed theories such as scientific management, administrative management, and human relations theory. In the contemporary business environment, management practices emphasize flexibility, innovation, employee engagement, and sustainable performance. As we conclude management practices have been evaluating in all the eras. Past practices are still maintaining in the modern era also.

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MANAGEMENT PRACTICES: PAST

MANAGEMENT PRACTICES : PAST – SCIENTIFIC APPROACH

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INTRODUCTION TO MANAGEMENT PRACTICES

Management practices encompass the structured approaches and managerial techniques adopted by organizations to effectively plan, coordinate, direct, and regulate their resources in pursuit of defined objectives. These practices serve as the foundation for organizational functioning and are critical to achieving efficiency, consistency, and goal alignment across all levels of management.

Over time, management practices have evolved significantly, progressing from conventional models such as classical and scientific management to contemporary approaches that emphasize strategic management, innovation, human capital development, and technological integration. This evolution reflects the need for organizations to respond to changing economic conditions, competitive pressures, and advancements in business environments.

In the modern business landscape, management practices extend beyond operational efficiency and financial performance. They increasingly incorporate ethical governance, sustainability, employee empowerment, and customer-centric strategies. Effective management practices enable organizations to make informed decisions, optimize resource utilization, foster collaboration, and adapt to uncertainty and complexity.

Thus, management practices play a pivotal role in driving organizational growth, enhancing performance, and ensuring long-term sustainability. By aligning managerial actions with organizational goals and external demands, these practices contribute significantly to the overall success and resilience of organizations.

Foundations of Classical Management Theories

The development of management as a recognized field of study began in the late nineteenth and early twentieth centuries, driven by rapid industrialization and the expansion of large-scale organizations. These changes created a need for formal methods to ensure effective coordination, supervision, and control of organizational activities. In response, classical management theories emerged, providing the foundational framework for traditional management practices.

Key contributors to these early theories include **Frederick Winslow Taylor, Henri Fayol, and Max Weber**. Taylor’s scientific management approach emphasized improving

labor productivity through systematic analysis, standardization of tasks, and time-and-motion studies. Fayol, on the other hand, focused on the administrative aspects of management and proposed fundamental managerial functions such as planning, organizing, directing, coordinating, and controlling, which later evolved into the widely recognized **POSDCORB** framework. Weber introduced the bureaucratic model, advocating a formal organizational structure characterized by hierarchy, clearly defined roles, standardized rules, and impersonal relationships.

These classical approaches largely adopted a **top-down managerial structure**, where authority and decision-making power were centralized with managers. Employees were expected to adhere strictly to prescribed procedures and instructions, with limited participation in decision-making processes. Together, these early management theories established the structural and functional basis of traditional management systems.

Human-Centered Management Perspectives

The Human Relations Movement emerged during the 1920s and 1930s as a response to the shortcomings of classical management theories, which largely overlooked the social and psychological needs of workers. This movement redirected attention toward the human dimension of organizations, emphasizing that employee satisfaction, motivation, and social relationships play a critical role in organizational effectiveness.

Prominent contributors such as **Elton Mayo** and **Mary Parker Follett** were instrumental in shaping this perspective. Mayo's well-known **Hawthorne Studies** revealed that employees' productivity improved when they received attention and felt valued, regardless of whether there were significant changes in physical working conditions. These findings challenged the assumption that financial incentives and rigid supervision alone determined worker performance.

The Human Relations Movement underscored the importance of leadership, communication, and group dynamics within organizations. It advocated a shift from authoritarian management styles to more **democratic and participative approaches**, where managers support, guide, and engage employees rather than merely exercising control. By fostering cooperation and mutual respect, organizations could create a more positive work environment conducive to higher morale and improved performance.

This movement marked a significant transition toward **people-centered management**, laying the groundwork for modern approaches that prioritize employee engagement, teamwork, and effective leadership as essential elements of organizational success.

Human Behavior and Motivation in Organizational Management

Extending the ideas introduced by the Human Relations Movement, the 1950s and 1960s witnessed the development of behavioral management theories that placed greater emphasis on understanding individual behavior and motivation within organizational settings. These theories drew upon insights from psychology and sociology to explain how human needs, attitudes, and perceptions influence work performance.

A major contribution to this field was made by **Abraham Maslow**, who proposed the **Hierarchy of Needs Theory**. Maslow suggested that human motivation is driven by a sequence of needs, beginning with basic physiological requirements and progressing through safety, social, and esteem needs, ultimately culminating in self-actualization. From a managerial perspective, this theory highlights the importance of recognizing employees' needs at various levels and creating work environments that facilitate personal growth, satisfaction, and achievement.

The Systems Approach in Management

During the 1960s and 1970s, management scholars began to recognize that organizations are not isolated units but complex systems composed of interrelated and interdependent components. **Systems Theory**, developed by thinkers such as **Ludwig von Bertalanffy** and **Russell Ackoff**, emphasized the importance of analyzing the organization as an integrated whole rather than focusing solely on individual departments or tasks.

According to this theory, a change in any part of the organization can influence other components, highlighting the need for managers to understand the relationships and interactions among different functions. Systems Theory also introduced the concept of **synergy**, suggesting that the collective performance of an organization is greater than the sum of its individual parts. This perspective represented a shift from traditional management approaches that aimed primarily at optimizing separate processes or units, toward a more holistic and coordinated approach.

Contingency Approach to Management

By the 1970s and 1980s, it became evident that there is no single universally applicable method of management. **Contingency Theory**, advanced by scholars such as **Fred Fiedler** and **Paul Lawrence**, proposed that managerial effectiveness depends on aligning leadership styles and management practices with specific situational factors.

The theory emphasizes that the success of a managerial approach is influenced by multiple variables, including the organizational environment, structure, technology, and employee characteristics. For example, a stable, highly structured environment may benefit

from formal and directive management, while a dynamic, innovative setting may require flexible, participative leadership. By acknowledging the importance of context, Contingency Theory challenged the idea of a one-size-fits-all management model and encouraged managers to tailor their strategies to the unique demands of each situation.

EMERGENCE OF SCIENTIFIC MANAGEMENT

Scientific Management is a classical management approach developed to improve organizational efficiency through the systematic study of work methods and labor productivity. This concept was formally introduced by **Frederick Winslow Taylor** in the **late 19th and early 20th centuries**.

- **1880s** – Frederick W. Taylor began his experiments on work measurement and efficiency while working as an engineer at Midvale Steel Company.
- **1895** – Taylor presented his paper “*A Piece Rate System*”, which marked the early formal expression of scientific management principles.
- **1903** – Taylor published “*Shop Management*”, outlining systematic methods for improving productivity through task standardization and supervision.
- **1911** – Taylor’s most influential work, “*The Principles of Scientific Management*”, was published. This year is widely recognized as the **official foundation of Scientific Management theory**.

Scientific Management emphasizes the use of scientific methods to determine the most efficient way of performing tasks, proper selection and training of workers, standardization of tools and procedures, and the division of work between management and labor. The approach aimed to eliminate inefficiencies, reduce waste, and increase productivity.

Although later criticized for its mechanistic view of workers, Scientific Management laid the groundwork for modern management practices such as operations management, performance measurement, and process optimization.

Frederick Winslow Taylor: The Father of Scientific Management

Frederick Winslow Taylor, widely recognized as the **Father of Scientific Management**, sought to address the inefficiencies he observed in industrial work during the late 19th and early 20th centuries. As a mechanical engineer in steel companies, Taylor noticed that work methods were largely based on tradition, individual habits, and trial-and-error rather than systematic analysis. He believed that a **scientific approach** could dramatically improve productivity and efficiency.

Taylor’s key insight was that work could be **studied and broken down into its smallest components** to determine the most effective way to perform each task. By

analyzing these elements scientifically, managers could identify the “**one best way**” to accomplish work. His approach emphasized not merely increasing the effort of workers, but optimizing processes so that employees could **work smarter, not harder**, through careful planning, standardization, and measurement.

Core Principles of Scientific Management

Frederick Winslow Taylor’s **Scientific Management** is founded on a set of principles designed to improve efficiency, productivity, and organizational performance. The key principles include:

1. Scientific Study of Work

- Every task should be analyzed scientifically rather than relying on tradition or intuition.
- Work processes are broken down into smaller components, studied, and optimized to find the “**one best way**” to perform each task.

2. Scientific Selection and Training of Workers

- Employees should be selected based on their skills and abilities for a specific job.
- Once selected, they should receive proper training to perform tasks efficiently according to scientifically determined methods.

3. Standardization of Tools and Procedures

- Work methods, tools, and equipment should be standardized to ensure uniformity and efficiency.
- This reduces variability in performance and improves overall productivity.

4. Division of Labor between Management and Workers

- Managers focus on planning, analysis, and supervision, while workers concentrate on executing tasks.
- This separation ensures that each group specializes in what it does best, enhancing efficiency.

5. Use of Time and Motion Studies

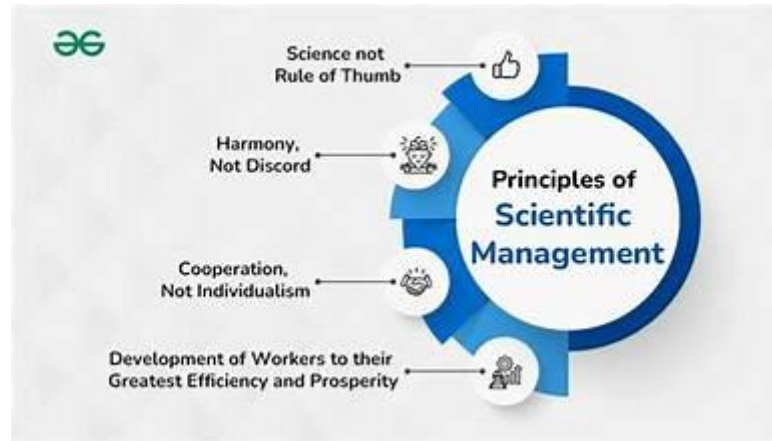
- Managers study the time and movements required for each task to eliminate unnecessary actions and improve workflow.
- The goal is to minimize fatigue and maximize output.

6. Incentive-Based Motivation

- Workers are motivated through performance-based rewards, such as piece-rate pay or bonuses, to encourage higher productivity.

7. Continuous Improvement

- Management continually observes, measures, and improves work methods to adapt to changing conditions and maintain efficiency.



Developing a Science for Each Element of Work

One of the fundamental principles of **Scientific Management** is the replacement of traditional “rule-of-thumb” methods with systematic, scientific analysis. Frederick Taylor emphasized that instead of relying on intuition, habits, or personal preferences, every task should be **carefully studied, broken down into its components, and optimized** using empirical evidence.

Taylor illustrated this principle through his famous study of **loading pig iron**. By scientifically analyzing factors such as the optimal weight to be lifted, appropriate rest intervals, and efficient handling techniques, he demonstrated that a worker’s daily output could increase dramatically—from **12.5 tons to 47 tons per day**—without additional fatigue. This example highlighted how scientific analysis of work processes could significantly improve productivity while maintaining worker well-being.

Through such systematic approaches, Taylor aimed to create a “**science of work**” that could be applied consistently across tasks and industries, forming the cornerstone of modern operational management.

Scientific Selection and Training of Workers

A core principle of **Scientific Management** is ensuring that the **right person is matched to the right job**. Frederick Taylor argued that employees should be selected based on their skills, abilities, and aptitudes rather than being hired indiscriminately. Once chosen, workers should undergo **systematic training** to perform their tasks according to scientifically developed methods.

This approach marked a departure from the common practice of simply hiring anyone available and expecting them to figure out the work. Instead, it emphasized **careful recruitment, skill assessment, and structured training programs** to ensure that employees could perform efficiently, safely, and consistently. By combining scientific selection with proper training, organizations could maximize productivity while reducing errors and minimizing worker fatigue.

Cooperation between Management and Workers

Another fundamental principle of **Scientific Management** is fostering **close cooperation between management and employees**. Frederick Taylor emphasized that management and workers should **work together as a team** to ensure that tasks are performed efficiently and according to scientifically determined methods.

Rather than relying on coercion or strict supervision, this principle encourages **mutual understanding, shared responsibility, and coordinated efforts**. Managers are responsible for planning, organizing, and analyzing work processes, while workers focus on executing tasks efficiently. Cooperation ensures that both parties are aligned toward common goals, reducing conflicts, increasing productivity, and creating a positive work environment.

Taylor believed that when management actively supports employees by providing proper guidance, training, and fair incentives, the organization benefits from **higher efficiency, improved morale, and better overall performance**.



Equal Division of Responsibility

A key principle of **Scientific Management** is the **equal division of responsibility between management and workers**. Frederick Taylor proposed that the duties of planning and execution should be clearly separated to ensure efficiency and accountability.

Under this principle, **management assumes responsibility for planning, organizing, and designing work methods**, while **workers are responsible for performing the tasks** according to the prescribed procedures. This separation ensures that managers focus on optimizing processes, providing proper tools, and guiding employees, while workers can concentrate on executing their tasks efficiently.

By distributing responsibilities in this way, organizations can achieve **higher productivity, better quality of work, and reduced confusion or overlap of duties**. Taylor believed that clear allocation of roles and responsibilities fosters cooperation, minimizes conflicts, and aligns the efforts of both management and workers toward common organizational goals.

One of the central principles of **Scientific Management** is the use of **time and motion studies** to optimize work efficiency. Frederick Taylor and his associates analyzed tasks by carefully observing the time required and the movements involved in performing each job.

The purpose of these studies was to **identify unnecessary motions, reduce fatigue, and determine the most efficient method** for completing a task. By measuring and analyzing every step of a process, managers could design workflows that minimized wasted effort and maximized productivity.

For example, in manufacturing or assembly line work, time and motion studies could help decide the **optimal sequence of movements, proper tools to use, and the ideal pace of work**. These studies not only improved efficiency but also contributed to worker safety and job standardization.

Through systematic observation and analysis, **time and motion studies became a cornerstone of scientific management**, providing an empirical basis for making work processes more rational, predictable, and efficient.



Standardization of Tools and Procedures

Another fundamental principle of **Scientific Management** is the **standardization of tools, equipment, and work procedures**. Frederick Taylor emphasized that using consistent methods and tools across similar tasks ensures efficiency, quality, and predictability in work performance.

Standardization involves **establishing best practices** for performing each task, selecting appropriate tools, and defining clear procedures that all workers follow. This approach minimizes variations in output, reduces errors, and simplifies training, as employees learn and execute tasks according to a uniform system.

For example, in a manufacturing setting, standardizing the type of tools, their dimensions, and the steps involved in assembly can greatly improve productivity and reduce wastage. Standardization also allows managers to **measure performance objectively**, identify deviations, and implement improvements systematically.

By applying standardization, organizations can achieve **higher efficiency, consistency, and reliability**, forming a critical element of Taylor's scientific management framework.

Impact of Scientific Management on Public Administration

The principles of **Scientific Management**, though initially designed for industrial organizations, have significantly influenced **public administration**. By emphasizing **systematic analysis, standardization of procedures, and performance measurement**, Taylor's ideas contributed to making government operations more **efficient, accountable, and results-oriented**. These concepts encouraged public administrators to adopt structured workflows, clear division of responsibilities, and evidence-based decision-making, thereby laying the foundation for modern administrative reforms and improved public service delivery.

1. Efficiency and Productivity

- Scientific Management emphasized **streamlined processes** and elimination of unnecessary work, which encouraged public agencies to adopt structured procedures and optimize the use of resources.

2. Standardization of Procedures

- The focus on uniform methods and standardized workflows improved consistency in public services, reducing errors and ensuring fairness in the execution of administrative tasks.

3. Specialization and Division of Labor

- Just as in industrial organizations, Taylor's principle of dividing planning and execution led to a clearer **allocation of responsibilities** among government officials and staff, enhancing organizational clarity and accountability.

4. Performance Measurement and Incentives

- Scientific Management introduced the concept of **measuring employee output and linking it to rewards or recognition**, which influenced performance appraisal systems in the public sector.

5. Decision-Making Based on Evidence

- Taylor's emphasis on data-driven methods encouraged administrators to rely on **objective analysis and systematic planning** rather than tradition or personal judgment.

6. Challenges and Criticism

- While improving efficiency, critics argue that overemphasis on rules, measurement, and standardization can lead to **rigidity, reduced creativity, and bureaucratic delays** in public administration.

Administrative Efficiency Reforms

Administrative efficiency reforms refer to initiatives and strategies aimed at **improving the performance, accountability, and effectiveness of public administration**. These reforms emerged in response to the increasing complexity of government functions, the growth of bureaucracies, and the need to deliver public services more effectively.

1. Streamlining Procedures

- Reforms focus on simplifying administrative processes, reducing unnecessary steps, and **eliminating redundant paperwork** to ensure faster and more reliable service delivery.

2. Introduction of Scientific Management Principles

- Concepts such as **division of labor, standardization of procedures, time-and-motion studies, and performance measurement** have been applied to public administration to enhance productivity and reduce inefficiency.

3. Professionalization of the Civil Service

- Administrative efficiency reforms emphasize the recruitment of skilled personnel through **merit-based systems**, systematic training programs, and clear job descriptions to improve competence and accountability.

4. Use of Technology and Automation

- Modern reforms integrate **information technology, digital record-keeping, and e-governance systems** to streamline operations, improve transparency, and reduce human error.

5. Performance Evaluation and Incentive Systems

- Regular assessment of employee performance, coupled with recognition or rewards, ensures **motivation, accountability, and alignment with organizational goals**.

6. Decentralization and Delegation

- By delegating authority and decision-making powers to lower levels, reforms aim to **increase responsiveness, reduce bottlenecks, and empower local administrators.**

7. Continuous Improvement and Innovation

- Administrative efficiency reforms encourage the **adoption of best practices, innovation, and process reengineering** to meet evolving public needs.

Performance Measurement and Evaluation

Performance measurement and evaluation are key tools in enhancing efficiency, accountability, and effectiveness in public administration. These practices involve systematically assessing the outputs, outcomes, and processes of government programs and employee performance to ensure that organizational goals are being met.

1. Defining Standards and Objectives

- Clear performance standards and objectives are established to provide a benchmark against which results can be measured. This ensures that public agencies have **specific, measurable, and achievable targets.**

2. Monitoring and Data Collection

- Regular monitoring involves collecting data on activities, processes, and outputs. This allows administrators to **track progress, identify bottlenecks, and detect deviations from expected performance.**

3. Evaluation of Results

- Evaluation focuses on assessing both the **effectiveness and efficiency** of programs, policies, and employee performance. It helps determine whether resources are being used optimally and goals are being achieved.

4. Feedback and Decision-Making

- Results from performance measurement provide **valuable feedback** to managers, enabling informed decision-making, process improvements, and resource reallocation.

5. Incentives and Accountability

- Linking evaluation outcomes to **rewards, recognition, or corrective actions** fosters accountability and motivates employees to improve performance.

6. Continuous Improvement

- Performance measurement and evaluation support **ongoing learning and innovation**, helping organizations refine strategies, adopt best practices, and enhance service delivery.

Incorporating **scientific management principles, behavioral insights, and modern monitoring tools**, performance measurement and evaluation have become essential for achieving a **productive, transparent, and citizen-focused public administration**.

Strengths and Contributions of Scientific Management

The **Scientific Management** approach introduced by Frederick Winslow Taylor made several lasting contributions to organizational management, particularly in enhancing efficiency, productivity, and systematic decision-making. Key strengths include:

1. Increased Efficiency and Productivity

- By analyzing work scientifically, standardizing procedures, and optimizing task performance, organizations achieved significant improvements in output and operational efficiency.

2. Systematic Work Methods

- Scientific Management replaced traditional “rule-of-thumb” approaches with **data-driven, methodical procedures**, enabling consistency and predictability in work processes.

3. Clear Division of Labor and Responsibilities

- The separation of planning and execution ensured that **managers focused on planning and analysis**, while workers concentrated on performing tasks efficiently.

4. Selection and Training of Workers

- Employees were selected based on skills and aptitude and trained to perform tasks according to best practices, improving competence and reducing errors.

5. Introduction of Performance Measurement

- The approach emphasized **monitoring, time-and-motion studies, and evaluation of output**, laying the foundation for modern performance management systems.

6. Standardization of Tools and Procedures

- Uniform tools, equipment, and work methods improved quality, reduced variability, and facilitated training.

7. **Motivation through Incentives**

- Linking pay and rewards to performance encouraged higher productivity and reinforced accountability among workers.

8. **Foundation for Modern Management Practices**

- Scientific Management influenced subsequent management theories, including Human Relations, Behavioral, Systems, and Contingency approaches, as well as modern operational and administrative reforms.

The principles of **Scientific Management**, though initially designed for industrial organizations, have significantly influenced **public administration**. By emphasizing **systematic analysis, standardization of procedures, and performance measurement**, Taylor's ideas contributed to making government operations more **efficient, accountable, and results-oriented**. These concepts encouraged public administrators to adopt structured workflows, clear division of responsibilities, and evidence-based decision-making, thereby laying the foundation for modern administrative reforms and improved public service.

MANAGEMENT PRACTICES OF MICRO WOMEN-OWNED ENTERPRISES

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ABSTRACT

Micro women-owned enterprises have recently been recognised as significant forces behind employment creation, income development, and empowerment in society. Adopting efficient management techniques, particularly in marketing, human resource management, and financial management, is crucial to these businesses' success and long-term viability. Women entrepreneurs may grow their clientele, increase brand awareness, and stay competitive by using strategic marketing. A competent and dedicated team is ensured by effective human resource management, which promotes workforce growth, motivation, and retention. Proper budgeting, investment planning, and resource allocation are all made accessible by sound financial management and are essential to the stability and expansion of businesses. Despite their significance, women-led microbusinesses frequently encounter major obstacles, such as restricted financial availability, market limitations, a lack of managerial expertise, and sociocultural hurdles. Micro women-owned businesses can increase operational effectiveness, attain sustainable growth, and support wider socioeconomic development by tackling these issues and putting formal management techniques into existence. This study underscores how crucial integrated management techniques are to empowering female entrepreneurs and building their businesses' robustness and competitiveness.

Keywords: Marketing, HRM, Business, Management and empowerment

Introduction

Particularly in developing nations, micro women-owned businesses are essential for promoting social empowerment, job creation, and inclusive economic growth. The efficacy of these businesses' management techniques, which include planning, financial control, marketing strategies, human resource management, and decision-making procedures, is a major factor in their performance and sustainability. Women entrepreneurs running microbusinesses frequently use informal and adaptive management techniques to deal with institutional and environmental limitations since they have limited access to resources,

technology, and formal training (Brush et al., 2009). In addition to improving operational effectiveness, effective management techniques support women-owned microbusinesses' long-term survival, competitiveness, and company resilience (McClelland et al., 2005). Therefore, to comprehend their significance in entrepreneurial success and women's economic empowerment, it is crucial to look at the management approaches used by micro women-owned businesses.

Review of Literature

Successful managerial techniques are essential to the performance, resilience, and expansion of small and medium-sized businesses (SMEs), according to recent research. Research shows that SMEs' productivity and profitability are greatly increased by structured techniques such as financial management, human resource development, performance monitoring, and strategic planning (Bloom et al., 2020). Researchers point out that SMEs using formal management systems have greater survival rates and are more resilient to market fluctuations than those using informal methods in emerging nations (Amoako & Dartey-Baah, 2021).

Additional research highlights the increasing significance of digital and innovation-focused management strategies. It has been demonstrated that integrating digital tools into accounting, marketing, and operations improves SMEs' customer involvement and decision-making effectiveness (OECD, 2023). The successful application of management practices is also found to be significantly influenced by managerial competence and leadership capacity, especially in businesses with limited resources (Rauch & Hatak, 2022). Nevertheless, despite established advantages, many SMEs have obstacles that inhibit the adoption of efficient management techniques, such as a lack of managerial training, budgetary limitations, and a lack of institutional support (World Bank, 2020). These results highlight the need for more empirical studies on context-specific management techniques that can improve the competitiveness and sustainability of SMEs.

Role of Management Practices in enhancing the performance of women-owned enterprises

By facilitating the efficient handling of scarce resources and improving business performance, effective management techniques are essential to the success and long-term viability of women-owned businesses. In marketing, human resource management, and financial management, integrated approaches have particular importance. Through customer-focused and digital techniques, marketing management assists female entrepreneurs in increasing market exposure, attracting and retaining consumers, and broadening their market

reach. Human resource management promotes employee motivation, skill development, and collaborative decision-making, all of which increase organisational stability and productivity. By promoting sensible budgeting, cash flow management, accurate record keeping, and well-informed financial decision-making, which enhance liquidity and access to financing, financial management guarantees the existence of businesses. According to empirical research, women-owned businesses that use structured and productive management techniques exhibit greater resilience, competitiveness, and long-term sustainability, which supports inclusive growth and women's economic empowerment.

i) Role of Marketing Management

To increase Small and Medium Enterprises' (SMEs) exposure, competitiveness, and market reach, marketing management is required. In several recent studies, market intelligence, digital marketing usage, and customer-oriented marketing strategies have helped SMEs comprehend shifting consumer preferences and successfully compete with larger businesses. Customer engagement and sales performance in SMEs are greatly enhanced by the use of social media marketing, online platforms, and relationship marketing, especially in dynamic and fiercely competitive marketplaces. Thus, good marketing management serves as a strategic instrument that promotes company expansion, brand development, and long-term viability.

ii) Role of Human Resource Management (HRM)

In SMEs, productivity, innovation, and organisational success are all significantly influenced by human resource management. Based on the latest studies, staff training, motivation, participatory decision-making, and performance reviews all encourage employee commitment and skill development, which boosts operational effectiveness. SMEs that make investments in the development of their human capital are better equipped to adjust to shifting market conditions and technological advancements. Appropriate HRM practices are vital for creating a motivated workforce and maintaining competitive advantage in SMEs, even in the face of resource constraints.

iii) Role of Financial Management

Although it immediately affects liquidity, profitability, and investment choices, financial management is essential to the survival and expansion of SMEs. The results of the latest research show that SMEs can better manage risks and obtain outside funding by using strong financial practices like budgeting, cash flow management, financial planning, and appropriate accounting systems. Strong financial management skills make SMEs more resilient to economic downturns and increase the likelihood of sustainable growth. Thus, in

SMEs, sound financial management guarantees stability and facilitates well-informed decision-making.

Challenges Faced by Micro Women-Owned Enterprises

Numerous obstacles prevent micro, women-owned businesses from expanding and surviving. These include low levels of financial literacy, insufficient managerial and technical capabilities, and restricted access to credit and financing because of a lack of collateral and formal banking history. Additionally, women entrepreneurs face challenges with market access, marketing expertise, and digital technology adoption, which limit their ability to grow their businesses outside of their local markets. Effective management techniques are further hampered by other issues, such as mixing work and home obligations, restricted mobility, weak business networks, and inadequate institutional support. In view of this, a large number of women-owned microbusinesses rely on unauthorised management techniques, which results in low productivity, restricted scalability, and increased business potential.

