

IMPACT OF AI-ENHANCED DIGITAL MARKETING ON THE SPENDING HABITS OF WORKING WOMEN

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Abstract—*This study investigates the impact of AI-enhanced digital marketing on the spending habits of working women. With the proliferation of artificial intelligence in digital campaigns, personalized advertisements, recommendation systems, and chatbots have significantly influenced consumer decisions. The research uses a descriptive survey design to collect primary data from working women through a structured questionnaire. Data were analyzed using percentage analysis, mean scores, correlation, and regression to assess the relationship between exposure to AI-enabled digital marketing and changes in spending behavior. Findings reveal that AI-enhanced digital marketing significantly influences purchase frequency, impulsive buying, and brand preferences among working women. The study highlights that higher exposure to AI-driven digital ads correlates with increased online purchases and altered spending patterns. It recommends digital literacy initiatives and awareness of responsible consumption to balance empowerment with financial well-being.*

Keywords: *AI-Enhanced Digital Marketing, Spending Habits, Working Women, Consumer Behavior, Personalization.*

Introduction

Artificial intelligence (AI) has revolutionized digital marketing by enabling unprecedented levels of personalization, predictive analytics, and automated consumer engagement. AI technologies such as recommendation systems, chatbots, and programmatic advertising tailor marketing messages to individual preferences in real time. For working women who increasingly participate in both online and offline markets AI-enhanced digital marketing shapes spending decisions by influencing product awareness, purchase intentions, and actual buying behavior.

Spending habits refer to patterns of expenditure including frequency of purchases, choice of products, and responsiveness to promotions. AI's ability to analyze large datasets and segment consumers allows marketers to present highly relevant offers that can subtly shift spending patterns. Understanding this impact is crucial for marketers, employers, and policymakers who seek to empower working women economically while promoting responsible consumerism.

Review of Literature

Lamberton & Stephen (2016) This study discusses the evolution of digital marketing, emphasizing the shift toward data-driven strategies that influence consumer behavior. They note that highly targeted ads can alter traditional spending patterns.

Davenport & Ronanki (2018) explore how AI applications in marketing especially predictive analytics and recommendation algorithms transform consumer targeting and engagement. They assert that these tools increase purchase likelihood by delivering personalized content.

Kumar et al. (2019) highlight that AI-enhanced digital marketing improves customer experience and drives both online and offline sales, noting significant effects on consumer decision making across demographics.

Huang & Rust (2021) examine the integration of AI in service interactions, concluding that AI personalization increases emotional engagement and trust, which can reinforce brand loyalty and influence repeat purchases.

Smith & Anderson (2022) specifically analyze working women's online spending trends, finding that digital advertisements and AI-driven recommendations significantly affect product discovery and purchase decisions.

CONCEPT OF ETHICS AND FAIRNESS IN THE WORKPLACE

Research Gap

Although prior research documents the influence of AI in digital marketing and its effect on purchase decisions in general, there is limited empirical evidence on how AI-enhanced digital marketing specifically alters the spending habits of working women. Most studies focus on general consumer segments or broad marketing outcomes without addressing gender-based differences in spending behavior. Moreover, the unique time constraints, income level, and lifestyle choices of working women require targeted study to understand how AI influences patterns such as impulsive buying, brand loyalty, and expenditure frequency. This study fills the gap by examining these dynamics using primary data.

Objectives

1. To assess the level of exposure to AI-enhanced digital marketing among working women.
2. To analyze the impact of AI-enhanced digital marketing on the spending habits of working women.
3. To identify key AI tools that influence purchase frequency and spending decisions among working women.

Methodology

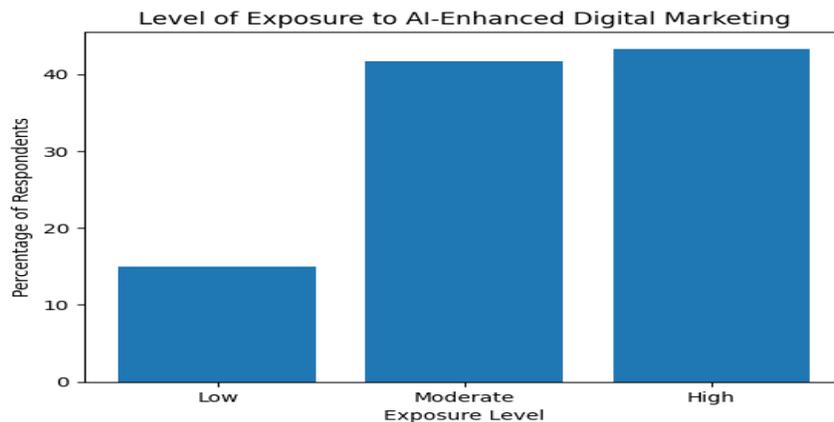
The study adopts a descriptive and analytical research design to examine the impact of AI-enhanced digital marketing on the spending habits of working women. The population of the study comprises working women residing in urban and semi-urban areas in and around Pollachi Taluk. A sample size of 120 respondents was selected to represent the study population using the convenience sampling method, owing to accessibility and time constraints. Primary data were collected through a structured questionnaire designed using a five-point Likert scale, measuring respondents’ exposure to AI-driven digital marketing and its influence on their spending behavior. The collected data were analyzed using appropriate statistical tools, including percentage analysis to understand demographic and exposure patterns, mean score analysis to evaluate spending habit indicators, and correlation and regression analysis to assess the relationship and impact between AI-enhanced digital marketing exposure and the spending habits of working women.