Recommendations

- Offer fundamental instruction to employees in business management, planning, and decision-making.
- Promote basic financial procedures like cash flow management, record keeping, and budgeting.
- Make loans, microfinance, and government financial programs more accessible.
- Encourage the adoption of local market promotion strategies and internet marketing.
- Implement basic HR procedures, including staff motivation and task sharing.
- Create straightforward business plans and establish specific objectives.
- Expand assistance from MSME organisations, NGOs, and government agencies.
- Promote networking via associations for women entrepreneurs and self-help groups.
- Encourage the use of digital tools for business records and payments.
- Raise awareness of government initiatives and women's entrepreneurial programs.

Conclusion

In the end, the performance, sustainability, and contribution to social and economic development of micro women-owned businesses are significantly influenced by their management techniques. Women entrepreneurs can make better use of their limited resources, expand their market reach, increase worker productivity, and preserve their financial stability by implementing effective marketing, human resource, and financial management strategies. The proper implementation of these strategies is still hampered by issues including restricted financial access, poor managerial abilities, market limitations, and

social obligations. Therefore, improving the resilience and expansion of micro women-owned businesses requires strengthening managerial talents through focused training, institutional support, digital adoption, and governmental interventions. Improving management techniques can help businesses succeed while also making a substantial contribution to inclusive economic growth and the empowerment of women.

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TRANSFORMING MANAGERIAL PRACTICES: EMOTIONAL INTELLIGENCE AND TECHNOLOGICAL ADVANCES IN SUSTAINABLE BUSINESS

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ABSTRACT

Rapid advancements in technology such as artificial intelligence (AI), automation, big data analytics, and digital platforms have significantly transformed managerial decision-making processes and leadership. While these technologies replacement make the organization process efficiency and accuracy, they also raise ethical and sustainability by considering human values. This study examines the role of ethical and sustainable managerial practices supported by emotional intelligence and artificial intelligence.

The study emphasizes the importance of emotional intelligence in enabling managers to make ethical, empathetic, and responsible decisions while using advanced technological tools. Emotional intelligence helps managers balance technological efficiency with fairness, transparency, and accountability.

Based on a conceptual and literature-based approach, the study integrates emotional intelligence and technological advancement with ethical managerial practices, and sustainable managerial practices into a unified framework. The findings suggest that ethical leadership and emotional intelligence are essential for the responsible application of technology, leading to improved employee satisfaction, organizational performance, and long-term sustainability. The study concludes that sustainable development in technology-driven organizations can be achieved only when advanced technology is aligned with ethical standards and emotionally intelligent leadership.

Keywords: Artificial Intelligence, managerial practices, emotional intelligence, value-based management.

I. Introduction

Ethical and sustainable managerial practices that incorporate emotional intelligence (EI) and artificial intelligence (AI) represent a modern approach to leadership. This integrated framework fosters both business success as well as social responsibility, enabling managers to lead in a way that supports long-term goals for people, profit, and the planet.

Rapid technological advancements such as Artificial Intelligence (AI), automation, big data analytics, and digital platforms have transformed managerial decision-making. However,

technology alone cannot ensure ethical and sustainable outcomes. Emotional intelligence enables managers to use advanced technology responsibly, ethically, and sustainably, balancing efficiency with human values. These developments make in the direction of be considerable changes in many organizations. When implementing the advance technology in the decision-making process, enterprises should have an appropriate data management policy and pay attention to security measures to ensure the integrity of the technological decision-making process in business as well as consider emotional intelligence.

1. Ethical Leadership and Emotional Intelligence

Ethical leadership is at the heart of any organization striving to create a responsible and sustainable impact. Emotional Intelligence (EQ) which focused the ability to understand and manage one's emotions and the emotions of others — is critical for effective ethical leadership.

- **Self-awareness and Regulation:** Ethical leaders are aware of their own values and ethical standards, which helps them navigate complex situations and make decisions that align with the organization's moral compass. This led to smooth flow of work process that settles the employee in safe and secure
- **Empathy and Social Skills:** By understanding the emotions of employees, customers, and stakeholders, leaders can foster a culture of empathy and inclusion. This promotes fairness, builds trust, and encourages transparent communication, which are all vital for sustainability efforts. This understanding ability takes the organisation to less labour turnover and routine task falls into specialised task.
- **Responsibility and Accountability:** High EQ leaders are more likely to take responsibility for their actions and the outcomes of their decisions. They are also more likely to encourage accountability throughout the organization, ensuring that sustainability goals are not just lofty ideals but actual achievements.

Example: A leader with high emotional intelligence might recognize when their team is overwhelmed with the pressure of meeting sustainability targets and offer support, resources, or mental health support, ensuring the team's well-being while maintaining ethical standards.

2. Sustainability and Technology Integration

The second crucial pillar is sustainability. Businesses today are expected to reduce their environmental footprint while also contributing positively to society. Advanced technologies can help organizations make strides in this direction.

- **Data-Driven Decision Making:** Using advanced technology like artificial intelligence (AI) and big data analytics can help companies monitor their

sustainability efforts in real time. For instance, companies can use data to track energy consumption, waste management, and resource allocation. Predictive analytics can help optimize production schedules to minimize waste and energy consumption.

- **Automation and Efficiency:** Automation can reduce operational inefficiencies and make processes more sustainable. For example, the use of robotics in manufacturing processes can lead to reduced energy usage and minimized waste, both of which align with environmental sustainability goals.
- **Circular Economy Models:** Technology can enable businesses to implement circular economy practices, such as using blockchain to track product life cycles, ensuring that resources are recycled, reused, or repurposed in a sustainable manner.

Example: A company might use AI to optimize its supply chain, reducing unnecessary transportation emissions, or use IoT sensors to monitor water use in factories and reduce wastage.

3. Merging EQ and Technology for Ethical Decision-Making

One of the most profound shifts in the modern workplace is the need to combine emotional intelligence with technology. While advanced technologies can help streamline processes and drive efficiency, they are often impersonal. Emotional intelligence is essential to ensure that the use of technology remains human-centered and ethical.

- **AI and Empathy:** AI can assist in customer service roles, but its effectiveness is often determined by the empathy it is programmed with. Businesses can use AI to analyse customer data and predict their emotional states or needs, which can be used to offer personalized, human-like responses. By doing so, organizations can balance the efficiency of AI with the empathetic approach of human employees.
- **Inclusive Technological Development:** High EQ leaders can foster inclusivity when implementing new technologies, ensuring that all stakeholders—regardless of their background or capabilities—are considered when developing and deploying advanced tech solutions. This not only helps create fairer work environments but also reduces the risk of biases in automated decision-making systems.
- **Ethical AI:** The combination of emotional intelligence and technology can lead to the development of ethical AI systems that prioritize fairness, transparency, and accountability. Leaders can set ethical guidelines for how AI is used, ensuring that the technology is deployed responsibly without infringing on people's privacy, rights, or well-being.

Example: A company rolling out a new AI-driven hiring tool could ensure that the algorithms are free from bias and are designed to be transparent. They might also use feedback loops from employees and job applicants to ensure the tool is aligned with ethical practices and respects candidates' emotional responses and expectations.

4. Sustainable Innovation and Employee Engagement

The role of **employee engagement** in achieving ethical and sustainable outcomes cannot be overstated. When companies implement sustainable practices, it's essential to involve employees in the process, both to generate innovative ideas and to ensure that the practices are carried out effectively.

- **Fostering Innovation with EQ:** Leaders with high emotional intelligence can create a safe environment where employees feel comfortable sharing ideas, including suggestions for more sustainable practices. By actively listening, empathizing, and encouraging collaboration, these leaders can inspire innovation and creative problem-solving.
- **Continuous Learning:** Advanced technologies, like machine learning and blockchain, can support continuous learning. Employees can use these tools to stay updated on sustainability trends, ethical business practices, and environmental impacts, which makes it easier for them to be actively engaged in the company's sustainability goals.

Example: A manager who values EQ might regularly check in with their team to get feedback on the sustainability initiatives in place, while also fostering a culture where employees are rewarded for suggesting new, green innovations that improve business operations.

5. Long-Term Success: The Synergy of Ethical Practices, Emotional Intelligence, and Technology

For a business to be truly successful in the long term, it must adopt a synergistic approach that combines ethics, emotional intelligence, and technology. Sustainability is not just about reducing environmental impact but also about creating a business environment where people feel valued and where technological tools enhance human well-being.

- **Profit with Purpose:** With the right balance of ethics, EQ and technology, companies can align their business objectives with societal goals, leading to greater customer loyalty, higher employee satisfaction, and stronger brand reputation which of all contribute to long-term profitability.

- **Trust and Transparency:** Ethical practices and emotional intelligence foster trust, both internally among employees and externally with customers. This trust can be amplified with transparency, especially when it comes to sustainability metrics. Technology can help companies provide real-time, verifiable data about their progress in environmental goals, demonstrating a genuine commitment to sustainability.
- **Scalability of Ethical Practices:** Technology also allows for the scalability of ethical practices. For example, companies can use cloud-based platforms to share their sustainability practices with stakeholders globally, or use AI to monitor the global supply chain to ensure compliance with sustainability standards across regions.

Example: A company with a strong ethical foundation that uses emotional intelligence to foster innovation and advanced technology to optimize its operations can ultimately build a sustainable business model. For instance, Patagonia is known for its ethical commitment to environmental sustainability, while also utilizing technology to ensure transparency in its supply chain

II. Statement of the Problem

This study focuses on examining the integrated role of Emotional Intelligence and Advanced Technology in shaping ethical and sustainable managerial practices. In the context of rapid digital transformation, managers increasingly rely on advanced technologies such as artificial intelligence, automation, and data analytics for decision-making. However, the effectiveness of these technologies depends largely on the emotional and ethical capabilities of managers who apply them.

The research emphasizes how emotional intelligence enables managers to use advanced technology responsibly, ensuring fairness, transparency, empathy, and accountability in managerial decisions. It further explores the way ethical managerial practices act as a link between emotional intelligence and sustainable outcomes, including long-term organizational performance, employee well-being, and social responsibility.

Additionally, the study highlights the importance of human-centric and value-based management in technology-driven environments, arguing that sustainable managerial practices can be achieved only when technological efficiency is balanced with ethical standards and emotional awareness. The focus is particularly relevant to modern organizations, where both technological competence and emotional intelligence are essential for sustainable development.

III. Objectives of the Study

- To examine the role of **ethical managerial practices** in promoting organizational sustainability.
- To analyze the significance of **emotional intelligence** in ethical decision-making and responsible leadership.
- To explore how **advanced technologies**, support sustainable and ethical management practices.

IV Research methodology

This study is in descriptive in nature is based on a review of existing literature. It aims to systematically based on a theoretical framework that integrates four major constructs:

- Ethical Managerial Practices
- Sustainable Managerial Practices
- Emotional Intelligence
- Advanced Technology

The conceptual framework proposes that **emotional intelligence** and **advanced technology** act as influential factors that shape and enhance **ethical and sustainable managerial practices**. Emotional intelligence enables managers to make empathetic and morally sound decisions, while advanced technology supports transparency, efficiency, and accountability in managerial processes.

V. Review of Literature

1. Previous studies emphasize that ethical leadership is fundamental to organizational success and employee trust. According to Treviño, Brown, and Hartman (2003), ethical managers demonstrate fairness, integrity, and concern for stakeholders. Ethical practices reduce misconduct and enhance organizational commitment. Literature highlights the importance of ethical codes, leadership role modelling, and ethical training programs in promoting responsible management.
2. Elkington's (1997) Triple Bottom Line framework emphasizes balancing profit, people, and the planet. Research indicates that managers who integrate sustainability into strategic decisions improve organizational resilience and social legitimacy. Sustainable practices are increasingly viewed as a source of competitive advantage rather than a cost.
3. Goleman (1998) identifies self-awareness, self-regulation, motivation, empathy, and social skills as core components of emotional intelligence. Studies reveal that emotionally intelligent managers demonstrate better ethical judgment, effective communication, and conflict

resolution. Emotional intelligence contributes significantly to employee satisfaction, ethical climate, and leadership effectiveness.

4. Kazi Sirajum Munira *et.al* (2022), *Business Perspective Review*, *The study aims to evaluate the impact of emotional intelligence (EI) on the sustainable leadership of managers in the context of Bangladesh which suggested that managers' emotional intelligence significantly influences sustainable leadership.*
5. Avery and Bergsternier (2011) reported that organizations adopting sustainable leadership practices tend to experience higher overall stakeholder satisfaction, highlighting the positive outcomes of ethical managerial approaches.

VI. Key Constructs of the Conceptual Framework

1 Emotional Intelligence (EI) – Human Capability

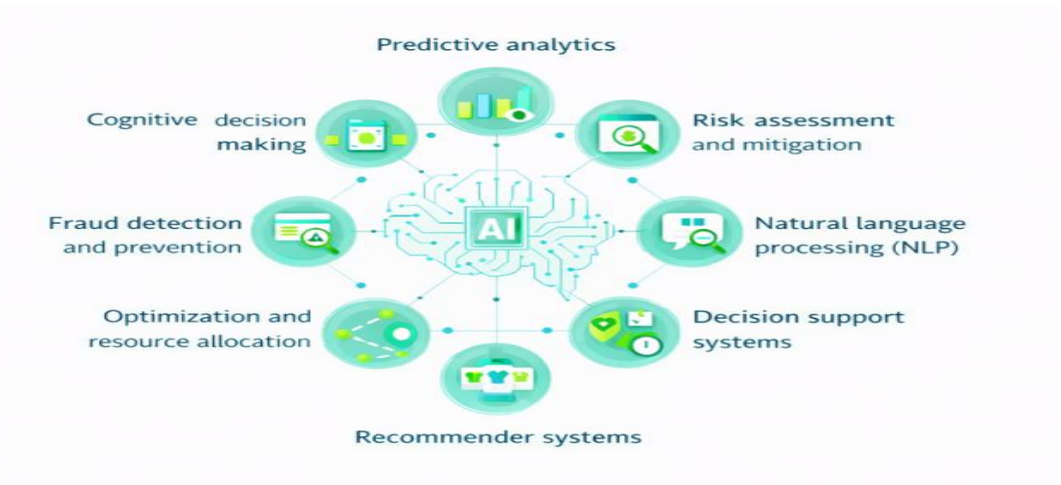
Emotional Intelligence (EI) refers to an individual's capacity to perceive, understand, manage, and effectively use emotions in oneself and others. As a **human capability**, EI enables individuals to navigate social complexities, make informed decisions, and perform effectively in personal and professional contexts. Within a conceptual framework, EI is positioned as a critical human capability that influences how individuals respond to challenges, interact with others, and translate knowledge or technical skills into effective action. Higher levels of EI are often associated with improved performance, well-being, leadership effectiveness, and positive organizational outcomes.



2 Advanced Technology – Enabling Capability

Advanced technology supports informed, fast, and data-driven managerial decisions. Analytics, AI, and dashboards integrate data from multiple sources, improving accuracy and reducing uncertainty. Automation and real-time data processing shorten analysis time, allowing managers to respond quickly to changes. Predictive models and business intelligence tools support objective decisions based on evidence rather than intuition. Overall,

advanced technology acts as an enabling capability that enhances managerial effectiveness, agility, and strategic outcomes.



3 Ethical Managerial Practices

Ethical practices ensure moral conduct while using technology by guiding users to act responsibly, fairly, and safely. They help prevent misuse and promote trust. Ethical managerial practices create a positive work culture, increase employee morale, enhance organizational reputation, and support sustainable growth. Key ways they do this include:

- Respecting privacy – protecting personal and sensitive data.
- Ensuring fairness – avoiding bias and discrimination in technology use.
- Promoting accountability – taking responsibility for actions and decisions.
- Preventing harm – avoiding cybercrime, hacking, and misuse.
- Encouraging transparency – being honest about how technology works and is used.



4 Sustainable Managerial Practices

Sustainability focuses on long-term organizational and societal well-being. Sustainable managerial practices help organizations achieve stability, improve reputation, enhance employee satisfaction, and contribute to sustainable development.

Key Sustainable Managerial Practices

- **Long-Term Strategic Planning**
Focusing on future growth rather than short-term profits.
- **Efficient Resource Management**
Reducing waste, conserving energy, and using resources responsibly.
- **Environmental Responsibility**
Adopting eco-friendly processes, reducing carbon footprint, and following green policies.
- **Employee Well-Being and Development**
Promoting safe workplaces, work-life balance, training, and skill development.
- **Ethical Decision-Making**
Ensuring fairness, transparency, and accountability in all managerial actions.
- **Corporate Social Responsibility (CSR)**
- Contributing positively to society through community development and social initiatives.
- **Use of Technology for Sustainability**
Using digital tools to improve efficiency, reduce paper use, and monitor sustainability goals.
- **Stakeholder Engagement**
Maintaining healthy relationships with employees, customers, suppliers, and the community.



VII. Findings and Suggestions

Findings

- Ethical managerial practices are essential for sustainability
- Emotional Intelligence (EI) strengthens ethical decision-making
- Advanced technology enhances managerial effectiveness
- Technology alone is insufficient without human values
- Integration of EI and technology promotes sustainable outcomes
- Human-centric management is crucial in digital environments

Suggestions

1. Organizations should provide regular training programs to enhance managersemoional intelligence, focusing on empathy, ethical judgment, self-awareness, and interpersonal skills.
2. Strong ethical frameworks, codes of conduct, and data governance policies should be established to guide the responsible use of advanced technologies.
3. Managers should ensure transparency, fairness, and accountability in technology-based decision-making, especially in AI and data-driven systems.
4. Sustainability should be integrated into organizational strategic planning, emphasizing long-term economic growth, environmental protection, and social well-being.
5. Continuous monitoring and evaluation mechanisms should be adopted to assess ethical compliance, sustainability performance, and technology usage.
6. Organizations should foster a human-centric culture that prioritizes employee well-being, stakeholder engagement, and corporate social responsibility.
7. Advanced technology should be used as a supportive tool alongside value-based and emotionally intelligent leadership rather than as a replacement for human judgment.

VIII. Conclusion

Ethical and sustainable managerial practices supported by emotional intelligence and advanced technology lead to responsible leadership, employee satisfaction, and sustainable development in a rapidly evolving business environment. This study concludes that ethical and sustainable managerial practices are essential for achieving long-term organizational success in a rapidly evolving business environment. The findings highlight that ethical values such as fairness, transparency, accountability, and responsibility form the foundation of effective management and help organizations gain trust from employees and stakeholders.

The study further concludes that emotional intelligence plays a critical role in strengthening ethical decision-making and leadership effectiveness. Managers with high emotional intelligence are better equipped to understand employee needs, manage conflicts, and apply technology with empathy and moral awareness. Advanced technology, when guided by ethical standards and emotional intelligence, enhances efficiency, transparency, and informed decision-making. Therefore, the integration of emotional intelligence and advanced technology leads to responsible leadership, higher employee satisfaction, and sustainable development, making organizations more resilient and future-ready.

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THE ALGORITHMIC HELMSMAN: NAVIGATING THE FUTURE OF CORPORATE MANAGEMENT IN DEVELOPING ECONOMIES WITH ARTIFICIAL INTELLIGENCE

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ABSTRACT

This research paper provides a comprehensive analysis of the transformative potential and inherent challenges of integrating Artificial Intelligence (AI) into corporate management practices within developing economies. As the Fourth Industrial Revolution reshapes global business paradigms, corporations in these regions stand at a critical juncture, faced with the dual prospects of leapfrogging developmental stages or falling further behind due to a deepening digital divide. This paper posits that AI is not merely a technological upgrade but a fundamental catalyst poised to redefine the core functions of management—from strategic decision-making and human capital management to operations and customer engagement. The study employs a systematic literature review methodology, synthesizing insights from academic journals, industry reports, and policy documents to build a nuanced analytical framework. The analysis is structured around key themes: the primary drivers compelling AI adoption, the significant structural and socio-economic barriers hindering its implementation, the specific transformations within key management domains, and the consequent evolution of the managerial role itself. Findings indicate that while opportunities for enhanced efficiency, data-driven strategy, and market innovation are substantial, they are significantly constrained by infrastructural deficits, a pervasive skills gap, data quality issues, and nascent regulatory environments. The paper concludes that for AI to foster inclusive and sustainable growth, a concerted, symbiotic effort is required from corporate leaders and policymakers. Strategic recommendations are proposed for both stakeholder groups, emphasizing the need for targeted investment in human capital, the cultivation of agile and ethical AI governance frameworks, and the promotion of public-private partnerships to build a resilient digital ecosystem. This paper contributes to the literature by moving beyond a generalized discussion of AI to a context-specific examination of its complex interplay with the unique corporate and economic landscapes of developing nations.

Keywords: Artificial Intelligence, Corporate Management, Developing Economies, Digital Transformation, Leapfrogging, Skills Gap, Strategic Management, Fourth Industrial Revolution.

1. Introduction

The Fourth Industrial Revolution, featured by the convergence of the physical, digital, and biological spheres, is fundamentally driven by Artificial Intelligence (AI). AI systems, encompassing machine learning, natural language processing, and advanced robotics, are rapidly transitioning from auxiliary tools to central components of strategic decision-making and operational execution across industrialized nations (Schwab, 2016). This global technological transition necessitates a rigorous examination of its impact on corporate structures, especially within the heterogeneous and dynamic environments of Developing Economies (DEs).

DEs—defined by the World Bank as having low to middle per capita incomes, often coupled with institutional fragility, high market volatility, and significant infrastructural deficits—represent a unique crucible for AI integration (World Bank, 2023). Corporate management in these economies operates under compounded constraints: navigating political instability, dealing with fragmented supply chains, managing a rapidly growing but often unskilled workforce, and attempting to enforce contracts in environments with weak rule of law (Rodrik, 2007).

The integration of AI holds the promise of unprecedented efficiency gains, offering DE firms the potential to bypass traditional stages of industrial development—a phenomenon often termed "leapfrogging" (Pohjola, 2018). However, this potential is offset by substantial systemic risks associated with adopting highly sophisticated technology in environments ill-equipped to support or govern it.

The advent of Artificial Intelligence (AI) represents a paradigm shift in global commerce, comparable in scale to the industrial revolutions that preceded it. AI, broadly defined as the simulation of human intelligence in machines programmed to learn, reason, and self-correct, has transcended the realm of theoretical computer science to become a potent force in the modern corporate arsenal (Kaplan & Haenlein, 2019). In developed economies, AI is already optimizing supply chains, personalizing customer experiences, and augmenting strategic decision-making processes. However, the narrative of AI's impact and the future of its integration become significantly more complex and critical when examined through the lens of developing economies.

These economies—a diverse group of nations characterized by rapid urbanization, burgeoning youth populations, and often, significant developmental challenges—are at a pivotal moment. They possess a unique "leapfrogging" potential, where the absence of entrenched legacy systems allows for the direct adoption of cutting-edge technologies,

bypassing intermediate stages of development (Banga & te Velde, 2020). Mobile banking in Sub-Saharan Africa and digital payment systems in India are prominent examples of this phenomenon. AI presents a similar, albeit more profound, opportunity to revolutionize corporate management, enhance productivity, and foster global competitiveness.

However, this opportunity is shadowed by formidable challenges. The very conditions that define many developing economies—infrastructural deficits, disparities in education and digital literacy, capital constraints, and institutional voids—pose significant barriers to the widespread and equitable adoption of AI (Kshetri, 2021). This creates a critical tension: AI can either be a powerful engine for inclusive growth or an accelerant of inequality, widening the chasm between technologically advanced firms and the vast majority of small and medium-sized enterprises (SMEs) that form the backbone of these economies.

While a substantial body of literature explores the impact of AI on business management in a global or developed-world context, there is a comparative scarcity of research that holistically investigates the specific nuances, opportunities, and perils of AI adoption for corporate management *within* the unique socio-economic fabric of developing nations. The existing discourse often falls into a techno-optimistic or techno-pessimistic binary, failing to capture the intricate interplay between technological potential and on-the-ground realities. This paper addresses this gap by seeking to understand how AI will reshape the roles, responsibilities, and strategic imperatives of corporate managers in developing economies, considering both the catalysts and impediments that define their operating environment.

To guide this inquiry, the paper addresses the following core research questions:

- i. What are the primary drivers and motivations for corporations in developing economies to adopt AI in their management practices?
- ii. What are the most significant structural, human capital, and institutional barriers hindering the effective integration of AI in these contexts?
- iii. How is AI specifically transforming core management functions—such as strategy, human resources, operations, and marketing—within the constraints and opportunities of developing economies?
- iv. How must the role and skill set of the corporate manager evolve to effectively lead AI-augmented organizations in this new landscape?

This paper argues that the integration of Artificial Intelligence into corporate management in developing economies presents a transformative but deeply paradoxical opportunity. While AI offers an unprecedented potential to enhance efficiency, foster data-driven decision-

making, and enable competitive leapfrogging, its successful and equitable implementation is contingent upon a strategic and deliberate navigation of significant infrastructural, human capital, and institutional barriers. The future of corporate management in these regions will thus be defined not by the technology itself, but by the capacity of leaders and policymakers to co-create an ecosystem that supports inclusive innovation, targeted reskilling, and ethical governance.

This paper is organized into six main sections. Following this introduction, Section 2 provides a comprehensive literature review, establishing the theoretical foundations of AI in business, the unique characteristics of developing economies, and the identified research gap. Section 3 outlines the methodology, detailing the systematic literature review approach used for this conceptual study. Section 4 presents the core analysis and discussion, examining the drivers, barriers, and transformative impacts of AI on management functions, and the evolving role of the manager. Section 5 offers strategic and policy recommendations for corporations and governments. Finally, Section 6 provides a conclusion, summarizing the key findings, acknowledging the study's limitations, and suggesting avenues for future research.

2. Theoretical Framework and Literature Review

This section synthesizes existing academic and professional literature to build a conceptual framework for understanding the intersection of AI, corporate management, and the context of developing economies. The adoption of AI in corporate management within DEs must be analyzed through a triple lens: institutional context, firm-specific resources, and technology diffusion dynamics.

2.1 Theoretical Foundations

2.1.1 Institutional Theory and Weak Governance

Institutional theory posits that organizational structures and practices are heavily influenced by the social, political, and regulatory environment (DiMaggio & Powell, 1983). In DEs, formal institutions (e.g., efficient courts, stable property rights, transparent regulations) are often classified as "weak" (North, 1990). This weakness necessitates reliance on informal institutions (trust networks, personal relationships).

- **Implication for AI:** AI requires vast quantities of reliable, standardized data and predictable regulatory compliance (e.g., data privacy laws). The scarcity of these elements in DEs means that AI-driven solutions must be adapted to function with incomplete or poor-quality data, and corporations face higher risks of regulatory uncertainty or corruption when deploying large-scale automated systems. Furthermore, AI systems themselves must be designed to enhance, rather than rely

upon, weak governance structures, for instance, by improving supply chain transparency where third-party oversight is lacking.

2.1.2 Resource-Based View (RBV) and Digital Assets

The Resource-Based View (Barney, 1991) suggests that sustained competitive advantage derives from resources that are Valuable, Rare, Inimitable, and Non-substitutable (VRIN). In the context of AI, these VRIN resources shift from traditional assets to digital resources: proprietary algorithms, quality data sets, and specialized human capital (Teece, 2018).

- **Implication for AI in DEs:** For DE firms, the scarcity of local high-skill AI talent makes this resource supremely valuable and rare. However, the lack of quality data (due to underdeveloped formal record-keeping) becomes a critical constraint, preventing the development of inimitable, locally relevant AI models. Successful DE firms will be those capable of rapidly accumulating unique data streams (e.g., mobile transaction data, informal sector activity data) to train localized AI models, thereby creating a competitive edge over multinational corporations relying on generalized global models.

2.1.3 Diffusion of Innovations Theory and Technological Leapfrogging

Rogers' (2003) Diffusion of Innovations theory describes how, why, and at what rate new ideas and technology spread. In DEs, the concept of "leapfrogging" challenges the traditional linear diffusion model. Leapfrogging occurs when DEs skip older technologies entirely and adopt the most advanced ones, often due to a lack of legacy infrastructure (Pohjola, 2018). The rapid adoption of mobile banking in regions lacking fixed-line infrastructure is a classic example.

- **Implication for AI:** AI offers DE firms the opportunity to leapfrog outdated management practices (e.g., manual inventory, centralized hierarchical decision-making) straight to automated, distributed, and predictive management systems, potentially lowering the cost of modernization and accelerating growth faster than gradual reform would allow.

2.2 Corporate Management Evolution and AI Integration

Corporate management functions are increasingly being augmented by AI.

2.2.1 Strategic Decision Making

AI transforms strategy from reactive analysis to predictive modeling. Tools like predictive analytics and scenario planning based on large market datasets allow managers to model complex risks—crucially important in volatile DE markets (Ghemawat, 2017). AI is

used to identify non-obvious correlations between market signals, geopolitical changes, and consumer behavior, providing a level of foresight previously unattainable.

2.2.2 Operational Management and Supply Chain

AI enhances operational resilience through optimized logistics, predictive maintenance (reducing downtime in environments where repair is difficult), and dynamic inventory management. For DEs, where infrastructure is fragile and supply chains are often fragmented or informal, AI's ability to map, monitor, and instantly reroute logistics flows based on real-time data (e.g., road closures, civil unrest, weather events) is a critical survival tool (Lee & Shin, 2020).

2.2.3 Human Resources and Talent Management

AI revolutionizes HR by automating recruitment screening, personalizing training pathways, and using predictive models to manage employee attrition—a major concern in high-turnover DE labor markets (Boudreau, 2018). Moreover, AI can potentially mitigate human bias in hiring, though it also risks embedding existing systemic biases found in historical data.

2.3. Defining Artificial Intelligence in the Corporate Context

Artificial Intelligence is not a monolithic technology but an umbrella term for a suite of capabilities. For corporate management, the most relevant subfields include:

- **Machine Learning (ML):** The core of modern AI, ML involves algorithms that learn patterns from data without being explicitly programmed. Applications range from predictive analytics in marketing and finance to demand forecasting in supply chain management (Brynjolfsson & McAfee, 2017).
- **Natural Language Processing (NLP):** This enables machines to understand, interpret, and generate human language. In management, NLP powers chatbots for customer service, sentiment analysis of market feedback, and automated summarization of reports (Davenport & Ronanki, 2018).
- **Computer Vision:** This field allows AI to interpret and understand information from images and videos. Applications include quality control in manufacturing, retail analytics through in-store cameras, and security monitoring.
- **Robotics and Automation:** The physical manifestation of AI, used to automate repetitive tasks in manufacturing (robotic process automation - RPA) and logistics.

The strategic value of AI in a corporate setting lies in its ability to automate tasks, generate insights from vast datasets (augment intelligence), and facilitate entirely new business models (Agrawal, Gans, & Goldfarb, 2018).

2.4. The Unique Landscape of Developing Economies

Developing economies are not a homogenous group, but they share several characteristics relevant to technology adoption. These include:

- **The Digital Divide:** Significant disparities exist in access to and quality of internet connectivity, not only between developed and developing nations but also within developing countries, particularly between urban and rural areas (World Bank, 2021). This "infrastructure deficit" is a fundamental barrier to data-intensive technologies like AI.
- **Human Capital and Skills Gap:** While many developing nations have a "demographic dividend" with a large, young population, their educational systems often lag in producing graduates with the STEM (Science, Technology, Engineering, and Mathematics), analytical, and critical-thinking skills required for an AI-driven economy (WEF, 2020).
- **Dominance of SMEs and Informal Sector:** Unlike in developed economies, SMEs and the informal sector constitute the vast majority of businesses and employment. These entities typically lack the financial resources, technical expertise, and data infrastructure to invest in complex AI solutions (Lund et al., 2020).
- **Institutional and Regulatory Voids:** The legal and ethical frameworks governing data privacy, algorithmic accountability, and AI usage are often underdeveloped or non-existent. This uncertainty can deter investment and create risks for early adopters (Dutz, O'Brien, & Willig, 2019).
- **Leapfrogging Potential:** A key opportunity lies in the ability to bypass legacy technologies. The widespread adoption of mobile phones before landlines created a fertile ground for mobile-first innovation. Similarly, a lack of legacy IT systems in some firms could enable them to adopt cloud-native, AI-powered solutions more readily than established incumbents in developed markets (Banga & te Velde, 2020).

2.5. AI's Impact on Core Management Functions: A Global Perspective

Literature from developed markets provides a baseline for understanding how AI is reshaping management:

- **Strategic Management:** AI is shifting strategy from a periodic, top-down exercise to a continuous, data-driven process. ML models can analyze market trends, competitor actions, and internal data to run simulations and identify strategic opportunities and threats, augmenting the "gut feeling" of senior managers (Iansiti & Lakhani, 2020).

- **Human Resource Management (HRM):** AI is automating administrative HR tasks and transforming talent acquisition through AI-powered resume screening and candidate matching. It is also being used for performance management analytics and personalized employee training programs. However, concerns about algorithmic bias in hiring and promotion are significant (Tambe, Cappelli, & Yakubovich, 2019).
- **Operations and Supply Chain Management:** This is one of the most impacted areas. AI optimizes logistics routes, enables predictive maintenance to reduce machine downtime, automates quality control, and provides end-to-end supply chain visibility, making operations more resilient and efficient (Schoenherr & Speier-Pero, 2015).
- **Marketing and Customer Relationship Management (CRM):** AI-driven personalization engines recommend products, customize marketing messages, and set dynamic prices. Chatbots and virtual assistants handle customer queries 24/7, improving service efficiency and collecting valuable interaction data (Kumar et al., 2019).
- **Financial Management:** AI algorithms are used for fraud detection, algorithmic trading, credit scoring, and automating accounting processes, leading to increased accuracy and risk mitigation (Gomber, Koch, & Siering, 2017).

2.6. Identifying the Research Gap

The existing literature compellingly demonstrates AI's transformative power on management functions. It also separately details the unique characteristics of developing economies. However, the critical intersection of these two areas remains underexplored. Few studies systematically analyze how the specific *context* of developing economies—with its unique blend of leapfrogging potential and structural impediments—mediates, shapes, and constrains the application of AI in corporate management. How does a manager in Lagos or Mumbai leverage AI for supply chain optimization when faced with unreliable logistics infrastructure? How does an HR manager in São Paulo implement an AI hiring tool while navigating vast socio-economic diversity and guarding against reinforcing historical biases? This paper aims to fill this gap by providing a synthesized and context-specific analysis of this critical nexus.

3. Methodology

This research paper employs a systematic literature review and conceptual analysis methodology. Given the broad and emergent nature of the topic, this approach is suitable for synthesizing a fragmented body of knowledge into a coherent analytical framework, rather

than collecting primary empirical data. This methodology allows for a comprehensive exploration of existing theories, empirical findings, and expert opinions to construct a nuanced understanding of the future of AI in corporate management within developing economies.

The research process involved three main stages:

- i. **Data Collection:** A comprehensive search was conducted across multiple academic and professional databases, including Scopus, Google Scholar, Web of Science, JSTOR, and ProQuest. Search terms included combinations of "artificial intelligence," "machine learning," "corporate management," "strategic management," "developing economies," "emerging markets," "leapfrogging," "digital divide," and "skills gap." The search was supplemented with an extensive review of reports and publications from influential institutions such as the World Bank, the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), the World Economic Forum (WEF), and major consulting firms (e.g., McKinsey & Company, Boston Consulting Group, PwC).
- ii. **Data Selection and Screening:** The initial pool of sources was screened based on relevance, credibility, and date of publication (with a focus on literature from the last decade to ensure currency). The criteria for inclusion were that the source must directly address the application of AI in a business or management context and/or discuss the technological or economic landscape of developing countries.
- iii. **Data Synthesis and Analysis:** The selected literature was thematically coded and synthesized to build the analytical framework for this paper. The analysis was structured to directly address the research questions, organizing the findings into a discussion of drivers, barriers, the transformation of management functions, and the evolving role of the manager. This conceptual synthesis allows for the development of new insights by connecting disparate streams of research and applying them to the specific context of developing economies.

4. Analysis and Discussion: The Future of Corporate Management in Developing Economies

The integration of AI into the corporate fabric of developing economies is a complex phenomenon shaped by a powerful interplay of compelling drivers and formidable barriers. This section analyzes these forces and explores their repercussions for core management functions and the managerial role itself.

4.1. Drivers of AI Adoption: The Pull of the Future

Despite the challenges, several powerful forces are driving corporations in developing nations towards AI adoption.

- **The Economic Imperative for Efficiency and Competitiveness:** In highly competitive global and local markets, firms are under constant pressure to reduce costs and improve productivity. AI offers a direct path to operational excellence. For instance, a manufacturing firm in Vietnam can use computer vision for automated quality control, reducing defects and labor costs, thereby competing more effectively with global players. Similarly, AI-powered demand forecasting allows retailers in Brazil to optimize inventory, reducing waste and capital lock-up in a high-inflation environment (McKinsey Global Institute, 2018).
- **The Leapfrogging Opportunity:** As noted, the lack of deeply embedded legacy systems can be an advantage. A newly established bank in Kenya, for example, can build its entire credit scoring system around ML algorithms that analyze mobile money data, bypassing the traditional credit history infrastructure that is often lacking. This "mobile-first" reality in many developing regions provides a unique and rich dataset for AI applications that do not exist in the same form in many developed countries (Banga & te Velde, 2020).
- **Harnessing the Demographic Dividend:** Many developing countries have large, young, and increasingly tech-savvy populations. This generation represents both a massive consumer market and a potential talent pool. Companies are using AI-powered marketing to reach this mobile-native demographic with hyper-personalized messaging. Furthermore, while a high-end skills gap exists, this young population can be more adaptable to training for new, AI-related job roles compared to an older workforce entrenched in traditional practices (WEF, 2020).
- **Government and Policy Push:** Recognizing the strategic importance of digitalization, many governments in developing nations are launching national AI strategies and "Digital Transformation" initiatives (e.g., Digital India, Saudi Vision 2030). These programs often include incentives for technology adoption, investment in digital infrastructure, and reforms aimed at creating a more favorable business environment for tech innovation. This top-down push creates a powerful tailwind for corporate AI adoption.

4.2. Significant Barriers and Challenges: The Pull of the Past

The path to AI integration is fraught with substantial obstacles that are often more acute in developing economies.

- **Infrastructural and Data Deficits:** This remains the most fundamental barrier. AI models, particularly deep learning, are data-hungry and computationally intensive. In regions with unreliable electricity, low internet penetration, and high data costs, running sophisticated AI systems is a major challenge (World Bank, 2021). Furthermore, the quality and availability of data can be poor. Data may be unstructured, stored in silos, or simply non-existent, especially for the large informal sector, making it difficult to train effective ML models.
- **The Pervasive Human Capital and Skills Gap:** The most significant long-term challenge is the mismatch between the skills required by an AI-driven economy and the output of current education systems. There is a severe scarcity of high-end talent like data scientists, ML engineers, and AI ethicists. More broadly, there is a lack of digital literacy and analytical skills among the general workforce and, critically, among mid-level and senior management, who may not understand how to effectively commission, manage, and interpret the outputs of AI systems (Lund et al., 2020).
- **Financial Constraints and High Implementation Costs:** AI is not cheap. The costs of technology acquisition, data infrastructure, specialized talent, and organizational change management are prohibitive for the vast majority of SMEs that dominate these economies. These risks creating a "dual economy," where a small number of large, well-funded corporations can leverage AI to pull away from a long tail of smaller firms left behind, exacerbating economic inequality.
- **Nascent Ethical and Regulatory Frameworks:** The absence of clear regulations around data privacy (like GDPR in Europe), algorithmic bias, and accountability creates significant uncertainty and risk. A company using an AI hiring tool could face reputational damage if the algorithm is found to be discriminatory against certain ethnic or gender groups. This regulatory void can make corporations hesitant to fully embrace AI in high-stakes areas like HR and finance (Kshetri, 2021).
- **Cultural and Organizational Inertia:** In many traditional organizations, decision-making is hierarchical and intuition-based. Shifting to a data-driven, experimental culture required for AI is a major change management challenge. Managers may resist ceding decision-making authority to "black box" algorithms they do not fully understand or trust.

4.3. The Transformation of Management Functions in Context

AI's impact on management is not uniform; it is shaped by the specific context of developing economies.

- **Strategic Management:** For managers in developing countries, AI offers a powerful tool to navigate high levels of market volatility and uncertainty. Instead of relying on historical trends that may be irrelevant in a rapidly changing environment, managers can use predictive analytics to model different economic scenarios, supply chain disruptions, or shifts in consumer behavior. For example, a consumer goods company in Nigeria could use AI to analyze satellite imagery and social media sentiment to predict localized demand shifts, allowing for more agile resource allocation. The manager's role shifts from static planning to dynamic steering, constantly adjusting strategy based on AI-generated insights.
- **Human Resource Management:** Here, the duality of AI is most apparent. On one hand, AI can help formalize HR practices. AI-powered platforms can help SMEs manage payroll, performance, and recruitment more efficiently. They can also identify skills gaps and recommend personalized online training modules, directly addressing the upskilling challenge. On the other hand, the risk of embedding societal biases into algorithms is extremely high. An AI model trained on historical hiring data in a society with strong gender or caste biases will learn and perpetuate those biases, potentially in violation of labor laws and ethical norms. The HR manager of the future in these contexts must be part-ethicist and part-sociologist, capable of auditing algorithms for fairness and ensuring that technology promotes inclusivity.
- **Operations and Supply Chain Management:** This is an area of immense potential. In agricultural economies, AgriTech startups are using AI with drone imagery to help farmers detect crop diseases and optimize irrigation, directly impacting the core of the economy. In logistics, AI can optimize delivery routes to navigate the chaotic traffic and poor road infrastructure common in many megacities. The manager's role becomes less about day-to-day firefighting and more about designing, overseeing, and fine-tuning these automated systems, focusing on exception handling and strategic improvements.
- **Marketing and CRM:** AI enables businesses to reach the "bottom of the pyramid" market with unprecedented sophistication. Using NLP, companies can deploy multilingual chatbots that can interact with customers in local dialects via popular platforms like WhatsApp, overcoming literacy and language barriers. Mobile money

transaction data can be used to offer micro-loans or tailored insurance products to unbanked populations. The marketing manager's job evolves from broad-based campaigns to managing a portfolio of micro-segmented, AI-driven interactions, focusing on building trust and engagement in diverse cultural settings.

4.4. The Evolving Role of the Manager: From Commander to Orchestrator

The integration of AI fundamentally redefines what it means to be a manager. The traditional "command-and-control" model, based on information asymmetry and top-down directives, becomes obsolete.

- i. **Shift from Decision-Maker to Decision-Framer:** As AI takes over routine analytical and decision-making tasks, the manager's primary role shifts to asking the right questions, defining the problem for the AI, interpreting the outputs, and making the final judgment call, especially in ethically ambiguous situations.
- ii. **Emphasis on Soft Skills:** With analytical tasks being automated, uniquely human skills become more valuable. These include creativity, critical thinking, complex problem-solving, communication, and, most importantly, emotional intelligence (EQ). A manager's ability to motivate, lead, and empathize with their human team members in an AI-augmented workplace will be their core competency.
- iii. **The Manager as Orchestrator of Human-AI Teams:** The future workplace will consist of hybrid teams where humans and AI collaborate. The manager's job will be to orchestrate this collaboration, assigning tasks to the entity (human or AI) best suited for it, and ensuring seamless integration. This requires a deep understanding of both human psychology and technological capabilities.
- iv. **Champion of Data Literacy and Ethical Governance:** Managers must become the primary drivers of a data-driven culture within their teams. They need to train their staff to be comfortable working with data and AI tools. Crucially, they must also serve as the frontline guardians of ethical AI, constantly questioning an algorithm's fairness, transparency, and impact on stakeholders, and escalating concerns when necessary.

5. Strategic and Policy Recommendations

To navigate this complex transition, a proactive and collaborative approach is essential. The following recommendations are proposed for corporate leaders and policymakers.

5.1. For Corporations and Management

- **Invest Radically in Human Capital:** Instead of focusing solely on technology acquisition, firms must prioritize upskilling and reskilling their existing workforce. This involves creating continuous learning programs focused on digital literacy, data analysis, and critical thinking. Partnering with local universities and EdTech platforms can bridge the skills gap.
- **Adopt an Agile, "Start Small" Approach:** Rather than attempting a massive, high-risk AI overhaul, companies should identify specific, high-impact business problems and launch small-scale AI pilot projects. This allows for learning, demonstrates ROI, and builds organizational momentum for a broader rollout.
- **Foster a Data-Driven Culture:** Leadership must champion the importance of data in decision-making. This involves investing in data infrastructure to ensure data is clean, accessible, and secure, and empowering employees at all levels to use data to generate insights.
- **Develop Internal Ethical AI Frameworks:** Do not wait for regulation. Proactively establish internal ethics committees and guidelines for AI development and deployment. This should include principles of fairness, transparency, accountability, and a commitment to regular algorithmic audits to check for bias.

5.2. For Policymakers and Governments

- **Bridge the Infrastructural Divide:** Aggressively invest in high-quality, affordable, and accessible digital infrastructure, including broadband internet and reliable power grids, particularly in rural and underserved areas. This forms the bedrock of the digital economy.
- **Reimagine Education for the AI Era:** Undertake fundamental reforms of national education curricula, from primary to tertiary levels. This means de-emphasizing rote memorization and promoting project-based learning that fosters creativity, critical thinking, and STEM skills. Vocational training programs should be retooled to create a pipeline of "AI technicians" and data analysts.
- **Create an Enabling and Adaptive Regulatory Environment:** Develop clear data protection and privacy laws to build public trust. Instead of heavy-handed regulation that could stifle innovation, create regulatory "sandboxes" where startups and firms can test new AI applications in a controlled environment with regulatory oversight.
- **Promote Public-Private Partnerships (PPPs):** Foster collaboration between government, industry, and academia. Government can fund foundational research,

universities can supply talent, and industry can provide real-world use cases and commercialization pathways. PPPs are crucial for building national AI ecosystems and ensuring that development is aligned with societal needs.

6. Conclusion

The infusion of Artificial Intelligence into the corporate landscape of developing economies is not a question of *if* but *how* and *for whom*. This paper has argued that AI represents a double-edged sword: it holds the immense promise of driving productivity, innovation, and global competitiveness, but it also carries the profound risk of exacerbating existing inequalities and creating new forms of digital exclusion. The future of corporate management in these regions will be a story of navigating this fundamental tension.

6.1. Summary of Findings

Our analysis revealed that the adoption of AI is driven by powerful economic imperatives and the unique potential for technological leapfrogging. However, these drivers are met with formidable barriers, most notably deep-seated infrastructural deficits, a critical skills gap, capital constraints for SMEs, and underdeveloped regulatory frameworks. This context reshapes how AI impacts core management functions, creating unique challenges and opportunities in strategy, HR, operations, and marketing. Consequently, the role of the manager is undergoing a profound evolution—from a director of tasks to an orchestrator of human-AI collaboration, with a heightened emphasis on soft skills, data literacy, and ethical stewardship.

6.2. Limitations of the Study

This research, being a conceptual paper based on a systematic literature review, has inherent limitations. First, it treats "developing economies" as a broad category for analytical purposes; in reality, the conditions and pace of AI adoption will vary significantly between regions (e.g., Southeast Asia vs. Sub-Saharan Africa) and even within countries. Second, the field of AI is evolving with extreme rapidity, and any analysis is a snapshot in time. Finally, the study lacks primary empirical data from firms and managers in these economies, which would provide richer, more granular insights into their lived experiences with AI adoption.

6.3. Avenues for Future Research

This paper lays the groundwork for several critical avenues of future empirical research:

- **Country-Specific Case Studies:** In-depth qualitative studies of firms that are early adopters of AI in countries like India, Nigeria, Brazil, or Indonesia to understand the practical challenges and success factors.

- **Sector-Specific Analysis:** Quantitative and qualitative research focusing on the differential impact of AI across key sectors in developing economies, such as agriculture, manufacturing, finance, and informal retail.
- **Longitudinal Studies:** Tracking a cohort of SMEs over several years to measure the impact of AI adoption (or lack thereof) on their growth, productivity, and survival.
- **Ethical and Social Impact Assessments:** Research focused specifically on algorithmic bias in different cultural contexts and the impact of AI-driven automation on labor markets and social structures in developing nations.

In conclusion, the journey of AI integration in the developing world will be a complex and often challenging one. It is not a purely technological problem but a socio-economic one that demands systemic solutions. The future of corporate management will be defined by leaders who can not only master the technology but also cultivate the human capital, ethical frameworks, and adaptive cultures necessary to harness its power for broad-based, inclusive, and sustainable development. The algorithmic helmsman must be guided not only by data-driven precision but also by human-centric wisdom.

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FROM DHARMA TO THE BOARDROOM: AN EXPLORATION OF ANCIENT INDIAN MANAGEMENT PRINCIPLES IN THE MODERN CORPORATE WORLD

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ABSTRACT

The contemporary corporate landscape, while technologically advanced and globally interconnected, is fraught with challenges ranging from employee burnout and disengagement to systemic ethical failures and a myopic focus on short-term shareholder value. In the relentless pursuit of new management paradigms that foster sustainability, resilience, and humanistic values, this paper turns to the rich repository of ancient Indian wisdom. This research undertakes a deep, thematic exploration of management principles embedded in seminal Indian texts such as the Vedas, Upanishads, Bhagavad Gita, Kautilya's Arthashastra, and Tirukkural. The study posits that these ancient philosophies offer a holistic, integrated, and profoundly relevant framework for addressing modern organizational challenges. The methodology employed is a qualitative hermeneutic analysis of these primary texts, juxtaposed with a critical review of contemporary management literature and case studies. Key principles analyzed include *Dharma* (ethical conduct and purpose), the concept of the leader as a *Rajarshi* (Sage-King) or trustee, *Nishkama Karma* (detached, process-oriented action), *Loka Sangraha* (universal welfare), and the strategic statecraft of the *Arthashastra*. The paper argues that the integration of these principles can transform modern corporate governance, leadership development, human resource management, and corporate social responsibility. It demonstrates how concepts like welfare-centric leadership can counter executive greed, how a focus on duty over results can mitigate workplace stress, and how a purpose-driven ethos can enhance employee motivation and organizational loyalty. The paper concludes that ancient Indian management thought is not an esoteric or anachronistic relic but a timeless, practical, and potent source of solutions for creating more ethical, sustainable, and prosperous organizations in the 21st century.

Keywords: *Indian Ethos in Management, Dharma, Arthashastra, Bhagavad Gita, Nishkama Karma, Servant Leadership, Stakeholder Theory, Corporate Governance, Ethical Management.*

1. Introduction

The 21st-century corporation stands at a crossroads. It is a powerful engine of innovation and economic growth, yet it is also a source of significant societal and individual distress. Scandals from Enron to Wells Fargo have eroded public trust, while rising rates of

employee burnout and mental health issues signal a deep disconnect between organizational goals and human well-being (Schaufeli, Leiter, & Maslach, 2009). The dominant Western management paradigm, rooted in the scientific management theories of Frederick Taylor and the shareholder primacy doctrine championed by Milton Friedman, has been remarkably effective in optimizing efficiency and maximizing profit. However, its often-mechanistic view of human resources and its singular focus on financial returns have exposed its limitations. This model frequently struggles to address the complex ethical dilemmas, environmental responsibilities, and the intrinsic human need for purpose and meaning in work.

In response to this crisis of meaning and ethics, management scholars and practitioners are increasingly looking beyond traditional frameworks. This search has led to a growing interest in alternative, wisdom-based traditions. Among these, the vast philosophical and administrative heritage of ancient India presents a particularly compelling and comprehensive model. For millennia, Indian thinkers have grappled with the fundamental questions of governance, leadership, duty, wealth creation, and social welfare. Their insights, codified in texts of unparalleled depth, offer a management philosophy that is inherently holistic, integrating the material with the spiritual, the individual with the collective, and profit with purpose.

The rapid evolution of the corporate landscape necessitates a reevaluation of management principles that transcend conventional Western paradigms. Ancient Indian texts such as the *Bhagavad Gita* and the *Arthashastra* offer profound insights that are increasingly relevant in today's corporate governance frameworks. By integrating Indian ethos in management with contemporary practices, organizations can achieve sustainable success while adhering to ethical management principles.

Central to the Indian ethos in management is the concept of *Dharma*, which denotes the moral duty and ethical responsibility one must adhere to in their professional life. In a corporate context, *Dharma* aligns closely with ethical management, guiding leaders and employees alike to make decisions that benefit not only the organization but also the greater community. This principle resonates with the modern stakeholder theory, which posits that corporations should consider the interests of all stakeholders—employees, customers, suppliers, and the environment—rather than focusing solely on shareholder profit maximization.

The *Bhagavad Gita* further elucidates the significance of *Nishkama Karma*, which translates to selfless action performed without attachment to outcomes. This philosophy

encourages leaders to focus on the process rather than being preoccupied with results, fostering a culture of innovation and resilience within organizations. By adopting *Nishkama Karma*, corporate leaders can cultivate an environment that prioritizes ethical decision-making and responsibility, ultimately leading to sustainable business practices.

In conjunction with *Nishkama Karma*, the *Arthashastra* offers practical guidance on governance and strategic management. Authored by Chanakya, it provides insights into statecraft that can be applied to corporate governance today. The text emphasizes the importance of strategic thinking, adaptability, and ethical conduct in leadership. By understanding the balance between profit generation and ethical considerations, organizations can navigate complex business environments while maintaining integrity and fostering trust among stakeholders.

The modern corporate landscape has witnessed a shift towards *Servant Leadership*, a model that embodies the principles of *Dharma* and *Nishkama Karma*. This leadership style prioritizes the growth and well-being of employees, promoting a collaborative culture that empowers individuals to contribute meaningfully to the organization's objectives. Servant leaders prioritize the needs of their team, embodying ethical management practices that enhance employee engagement and loyalty, ultimately driving organizational success.

Moreover, the integration of these ancient principles into contemporary corporate governance frameworks can reinforce ethical management practices. By adopting a holistic approach that combines profit motives with social responsibility, organizations can ensure their long-term viability while contributing positively to society. This alignment with the values of *Dharma* and *Nishkama Karma* enhances corporate reputation and fosters trust among stakeholders, which is increasingly vital in today's interconnected global economy.