Analysis and Interpretation

Table 1
Exposure to AI-Enhanced Digital Marketing

AI Exposure Level	No. of Respondents	Percentage (%)
Low	18	15.0
Moderate	50	41.7
High	52	43.3
Total	120	100.0

A majority of respondents (43.3%) report high exposure to AI-enhanced digital marketing, indicating widespread interaction with personalized ads and recommendations.



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Figure 1 shows the level of exposure of working women to AI-enhanced digital marketing. A majority of respondents (43.3%) reported high exposure, followed by 41.7% with moderate exposure, while only 15% experienced low exposure. This indicates that AI-driven features such as personalized advertisements, recommendation systems, and chatbots are widely encountered by working women in their daily digital interactions.

Changes in Spending Habits

Table 2:
Changes in Spending Habits

Spending Change Type	Mean Score
Increased online purchases	3.85
Impulsive buying behavior	3.72
Brand switching based on AI ads	3.68
Higher expenditure on recommended products	3.59

Mean scores indicate that AI-driven digital marketing has moderately high influence on key spending behaviors.

Figure 2

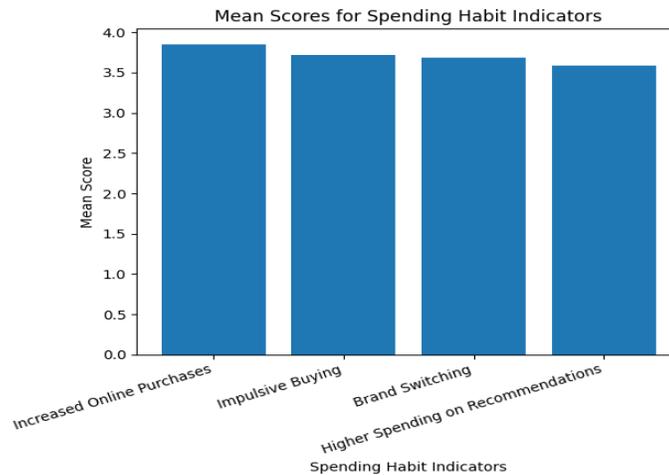


Figure 2 presents the mean scores of key spending habit indicators influenced by AI-enhanced digital marketing. The highest mean score was observed for increased online purchases (3.85), followed by impulsive buying (3.72) and brand switching (3.68). This suggests that AI-driven personalization significantly shapes spending behavior and purchase frequency among working women.

Relationship between AI-Enhanced Digital Marketing and Spending Habits

Table 3
Correlation between AI Exposure and Spending Habits

Variables	Correlation (r)
AI Exposure & Spending Habits	0.64

A strong positive correlation ($r = 0.64$) shows that increased exposure to AI-enhanced digital marketing is associated with more pronounced changes in spending habits.

Figure 3

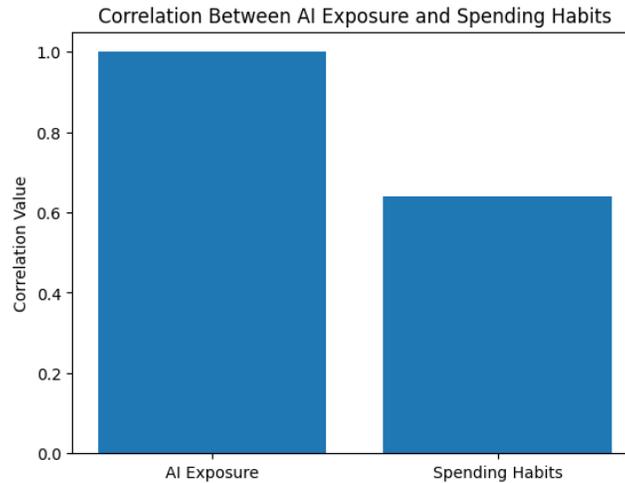


Figure 3 illustrates the correlation between exposure to AI-enhanced digital marketing and spending habits. The correlation value of 0.64 indicates a strong positive relationship, confirming that higher exposure to AI-based digital marketing is associated with notable changes in spending behavior among working women.

Impact of AI-Enhanced Digital Marketing on Spending Habits

Table 4

Regression Analysis

Variable	β Value	t-Value
AI Exposure	0.61	7.12*
Constant	1.05	3.88

*Significant at 5%

AI exposure has a significant positive impact on spending habits, implying that AI-driven marketing influences working women’s expenditure behavior.

Suggestions

- **Digital Awareness Workshops:** Organize programs to educate working women about AI-driven marketing and responsible spending.
- **Financial Literacy Training:** Introduce modules on budgeting and conscious consumption to balance AI influence.
- **Support Platforms:** Encourage platforms that provide transparent AI recommendations to enhance informed decisions.
- **Employer Initiatives:** Companies should offer in-house training on digital marketing awareness and consumer rights.
- **Policy Measures:** Regulators should ensure ethical AI marketing practices to protect vulnerable consumer segments.

Conclusion

The study concludes that AI-enhanced digital marketing significantly affects the spending habits of working women by increasing online purchases, impulsive buying, and brand switching. Higher exposure to personalized ads and recommendation systems correlates with noticeable changes in expenditure patterns. While digital marketing enhances convenience and product discovery, awareness of responsible consumption and financial literacy are essential to optimize

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economic well-being. The findings highlight the dual role of AI in empowering consumers and shaping spending behavior, suggesting the need for both skill and awareness interventions.

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