The central research question guiding this paper is: **How can the core management principles derived from ancient Indian texts be interpreted and applied to address the key challenges of the modern corporate world?** This study moves beyond a superficial appropriation of concepts to conduct a rigorous analysis, mapping specific ancient precepts to contemporary management functions such as strategic planning, leadership, human resource management (HRM), and Corporate Social Responsibility (CSR).

The thesis of this paper is that ancient Indian management thought, centered on the foundational principles of *Dharma* (righteous purpose), trusteeship leadership, selfless action (*Nishkama Karma*), and stakeholder welfare (*Loka Sangraha*), provides a robust and ethically-grounded alternative to the purely profit-driven model. This Indian ethos offers a pathway to building organizations that are not only profitable but also socially responsible,

environmentally sustainable, and deeply fulfilling places to work. This paper will demonstrate that these are not merely philosophical ideals but actionable principles that can be translated into concrete corporate policies and practices, offering a roadmap for a more conscious form of capitalism. The exploration of ancient Indian management principles offers invaluable insights for modern corporate practices. By embracing *Dharma*, *Nishkama Karma*, and the strategic wisdom of the *Arthashastra*, organizations can create a balanced approach to management that prioritizes ethical considerations alongside economic success. As businesses strive for resilience in an ever-evolving landscape, these time-honored principles can guide leaders toward building sustainable and ethical organizations that foster positive outcomes for all stakeholders.

The paper is structured as follows: Section 2 provides a literature review, contrasting the evolution of Western management thought with the core tenets of the Indian ethos in management. Section 3 outlines the hermeneutic methodology used to analyze the ancient texts. Section 4, the core of the paper, presents a detailed thematic analysis of key principles, drawing extensively from the Bhagavad Gita, Arthashastra, and other texts, and linking them to modern corporate applications. Section 5 discusses the potential challenges and criticisms of this approach. Finally, Section 6 concludes with a summary of findings and suggestions for future research, reaffirming the profound relevance of this ancient wisdom for the modern age.

2. Literature Review

This section situates the study within existing academic discourse by examining two parallel streams of thought: the evolution of modern Western management and the formalization of the "Indian Ethos in Management" as a field of study.

2.1 The Trajectory of Western Management Thought: From Efficiency to Incompleteness

Modern management theory is conventionally traced back to the Industrial Revolution. Its early form, "Scientific Management," championed by Frederick W. Taylor (1911), viewed organizations as machines and workers as cogs within them. The primary goal was maximizing efficiency through time-and-motion studies and task specialization. While revolutionary for productivity, this approach dehumanized work and ignored the psychological and social needs of employees.

The Human Relations movement, following the Hawthorne Studies, offered a corrective. Scholars like Elton Mayo (1933) highlighted the importance of social factors, group dynamics, and employee morale in productivity. This led to a more paternalistic, but

still instrumental, view of employee welfare—happy workers were seen as more productive workers. The latter half of the 20th century saw the rise of management gurus like Peter Drucker, who introduced concepts like "Management by Objectives" and emphasized the knowledge worker, and Michael Porter, who focused on competitive strategy (Drucker, 1954; Porter, 1980).

A dominant theme throughout this evolution, particularly in Anglo-American capitalism, has been the doctrine of shareholder primacy. Advanced by economist Milton Friedman (1970), this theory posits that the sole social responsibility of a business is to increase its profits for its shareholders. This perspective has been criticized for promoting short-term thinking, encouraging excessive risk-taking, and externalizing social and environmental costs (Stout, 2012). While recent decades have seen the emergence of countervailing ideas like Stakeholder Theory (Freeman, 1984) and Conscious Capitalism (Mackey & Sisodia, 2014), which advocate for a broader responsibility to all stakeholders (employees, customers, community, environment), these often remain peripheral to the core financial logic of many corporations. The Western model, for all its strengths in analytics and strategy, often lacks a cohesive ethical foundation or a deeper sense of purpose beyond profit.

2.2 The Rise of the Indian Ethos in Management

The "Indian Ethos in Management" (IEM) emerged as a formal academic discipline in the latter half of the 20th century, pioneered by scholars who recognized the limitations of applying Western models wholesale in an Indian cultural context. They argued that India's ancient philosophical traditions contained a wealth of management wisdom. S.K. Chakraborty is widely regarded as a foundational figure in this field. His work emphasized the importance of purifying the mind, values-based management, and drawing principles from the Vedas and Upanishads. Chakraborty (1995) argued that management should be a process of "ennobling the mind," focusing on duty, sacrifice, and self-realization as ultimate goals.

Other scholars have extended this work. C.K. Prahalad, though primarily a global strategy guru, often infused his work with Indian philosophical undertones, particularly in his "Bottom of the Pyramid" theory, which can be seen as a modern manifestation of *sarva loka hitam* (welfare of all beings) (Prahalad, 2004). Subhash Sharma (1996) developed the "Western, Eastern, and Indian" windows of management, categorizing Indian thought as holistic and consciousness-driven.

2.3 Key Ancient Texts as Foundational Sources

The literary foundation of IEM is vast and profound. This review highlights the primary sources that form the basis of this paper's analysis:

- **The Vedas and Upanishads:** These are the most ancient texts, providing the metaphysical bedrock of Indian thought. They introduce concepts like *Rta* (cosmic order), the interconnectedness of all life, and the pursuit of self-knowledge (*Atma-jnana*). The managerial implication is the need for organizations to operate in harmony with broader societal and ecological systems. The famous Upanishadic dictum, "ईशा वास्यमिदं सर्वं यत्किञ्च जगत्यां जगत् । तेन त्यक्तेन भुञ्जीथा मा गृधः कस्यस्विद्धनम् ॥" (*Īśā vāsyamidaṁ sarvaṁ yatkiñca jagatyāṁ jagat. Tena tyaktena bhujñīthā mā gṛdhaḥ kasyasviddhanam* || - Isha Upanishad, Verse 1), translates to "All this is pervaded by the Lord... Therefore, enjoy what he gives you through renunciation; do not covet the wealth of anyone." This verse introduces the concept of trusteeship—that resources are to be managed on behalf of a higher purpose, not owned for selfish gain.
- **The Bhagavad Gita:** A part of the epic Mahabharata, the Gita is perhaps the most influential text for leadership and management. Its dialogue between Arjuna (the warrior) and Krishna (the divine guide) on the battlefield is a powerful metaphor for decision-making under pressure. It introduces key principles like *Nishkama Karma* (selfless action), *Sthitaprajna* (the steady-minded leader), and *Swa-dharma* (one's own innate duty). Its timeless appeal lies in its practical approach to integrating spiritual wisdom into worldly action.
- **Kautilya's Arthashastra:** Composed around the 4th century BCE, this treatise by Chanakya (Kautilya) is a startlingly pragmatic and comprehensive manual on statecraft, economics, and administration. Unlike the more philosophical texts, the Arthashastra is a practical guide to running an enterprise (the state). It covers everything from financial management, personnel administration, and legal systems to foreign policy and espionage. Rangarajan (1992) notes that it is a secular text focused on the "artha" (material well-being) of the people as a primary duty of the ruler. It provides detailed frameworks for organizational structure, employee motivation, and risk management.
- **The Ramayana and Mahabharata:** These epics serve as case studies in leadership and ethical dilemmas. The character of Rama in the Ramayana exemplifies the ideal

of the *dharmic* leader who prioritizes duty and righteousness above personal comfort. The Mahabharata, in contrast, is a complex exploration of realpolitik, ethical ambiguity, and the catastrophic consequences of greed and adharma. The character of Vidura, the wise prime minister, offers timeless advice on governance and ethics.

- **Tirukkural:** A classic Tamil text by Thiruvalluvar, the Tirukkural offers concise and profound couplets on ethics, polity, and love. It has extensive sections on wealth creation, leadership, and effective management. It emphasizes the importance of ethical means in acquiring wealth, stating, "பழியஞ்சிப் பாத்தூண் உடைத்தாயின் வாழ்க்கை வழியெஞ்சல் எஞ்ஞான்றும் இல்." (*Pazhiyanjip paaththoon udaiththaayin vaazhkkai vazhiyenjal egnandrum il* - Kural 44), meaning "If a man, shunning guilt, eats his food with others, his lineage will never be destroyed." This highlights the integration of ethics with sustainable prosperity.

2.4 Research Gap

While the foundational work of scholars like Chakraborty has established IEM as a discipline, much of the existing literature either remains at a high level of philosophical abstraction or focuses on a single text in isolation. There is a clear need for a comprehensive, multi-textual synthesis that bridges the gap between ancient principles and specific, actionable modern corporate practices. This paper aims to fill that gap by not just describing concepts like *Dharma* or *Nishkama Karma*, but by demonstrating their direct application in areas like performance management systems, leadership training modules, CSR strategies, and corporate governance frameworks.

3. Methodology

This research employs a qualitative, interpretive methodology grounded in hermeneutics. Hermeneutics, as a theory of interpretation, is particularly suited for this study as it involves understanding and interpreting texts from a different historical and cultural context (Gadamer, 1960). The objective is not merely to extract literal meanings but to understand the underlying principles and assess their relevance for a contemporary context.

The research process involves three stages:

- 3.1. **Textual Analysis of Primary Sources:** The primary data for this study are the foundational Indian texts mentioned in the literature review. Authoritative English translations by scholars such as Swami Vivekananda, A.C. Bhaktivedanta Swami Prabhupada (for the Gita), R. Shamasastri and L.N. Rangarajan (for the

Arthashastra), and G.U. Pope (for the Tirukkural) are used. The analysis involves a close reading of relevant verses (*slokas* or *kurals*) to identify core managerial and administrative themes. The verses are analyzed in their original context to avoid anachronistic interpretations.

3.2. Thematic Synthesis: Once key concepts are identified from the texts; a thematic synthesis is conducted. Related ideas from different texts are grouped together to form overarching principles. For example, the concept of leadership is synthesized by drawing upon the *Rajarshi* ideal from the epics, the *Sthitaprajna* characteristics from the Gita, and the duties of the king (*Raja*) from the Arthashastra. This creates a multi-faceted and robust understanding of each management principle.

3.3. Application and Juxtaposition: The synthesized ancient principles are then systematically juxtaposed with contemporary management theories and corporate challenges. This stage involves a critical analysis of modern business practices through the lens of the Indian ethos. For instance, the principle of *Nishkama Karma* is contrasted with modern 'Management by Objectives' (MBO) and its often-stressful focus on results. The application is illustrated with hypothetical scenarios and references to real-world companies that, consciously or unconsciously, exhibit these ancient principles. This final stage aims to translate ancient wisdom into a practical framework for the modern manager.

This qualitative approach allows for a rich and nuanced exploration of the topic, moving beyond simplistic correlations to a deep structural understanding of how ancient Indian thought can inform and transform modern corporate life.

4. Analysis and Discussion: Core Principles and Modern Applications

This section forms the nucleus of the paper, systematically dissecting the core tenets of ancient Indian management thought and detailing their practical application in the contemporary corporate environment.

4.1 Dharma: The Ethical Foundation of the Enterprise

The concept of *Dharma* is the cornerstone of Indian philosophy and, by extension, its management ethos. It is a complex term often translated as 'duty', 'righteousness', 'ethics', or 'cosmic law'. *Dharma* is not a rigid set of rules but a contextual principle that guides right action. In a corporate context, *Dharma* is the organization's ultimate purpose beyond profit—its ethical reason for existence. The Mahabharata famously declares, "यतो धर्मस्ततो जयः" (*Yato Dharmastato Jayah*), which means "Where there is Dharma, there is Victory." This is

not a guarantee of material victory in every instance, but a profound statement that adherence to a righteous path leads to ultimate, sustainable success and moral triumph.

Modern Application: Purpose-Driven Business and Ethical Governance

- i. **Beyond the Mission Statement:** The principle of *Dharma* challenges companies to move beyond vapid, PR-driven mission statements. A *dharmic* organization integrates its purpose into its core strategy and operations. Patagonia, the outdoor apparel company, is a prime example. Its mission, "We're in business to save our home planet," is not just a slogan. It dictates their supply chain (using recycled materials), their marketing ("Don't Buy This Jacket" campaign), and their activism (donating 1% of sales to environmental causes). This is a modern corporate expression of operating in alignment with a higher *Dharma*.
- ii. **Ethical Decision-Making Framework:** *Dharma* provides a moral compass for navigating complex business dilemmas. When faced with a choice between a profitable but ethically dubious action (e.g., using cheaper, polluting materials) and a less profitable but righteous one, a *dharmic* framework prioritizes the latter. This aligns with the concept of the "Triple Bottom Line"—People, Planet, Profit—first proposed by John Elkington (1997), but grounds it in a much older, more profound ethical tradition. The Satyam Computers scandal in India serves as a stark reminder of the consequences of an *adharmic* (unrighteous) path, where the pursuit of profit at all costs led to catastrophic failure.
- iii. **Corporate Governance:** *Dharma* implies that a board of directors and senior management are not just accountable to shareholders, but are custodians of a *dharmic* purpose. Their duty is to ensure the organization creates value for all stakeholders without violating ethical principles.

4.2 The Leader as Rajarshi: Trusteeship over Ownership

Ancient Indian texts present a unique model of leadership: the *Rajarshi*—a leader who combines the wisdom and detachment of a sage (*Rishi*) with the administrative acumen of a king (*Raja*). This leader is not an owner of resources but a trustee, holding power on behalf of the people. This principle of trusteeship was famously articulated by Mahatma Gandhi, who was deeply influenced by the Isha Upanishad. The Arthashastra provides a clear and powerful directive for the leader:

"प्रजासुखे सुखं राज्ञः प्रजानां च हिते हितम् । नात्मप्रियं हितं राज्ञः प्रजानां तु प्रियं हितम् ॥"

(Prajāsukhe sukhaṁ rājñāḥ prajānām ca hite hitam | Nātmapriyaṁ hitaṁ rājñāḥ prajānām tu priyaṁ hitam || - Arthashastra 1.19.34)

Translation: "In the happiness of his subjects lies the king's happiness; in their welfare his welfare. He shall not consider as good only that which is dear to him, but shall consider as good whatever is dear to his subjects."

Modern Application: Servant Leadership and Stakeholder Theory

- i. **Servant Leadership:** The *Rajarshi* model is the ancient precursor to Robert Greenleaf's (1970) concept of "Servant Leadership." A servant leader focuses on the growth and well-being of their people and the communities to which they belong. Companies like Starbucks under Howard Schultz have demonstrated this by offering comprehensive health benefits and college tuition programs even to part-time employees ('partners'). This reflects the principle that the leader's primary role is to serve the welfare of their people, with the understanding that this will ultimately lead to organizational success.
- ii. **Combating Executive Greed:** The trusteeship model is a powerful antidote to the excessive executive compensation and short-termism that plagues modern capitalism. A leader who sees themselves as a trustee of stakeholder interests is less likely to make decisions (like massive layoffs to boost a quarterly stock price) that benefit themselves at the expense of employees or the long-term health of the company. The Tata Group in India, guided by the philosophy of its founder J.R.D. Tata, has historically exemplified this principle, investing heavily in employee welfare, community development, and nation-building.
- iii. **Stakeholder-Centric Governance:** The *Rajarshi* ideal directly supports Stakeholder Theory over Shareholder Primacy. The "subjects" of the modern corporate "king" (CEO) are the employees, customers, suppliers, and the community. Kautilya's dictum is a clear instruction for modern CEOs to find their success in the success of all these stakeholders, not just in the rising share price.

4.3 Nishkama Karma: Excellence in Action, Detachment from Results

Perhaps the most famous and psychologically profound principle from the Bhagavad Gita is *Nishkama Karma*, or action performed without attachment to its fruits. This is articulated in the pivotal verse:

"कर्मण्येवाधिकारस्ते मा फलेषु कदाचन । मा कर्मफलहेतुर्भूर्मा ते सङ्गोऽस्त्वकर्मणि ॥"

(*Karmaṇyevādhikāraṣṭe mā phaleṣu kadācana | Mā karmaphalaheturbhūrmā te saṅgo'stvakarmaṇi* || - Bhagavad Gita 2.47)

Translation: "You have a right to perform your prescribed duty, but you are not entitled to the fruits of action. Never consider yourself the cause of the results of your activities, and never be attached to not doing your duty."

This is not a call for passivity or indifference to outcomes. Rather, it is a sophisticated psychological tool for achieving excellence. By focusing entirely on the quality and integrity of the action (the process) rather than anxiously worrying about the outcome, an individual can perform at their highest potential. It reduces stress, fosters innovation (as fear of failure is diminished), and promotes ethical means over ends.

Modern Application: Process-Oriented and Resilience

- i. **Performance Management Reimagined:** Modern performance management systems are often excessively outcome-oriented, leading to a "whatever it takes" culture, as seen in the Wells Fargo account fraud scandal. An approach based on *Nishkama Karma* would shift the focus. While results would still be tracked, performance evaluations would heavily weigh the *process*: Was the work done ethically? Was there collaboration? Was there innovation and learning, even in failure? This fosters a culture of psychological safety and continuous improvement.
- ii. **Stress and Burnout Reduction:** The constant pressure for results is a major contributor to corporate burnout. The practice of *Nishkama Karma*, akin to modern mindfulness, trains the mind to remain centered on the present task. This mental discipline allows employees and leaders to work with calm intensity, making better decisions and preserving their mental energy. It builds resilience, enabling teams to handle setbacks without succumbing to demoralization.
- iii. **Fostering Innovation:** Fear of failure is a primary inhibitor of innovation. *Nishkama Karma* encourages experimentation. When the team's primary duty is to put forth their best, most creative effort, a 'failed' project is not a catastrophe but a learning experience. Google's famous "20% Time" policy, where employees were encouraged to work on side projects they were passionate about without immediate pressure for results, led to breakthroughs like Gmail and AdSense. This is a corporate policy that embodies the spirit of action for action's sake.

4.4 Kautilya's Arthashastra: A Masterclass in Strategic Management

While the Gita provides the psychological and ethical framework, the Arthashastra provides the hard-nosed, practical guide to organizational management. It is a manual for creating a prosperous, stable, and well-managed enterprise (state).

- i. **The Saptanga (Seven Limbs) Model of the Organization:** Kautilya outlines seven essential components for a state's success: *Swami* (The Leader), *Amatya* (The Ministers/Managers), *Janapada* (The People/Market), *Durga* (The Fort/Infrastructure), *Kosa* (The Treasury/Finance), *Danda* (The Army/Authority/Discipline), and *Mitra* (The Allies). This can be directly mapped to a modern corporation:

- *Swami*: CEO/Leadership
- *Amatya*: Senior Management Team
- *Janapada*: Market Share and Customer Base
- *Durga*: Physical and IT Infrastructure
- *Kosa*: Financial Health and Treasury
- *Danda*: Internal Rules, Policies, and Corporate Culture
- *Mitra*: Strategic Alliances and Partnerships

This ancient model is a precursor to modern frameworks like the Balanced Scorecard, emphasizing that organizational health depends on the strength and balance of all its constituent parts, not just financial performance (*Kosa*).

- ii. **Human Resource Management:** The Arthashastra contains detailed recommendations for what we now call HRM. Kautilya stresses the importance of meticulous selection of officials (*amatyas*), stating they must be tested for integrity, competence, and loyalty. He also devised a clear system of compensation: "Whoever accomplishes a task as ordered shall be paid the stipulated wages" (Arthashastra 5.3). Crucially, he links motivation to welfare, arguing that an army (workforce) whose needs are not met will be disloyal. He states: "भृतश्चतुर्गुणं क्लेशं दद्यात् कर्मणि" (*Bhṛtaś catur-guṇaṁ kleśaṁ dadyāt karmaṇi*), implying that a well-paid and cared-for servant will work with four times the effort. This is a powerful argument for fair wages and employee benefits as a strategic investment, not just a cost.
- iii. **Risk Management and Internal Controls:** Kautilya was acutely aware of corruption ("forty ways of embezzlement") and prescribed a robust system of audits and internal checks and balances. His advice on governance is timeless: transparency, clear

accountability, and swift, just punishment for wrongdoing are essential for organizational integrity. This provides a blueprint for modern internal audit, compliance, and risk management functions.

4.5 Loka Sangraha: Working for the Welfare of the World

This principle, also from the Gita, refers to the duty of an enlightened individual (or organization) to work for the maintenance and welfare of the world. Krishna advises Arjuna that even one who has attained self-realization must continue to act, to set a positive example for others.

"लोकसंग्रहमेवापि सम्पश्यन्कर्तुमर्हसि" (*Lokasaṅgraham evāpi sampāśyan kartum arhasi* - Bhagavad Gita 3.20)

Translation: "You should perform your work to set an example for the people of the world."

Modern Application: Corporate Social Responsibility (CSR) as a Core Function

- i. **Authentic CSR:** *Loka Sangraha* elevates CSR from a peripheral PR activity or a mere compliance requirement to a core element of corporate strategy. It is not about what a company does with its profits, but *how* it makes its profits. An organization guided by *Loka Sangraha* sees itself as a citizen of society with a responsibility to solve social and environmental problems through its business operations. The rise of B-Corporations (Benefit Corporations), which are legally required to consider the impact of their decisions on their workers, customers, suppliers, community, and the environment, is a modern structural embodiment of *Loka Sangraha*.
- ii. **Sustainable Development Goals (SDGs):** This ancient principle aligns perfectly with the United Nations' SDGs. A corporation practicing *Loka Sangraha* would proactively align its business model with contributing to goals like poverty reduction, clean energy, and responsible consumption, seeing it not as a burden but as its fundamental duty and a source of long-term value creation.

5. Challenges and Criticisms

The application of ancient Indian principles to the modern corporate world is not without its challenges and potential criticisms.

- i. **Anachronism and Context:** Critics may argue that applying principles from monarchical, agrarian societies to a globalized, digital, and democratic age is anachronistic. Concepts like a "king" and "subjects" may seem irrelevant. However, this paper argues that the underlying *principles*—trusteeship, duty, ethical conduct, stakeholder welfare—are universal and timeless. The key is to metaphorically

translate the context: the "king" becomes the CEO, the "subjects" become the stakeholders, and the "kingdom" becomes the organization.

- ii. **Risk of Misinterpretation and "Spiritual Washing":** There is a danger of these profound concepts being superficially co-opted by corporations for branding purposes, a phenomenon one might call "spiritual washing" or "saffron-washing." A company might use Sanskrit terms in its mission statement while continuing exploitative labor practices. The antidote to this is genuine integration. The principles must be embedded in organizational structures, performance metrics, and leadership training, not just mentioned in annual reports.
- iii. **Practicality in a Hyper-Competitive World:** A valid question is whether a *dharmic*, stakeholder-centric company can survive, let alone thrive, in a cutthroat capitalist environment driven by shareholder returns. The evidence from companies like Patagonia, the Tata Group, and the global B-Corp movement suggests that it can. An ethical, purpose-driven culture tends to attract and retain top talent, foster deep customer loyalty, and build a resilient brand that can weather economic storms better than its purely profit-focused competitors. In the long run, *Dharma* and *Artha* (purpose and profit) are not contradictory but mutually reinforcing.

6. Conclusion and Future Directions

The modern corporate world is in urgent need of a paradigm shift—a move away from a model that prioritizes profit at the expense of people and the planet, towards one that integrates purpose, ethics, and human well-being into its very DNA. This research has demonstrated that a rich, sophisticated, and practical framework for such a shift lies within the ancient wisdom of India.

The principles of *Dharma*, Trusteeship Leadership (*Rajarshi*), Selfless Action (*Nishkama Karma*), Strategic Governance (*Arthashastra*), and Universal Welfare (*Loka Sangraha*) are not antiquated ideals. They are a powerful operating system for the 21st-century conscious corporation. They provide a blueprint for building organizations that are:

- **Purpose-Driven:** Grounded in a *dharmic* mission that transcends profit.
- **Ethically Governed:** Led by trustees who serve all stakeholders.
- **Human-Centric:** Fostering a culture of process-excellence, mindfulness, and reduced stress.
- **Strategically Sound:** Balancing all aspects of the organization for long-term health.
- **Socially Responsible:** Seeing business as a powerful tool for the welfare of the world.

By weaving these principles into the fabric of modern management, corporations can transform from being merely engines of wealth extraction to becoming vehicles of holistic value creation. They can become places where employees find not just a livelihood, but meaning; where customers find not just products, but trust; and where society finds not just an employer, but a partner in progress. The wisdom of the ancient sages, it turns out, holds the key to the future of management.

Future Research Directions:

- i. **Empirical Studies:** There is a need for quantitative and qualitative empirical research to measure the impact of applying these principles. Studies could compare the long-term financial performance, employee engagement scores, and customer loyalty metrics of explicitly purpose-driven companies against their industry peers.
- ii. **Cross-Cultural Adaptation:** Research could explore how these Indian principles can be adapted and integrated into different cultural contexts outside of India, identifying the universal elements versus the culturally specific ones.
- iii. **Development of Training Modules:** Further work is needed to develop practical training modules and workshops for managers and leaders to help them understand and internalize these concepts, translating philosophy into everyday behavior.

The journey from the ancient scrolls to the modern boardroom is a challenging one, but it is a journey worth taking. For in this ancient wisdom lies the promise of a more prosperous, sustainable, and humane corporate world.

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ADOPTION OF AI-POWERED PERFORMANCE MONITORING SYSTEMS AND THEIR EFFECT ON EMPLOYEE PRODUCTIVITY

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ABSTRACT

Artificial Intelligence (AI) has redefined traditional workplace monitoring by enabling organisations to track performance with higher accuracy and real-time insights. This chapter examines the adoption of AI-powered performance monitoring systems and their direct and indirect effects on employee productivity. The central focus is to understand how AI tools enhance decision-making, reduce human bias, and promote organisational efficiency. Challenges such as ethical concerns, employee resistance, privacy issues, and transparency are also addressed. The study uses quantitative methodology supported by primary and secondary data. Findings indicate that AI-enabled systems significantly contribute to improved productivity when implemented with fairness, ethical standards, and proper training.

Keywords: Artificial Intelligence, Performance Monitoring, Employee Productivity, Automation, Efficiency, Workplace Analytics, HR Technology

Chapter 1: Introduction

Technological advancements have accelerated transformations in workplace management practices. Among them, Artificial Intelligence (AI) stands out as a key driver of automation and data-driven decision-making. Organizations worldwide are increasingly adopting AI-powered performance monitoring systems to enhance operational outcomes and employee productivity. Unlike traditional monitoring methods that rely heavily on manual supervision and periodic evaluations, AI-driven tools analyze employee activities continuously and offer insights in real time.

AI-powered performance systems include tools such as intelligent dashboards, task-tracking software, productivity analytics platforms, and machine learning models that predict employee performance trends. With increasing pressure to achieve efficiency and competitiveness, organizations are replacing conventional performance appraisal systems with AI-enabled models.

This chapter explores the nature of AI-powered performance monitoring, its role in organizational operations, challenges associated with its implementation, and its overall impact on employee productivity and workplace efficiency.

What is Artificial Intelligence (AI)?

Artificial Intelligence (AI) is a technology that allows machines to think and act in ways that resemble human intelligence. Instead of just following fixed instructions, AI systems can learn from data, understand patterns, make decisions, and even improve over time. In simple terms, AI helps computers do things that normally need human thinking—like solving problems, analyzing information, and making predictions.

In today's workplaces, AI appears in many useful forms:

- **Machine Learning:**
 - These are models that learn from past data to predict future outcomes, such as employee performance trends or productivity levels.
- **Natural Language Processing (NLP):**
 - This allows computers to understand and interpret human language. It is commonly used to analyze employee feedback, emails, or communication patterns within the organization.
- **Robotic Process Automation (RPA):**
 - RPA handles repetitive and routine tasks—such as data entry, attendance updates, or report generation—so that employees can focus on more meaningful work.
- **Predictive Analytics:**
 - These tools study historical patterns and help managers make better decisions about staffing, workload, or training needs.
- **Biometric and Sensor-Based Systems:**
 - These technologies track attendance, work engagement, safety measures, and overall activity levels in real time.

By bringing these technologies together, organizations gain a clearer understanding of how work is done, how employees are performing, and where improvements are needed. AI ultimately helps create smarter, faster, and more efficient workplaces.

Role of AI-Powered Performance Monitoring Systems

AI-powered performance monitoring systems play a transformative role in today's workplaces by helping organizations better understand, support, and enhance employee productivity. These systems go beyond traditional tracking tools—they offer intelligent insights that improve overall efficiency, fairness, and growth. Their key roles include:

1. Real-Time Monitoring and Instant Insights

AI tools continuously observe work patterns, task progress, and productivity levels throughout the day. Instead of waiting for monthly reviews, both employees and managers receive instant feedback. This helps employees correct mistakes immediately and maintain steady progress.

2. Minimizing Human Bias

Traditional performance evaluation often involves personal judgments, which may unintentionally lead to bias or favoritism. AI systems rely on factual, data-driven inputs—such as task completion, accuracy, and timelines—ensuring that evaluations are fair, transparent, and impartial.

3. Smarter Decision-Making for Managers

AI provides predictive analytics, trend graphs, and performance forecasts. With these insights, managers can identify high performers, recognize upcoming challenges, and make informed decisions about workload distribution, promotions, or training needs.

4. Boosting Employee Productivity

AI tools highlight how much time employees spend on different tasks and point out inefficiencies or distractions. This allows employees to refine their workflow, prioritize better, and focus on tasks that truly matter, resulting in improved performance.

5. Early Identification of Performance Issues

One of the biggest advantages of AI is its ability to spot problems before they escalate. If an employee's productivity drops or errors increase, AI flags the issue early and suggests corrective measures—helping prevent long-term performance decline.

6. Automation of Routine HR Responsibilities

AI systems take over time-consuming administrative tasks such as attendance management, KPI tracking, performance scoring, and report generation. This reduces the workload for HR professionals and ensures accuracy and consistency in employee data.

7. Personalized Training and Skill Development

AI analyses employee strengths and weaknesses to identify exact skill gaps. Based on this analysis, it recommends customized training modules, courses, or mentoring sessions, helping employees grow in their roles and stay future-ready.

Challenges of Adopting AI-Powered Performance Monitoring

Although AI-based performance monitoring can improve workplace efficiency, organizations often face several difficulties when trying to introduce these systems. Some of the major challenges include:

1. Concerns About Privacy

AI tools often track employees throughout the workday. This constant observation can make people feel uncomfortable or watched, causing anxiety and resistance toward the system.

2. Ethical Questions

If AI data is not handled responsibly, it can lead to unfair treatment or excessive monitoring. Misuse of data may create ethical problems, such as discrimination or intrusion into personal space.

3. Lack of Clarity in How AI Works

Many employees do not fully understand how AI evaluates their work or how decisions are made. When the process is unclear, it creates doubts, mistrust, and confusion.

4. High Cost of Setting Up AI Systems

Using AI requires investment in software, infrastructure, and training. For some organizations especially, smaller ones the cost of installation and maintenance becomes a major hurdle.

5. Risk of Data Theft or Cyberattacks

Since AI systems store large amounts of employee information, they become attractive targets for hackers. Any security breach can expose sensitive data and damage trust.

6. Resistance to New Technology

Not everyone is comfortable with new digital systems. Managers and employees may prefer traditional evaluation methods and resist switching to AI-powered monitoring.

7. Lack of Technical Skills

To use AI tools effectively, employees need basic technical understanding. Without proper training, they may struggle to interpret AI reports or interact with automated systems.

Conceptual Framework: Adoption of AI-Powered Performance Monitoring Systems and Employee Productivity

The diagram visualises how different constructs from literature contribute to employee productivity through AI-based monitoring systems.

Framework Interpretation in Words:

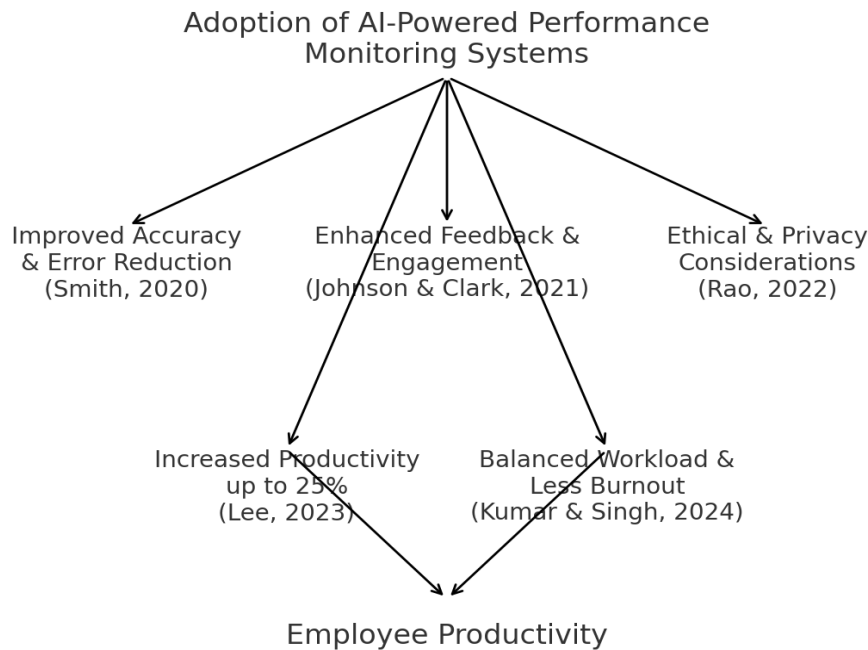
Adoption of AI-powered monitoring systems →

- improves data accuracy,
- strengthens engagement through feedback,
- raises productivity levels,

- balances workload, reducing burnout,

However, it requires an ethical & transparent implementation to sustain positive outcomes.

All these leads to **enhanced Employee Productivity**.



Conceptual Framework Diagram

Key Linkages Represented:

Literature Insight	Contributing Factor	Effect
Smith (2020)	Improved accuracy & fewer manual errors	Positive impact on performance
Johnson & Clark (2021)	Feedback and engagement	Increased motivation
Rao (2022)	Ethical & privacy considerations	Responsible adoption required
Lee (2023)	Productivity increases up to 25%	Direct productivity boost
Kumar & Singh (2024)	Workload balance, reduced stress	Enhances productivity & well-being

Literature Review

Several studies explore the impact of AI-powered monitoring systems on employee productivity.

Smith (2020) states that AI improves performance by eliminating manual errors and enhancing data accuracy.

Johnson & Clark (2021) emphasize that AI-driven systems enhance employee engagement through timely feedback.

Rao (2022) highlights privacy concerns and suggests organizations must adopt ethical frameworks.

Lee (2023) found that employee productivity increases by up to 25% in organizations using AI-based analytics.

Kumar & Singh (2024) reported that AI helps in workload balancing, reducing employee stress and burnout.

Overall, literature supports the positive influence of AI on workplace efficiency but stresses ethical and transparent implementation.

Objectives of the Study

1. To investigate how organizations adopt AI-powered performance monitoring systems.
2. To investigate the effects of AI monitoring on employee productivity.
3. To determine employees' perceptions and challenges of AI monitoring.
4. To evaluate the trustworthiness of AI systems in supporting productive employee decision-making.
5. To make recommendations for implementing AI system implementation ethically and transparently.

Scope of the Study:

The present study focuses on understanding how organisations adopt AI-powered performance monitoring systems and how these technologies influence employee productivity. The study covers various aspects such as real-time performance tracking, data analytics, automated reporting, transparency in evaluation, and employee perception toward AI monitoring. It also examines challenges like privacy concerns, ethical issues, employee acceptance, and the cost of implementation. The scope is limited to employees working in IT, service sectors, and other corporate environments where AI-based monitoring tools are used. Both primary and secondary data are used to evaluate how AI improves task efficiency, decision-making, and accountability within workplaces.

Importance of the Study:

This study plays a significant role in the modern business environment where digital transformation is becoming essential. Understanding AI-powered monitoring has become important because organisations are shifting from traditional manual review systems to data-based evaluation. The study helps management identify how AI improves performance accuracy, reduces human errors, and promotes productivity through real-time feedback. It also creates awareness about ethical implementation, employee well-being, and the need for transparency in monitoring. The findings will support companies in adopting AI responsibly, ensuring that it improves performance without affecting trust or employee morale.

Advantages of AI-Powered Performance Monitoring Systems

- **Real-time feedback** helps employees correct mistakes immediately and improve their work quality.
- **Reduces human bias** by evaluating performance based on data instead of personal judgment.
- **Saves time and HR effort** through automation of attendance, performance tracking, and report generation.
- **Improves productivity** by identifying bottlenecks, distractions, and areas that require improvement.
- **Better decision-making** as AI provides accurate insights, forecasting, and performance analytics.
- **Promotes fairness and transparency** when implemented with clear guidelines.
- **Personalized training and skill development** based on performance patterns and employee needs.
- **Enhances organizational efficiency** and supports faster achievement of targets.

Disadvantages of AI-Powered Performance Monitoring Systems

- Employees may feel **constantly monitored**, creating stress or pressure.
- **Privacy concerns** arise when personal and behavioural data are continuously tracked.
- Initial **implementation cost is high**, especially for small or growing organizations.
- Lack of **technical knowledge and training** may reduce the effectiveness of the system.
- Excessive monitoring can lead to **reduced creativity and job satisfaction**.
- Risk of **data security threats or cyber-attacks** if not protected properly.
- Employees may **resist adopting the new system**, fearing job replacement or misuse of data.

- AI algorithms may become **biased if trained with incomplete or incorrect data**.

Conclusion :

AI-powered performance monitoring systems have the potential to transform workplace productivity by providing real-time insights, reducing human errors, and improving transparency in performance evaluation. The study reveals that when AI systems are used ethically and with proper training, employees respond positively, and productivity increases. AI-powered systems can enhance workplace productivity by delivering real-time insights, minimising human errors, and increasing transparency in performance assessment. The study shows that responsible deployment of AI systems leads to positive responses from employees and a rise in productivity. However, organisations must balance the use of technology with human values by safeguarding privacy, fostering trust, and preventing excessive surveillance. With responsible implementation, AI monitoring becomes a valuable tool for improving performance, supporting informed decision-making, and guiding organisations towards a smarter and more efficient future.

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A STUDY ON IMPACT OF CHATGPT ON STUDENT'S ACADEMIC PERFORMANCE IN TIRUCHENDUR TALUK

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ABSTRACT

This study examines the impact of ChatGPT on student learning, academic performance, and learning behaviour in Tiruchendur taluk. Using both primary and secondary data, the research analyzes responses collected from 60 students through a structured questionnaire and applies tools such as percentage analysis, mean score analysis, and the Likert scale technique. The findings reveal that a majority of students are aware of ChatGPT and use it primarily for academic support, including answering factual questions, problem solving, improving writing skills, exam preparation, and generating ideas for group work. Students generally perceive ChatGPT as a beneficial learning aid that enhances productivity, personalized learning, access to information, and overall academic performance. However, the study also identifies key challenges and ethical concerns such as plagiarism, academic integrity, reduced critical thinking, data privacy issues, and the reliability of AI-generated responses. The study concludes that while ChatGPT has a significant positive influence on student learning outcomes, its effectiveness depends on responsible and ethical usage. Appropriate guidelines, critical evaluation, and balanced integration with traditional teaching methods are essential to maximize its educational benefits and minimize potential risks.

Keywords: ChatGPT- Artificial Intelligence in Education- Student Learning- Academic Performance- Ethical Concerns

INTRODUCTION:

ChatGPT (–**Chat Generative Pre-trained Transformer**||) is an advanced AI Chabot developed by OpenAI. It was publicly released on November 30, 2022, and quickly became the fastest-growing consumer software, reaching over 100 million monthly users within two months. Artificial intelligence (AI) developments have recently altered many industries, including education. A game-changing technology with the capacity to change student education is ChatGPT, a language model created by OpenAI. Language models of today, such as ChatGPT, an adaptation of OpenAIs **Generative Pretrained Transformer (GPT)** language model, have the goal of producing content that appears to have been written by

individuals. It can converse with users in a way that seems natural and logical. ChatGPT creates new opportunities for personalized learning, increased student engagement, and improved educational outcomes by utilizing the power of natural language processing. By providing students with individualized learning opportunities, prompt feedback, and support, it can enhance their educational experiences. ChatGPT creates new opportunities for information access because it may provide quick responses, support research, and facilitate problem-solving. In this article, we examine ChatGPT's effects on student learning and how it can alter how we teach and learn.

OBJECTIVES:

- To analyze the extent of ChatGPT usage among students in Tiruchendur taluk.
- To identify the primary purposes for which students use ChatGPT in Tiruchendur taluk.
- To evaluate the perceived benefits of using ChatGPT in education Tiruchendur taluk.
- To study the impact of ChatGPT on students' academic performance and learning behaviour Tiruchendur taluk.
- To assess the challenges and ethical concerns associated with ChatGPT usage among students Tiruchendur taluk.
- To propose recommendations for the responsible use of ChatGPT in educational contexts Tiruchendur taluk.

STATEMENT OF THE PROBLEM

The study's problem statement is centered around understanding the multifaceted impact of ChatGPT on student learning and academic performance, particularly in the context of its growing use in educational settings. While ChatGPT offers potential benefits like facilitating research and providing feedback, concerns exist regarding its potential to negatively affect academic integrity, critical thinking skills, and overall learning outcomes. The study aims to address the gap in knowledge about the responsible and effective integration of ChatGPT into educational practices.

METHODOLOGY

Both primary and secondary data have been collected for the study. Most of the details were primary has been collected from 60 respondents. In this study for collecting the primary data structure, questionnaires were prepared and information was collected. Collected primary data have analyzed various tools like Percentage Analysis, Mean Score Analysis and Likert Scale Technique. Secondary data have collected from various Books, Magazines,

Newspapers, Journals, Published articles, Dissertations and Thesis.

AREA OF THE STUDY

The study was conducted in Tiruchendur taluk.

PERIOD OF THE STUDY

The study was conducted during the period of 3 months from June 2025-october 2025.

ANALYSIS AND INTERPRETATIONS

TABLE: 1

DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Sl. No	Age	No. of Sample Respondents	Percentage
1.	BELOW 20	28	47%
2.	20-22	21	35%
3.	23-24	7	12%
4.	ABOVE 25	4	6%
	Total	60	100
Sl. No	Gender	No. of Respondents	Percentage
1.	Male	24	40%
2.	Female	36	60%
	Total	60	100
Sl. No	Income	No. of Respondents	Percentage
1.	Below 15,000	18	30%
2.	15,000-20,000	13	22%
3.	20,001-25,000	8	13%
4.	Above 25000	21	35%
	Total	60	100
Sl. No	Nature of Family	No. of Respondents	Percentage
1.	NUCLEAR FAMILY	23	38%
2.	JOINT FAMILY	37	62%
	Total	60	100
Sl. No	Educational Qualification	No. of Respondents	Percentage
1.	B.Com	26	43
2.	BA	8	13
3.	BBA	12	20
4.	Others	14	24
	Total	60	100

Source: Computed Primary Data.

TABLE 2
USAGE OF CHATGPT IN ACADEMIC PERFORMANCE

S.NO	USAGE OF CHATGPT IN ACADEMIC PERFORMANCE	NO.OF RESPONDENTS	PERCENTAGE
1.	OCCASIONALY	19	40%
2.	FREQUENTLY	24	32%
3.	ALWAYS	17	28%
TOTAL		60	100%

Source: Computed Primary Data.

TABLE 3
USAGE OF CHATGPT AMONG STUDENTS IN GROUP WORK

S.NO	STUDENTS IN GROUP WORK	NO.OF RESPONDENTS	PERCENTAGE
1	Make final decision	9	15%
2	Generate idea and suggestion for discussion	32	53%
3	Take over the project	12	0%
4	Act as the group leader	7	12%
TOTAL		60	100%

TABLE 4
PRIMARY PURPOSES OF CHATGPT

S.NO	PRIMARY PURPOSES OF CHATGPT	NO.OF RESPONDENTS	PERCENTAGE
1.	To answer Factual question	19	32%
2.	To assist users with information and problem solving	19	32%
3.	To help to prepare for exams and interview	11	18%
4.	To facilitate creative Writing and storytelling	11	18%
TOT AL		60	100%

Source: Computed Primary Data

TABLE 5
AWARNNESS OF USING CHATGPT

S.NO	AWARENESS AND USAGE OF CHATGPT	STRONGLY AGREE	AGREE	NUTREAL	DISAGREE	Strongly disagree	MEAN
1.	WHAT is CHATGPT and its function	44 (220)	11 (44)	5 (15)	-	-	4.65
2.	Academic or professional purposes	23 (115)	30 (120)	7 (21)	-	-	4.26
3.	Believe CHATGPT can enhance productivity	19 (95)	17 (68)	22 (66)	2 (4)	-	3.88
4.	Generating or review academic content	29 (145)	12 (48)	7 (21)	11 (22)	1 (1)	3.95

Source: Computed Primary Data.

TABLE 6
ETHICAL CONSIDERATION TOWARDS CHATGPT

S.NO	ETHICAL CONCERN	STRONGY AGREE	AGREE	NUTREAL	DISAGREE	STRONGLY DISAGREE	MEAN SCORE
1.	CHATGPT may promote plagiarism	37 (185)	13 (52)	9 (27)	1 (2)	-	4.4
2.	Raises concerns about academic integrity	17 (85)	34 (136)	9 (27)	-	-	4.13

3.	CHATGPT responses may bias or inappropriate	20 (100)	11 (44)	23 (69)	4 (8)	2 (2)	3.71
4.	Critical thinking and original thought	25 (125)	19 (76)	9 (27)	7 (14)	-	4.03
5.	Concerned about data privacy	17 (85)	21 (84)	10 (30)	8 (16)	4 (4)	3.65
6.	CHATGPT should not to use academic or professional work	21 (105)	16 (64)	14 (42)	2 (4)	7 (7)	3.7
7.	Difficult to verify the accuracy	21 (105)	17 (68)	16 (48)	3 (6)	3 (3)	3.83
8.	Provides the out data or Incorrect information	20 (100)	20 (80)	12 (36)	7 (14)	1 (1)	3.85
9.	Sensitive topics	18 (90)	19 (76)	14 (42)	12 (24)	7 (7)	3.98

Source: Computed Primary Data.

FINDINGS:

- Here the majority respondents (47%) were belonging the age group of below 20.
- Here the majority of the respondents (60%) were female.
- Here the majority of the respondents (43%) were studying B.COM.
- Here the majority of the respondents (62%) were living in joint family.
- Here the majority of the respondents is (52%) were family has 4 members in the family.
- Here the majority of the respondents (38 %) were living in rural area.
- Here the majority of the respondents is (35%) were earning a monthly income above 25,000.
- Here the majority of the respondents (40%) were used CHATGPT occasionally.

o

- Here the majority of the respondents (48%) were using CHATGPT for writing skill.
- Here the majority of the respondents (53%) were using CHATGPT in group for making Generate idea and suggestion for discussion.
- Here the majority of the respondents is (32%) of the respondents told that the CHATGPT support for personalized learning by provide the see answer to all student and tailoring responses to individual student needs.
- Here the majority of the respondents (32%) told that the primary purposes of CHATGPT to answer Factual question and to assist users with information and problem solving.
- Here the majority of the respondents (35%) were CHATGPT to browse the information for research.
- Here the majority of the respondents (43%) were using CHATGPT for offering suggestions correction to improve their writing skill.
- Here the majority of the respondents is (43%) were felt that the CHATGPT positive impact is take text note.
- Here the majority of the respondents (36%) were using CHATGPT for getting access to information.
- Here the majority of the respondents (43%) told that they learn better from CHATGPT
- Here the majority of the respondents is (50 %) were perceive positive benefits in using CHATGPT.
- Here the majority of the respondents (50%) felt that the CHATGPT improve their academic performance.
- Here the majority of the respondents is (50%) told that they improve their academic performance through CHATGPT in the large extent.
- Here the majority of the respondents is (40%) were felt that the CHATGPT in academic response is Sometimes accurate.
- Here the majority of the respondents (32%) told that they have in the concern of using CHATGPT dependency technology and reliability answer. o Here the majority of the respondents (52%) using CHATGPT to understand difficult concept by in in asking CHATGPT to explain topic in simpler terms terms.
- Here the majority of the respondents (33%) told that they decline memorization

for the research.

- Here the majority of the respondents (40%) were felt that the communication skill developed with the usage of usage of CHATGPT in education.

SUGGESTIONS:

Use ChatGPT as a Learning Aid, Not a Substitute

Students should treat ChatGPT as a supportive tool for understanding complex topics, generating ideas, and clarifying doubts — not as a replacement for textbooks, lectures, or selfstudy. They should verify information provided by ChatGPT through reliable academic sources.

Develop Critical Thinking Skills

ChatGPT can provide instant answers, but students should analyze and evaluate those responses critically instead of copying them. Encourage students to compare multiple perspectives and form their own conclusions.

Enhance Writing and Communication Skills

Students can use ChatGPT to improve their writing, grammar, and presentation of ideas by asking for feedback or examples of academic writing. It can also help in structuring essays and reports effectively.

Avoid Academic Misconduct

Students should not use ChatGPT for plagiarism or cheating during assignments or exams. They should follow proper academic integrity guidelines and cite AI assistance when required.

Personalize Learning

ChatGPT can be used for personalized study plans, quiz preparation, and revision summaries. Students can ask ChatGPT to explain difficult topics in simpler terms or provide examples related to their course.

Improve Research Skills

ChatGPT can assist in finding relevant research topics, designing questionnaires, or understanding methodologies — but students should ensure accuracy and originality. They should cross-check references and use peer-reviewed journals for authentic data.

Balance AI Use with Human Interaction

Students should continue to discuss topics with teachers and peers, as human interaction enhances learning depth and emotional understanding. AI tools should complement, not replace, classroom participation and teamwork.

Manage Time Effectively

ChatGPT can help students organize study schedules, summarize readings, and save time but they should avoid over-dependence on it for every task.

Learn Ethical and Responsible AI Use

Students should understand the ethical boundaries of AI use, including privacy, data sharing, and misinformation issues. Training or workshops on responsible AI use can be encouraged.

Continuous Evaluation and Feedback

Students should regularly assess their academic progress and reflect on whether ChatGPT is truly helping improve their understanding and grades.

CONCLUSION

This study used meta-analysis to analyse the impact of CHATGPT on student learning performance, learning perception, and higher-order thinking. With regard to learning performance, an analysis of data showed that the calculated effect size indicates a large positive impact of CHATGPT on student learning performance. The analysis of moderating variables revealed no significant differences in the effect of CHATGPT across grade levels, role of CHATGPT, or area of CHATGPT application. However, significant differences were found in the type of course, learning model, and duration.

REVIVING THE ROOTS, NURTURING THE FUTURE: A FRAMEWORK FOR THE MANAGEMENT OF ANCIENT INDIAN KNOWLEDGE FOR THE HOLISTIC DEVELOPMENT OF FUTURE GENERATIONS

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ABSTRACT

Ancient Indian Knowledge (AIK) systems represent one of the world's oldest and most profound traditions of intellectual and practical inquiry, encompassing a vast spectrum from metaphysics and medicine to mathematics and statecraft. However, in the contemporary era, this corpus of knowledge is largely fragmented, underutilized, and faces existential threats from misinterpretation, neglect, and the decay of transmission mechanisms. This paper addresses the critical need for a systematic framework for the management of AIK, arguing that its prudent preservation, critical validation, and thoughtful integration are pivotal for the holistic development of future generations. The research employs a qualitative, synthesis-based methodology, drawing upon historical texts, contemporary academic literature, policy documents, and case studies to construct a comprehensive analysis. It begins by delineating the multidimensional scope of AIK, covering its philosophical, scientific, wellness, and socio-political domains. Subsequently, it identifies and analyzes the multifaceted challenges—epistemological, institutional, and cultural—that impede its effective management and transmission. The core of this paper proposes a Four-Pillar Management Framework: (1) **Preservation**, focusing on digital archiving and revitalizing linguistic traditions; (2) **Promotion**, through responsible curriculum integration and public engagement; (3) **Progression**, via interdisciplinary research and scientific validation; and (4) **Policy**, through robust institutional support and intellectual property protection. The paper concludes that by strategically managing this invaluable heritage, modern society can equip future generations with the cognitive resilience, ethical grounding, and sustainable perspectives necessary to navigate the complexities of the 21st century. This endeavor is not a regressive turn to the past but a progressive synthesis aimed at creating a future that is technologically advanced, environmentally sustainable, and deeply humanistic.

Keywords: Ancient Indian Knowledge (AIK), Knowledge Management, Holistic Development, Future Generations, Sustainable Development, Ayurveda, Yoga, Arthashastra, Curriculum Integration, Traditional Knowledge Systems.

1. Introduction

Civilizations are not merely built on bricks and mortar but are founded upon enduring systems of knowledge that shape their worldview, ethics, and societal structures. The Indian subcontinent is home to one such profound and continuous knowledge tradition, often collectively termed Ancient Indian Knowledge (AIK). This vast repository, developed over millennia, offers intricate systems of logic, sophisticated philosophies, comprehensive wellness paradigms, advanced mathematical concepts, and pragmatic principles of governance. From the metaphysical inquiries of the Upanishads to the medical taxonomy of the *Charaka Samhita*, from the grammatical precision of Pāṇini's *Aṣṭādhyāyī* to the statecraft strategies in Kautilya's *Arthashastra*, AIK presents a holistic and integrated understanding of human existence and the cosmos (Basham, 1954; Thapar, 2002).

Despite this rich heritage, a peculiar paradox defines the contemporary status of AIK. While specific elements like Yoga and Ayurveda have achieved global recognition, often in commercialized forms, the foundational principles and the vast, interconnected web of these knowledge systems remain largely inaccessible, misunderstood, or neglected within mainstream education and policymaking, even in India. The colonial rupture, followed by a post-independence focus on Western scientific and developmental models, created an epistemological chasm, relegating traditional knowledge to the periphery (Nandy, 1983; Dharampal, 2000). Consequently, future generations are at risk of being unmoored from a civilizational heritage that holds immense potential for addressing modern predicaments, including mental health crises, environmental degradation, ethical deficits in leadership, and the quest for sustainable living.

This paper addresses this critical gap by exploring the central research question: **How can Ancient Indian Knowledge systems be systematically managed, preserved, and integrated into contemporary frameworks to foster the holistic development of future generations?** To answer this, the paper puts forth the thesis that a multi-pronged, dynamic management strategy is not merely desirable but essential. Such a strategy must move beyond simple preservation and engage in a critical, constructive dialogue with modern science and society. It requires a robust framework encompassing digital preservation, curriculum reform, interdisciplinary research, and supportive national policy to unlock the transformative potential of AIK. This is not a call for uncritical revivalism but for a discerning and adaptive integration that equips young minds with a unique synthesis of ancient wisdom and modern skills, fostering cognitive flexibility, emotional intelligence, ethical responsibility, and a profound sense of cultural identity.

This paper is structured to build this argument systematically. Section 2 will map the extensive terrain of AIK to establish its scope and depth. Section 3 will articulate its contemporary relevance by connecting ancient principles to modern global challenges. Section 4 will conduct a critical analysis of the complex challenges hindering the management and transmission of this knowledge. Section 5, the core of this paper, will propose a detailed Four-Pillar Management Framework. Section 6 will elaborate on the specific developmental impacts of successfully managed AIK on future generations. Finally, the discussion and conclusion will synthesize the findings, address potential criticisms, and offer concrete recommendations for stakeholders to translate this vision into reality.

2. The Vast Canvass of Ancient Indian Knowledge Systems (AIK)

To manage AIK effectively, one must first appreciate its sheer breadth and interconnectedness. It is not a monolithic entity but a confluence of diverse streams of inquiry (*shastras*) that, while distinct, often share foundational metaphysical and ethical assumptions. This section delineates the key domains of AIK.

2.1 Philosophical and Ethical Foundations (Darshanas and Dharma) The bedrock of AIK lies in its philosophical traditions, or *Darshanas* (literally, 'points of view'). These are categorized into orthodox (*āstika*) systems—Sāṃkhya, Yoga, Nyāya, Vaiśeṣika, Mīmāṃsā, and Vedānta—which accept the authority of the Vedas, and heterodox (*nāstika*) systems like Buddhism, Jainism, and Cārvāka. These schools engage in rigorous debates on epistemology (*pramāṇa*), metaphysics, ethics, and liberation (*mokṣa*). For instance, the Nyāya school developed a sophisticated system of logic and reasoning that rivals Aristotelian logic, providing tools for critical thinking and debate (Raju, 1983). The Vedānta philosophy, particularly Advaita Vedānta, explores concepts of consciousness and reality that are finding new resonance in dialogues with modern quantum physics and consciousness studies (Kak, 2009).

Complementing these philosophies is the concept of *Dharma*—a complex term encompassing duty, ethics, righteousness, and cosmic law. It provides an ethical framework that guides individual and societal conduct, emphasizing responsibilities over rights. Texts like the *Dharmashastras* and epics like the *Mahabharata* (particularly the *Bhagavad Gita*) are not just religious texts but profound treatises on moral dilemmas, social ethics, and the human condition, offering timeless lessons on integrity, selflessness, and responsible action (Sen, 2005).

2.2 Scientific and Technological Heritage Contrary to the colonial-era caricature of India as a land of mystics, AIK boasts a formidable scientific and technological legacy.

- **Mathematics (*Gaṇita*):** Ancient India's contributions to mathematics are foundational to the modern world. The concept of zero (*śūnya*), the decimal place-value system, and the so-called "Arabic" numerals all originated in India. Mathematicians like Āryabhaṭa, Brahmagupta, and Bhāskara II made significant advances in algebra, trigonometry (defining sine, cosine), and calculus precursors (Joseph, 2011). The *Śulbasūtras*, ancient texts on altar construction, demonstrate a deep understanding of geometry, including the application of the Pythagorean theorem long before Pythagoras.
- **Astronomy (*Jyotiṣa*):** Closely linked to mathematics, Indian astronomy was highly advanced. Āryabhaṭa (5th century CE) correctly theorized that the Earth is a sphere that rotates on its axis and revolves around the Sun (heliocentrism), and he provided remarkably accurate calculations for the length of the solar year and the causes of eclipses (Sarma, 2008). These calculations were not merely theoretical but were used for timekeeping, calendar-making, and navigation.
- **Metallurgy and Chemistry (*Rasāyana Śāstra*):** Ancient India was a pioneer in metallurgy. The Iron Pillar of Delhi, dating back to the 4th century CE, stands as a testament to advanced rust-resistant iron-making technology that was not replicated elsewhere for over a millennium. The production of high-quality "Wootz steel," which was used to forge the famed Damascus swords, was another remarkable achievement (Srinivasan & Ranganathan, 2004).
- **Architecture and Civil Engineering (*Vāstu Śāstra* and *Śilpa Śāstra*):** These ancient sciences of design and construction were not merely about aesthetics but about creating harmonious and sustainable living spaces. They incorporated principles of geometry, geography, climate, and material science. The intricate temple architecture, sophisticated urban planning of cities like Harappa and Mohenjo-Daro, and extensive water management systems (step-wells, reservoirs) showcase a deep understanding of engineering and environmental design (Michell, 1988).

2.3 Health and Wellness Systems Perhaps the most globally recognized domain of AIK is its approach to health and well-being, which is inherently holistic, considering the mind, body, and spirit as an integrated system.

- **Ayurveda:** Translating to 'the science of life', Ayurveda is one of the world's oldest comprehensive medical systems. Its foundational texts, the *Charaka Samhita* and the *Sushruta Samhita*, provide detailed classifications of diseases, diagnostic methods, and treatment protocols. Ayurveda emphasizes preventative care (*svasthavṛtta*), personalized medicine based on individual constitutions (*prakṛti*), and a multi-modal treatment approach including diet (*āhāra*), lifestyle (*vihāra*), herbal medicine (*auśadhi*), and detoxification therapies (*pañcakarma*). The *Sushruta Samhita* is also a remarkable surgical treatise, detailing complex procedures like rhinoplasty, cataract surgery, and caesarean sections (Valiathan, 2003).
- **Yoga:** Far beyond the physical postures (*asanas*) popularized in the West, Yoga is a comprehensive discipline for mental, spiritual, and physical integration. Patañjali's *Yoga Sūtras* codify the eight-limbed path (*aṣṭāṅga yoga*), which includes ethical precepts (*yamas* and *niyamas*), physical postures (*āsana*), breath control (*prāṇāyāma*), and progressive stages of meditation (*dhyāna*) leading to a state of profound mental clarity and self-realization (*samādhi*). It is a sophisticated science of mind management and consciousness exploration (Bryant, 2009).

2.4 Governance and Socio-Economic Principles AIK also offers profound insights into public administration, law, economics, and diplomacy. Kautilya's *Arthashastra*, a comprehensive treatise from the 4th century BCE, is a testament to this. Often compared to Machiavelli's *The Prince*, it is far more extensive, covering topics such as tax policy, foreign relations, military strategy, bureaucratic administration, legal systems, and economic management. It proposes a welfare state model where the king's happiness lies in the happiness of his subjects (*prajāśukhe sukhaṃ rājñah*). It details principles of efficient governance, anti-corruption measures, and a pragmatic foreign policy based on the *maṇḍala* theory of geopolitical circles (Kangle, 1965; Boesche, 2002). This text provides a secular and rational framework for statecraft that remains relevant for modern political science and public policy.

3. Contemporary Relevance of AIK in a Globalized World

The value of AIK is not merely historical or archival; its principles offer potent solutions and alternative perspectives for many of the pressing challenges confronting contemporary society.

3.1 Sustainable Development and Environmental Consciousness Modern development models, driven by limitless consumption, have led to an unprecedented ecological crisis. AIK

offers a fundamentally different paradigm rooted in the principle of cosmic harmony and respect for nature (*Prakṛti*). The Vedic worldview sees the Earth (*Bhūmi*) as a mother and all-natural elements as infused with divinity. This perspective fosters stewardship rather than exploitation. Concepts like *aparigraha* (non-hoarding) from Jainism and Yoga, and the emphasis on simple living, directly counter the ethos of consumerism. The architectural principles of *Vāstu Śāstra* promoted the use of local materials and designs that were responsive to the climate, offering a blueprint for sustainable architecture long before the term was coined (Jain, 2011). Integrating this ecological ethos into modern education and policy can foster a generation that is intrinsically motivated to protect the environment.

3.2 Holistic Healthcare and Mental Well-being Modern medicine, despite its miraculous advances in treating acute illnesses, struggles with the rising tide of lifestyle-related chronic diseases (diabetes, hypertension) and a global mental health epidemic. AIK systems like Ayurveda and Yoga offer a powerful complementary approach. Ayurveda's focus on personalized diet and lifestyle modifications is perfectly suited to manage chronic conditions. Yoga and meditation (*dhyāna*) have been scientifically demonstrated to be highly effective in reducing stress, anxiety, and depression by regulating the autonomic nervous system and promoting neuroplasticity (Fields, 2015). By integrating these practices into mainstream healthcare and education, we can create a more proactive, preventative, and holistic model of public health that empowers individuals to take charge of their well-being.

3.3 Ethical Leadership and Corporate Governance The modern corporate and political landscape is often marred by ethical scandals, short-term thinking, and a lack of accountability. The principles of *Dharma* and *Raja Dharma* (the duty of a ruler/leader) from texts like the *Arthashastra* and *Mahabharata* offer a compelling alternative model of leadership. This model emphasizes that power is a trust held on behalf of the people, and a leader's primary duty is the welfare of their stakeholders. Concepts like selfless action (*niṣkāma karma*) from the *Bhagavad Gita* provide a powerful antidote to greed-driven decision-making. Introducing these ethical frameworks into management education can help cultivate a new generation of leaders who are not just efficient managers but also wise and compassionate stewards of their organizations and society (Chakraborty, 1999).

3.4 Cognitive Enhancement and Educational Models Contemporary education systems, often focused on rote memorization and standardized testing, can stifle creativity and critical thinking. The traditional Indian *Gurukula* system, while not without its own historical limitations, was based on principles of personalized learning, deep inquiry, and mastery.

Furthermore, Indian philosophical systems, particularly Nyāya-Vaiśeṣika, developed sophisticated methods for debate (*vāda*), analysis, and logical reasoning that can be adapted to modern pedagogy to enhance critical thinking skills. Practices like meditation have been shown to improve attention, memory, and emotional regulation in students, providing a powerful tool for cognitive enhancement in the digital age of distraction (Tang, Hölzel, & Posner, 2015).

4. Challenges in the Management and Transmission of AIK

Despite its immense potential, the path to revitalizing and integrating AIK is fraught with significant challenges that must be addressed systematically.

4.1 Epistemological and Pedagogical Gaps A primary challenge is the epistemological disconnect between traditional Indian and modern Western frameworks. AIK is often experience-based (*anubhava-pramāṇa*), intuitive, and context-sensitive, whereas the dominant scientific paradigm prizes objectivism, reductionism, and quantitative measurement. This makes direct "translation" difficult. For example, the Ayurvedic concept of *Tridoṣa* (*Vāta*, *Pitta*, *Kapha*) is a functional, systems-based model of psychophysiology that does not map neatly onto modern anatomical or biomechanical categories. The pedagogy of AIK was traditionally oral, text-based (*guru-śiṣya paramparā*), and deeply immersive, which is at odds with the modern classroom's structure. Overcoming this requires developing new interdisciplinary languages and pedagogical models that can bridge these worldviews without sacrificing the integrity of either.

4.2 Degradation and Loss of Primary Sources A vast portion of AIK is stored in millions of manuscripts, written on perishable materials like palm leaf and birch bark, scattered across India and the world in temples, monasteries, and private collections. Many are in a state of advanced decay, uncatalogued, and written in scripts that few can read. The National Mission for Manuscripts estimates that there are over ten million manuscripts, of which only a fraction has been documented (National Mission for Manuscripts, n.d.). Furthermore, the oral traditions, which transmitted the performative and practical aspects of this knowledge, are rapidly vanishing as the chain of *guru-śiṣya* transmission breaks down with modernization. This represents an urgent crisis of cultural memory.

4.3 Misinterpretation, Commercialization, and Saffronization In the absence of rigorous institutional stewardship, AIK is vulnerable to distortion. On one hand, global commercialization has often stripped practices like Yoga of their philosophical and ethical depth, reducing them to mere physical fitness routines ("McYoga"). On the other hand, there

is the risk of "saffronization"—the co-option of AIK by nationalist or fundamentalist ideologies that promote an uncritical, dogmatic, and often pseudo-scientific version of the past (Nanda, 2003). Such approaches are counterproductive, as they alienate genuine scholarly inquiry and create a polarized environment. A successful management strategy must navigate the fine line between respectful promotion and chauvinistic jingoism, fostering critical engagement rather than blind acceptance.

4.4 Lack of Institutional Support and Policy Frameworks The institutional ecosystem for AIK remains weak and fragmented. Funding for research in traditional knowledge systems is minuscule compared to other scientific fields. There is a lack of high-quality, standardized educational institutions that can produce a new generation of scholar-practitioners. The integration of AIK into mainstream school and university curricula is sporadic and often superficial. Without a coherent national policy and robust institutional mechanisms that connect preservation, research, education, and public outreach, efforts will remain ad-hoc and ineffective.

4.5 The Challenge of Validation For AIK to be accepted and integrated into a science-driven world, its claims must be subjected to rigorous validation. This presents a unique challenge. While randomized controlled trials (RCTs) are the gold standard for modern medicine, they may not be suitable for holistic and individualized systems like Ayurveda, where the treatment is tailored to the patient's unique constitution and the "placebo" effect is considered part of the holistic healing process. Developing new research methodologies—"whole-system research"—that can rigorously evaluate these complex interventions without destroying their holistic nature is a critical, yet unresolved, challenge for modern science (Patwardhan, 2013).

5. A Proposed Framework for the Management of AIK

Addressing the aforementioned challenges requires a coherent, multi-dimensional strategy. We propose a Four-Pillar Management Framework designed to be comprehensive, dynamic, and adaptive: **Preservation, Promotion, Progression, and Policy.**

5.1 Pillar 1: Preservation (Securing the Heritage) This foundational pillar focuses on safeguarding the raw material of AIK from extinction.

- **Mass Digitalization and Archiving:** A national, time-bound mission to digitize every available manuscript is imperative. This involves using advanced imaging, Optical Character Recognition (OCR) for ancient scripts, and creating a centralized, open-access digital library akin to the Traditional Knowledge Digital Library

(TKDL), but vastly expanded. AI-powered tools can be used for cataloging, translation, and cross-referencing texts.

- **Linguistic Revitalization:** A significant portion of AIK is encoded in Sanskrit and other classical languages like Pali and Prakrit. Revitalizing the study of these languages is non-negotiable. This requires modernizing Sanskrit pedagogy, moving away from rote memorization to a functional, communicative approach, and creating career paths for language experts.
- **Documentation of Living Traditions:** An urgent ethnographic and technological effort is needed to document the knowledge of the last remaining traditional scholars, artisans, and healers. This involves audio-visual recording of oral recitations, craft techniques, and clinical practices, creating a rich multimedia archive for future generations.

5.2 Pillar 2: Promotion (Fostering Awareness and Access) This pillar aims to bring AIK into the mainstream public consciousness in an accessible and responsible manner.

- **Systematic Curriculum Integration:** This is the most crucial element for impacting future generations. AIK should be integrated into school and university curricula at all levels, not as a separate, isolated subject but woven into the fabric of existing disciplines. For example:
 - **History:** Teach Indian history through the lens of intellectual and scientific achievements, not just political dynasties.
 - **Mathematics:** Introduce the history of the decimal system and the contributions of Indian mathematicians.
 - **Science:** Discuss the holistic ecological principles from ancient texts in environmental science classes.
 - **Health Education:** Include foundational principles of Yoga and Ayurveda for preventative health and stress management.
 - **Management/Business Studies:** Introduce ethical leadership models from the *Arthashastra* and *Bhagavad Gita*. The approach must be critical and comparative, encouraging students to analyze and debate these ideas, not just accept them.
- **Public Engagement and Outreach:** Leverage modern media to disseminate authentic knowledge. This includes creating high-quality documentaries, interactive museum exhibits, mobile apps, and public lecture series by genuine scholars. The goal

is to create a culture of curiosity and respect for this heritage, countering misinformation and commercial distortion.

5.3 Pillar 3: Progression (Driving Research and Innovation) This pillar is about ensuring that AIK is not a static relic but a living, evolving body of knowledge that contributes to solving new problems.

- **Interdisciplinary Research Centers:** Establish well-funded Centers of Excellence that bring together traditional scholars (*pandits*) and modern scientists (e.g., neuroscientists, pharmacologists, computer scientists, physicists). These centers would work on:
 - **Scientific Validation:** Conducting rigorous studies on Ayurvedic medicines, Yogic interventions, and other traditional practices using appropriate, innovative methodologies.
 - **Conceptual Integration:** Exploring parallels between ancient concepts and modern scientific theories (e.g., Vedanta and quantum physics, Ayurvedic *prakṛti* and modern genomics/personalized medicine).
 - **Reverse Pharmacology:** Starting from traditional Ayurvedic formulations to discover new molecular compounds and drug leads, as exemplified by the development of Reserpine from *Sarpagandha* (*Rauwolfia serpentina*) (Patwardhan, 2005).
- **Innovation and Application:** Encourage startups and researchers to use principles from AIK as inspiration for modern innovations. This could range from developing AI-based diagnostic tools based on Ayurvedic principles, designing sustainable building materials inspired by *Vāstu Śāstra*, to creating new algorithms based on Indian logical systems.

5.4 Pillar 4: Policy and Governance (Creating an Enabling Ecosystem) This pillar provides the structural support needed for the other three to succeed.

- **A Nodal National Agency:** Create a high-powered, autonomous national body for AIK management, similar in stature to national science or arts foundations. This body would be responsible for coordinating efforts, setting standards, allocating funds, and formulating a long-term national vision.
- **Robust Intellectual Property Rights (IPR) Framework:** Strengthen and expand mechanisms like the TKDL to protect Indian traditional knowledge from biopiracy and unauthorized patenting internationally. At the same time, develop IPR models

that allow for benefit-sharing with local communities who are the traditional custodians of this knowledge.

- **Standardization and Regulation:** Develop clear standards for education, practice, and products, especially in fields like Ayurveda. This is crucial for ensuring safety, efficacy, and public trust, and for facilitating the global acceptance of these systems. This includes accrediting educational institutions and certifying practitioners and products.

6. Fostering Future Generations: The Developmental Impact of Managed AIK

The ultimate goal of this management framework is the holistic development of the individual and society. A generation educated with a balanced and critical understanding of AIK alongside modern knowledge will be uniquely equipped in several ways:

6.1 Nurturing Cognitive and Emotional Intelligence The integration of practices like Yoga and meditation into education can significantly enhance the cognitive and emotional capacities of students. These practices improve focus, working memory, and executive functions, which are essential for learning in any field. They also cultivate emotional self-regulation, empathy, and resilience, equipping young people to cope with stress and build healthy social relationships—a critical antidote to the mental health crisis plaguing youth worldwide (Goleman & Davidson, 2017).

6.2 Instilling a Sense of Cultural Identity and Global Citizenship Knowledge of one's intellectual and cultural heritage provides a sense of rootedness and self-confidence. For the Indian youth, a deep understanding of AIK can instill pride without jingoism. This secure cultural identity becomes a foundation from which they can engage with the world confidently and respectfully, seeing other cultures not as a threat but as different streams in the great river of human knowledge. This fosters a true global citizenship based on mutual respect, not cultural homogenization.

6.3 Cultivating Problem-Solving and Critical Thinking The philosophical traditions of India are built on a culture of rigorous debate and logical inquiry (*śāstrārtha*). Engaging with the complex ethical dilemmas of the *Mahabharata* or the logical intricacies of the Nyāya school trains the mind to think critically, analyze problems from multiple perspectives, and appreciate nuance over simplistic binaries. This ability to grapple with complexity is an invaluable skill for leaders, innovators, and citizens in an increasingly intricate world.

6.4 Promoting Sustainable Lifestyles and Environmental Consciousness By internalizing the core AIK principle of living in harmony with nature, future generations can move beyond seeing sustainability as a mere technical or policy problem. It becomes an ethical and

spiritual imperative. This deep-seated environmental consciousness can drive grassroots behavioral change—from consumption patterns to career choices—that is far more powerful and lasting than top-down regulations. They will be the architects of a truly sustainable future, not just because they are told to be, but because their worldview demands it.

7. Discussion

The framework proposed in this paper is ambitious, and its implementation is not without potential pitfalls. A critical concern is the risk of dogmatic revivalism, where ancient texts are treated as infallible and used to reject modern scientific progress. It is crucial to emphasize that the proposed approach is one of *critical syncretism*, not blind veneration. It calls for subjecting ancient knowledge to modern scrutiny while also using the insights of ancient philosophies to question the assumptions of modern science. The goal is a dialogue, a "creative synthesis," as Jawaharlal Nehru envisioned, between the past and the present.

Furthermore, the management of AIK must be a democratic and inclusive process. It must guard against being monopolized by any single ideological group or social elite. The knowledge of local communities, tribal groups, and folk traditions must be respected and integrated, ensuring that the benefits of this revitalization are shared equitably. Technology can be a powerful ally in this endeavor. AI can help decipher manuscripts, big data analytics can help validate patterns in Ayurvedic case studies, and digital platforms can democratize access to this knowledge.

The transformative potential of successfully managing AIK extends beyond India. In a world grappling with a crisis of meaning, ecological instability, and social fragmentation, the holistic, ethical, and sustainable perspectives embedded in AIK offer a valuable resource for all of humanity. It represents a knowledge common that, if managed wisely, can contribute to a more balanced, equitable, and peaceful global future.

8. Conclusion and Recommendations

Ancient Indian Knowledge systems are not relics of a bygone era but a living heritage containing profound insights relevant to the challenges of the 21st century. The neglect and mismanagement of this vast intellectual capital represent a significant lost opportunity. This paper has argued that a systematic, multi-pronged approach is essential to preserve, understand, and integrate this knowledge for the holistic development of future generations. We have proposed a Four-Pillar Management Framework—Preservation, Promotion, Progression, and Policy—as a comprehensive roadmap for this endeavor.

Successfully implementing this framework can equip future generations with a unique intellectual toolkit: the analytical rigor of modern science combined with the ethical depth

and holistic perspective of ancient wisdom. This synthesis can foster individuals who are not only professionally competent but also emotionally intelligent, ethically grounded, culturally confident, and environmentally conscious.

To move from vision to action, we offer the following key recommendations:

1. **For Policymakers:** Establish a National AIK Mission, an autonomous and well-funded nodal agency, to orchestrate and oversee the implementation of the Four-Pillar Framework. Revise the National Education Policy to mandate the critical and systematic integration of AIK across all levels and disciplines of the curriculum.
2. **For Educational Institutions:** Establish interdisciplinary centers for AIK studies that foster collaboration between traditional scholars and modern scientists. Develop innovative pedagogical tools and updated curricula that present AIK in an engaging, critical, and comparative manner.
3. **For Researchers and Academics:** Pursue rigorous, interdisciplinary research to validate and adapt AIK for modern applications. Develop new research methodologies that are appropriate for evaluating holistic and complex traditional systems.
4. **For Communities and Civil Society:** Act as custodians of local and oral traditions. Create platforms for public engagement, demystify AIK, and promote a culture of learning and respect that steers clear of both unthinking dismissal and uncritical worship.

Ultimately, the management of ancient Indian knowledge is an investment in the future. It is about providing the next generation with the roots to hold them firm and the wings to fly high, enabling them to build a future that is not only prosperous and technologically advanced but also wise, compassionate, and sustainable.

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“THE PRINCIPLES OF SCIENTIFIC MANAGEMENT THEORY, FREDERICK WINSLOW TAYLOR IN MODERN ERA”

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ABSTRACT

If the intent is to describe Frederick Winslow Taylor famous for scientific management, then identifying him as an engineer or management expert is more accurate than "sculptor." What is Taylor's contribution to the contemporary business environment? Taylor introduced management principles that enhance organizational efficiency. His scientific management principles are now widely adopted by organizations to boost productivity at the shop floor level, leading to effective outcomes. Known as the "Father of Scientific Management," Taylor demonstrated that management could be approached scientifically, referencing figures like W. Taylor and Fredrick Winslow in his practical theories. He emphasized management at the supervisory level and the performance of both managers and employees at the operational level. This study aims to identify and analyze the relevance of Taylor's Scientific Management in the modern era.

Key Words: *Taylor, Scientific Management Theory, Principles, Organization, Modern Era. etc.*

INTRODUCTION

Scientific Management, pioneered by F.W. Taylor (the "Father of Scientific Management") in the late 19th/early 20th century, is a management theory focused on improving economic efficiency, especially labor productivity, by applying scientific methods (logic, observation, analysis) to study work. It seeks the "one best way" to do a job, replacing traditional methods, and emphasizes systematic selection, training, performance monitoring, and cooperation between management (planning) and workers (execution) to boost output.

HISTORY

The Midvale Steel Company, "one of America's great armor plate making plants," was the birthplace of scientific management. In 1877, Frederick W. Taylor started as a clerk in Midvale, but advanced to foreman in 1880. As foreman, Taylor was "constantly impressed by the failure of his [team members] to produce more than about one-third of [what he

deemed] a good day's work". Taylor determined to discover, by scientific methods, how long it should take men to perform each given piece of work; and it was in the fall of 1882 that he started to put the first features of scientific management into operation.

Horace Book Walter Drury, in his 1918 work, *scientific management: A History and Criticism*, identified seven other leaders in the movement, most of who learned of and extended scientific management from Taylor's efforts:

- Henry L. Gantt (1861–1919)
- Carl G. Barth (1860–1939)
- Horace K. Hathaway (1878–1944)
- Morris L. Cooke (1872–1960)
- Sanford E. Thompson (1867–1949)

Frank B. Gilbreth (1868–1924). Gilbreth's independent work on "motion study" is on record as early as 1885; after meeting Taylor in 1906 and being introduced to scientific management, Gilbreth devoted his efforts to introducing scientific management into factories. Gilbreth and his wife Lillian Moller Gilbreth (1878–1972) performed micro-motion studies using stop-motion cameras as well as developing the profession of industrial/organizational psychology.

Harrington Emerson (1853–1931) began determining what industrial plants' products and costs were compared to what they ought to be in 1895. Emerson did not meet Taylor until December 1900, and the two never worked together. Emerson's testimony in late 1910 to the Interstate Commerce Commission brought the movement to national attention and instigated serious opposition. Emerson contended the railroads might save \$1,000,000 a day by paying greater attention to efficiency of operation. By January 1911, a leading railroad journal began a series of articles denying they were inefficiently managed.

When steps were taken to introduce scientific management at the government-owned Rock Island Arsenal in early 1911, it was opposed by Samuel Gompers, founder and President of the American Federation of Labor (an alliance of craft unions). When a subsequent attempt was made to introduce the bonus system into the government's Watertown Arsenal foundry during the summer of 1911, the entire force walked out for a few days. Congressional investigations followed, resulting in a ban on the use of time studies and pay premiums in Government service.

Taylor's death in 1915 at age 59 left the movement without its original leader. In management literature today, the term "scientific management" mostly refers to the work of Taylor and his disciples ("classical", implying "no longer current, but still respected for its

seminal value") in contrast to newer, improved iterations of efficiency-seeking methods. Today, task-oriented optimization of work tasks is nearly ubiquitous in industry.

MEANING AND DEFINITION OF SCIENTIFIC MANAGEMENT

The term scientific management is the combination of two words i.e. scientific and management. The word "Scientific" means systematic analytical and objective approach while "management" means getting things done through others. In simple words Scientific Management means application of principles and methods of science in the field of management.

According to **F.W. Taylor**, "Scientific Management is the substitution of exact scientific investigations and knowledge for the old individual judgment or opinion in all matters relating to the work done in the shop."

PRINCIPLES OF SCIENTIFIC MANAGEMENT BY TAYLOR

F.W. Taylor or Fredrick Winslow Taylor, also known as the 'Father of scientific management' proved with his practical theories that a scientific method can be implemented to management. Taylor gave much concentration on the supervisory level of management and performance of managers and workers at an operational level. Let's discuss in detail the five principles of management by F.W Taylor.

1. Science, not the Rule of Thumb:

This rule focuses on increasing the efficiency of an organization through scientific analysis of work and not with the 'Rule of Thumb' method. Taylor believed that even a small activity like loading paper sheets into boxcars can be planned scientifically. This will save time and also human energy. This decision should be based on scientific analysis and cause and effect relationships rather than 'Rule of Thumb' where the decision is taken according to the manager's personal judgment.

2. Harmony, Not Discord:

Taylor indicated and believed that the relationship between the workers and management should be cordial and completely harmonious. Difference between the two will never be beneficial to either side. Management and workers should acknowledge and understand each other's importance. Taylor also suggested the mental revolution for both management and workers to achieve total harmony.

3. Mental Revolution:

This technique involves a shift of attitude of management and workers towards each other. Both should understand the value of each other and work with full participation and cooperation. The aim of both should be to improve and boost the profits of the organization.

Mental Revolution demands a complete change in the outlook of both the workers and management; both should have a sense of togetherness.

4. Cooperation, not Individualism:

It is similar to 'Harmony, not discord' and believes in mutual collaboration between workers and the management. Managers and workers should have mutual cooperation and confidence and a sense of goodwill. The main purpose is to substitute internal competition with cooperation.

5. Development of Every Person to his Greatest Efficiency:

The effectiveness of a company also relies on the abilities and skills of its employees. Thus, implementing training, learning best practices and technology, is the scientific approach to brush up the employee skill. To assure that the training is given to the right employee, the right steps should be taken at the time of selection and recruiting candidates based on a scientific selection.

TECHNIQUES OF SCIENTIFIC MANAGEMENT

Taylor suggested the following techniques of scientific management:

1. Functional Foremanship:

According to this technique, the work of supervision is divided into several specialized foremen. Taylor believes that one foreman is not an expert in all aspects of work. Therefore, each worker should be supervised by several foremen. Taylor suggested that 8 specialists out of these 4 will be responsible for looking after the planning work, and the other four will be responsible to supervise and executing of work.

2. Standardization and Simplification of Work:

Standardization means fixing standards for everything. To attain standard production, the standard of performance is established for the workers. Standardization of work means standard set for material, machine method, and condition of work. Simplification refers to eliminating unnecessary varieties, sizes, and grades of the product. It aims at eliminating unnecessary varieties, sizes and dimensions.

3. Work-Study:

Work-study means systematic and critical assessment of all the operational functions in the organization. The main objective of the work-study is to improve efficiency by making optimum utilization of resources.

(a) Method Study:

It is a concern with finding 'one best way' of doing a job. The main aim of this technique is to improve work methods to minimize the cost of products and maximize the satisfaction of customers.

(b) Motion Study:

This study refers to making a thorough analysis of various motions being performed by a worker while he is doing a particular job. The main purpose of motion study is to detect and eliminate unnecessary movement, and to find out the best method of doing a particular job.

(c) Time Study: It is the technique that is used to determine the standard time taken by a worker. It helps in determining how much work an employee should be able to do in a given period.

(d) Fatigue Study:

It refers to determining the amount and frequency of rest intervals required in completing a work. Taylor suggested that a person gets tired when he works continuously without a break. So, he must be provided with a rest interval to regain his lost stamina.

Difference between Time Study and Motion Study

4. Differential Price Wage System:

This is a system in which efficient and inefficient workers are paid at different rates. According to Taylor, financial incentives act as a motivator. So, Taylor developed the concept of a differential piece wage system. In this technique, incentives are directly linked with productivity.

5. Mental Resolution:

It means a total change in the attitude of workers and management towards one another from competition to cooperation. It requires that management should create suitable working condition for workers, and workers should do their work with full devotion.

CHARACTERISTICS OF SCIENTIFIC MANAGEMENT

- (i) It is a systematic approach to handle management problems.
- (ii) It implies scientific techniques in method of work, recruitment, selection and training of workers.
- (iii) It rejects the age old method of rule of thumb' or 'hit or miss' approach.
- (iv) It attempts to discover the best method of doing the work at the lowest cost.
- (v) It attempts to develop each worker to his greatest efficiency.

(vi) It involves a complete change in the mental attitude of the workers as well as of the management.

OBJECTIVES TO SCIENTIFIC MANAGEMENT

(a) Higher Productivity:

Increased output through the use of standardized tools, equipment, processes, and worker training.

(b) Cost Reduction:

Reduction of manufacturing costs by cost-control methods, sensible planning, and regulation.

(c) Elimination of Wastes:

Elimination of wastes in the use of resources and methods of manufacturing.

(d) Quality Control:

Improvement in the quality of output by research, quality control inspection devices.

(e) Right Men for Right Work:

Placement of right persons on the right jobs through scientific selection and training of workers.

(f) Incentive Wages:

Relating wage payments to the efficiency of the workers, i.e., giving wages at the higher rates to the efficient workers.

FUNCTIONS OF SCIENTIFIC MANAGEMENT THEORY

Though the scientific theory of management provided tools for workers to enhance their output and efficiency, employees did only menial work and hence the theory criticism of the classical theory of management faced critics for developing an assembly-line atmosphere. With this as a reason, the theory falls out of favor by various companies but still consider as a valuable tool in many companies for its principles.

- A good example where techniques of classical and scientific management theory can apply is in factories where repetitive tasks achieved. The importance of scientific management theory and principles are, employees must be selected based on their skills and abilities related to the job.
- Incentives and wages provide to employees should base on encouraging them and enhancing their output.
- The leadership within the organization should be one that develops a standard method for doing a certain job with the assistance of scientific management theory.

- There should be attention to eradicating interruptions while planning work.
- Rule of thumb work methods replaced with other methods which are based on the scientific study of tasks.

ADVANTAGES OF SCIENTIFIC MANAGEMENT THEORY

Let us discuss the scientific management theory's advantages or benefits.

1. Enhanced production:

The scientific management theory is responsible for enhanced production as it concentrates on steady improvements in business operations. There is fruitful cooperation between managers and workers and hence enhanced teamwork achieved. The harmonious relationship between the management and workers assists in production in the organization.

2. Ability to control:

The best part of scientific management theorists is that the managers can have good control over production. Employees become specialists in their field as they do the same task repeatedly; this makes it easy for the manager to have control over employees.

3. Decreases inaccuracy:

Inaccuracy decreased as the theory based on experiment and observation for context-specific solutions. With better planning and improved decision making, the accuracy achieved.

4. Decreased autocracy:

The theory stimulates the management to adopt a **positive relationship** with leadership. Cooperation amongst employees and managers enhances democracy in the workplace. Hence there decreased autocracy by following scientific management theory.

5. Cost of production reduced:

The mechanization and the latest use of technology in the production of goods enhance productivity. Since there is enhanced large scale production, there is a decrease in per unit cost of production.

6. Pay system:

With the theory piecework pay system follow, where payment is monitored based on piecework. Here incentives considered to enhance productivity and provide high wages for employees. With higher productivity, there is an increase in wages for employees. The differential incentive plan provides higher wages to efficient workers. In this way, the standard of living of the employees made better.

7. Quick decision making:

Planning ahead of time and prompt decision making are few good aspects of scientific management theory.

8. A benefit to customers:

With the help of scientific management theory, there are triple benefits for the consumers. Consumers pay fewer prices and can get the best quality products. They are also able to attain better living standards.

9. Efficiency increased:

They follow early working methods and control where a management methodology developed for training, selecting and supervising them in a close manner. Since scientific selection and training methods follow, it leads to a workforce that is best and enhances efficiency.

10. Best use of resources and development:

With the scientific techniques followed, there is better utilization of resources this, in turn, leads to increased productivity. Wastage and inefficiency of all means eradicated with the theory. Also with the help of scientific investigation, it leads to technological development. They also follow other quantitative techniques and modern studies are based.

11. Less production time:

Work in lesser time achieves with scientific management theory. The operations regarding productions pre-established and lead to fewer production delays.

12. Good working conditions:

A proper atmosphere for working and conditions are developed with scientific management theory. Proper working schedules follow with ventilation; adequate lighting, rest pauses, proper safety, and other facilities provided to patients.

13. Avoids labor and management disputes:

Since there are a healthy relationship and cooperation between management and labors, hence they have a cordial and harmonious relationship with one another. In this way, industrial disputes reduce and peace in an industry achieved. The mental revolution is a concept evolving by Taylor for the development of mutual trust, understanding, and confidence between management and labor.

DISADVANTAGES OF SCIENTIFIC MANAGEMENT THEORY

The following mentioned are a few limitations or disadvantages of scientific management.

1. Requires huge capital:

The theory requires an investment of huge capital and consider as a costly system. The establishment of work study, planning department, training of workers, and standardization requires more money.

2. Management takes control:

The management takes complete responsibility related to the control and planning of workplace activities. Since the managers take up control of the employees, they lack creativity, another reason for this is that since they repeat the same task, their chore is meaningless, monotonous, and tedious which reduces employee motivation.

3. Planning reduces productivity:

Though the capability to plan is an advantage, the downside of planning is that it makes work inflexible and rigid and may lead to carelessness and dissatisfaction. This directed to less productivity.

4. Demotivating approach:

With the application of the scientific approach of management, the employees focused on how well they perform their job and their statistics and results produced along with a time frame. With this result, the employees may feel underestimated and also feel alienated which may direct them to absenteeism.

5. Not suitable for teams:

Scientific management theory doesn't work fruitful for teams and groups as they have the capability to abuse and exploit human beings which may lead to conflicts. There is no scope for individual preference with this theory.

6. Work division:

By applying scientific management theory there is a separation of work such as in planning any function and executing them. Since management takes complete responsibility, there is a reduction in workers' role in rigid and adherence procedures where the workers have no idea.

7. Avoids bargaining:

Since the scientific approach follows the piece work pay system, there is no chance for any realistic bargaining regarding the wage rates, as the tasks timed, measured and rated scientifically.

8. Loss:

There are more chances for financial loss as there are more changes that take place within the organization.

9. Unemployment:

With the application of this theory, men replaced by machines which in turn lead to unemployment. In this way, fewer employees required and many chucked out from work.

10. Stress:

With managerial decisions, there is strictness and stress for managers as they need to take responsibility for having complete control over the workplace. In this way, there is pressure influenced in the workplace for the workers too. Productivity and profitability give importance which leads to exploitation of employees and they associated in trade unions. This led to the mistrust amongst employees and management.

11. Wrong assumption:

According to **Frederick Winslow Taylor's theory of motivation**, employees do not naturally enjoy work and they require close observation and control. Taylor's assumed that workers focus and motivated by employing financial gains. But the real truth is that the employees not motivated by finance aspects but by non-finance incentives such as social needs and more.

12. Time consuming:

The scientific management theory is considered time-consuming as it requires complete reorganizing and mental revision of the organization. The theory when adopted needs more time for standardization, study, and specialization, or else at the time of overhauling, the workers suffer.

TECHNOLOGY ENHANCES SCIENTIFIC MANAGEMENT

Scientific management Taylor's uses data, analysis, and standardization to boost efficiency, and modern technology supercharges this by providing tools for real-time data collection (sensors, IoT), automated analysis (AI/ML), precise process optimization (digital twins, robotics), and global system integration (cloud platforms), allowing for far deeper workflow dissection, quicker feedback, and adaptive, data-driven improvements far beyond early time-and-motion studies. Modern tech like AI, data analytics, and automation applies core principles like "one best way" and scientific selection to complex, digital workflows, enhancing productivity in areas from software development to logistics.

Data & Analysis:

Sensors, IoT devices, and enterprise software collect vast amounts of performance data, replacing manual time studies, while AI algorithms analyze this data to find inefficiencies and optimal methods much faster.

Automation:

Robots and automated systems perform repetitive tasks with precision, ensuring standardized, efficient execution, a core Taylors goal.

Process Modeling:

Digital twins and simulation software allow managers to test optimized workflows and equipment setups virtually before physical implementation, saving time and resources.

Worker Training & Selection:

E-learning platforms and AI-driven assessments scientifically select and train workers for specific tasks, matching skills to job requirements efficiently.

Real-Time Feedback & Control:

Dashboards and alerts provide instant insights, enabling managers to quickly correct deviations and maintain peak efficiency, a digital extension of Taylor's close supervision.

MODERN EXAMPLES

Supply Chain:

AI optimizes routes, while automated warehouses (robots sorting packages) execute tasks scientifically for maximum speed.

Software Development:

Agile/Scrum methodologies break down large projects (like early scientific management), while CI/CD pipelines automate testing and deployment for efficiency.

Manufacturing:

Industry 4.0 integrates smart machines, data analytics, and robotics for hyper-efficient, adaptable production lines.

MODERN APPLICATIONS

- Standardization and process mapping are integral to various industries, including fast food chains like McDonald's, assembly lines, and IT practices such as DevOps.
- These sectors employ meticulously defined steps to guarantee uniform quality and efficiency, thereby reducing unnecessary movements.
- In the realm of data and analytics, artificial intelligence and analytical tools have supplanted intuition, leveraging data to refine designs, particularly in semiconductor manufacturing, in line with Taylor's scientific management principles.
- Specialization and automation further enhance productivity by allowing workers to concentrate on tasks that align with their expertise, while robots manage repetitive duties, thus enabling humans to engage in more complex, value-added activities.
- Performance metrics and incentive structures, including performance-based

compensation and project management tools like Gantt charts, are utilized to monitor progress and motivate employees, linking remuneration to output.

- Workflow optimization draws on time-and-motion study concepts to enhance factory layouts, streamline supply chains in retail, and improve patient care in healthcare, all aimed at increasing efficiency and minimizing waste.
- However, contemporary applications of these principles often merge Taylor's efficiency focus with a commitment to employee well-being, acknowledging that overly rigid systems can stifle creativity and morale.
- Modern management practices incorporate scientific methodologies while allowing for greater flexibility and an emphasis on worker engagement, distinguishing them from the rigid frameworks of early 20th-century Taylorism.

CONCLUSION

Frederick Winslow Taylor's contributions to scientific management mark a turning point in the development of modern management practices. By introducing systematic methods for analyzing work, evaluating performance, and improving organizational efficiency, Taylor laid the foundation for fields like industrial engineering and operations management. His four key principles, emphasizing scientific decision-making, help managers optimize processes based on data rather than intuition. While his approach has faced criticism for overlooking human and social factors, Taylor's core idea that management should rely on careful analysis and empirical evidence remains highly influential. Today, combining his scientific methods with a focus on people enables organizations to balance efficiency with employee well-being, fostering adaptable and effective management in the 21st century.

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INTEGRATING TRADITIONAL KNOWLEDGE AND MODERN HEALTH PRACTICES FOR WOMEN AND CHILD CARE

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ABSTRACT

Integrating traditional knowledge with modern health practices provides a holistic and culturally responsive framework for improving women's and children's health outcomes. Traditional health systems such as Ayurveda, Siddha, Unani, indigenous midwifery, herbal medicine, and community-based childcare practices have long contributed to maternal and child healthcare, particularly in rural and indigenous communities. These systems emphasize preventive care, balanced nutrition, natural remedies, and psychosocial well-being, which complement the technological advancements and evidence-based approaches of modern medicine. The integration of traditional and modern healthcare enhances accessibility, acceptability, and effectiveness of health services, especially for vulnerable populations. For women, this blended approach supports safer pregnancy, childbirth, and postnatal care while addressing broader reproductive health needs. Modern diagnostics, skilled medical interventions, and emergency care are strengthened by traditional practices that promote physical balance, emotional well-being, and cultural familiarity. For children, integrative care improves nutrition, strengthens immunity, supports growth monitoring, and promotes early development through culturally accepted and scientifically informed practices. However, challenges such as a lack of standardization, limited scientific validation, regulatory barriers, and insufficient interdisciplinary training hinder effective integration. Addressing these issues requires strong policy support, systematic research, community participation, and capacity-building initiatives. Bridging traditional wisdom with modern healthcare systems can foster inclusive, sustainable, and people-centered care, particularly in developing countries facing cultural diversity and resource constraints.

KEYWORDS:

Traditional knowledge; Modern healthcare; Women's health; Child care; Maternal and child health; Indigenous medicine; Integrative health practices; Sustainable healthcare systems

INTRODUCTION

Integrating traditional knowledge with modern healthcare practices has emerged as a vital strategy for enhancing women's and children's health outcomes, especially in culturally diverse and resource-limited settings. Recognizing that women and children constitute some of the most vulnerable segments of society, their health significantly impacts broader social

and economic development. Long-standing traditional health systems, including Ayurveda, Siddha, Unani, indigenous healing practices, midwifery, and community-based childcare traditions, have been foundational in maternal and child care for generations. These systems prioritize preventive care, natural remedies, nutrition, and a holistic approach to well-being, which resonate deeply with the cultural beliefs and daily routines of local communities. In contrast, modern healthcare provides advanced diagnostic tools, evidence-based treatments, skilled healthcare professionals, and vital emergency interventions, all of which are crucial for reducing maternal and child mortality and addressing complex health issues. However, barriers such as limited access, cultural misunderstandings, and resource constraints often hinder the effectiveness and reach of modern medical services. By integrating traditional knowledge with contemporary medical practices, we can bridge the gap between cultural familiarity and scientific rigor. This blended approach not only enhances accessibility and acceptability but also fosters trust within communities. An integrated healthcare model serves to preserve invaluable indigenous wisdom while promoting holistic, inclusive, and sustainable healthcare systems. This is increasingly relevant for improving health outcomes for women and children, particularly in developing countries. Such a strategy ensures that care is not only safe and effective but also culturally responsive, ultimately leading to better health outcomes and empowerment for these vulnerable populations.

BACKGROUND IN HEALTH PRACTICE FOR WOMEN AND CHILD CARE:

Health practices for women and child care have evolved through the combined influence of traditional knowledge systems and modern medical advancements. Historically, maternal and child healthcare was largely community-based, relying on indigenous knowledge, traditional midwives, herbal remedies, dietary practices, and family-centered care. These practices were deeply rooted in cultural beliefs and local contexts, ensuring accessibility and acceptance, particularly in rural and indigenous communities. Traditional systems such as Ayurveda, Siddha, Unani, and folk medicine emphasized preventive care, nutrition, hygiene, and holistic well-being, supporting safe pregnancy, childbirth, postnatal care, and early childhood development. Advancements in science and technology introduced modern health practices, including institutional deliveries, immunization programs, antenatal and postnatal care, and evidence-based treatments, significantly reducing maternal and child mortality. However, disparities in access, infrastructure gaps, and socio-cultural barriers continue to limit healthcare utilization among marginalized groups. Recognizing these challenges, integrating traditional health practices with modern medical systems offers a

balanced, culturally responsive approach that enhances inclusivity, sustainability, and overall health outcomes for women and children.

REVIEW OF LITERATURE

- **World Health Organization (WHO, 2013)** emphasized that traditional medicine remains a primary source of healthcare for a large proportion of populations in developing countries, particularly for maternal and child care, due to its cultural acceptability and affordability.
- **Narayanasamy (2015)** noted that traditional systems such as Ayurveda and Siddha play a significant role in preventive care, nutrition, and postnatal recovery for women.
- **Bodeker and Kronenberg (2002)** argued that combining traditional medicine with modern healthcare enhances accessibility and patient trust, especially in rural communities.
- **Aggarwal et al. (2018)** found that indigenous midwifery practices, when supported by modern obstetric care, contribute to safer childbirth and reduced maternal complications.
- **Ronsmans and Graham (2006)** highlighted that while modern medical interventions have reduced maternal mortality, socio-cultural barriers still limit their utilization, reinforcing the need for culturally sensitive approaches.
- **Black et al. (2013)** demonstrated that traditional dietary practices and community-based care positively influence child nutrition and immunity when aligned with scientific guidelines.

RESEARCH METHODOLOGY

RESEARCH DESIGN

The present study employs a descriptive and analytical research design to investigate the integration of traditional knowledge and modern health practices in women's and children's care. This design is suitable for understanding existing health practices, assessing perceptions of stakeholders, and analyzing the effectiveness of integrative healthcare approaches. The study employs a combination of qualitative and quantitative methods, adopting a mixed-methods approach to provide a comprehensive analysis.

Primary data will be collected through structured questionnaires, interviews, and focus group discussions involving women beneficiaries, traditional health practitioners, community health workers, and modern healthcare professionals. This will help capture diverse perspectives on the usage, benefits, and challenges of integrating traditional and

modern health practices. Quantitative data will focus on indicators such as maternal health outcomes, child nutrition, immunization coverage, and healthcare utilization patterns.

Secondary data will be sourced from government reports, health surveys, policy documents, research articles, and publications by organizations such as the World Health Organization and national health agencies. Descriptive statistical tools such as percentages, averages, and tables will be used to analyze quantitative data, while thematic analysis will be applied to qualitative responses.

The study area may include selected rural and urban regions to ensure comparative analysis. Ethical considerations, including informed consent and confidentiality, will be strictly followed. This research design enables systematic evaluation of the role of integrated health practices in enhancing women's and children's health outcomes and supports evidence-based policy recommendations.

DATA COLLECTION

The data for the study on integrating traditional knowledge and modern health practices for women and child care is primarily article-based, relying on an extensive review of existing literature. Secondary data are collected from peer-reviewed journal articles, research papers, review studies, books, government publications, and reports from international organizations such as the World Health Organization (WHO), UNICEF, and the World Bank. These articles provide empirical evidence and theoretical insights on maternal and child health practices, traditional medicine systems, and modern healthcare interventions. Special attention is given to studies published in recent years to capture current trends, policies, and best practices in integrative healthcare. Data extracted from these articles include information on health outcomes, utilization patterns, cultural acceptance, challenges in integration, and policy frameworks. Content analysis and thematic review methods are used to synthesize findings from multiple sources, ensuring consistency and relevance. This article-based data collection approach enables a comprehensive understanding of the role, effectiveness, and limitations of integrating traditional knowledge with modern health practices for improving women's and children's health outcomes.

DATA ANALYSIS

The data analysis for this study is based on a systematic review and synthesis of information collected from published articles and secondary sources. The selected research articles, reports, and review papers are carefully examined to identify key themes, patterns, and trends related to the integration of traditional knowledge and modern health practices in women and child care. A qualitative content analysis approach is adopted, wherein findings

from different studies are categorized under themes such as maternal health outcomes, child nutrition and development, cultural acceptance, accessibility of healthcare, and challenges in integrative practices. Comparative analysis is used to evaluate similarities and differences across regions, health systems, and population groups. Where available, quantitative data reported in articles—such as maternal mortality rates, immunization coverage, and nutritional indicators—are interpreted descriptively to support qualitative insights. This article-based analytical approach allows for a comprehensive understanding of the effectiveness, limitations, and policy implications of integrated healthcare models, thereby strengthening the validity of conclusions drawn from existing literature.

KEY CHALLENGES:

Integrating traditional knowledge with modern health practices presents several challenges that affect its effective implementation in women's and children's care. One of the major challenges is the **lack of scientific validation and standardization** of many traditional practices. Variations in methods, dosage, and preparation of traditional remedies often raise concerns regarding safety, efficacy, and quality control.

Another significant challenge is **regulatory and policy barriers**. In many countries, traditional health systems operate outside formal healthcare frameworks, limiting their recognition, monitoring, and integration with modern medical services. **Limited documentation and research evidence** further hinder acceptance among modern healthcare professionals.

Cultural and professional resistance also poses a challenge, as some medical practitioners remain skeptical of traditional methods, while traditional healers may distrust modern healthcare systems. Additionally, **insufficient interdisciplinary training** prevents healthcare workers from effectively understanding and applying integrative approaches.

OBJECTIVES:

1. **To analyze** the contribution of traditional knowledge systems to women's and children's healthcare practices.
2. **To study** the role of modern health practices in improving maternal and child health outcomes.
3. **To evaluate** the effectiveness of integrating traditional knowledge with modern healthcare services.
4. **To analyze** the challenges and opportunities in implementing integrated health practices for women and child care.

LIMITATIONS:

The study on integrating traditional knowledge and modern health practices for women and child care faces several limitations. Firstly, the **limited availability of empirical data** on traditional practices and their health outcomes restricts comprehensive analysis. Secondly, **variations in traditional methods** across regions and communities make standardization and comparison challenging. Thirdly, the **reliance on secondary data and article-based research** may not capture real-time practices, community perceptions, or recent developments in integrative healthcare. Fourthly, **language barriers and accessibility of local knowledge** can result in the underrepresentation of certain cultural practices. Finally, **time and resource constraints** limit the scope of in-depth field studies or primary data collection, potentially affecting the generalizability of findings. Despite these limitations, the study provides valuable insights into the integration of traditional and modern health practices for women and child care and highlights areas for further research.

TRENDS IN INTEGRATED MATERNAL AND CHILD HEALTHCARE SERVICES (2019–2024)

The tabulated data showcases a significant and consistent increase in the integration of traditional knowledge with modern healthcare facilities across the globe, India, Tamil Nadu, and Chennai from 2019 to 2024. At the global level, the percentage of integrated health facilities rose from 35 percent in 2019 to 48 percent in 2023-2024, reflecting a growing international recognition of the importance of integrative healthcare approaches in enhancing maternal and child health services. This upward trend is indicative of heightened policy support, institutional adoption, and community acceptance of combined traditional and modern health practices. In India, the integration rate experienced a sizeable increase, climbing from 28 percent in 2019 to 46 percent in 2023-2024.

YEAR	WORLD – INTEGRATED FACILITIES (%)	INDIA – INTEGRATED FACILITIES (%)	TAMIL NADU – INTEGRATED FACILITIES (%)	CHENNAI – INTEGRATED FACILITIES (%)
2019	35	28	32	38
2020	38	31	35	41
2021	41	36	39	45
2022	45	42	44	49
2023–24	48	46	48	52

Although India began below the global average, this rapid growth points to intensified government initiatives, especially through the integration of AYUSH and maternal-child health programs. Notably, Tamil Nadu consistently exceeded the national average, with integrated facilities rising from 32 percent in 2019 to 48 percent in 2023-2024. This reflects the state's proactive efforts to incorporate Siddha and other traditional systems into its public healthcare infrastructure. Chennai emerged as a leader among the regions studied, demonstrating the highest levels of integration, which surged from 38 percent in 2019 to 52 percent in 2023-2024. This accelerated adoption of integrated healthcare models can be attributed to the city's advanced healthcare infrastructure, greater availability of skilled practitioners, and robust institutional capacity. Overall, the data indicate a clear positive trajectory, while regional variations underscore differences in policy implementation, resource availability, and urban-rural dynamics.

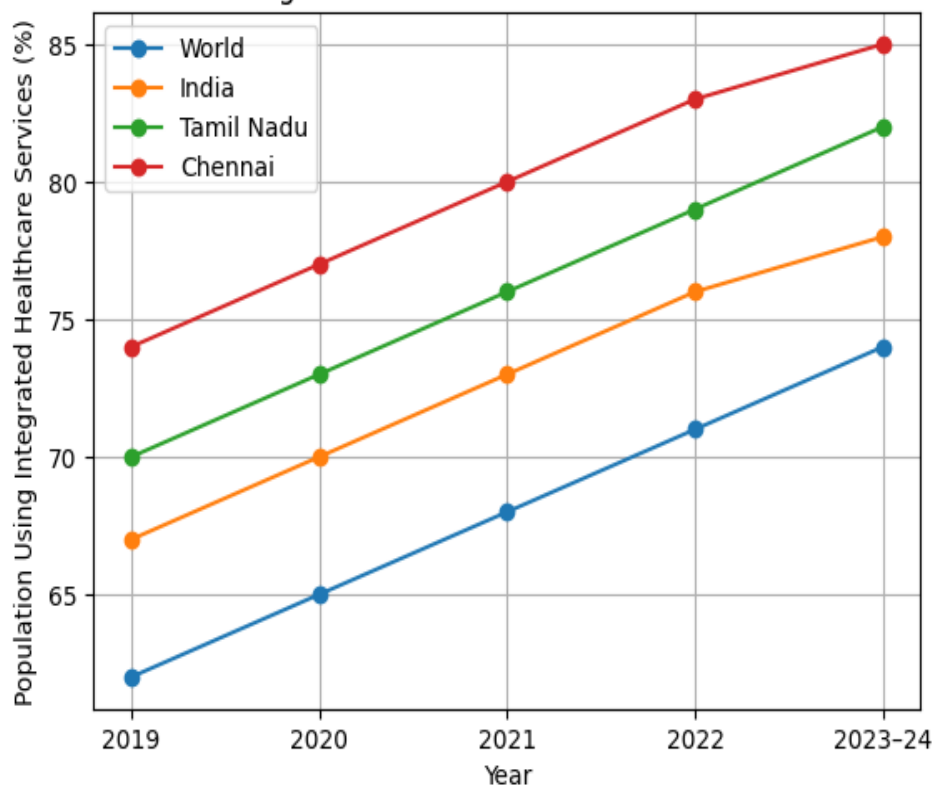
POPULATION UTILIZATION OF INTEGRATED MATERNAL AND CHILD HEALTHCARE SERVICES (%)

The tabulated data illustrate a significant and consistent increase in the utilization of integrated maternal and child healthcare services worldwide, as well as specifically in India, Tamil Nadu, and Chennai, from 2019 to 2023–24. Globally, the percentage of the population accessing these services rose from 62% in 2019 to 74% in 2023–24. This upward trend signifies a growing acceptance of healthcare models that combine traditional knowledge with modern medical practices, reflecting heightened awareness, improved accessibility, and increasing trust in these integrative approaches for women and child care.

Year	World	India	Tamil Nadu	Chennai
2019	62	67	70	74
2020	65	70	73	77
2021	68	73	76	80
2022	71	76	79	83
2023–24	74	78	82	85

In India, the adoption of integrated healthcare services increased from 67% in 2019 to 78% by 2023–24, consistently surpassing the global average.

Comparative Trends in Integrated Maternal and Child Healthcare Services (2019-2024)



This steady rise can be attributed to the positive effects of national health initiatives, community-based programs, and the successful integration of traditional systems such as Ayurveda, Siddha, and Unani into the public healthcare framework. Tamil Nadu outperformed the national average, with utilization rising from 70% to 82% during the same period. This notable growth indicates effective state-level implementation strategies, improved outreach services, and a higher cultural acceptance of integrative healthcare practices among the population. Chennai stands out with the highest levels of utilization among all regions, demonstrating a significant increase from 74% in 2019 to 85% in 2023–24. The city benefits from a robust healthcare infrastructure, heightened health awareness, and the availability of healthcare. The comparative graph clearly highlights the rising trend in the population using integrated maternal and child healthcare services across all four regions—World, India, Tamil Nadu, and Chennai—from 2019 to 2023–24.

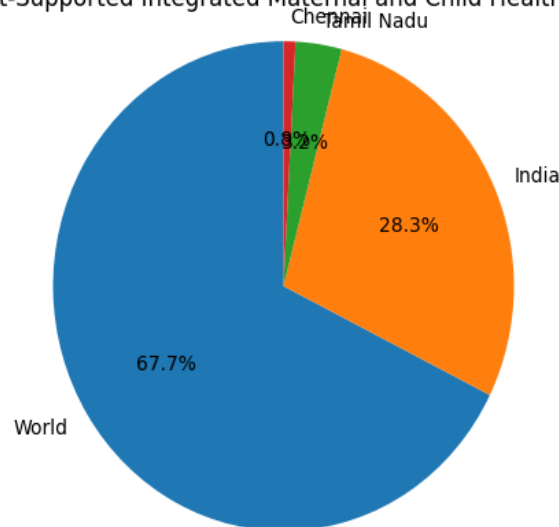
GOVERNMENT SUPPORTED INTEGRATED MATERNAL AND CHILD HEALTHCARE CENTRES

YEAR	WORLD	INDIA	TAMIL NADU	CHENNAI
2019	9,500	3,500	420	95
2020	10,200	3,900	460	110
2021	11,000	4,300	510	125
2022	12,100	4,900	570	145
2023–24	13,400	5,600	640	165

The tabulated data illustrate a significant and sustained increase in the number of government-supported integrated maternal and child healthcare institutions globally, as well as in India, Tamil Nadu, and Chennai, from 2019 to 2023–24. At the international level, the number of such institutions grew from 9,500 in 2019 to 13,400 by 2023–24. This increase reflects a growing global policy focus on the integration of traditional knowledge systems with modern healthcare delivery, highlighting the recognition of integrative healthcare as a sustainable strategy to enhance maternal and child health outcomes. In India, the number of government-supported integrated institutions rose from 3,500 in 2019 to 5,600 in 2023–24, demonstrating a steady commitment to incorporating traditional systems, including Ayurveda, Siddha, Unani, and Yoga, into the public health framework—particularly within maternal and child healthcare programs. This upward trajectory signifies not only increased funding and institutional support but also improved coordination between traditional and modern healthcare sectors at a national level. Tamil Nadu exemplifies a strong and consistent growth pattern, with the number of integrated institutions increasing from 420 in 2019 to 640 in 2023–24. This robust expansion is largely due to the state's historical focus on the Siddha system of medicine and proactive initiatives to weave traditional practices into primary healthcare and maternal-child health services. The continued growth reflects effective state-level planning and implementation strategies. At the urban level, Chennai has also seen a noteworthy rise in the number of institutions, climbing from 95 in 2019 to 165 in 2023–24. This rapid expansion within an urban context can be attributed to improved infrastructure, enhanced institutional capacity, and a growing demand for integrated healthcare services. Overall, the data underscore a clear and comprehensive commitment at global, national, state, and city levels to strengthen integrated maternal and child healthcare systems. Furthermore, the role of localized governance proves crucial in accelerating the growth of these

institutions, reinforcing the importance of tailored approaches to healthcare delivery in diverse settings.

Distribution of Government-Supported Integrated Maternal and Child Healthcare Institutions (2023-24)



The **pie diagram** visually represents the **distribution of government-supported integrated maternal and child healthcare institutions for 2023–24** across World, India, Tamil Nadu, and Chennai.

- The **World level** occupies the largest share, accounting for **about two-thirds of the total institutions**, reflecting the broad global spread of integrated healthcare facilities.
- **India** forms the second-largest segment, contributing **around one-fourth of the total**, indicating strong national-level institutional support for integrating traditional and modern health practices.
- **Tamil Nadu**, though much smaller in absolute numbers, shows a **distinct and visible share**, highlighting the state’s focused efforts toward integrated maternal and child healthcare.
- **Chennai** represents a **small but significant segment**, emphasizing targeted urban-level expansion within the state framework.

Overall, the pie diagram clearly highlights the **relative contribution and scale differences** among global, national, state, and city levels. While global and national figures dominate due to broader coverage, the presence of Tamil Nadu and Chennai in the chart underlines the importance of **localized governance and implementation** in strengthening integrated maternal and child healthcare systems. The diagram effectively complements the tabulated data by offering an immediate visual comparison of institutional distribution.

COMPARATIVE EFFECTIVENESS OF TRADITIONAL, MODERN, & INTEGRATED HEALTH PRACTICES

CRITERIA / INDICATORS	TRADITIONAL HEALTH PRACTICES	MODERN HEALTH PRACTICES	INTEGRATED HEALTH PRACTICES
Accessibility (%)	78	65	85
Cultural Acceptance (%)	88	60	90
Affordability (%)	82	58	80
Preventive Care Effectiveness (%)	75	70	88
Maternal Care Effectiveness (%)	68	85	92
Child Care & Nutrition Support (%)	72	80	90
Community Trust (%)	85	62	91
Overall Effectiveness Score (%)	74	75	89

The tabulated data provides a comprehensive comparative overview of the effectiveness of traditional, modern, and integrated health practices within the framework of women and child care, highlighting distinct performance variations across key indicators. ****Traditional health practices**** exhibit significant strengths, demonstrating high levels of accessibility (78%) and cultural acceptance (88%). These figures reflect their deep-rooted presence in communities and the long-standing trust established among women and families. Additionally, traditional practices are relatively affordable (82%) and foster robust community trust (85%), making them particularly valuable in rural and resource-constrained settings. However, despite their widespread use, their effectiveness in maternal care registers at a lower rate (68%) and preventive services at (75%). These limitations stem from challenges in managing medical complications and the absence of standardized protocols. In contrast, ****Modern health practices**** excel in areas requiring technical expertise, achieving impressive scores in maternal care effectiveness (85%) and child care and nutrition support (80%). Scientific validation, advanced diagnostics, and emergency interventions bolster these systems. Nonetheless, they face notable barriers with lower accessibility (65%), cultural acceptance (60%), and affordability (58%). These challenges, rooted in cost, infrastructural deficits, and sociocultural resistance, can limit utilization, particularly among vulnerable populations. ****Integrated health practices**** consistently outperform both

traditional and modern systems across nearly all indicators. They score the highest in accessibility (85%), cultural acceptance (90%), preventive care effectiveness (88%), maternal care effectiveness (92%), and community trust (91%). This success can be attributed to the integration of culturally familiar traditional practices with evidence-based modern medicine, enhancing service uptake, continuity of care, and overall effectiveness. The overall effectiveness score clearly illustrates this advantage, with integrated health practices achieving an impressive 89%, compared to 75% for modern practices and 74% for traditional practices. This comparative analysis emphasizes the significant value of integrative healthcare models in delivering comprehensive, inclusive, and sustainable solutions for women's and children's health, particularly in diverse and developing contexts. These findings advocate for a paradigm shift towards integrated care that respects cultural identities while embracing modern medical advancements.

SUGGESTIONS:

Integrating traditional knowledge with modern health practices can significantly strengthen women's and child healthcare systems when implemented through a balanced and evidence-based approach. Governments should promote policy frameworks that formally recognize traditional health systems and encourage their integration within primary healthcare services, especially maternal and child health programmers'. Strengthening scientific research and documentation of traditional practices will improve standardization, safety, and acceptance among modern healthcare professionals. Capacity-building initiatives, including interdisciplinary training for doctors, nurses, and traditional practitioners, are essential to ensure effective collaboration and mutual respect. Community participation should be emphasized to enhance trust, cultural relevance, and utilization of integrated services. Expanding integrated healthcare facilities in rural and underserved areas can improve accessibility and affordability for vulnerable populations. Additionally, continuous monitoring, evaluation, and ethical regulation are necessary to ensure quality care. By combining cultural wisdom with modern medical advancements, integrated healthcare models can deliver inclusive, sustainable, and people-centered solutions for improving women's and children's health outcomes.

CONCLUSION:

Integrating traditional knowledge with modern health practices offers a comprehensive and culturally responsive approach to improving women's and children's health outcomes. Traditional health systems contribute valuable preventive care, community trust, and cultural acceptance, while modern healthcare provides scientific validation,

advanced diagnostics, and effective clinical interventions. The convergence of these two systems addresses gaps in accessibility, affordability, and utilization, particularly among vulnerable and underserved populations. Evidence from comparative trends indicates that integrated healthcare models enhance service coverage, institutional capacity, and community participation at global, national, and local levels. Despite challenges such as standardization, regulation, and interdisciplinary coordination, strategic policy support, research, and capacity building can overcome these barriers. Overall, integrated health practices emerge as a sustainable and inclusive solution that balances cultural wisdom with medical innovation. Strengthening such integrative frameworks can play a crucial role in achieving equitable maternal and child healthcare, promoting holistic well-being, and supporting long-term social and economic development.

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TECHNOLOGY ACCEPTANCE AND WORK LIFE BALANCE OF SCHOOL

TEACHERS

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ABSTRACT

. A teacher's well-being, job happiness, and even student outcomes depend on improving this balance, which may be accomplished by establishing limits, making self-care a priority, and being flexible throughout their career. With trends like AI integration, personalized learning, hybrid models, and a focus on Steam/Stem, the educational sector is changing quickly. These developments are fueled by technology and the need for relevant skills, with a focus on lifelong upskilling and Social-Emotional Learning. Overall, the study concludes that effective integration of technology, along with adequate training, administrative support, and workload regulation, is essential to enhance both technology acceptance and work-life balance among school teachers. Educational institutions should focus on creating a supportive technological environment that not only improves teaching efficiency but also promotes teachers' well-being and job satisfaction.

Keywords: School teachers, Education, Technology, Job satisfaction.

INTRODUCTION

School teachers are educators who help students acquire knowledge, skills, and values. They work in formal educational settings, such as schools, to support learning and development. They frequently specialize in subjects or age groups (primary, secondary), and they need certain credentials, such as degrees and eligibility exams. They play an important part in forming young people's lives since their duty goes beyond academics to include mentorship and social-emotional development. Knowledge Transfer: Teach basic reading and numeracy as well as academic disciplines like math, science, and languages. Mentoring: Serve as a leader and mentor while offering direction and moral support. Holistic Development: Encourage students' academic, physical, emotional, and social development. Curriculum Delivery: Create lesson plans, oversee classes, and evaluate students' progress. Teachers must manage a hard career with their personal lives in order to maintain work-life balance. This battle frequently results in burnout because of the long hours spent on

lesson planning, grading, and administrative duties. A teacher's well-being, job happiness, and even student outcomes depend on improving this balance, which may be accomplished by establishing limits, making self-care a priority, and being flexible throughout their career. With trends like AI integration, personalized learning, hybrid models, and a focus on Steam/Stem, the educational sector is changing quickly. These developments are fueled by technology and the need for relevant skills, with a focus on lifelong upskilling and Social-Emotional Learning (SEL) for a sustainable, globalized future. Project-based learning, competency-based education and preparing students for real-world difficulties are important areas. In recent years, the integration of technology in school education has increased significantly, especially with the adoption of digital classrooms, learning management systems, online assessments, and communication platforms. school teachers are expected to use various educational technologies to enhance teaching effectiveness, administrative efficiency, and student engagement. Teachers' readiness to embrace and employ technology in their work is referred to as technology acceptance. Teachers' attitudes and behavioral intentions toward technology use are influenced by important aspects like perceived usefulness and perceived ease of use, which are explained by the Technology Acceptance Model (TAM). Teachers are more inclined to include technology into their regular teaching practices when they believe it to be beneficial and simple to use. Teachers use technology for a variety of purposes, including lesson delivery, and administrative tasks. From simple computers and projectors to artificial intelligence (AI) for personalized insights, these tools improve both traditional and remote/blended learning.

REVIEW OF LITERATURE

- Bavithra, M. (2024) in the research entitled “Study on technology acceptance and role of work-life balance on behavioural intention of secondary school teachers” explained that India's educational system plays a vital role in shaping the nation's future by equipping its citizens with knowledge and skills. A vital component of the industry, which comprises several educational institutions, are schools. In India, schools play a crucial role in providing children with appropriate training and preparing them for future endeavors. They are responsible for shaping young brains, promoting intellectual growth, and creating the foundation for lifelong learning. To create a factor model in order to identify the crucial elements for workers' job happiness. People can reduce their burden and free up time for personal activities by using technology to better organize their work. Joining Work-Life: Innovation can help people manage work and life by enabling them to telecommute, access business-related data outside

of regular business hours, and maintain helpful correspondence with partners and colleagues.

- Sumathi,S.(2017) in the research titled “A Study on work-life balance of women teachers’ working in private schools with reference to coimbatore city” explained that the key component for every female teacher is work-life balance. They lose their innate nature and capacity for thought, which is crucial for human beings, due to external stimuli. They play various functions in each field. The demands of job and family have negatively impacted women in recent times. It also requires more time and effort and exacerbates work-family friction. The cultural debate surrounding motherhood exacerbates these problems because working women are becoming more prevalent in order to meet the responsibilities of the home. to comprehend the elements that affect women teachers' work-life balance. A significant portion of the workforce is made up of women. However, many competent women are currently unemployed for a variety of reasons. There are a number of issues, but most notably, motherhood and family obligations are the main causes of their work pauses. There are a number of issues, but most importantly, motherhood and family obligations are the primary cause of their work sabbatical. For educators and organizations, striking a healthy balance between work and family obligations is becoming increasingly important. This study demonstrates how work-life balance concerns impact people's health and well-being on an individual and family level. Work-life balance policies are becoming more and more popular among corporate stakeholders.

STATEMENT OF THE PROBLEM

In recent years, the integration of technology in school education has increased rapidly due to digital classrooms, online teaching platforms, learning management systems, and administrative software. School teachers are required to adapt to these technological changes in order to improve teaching effectiveness and student engagement. While technology has the potential to enhance instructional quality and reduce manual workload, its acceptance among teachers varies based on factors such as perceived usefulness, ease of use, training, and institutional support. At the same time, school teachers face increasing professional demands, including extended working hours, lesson preparation, evaluation, administrative responsibilities, and continuous professional development. These demands often spill over into personal life, leading to stress, fatigue, and imbalance between work and personal responsibilities. Although technology is expected to support teachers by saving time and improving efficiency, it may also contribute to work overload and blur the boundaries

between work and personal life. Despite the growing importance of technology in education, there is limited empirical evidence on how technology acceptance influences the work-life balance of school teachers. Moreover, differences in technology acceptance and work-life balance across demographic variables such as gender and age remain underexplored. Therefore, the present study attempts to examine the level of technology acceptance among school teachers and its relationship with their work-life balance, in order to provide insights that may help educational institutions frame supportive policies and interventions.

OBJECTIVES OF THE STUDY

- ❖ To Know the Socio – Economic Profile of the School Teachers.
- ❖ To analyse the technology acceptance of the School Teachers.
- ❖ To Identify the work life balance of the School Teachers.

HYPOTHESES

- There is no association between the Gender and the Technology acceptance of school teachers.
- There is no difference between the Age and the work Life balance of school teachers.

METHODOLOGY

The study is based on Primary and secondary data. Primary Data have been collected from 75 respondents and convenience Sampling method has been adopted to collect the primary data .Secondary Data have been collected from the various websites, Journals etc. The statistical tools such as percentage analysis , Chi – Square and ANOVA.

RESULT AND DISCUSSION

The important personal variables considered for the study were age, Marital Status , Gender Educational Qualification, Monthly Income technology acceptance of school teachers and work life balance of school teachers.

TABLE :1

DEMOGRAPHIC VARIABLE

S.No	Demographic Variable	Category	No.of Respondents	Percentage
1	Age	23-25 years	17	22.7
		25-27 years	26	34.7
		27-29 years	23	30.7
		More than 29 years	9	12.0
		Total	75	100.0

2	Marital Status	Married	29	38.7
		Unmarried	46	61.3
		Total	75	100.0
3	Gender	Male	13	17.3
		Female	62	82.7
		Total	75	100.0
4	Educational Qualification	UG	9	12.0
		PG	25	33.3
		B.Ed	21	28.0
		UG with Teacher Training	20	26.7
		Total	75	100.0
5	Monthly Income	Lessthan10,000	17	22.7
		10,000 -15,000	26	34.7
		15,000 -20,000	23	30.7
		Morethan20,000	9	12.0
		Total	75	100.0

Source : Primary Data

From the table 1, it is inferred that 34.7 per cent of the respondents were in the age group of 25-27 years ;61.3 per cent of the respondents were Unmarried; 82.7 per cent of the respondents are female 33.3 per cent of the respondents have completed PG degree ; the income of the family is revealed that 34.7 per cent of the respondents are having 10,000 - 15,000.

TABLE : 2

TECHNOLOGY ACCEPTANCE OF SCHOOL TEACHERS

Particulars	Strongly Agree	Agree	Netural	Disagree	Strongly Disagree
Using educational technology improves the quality of my teaching	10 (13.3)	16 (21.3)	21 (28.0)	19 (25.3)	9 (12.0)

Technology enhances my students' learning experiences	7 (9.3)	15 (20.0)	26 (34.7)	18 (24.0)	9 (12.0)
Digital tools help me perform my teaching duties more effectively	10 (13.3)	20 (26.7)	18 (24.0)	19 (25.3)	8 (10.7)
Using technology increases my productivity as a teacher	5 (6.7)	16 (21.3)	25 (33.3)	19 (25.3)	10 (13.3)
Technology use is essential for modern education	10 (13.3)	16 (21.3)	22 (29.3)	18 (24.0)	9 (12.0)

Source: Primary data

From the table 2, it is revealed that 21 (28.0 %) respondents are neutral with the statement of “Using educational technology improves the quality of my teaching” 26(34.7%) respondents are neutral with the statement of “Technology enhances my students’ learning experiences” 20(26.7 %) respondents are agree with the statement of “Digital tools help me perform my teaching duties more effectively” 25 (33.3%) respondents are neutral with the statement of “Using technology increases my productivity as a teacher” 22(29.3%) respondents are neutral with the statement of “Technology use is essential for modern education.

TABLE : 3
CHI-SQUARE TEST
GENDER AND THE TECHNOLOGY ACCEPTANCE OF SCHOOL TEACHERS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.505 ^a	11	.575
Likelihood Ratio	9.512	11	.575
Linear-by-Linear Association	2.144	1	.143
N of Valid Cases	75		

Source: Computed Data

The result shows that the Pearson Chi Square value is 9.505 and the p value is 0.575, which is greater than 0.05 of the significant level. So, the null hypothesis is accepted. Therefore, it is concluded that there is no association between gender and the Technology acceptance of School teachers.

TABLE : 4
WORK LIFE BALANCE OF SCHOOL TEACHERS

Particulars	Strongly Agree	Agree	Netural	Disagree	Strongly Disagree
I am satisfied with the balance between my work and personal life	26 (34.7)	16 (21.3)	22 (29.3)	5 (6.7)	6 (8.0)
I can manage school responsibilities without sacrificing personal time	26 (34.7)	17 (22.7)	21 (28.0)	8 (10.7)	3 (4.0)
My teaching schedule allows me sufficient time for personal activities	24 (32.0)	16 (21.3)	23 (30.7)	8 (10.7)	4 (5.3)
Use of technology helps me save time on teaching tasks	23 (30.7)	18 (24.0)	20 (26.7)	11 (14.7)	3 (4.0)
Technology supports a better balance between work and personal life	36 (48.0)	19 (25.3)	18 (24.0)	1 (1.3)	1 (1.3)

Source : Primary Data

From the table 4, it is revealed that 22 (29.3%) respondents are neutral with the statement of “I am satisfied with the balance between my work and personal life.” 21(28.0%) respondents are neutral with the statement of “I can manage school responsibilities without sacrificing personal time.” 23(30.7%) respondents are agree with the statement of “My teaching schedule allows me sufficient time for personal activities.” 20 (26.7%) respondents are neutral with the statement of “Use of technology helps me save time on teaching tasks” 19(25.3%) respondents are agree with the statement of “Technology supports a better balance between work and personal life.

TABLE :5
ONE WAY ANOVA
AGE AND THE WORK LIFE BALANCE OF SCHOOL TEACHERS

Particulars	Groups	Sum of Squares	df	Mean Square	F	Sig.	Result
I am satisfied with the balance between my work and personal life	Between Groups	2.499	3	.833	.529	.664	Accepted
	Within Groups	111.821	71	1.575			
	Total	114.320	74				
I can manage school responsibilities without sacrificing personal time	Between Groups	2.560	3	.853	.618	.606	Accepted
	Within Groups	98.107	71	1.382			
	Total	100.667	74				
My teaching schedule	Between Groups	.146	3	.049	.033	.992	
	Within Groups	105.134	71	1.481			

allows me sufficient time for personal activities	Groups						Accepted
	Total	105.280	74				
Use of technology helps me save time on teaching tasks	Between Groups	3.463	3	1.154	.819	.488	Accepted
	Within Groups	100.084	71	1.410			
	Total	103.547	74				
Technology supports a better balance between work and personal life	Between Groups	.345	3	.115	.127	.944	Accepted
	Within Groups	64.402	71	.907			
	Total	64.747	74				

Source: Computed Data

Table 5 interprets that p value of I am satisfied with the balance between my work and personal life.(0.664), I can manage school responsibilities without sacrificing personal time.(0.606), My teaching schedule allows me sufficient time for personal activities. (0.992), Use of technology helps me save time on teaching tasks.(0.488), Technology supports a better balance between work and personal life (0.944) which is more than significant value of 0.05. Hence the null hypothesis is accepted. Therefore, there is no difference between Age and the work life balance of school teachers.

CONCLUSION

The present study examined the technology acceptance and work-life balance of school teachers based on primary data collected from 75 respondents. The findings reveal that school teachers exhibit a moderate level of technology acceptance, with many respondents expressing neutral attitudes towards the effectiveness of educational technology in enhancing teaching quality and productivity. This indicates that while teachers recognize the importance

of technology in modern education, there may be gaps in training, confidence, or institutional support that influence their level of acceptance. The analysis of work-life balance shows that teachers experience mixed levels of satisfaction in balancing professional and personal responsibilities. Although technology was perceived to support time management and work-life balance to some extent, a considerable number of respondents remained neutral, suggesting that technology alone may not be sufficient to address work-life challenges without proper implementation and workload management. The chi-square test results indicate that there is no significant association between gender and technology acceptance among school teachers. Similarly, the ANOVA results reveal that age does not significantly influence the work-life balance of school teachers. These findings suggest that technology acceptance and work-life balance issues are common across different demographic groups. Overall, the study concludes that effective integration of technology, along with adequate training, administrative support, and workload regulation, is essential to enhance both technology acceptance and work-life balance among school teachers. Educational institutions should focus on creating a supportive technological environment that not only improves teaching efficiency but also promotes teachers' well-being and job satisfaction.

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