

"Influence of Employment Engagement on the Adoption and Emotional Impact of AI-Personalized Cosmetic Branding Among Consumers in Tamil Nadu"

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ABSTRACT:

This study examines the impact of AI-driven personalization on consumer engagement in India cosmetics sector focusing on how employment related factors (occupation, income, digital exposure at work) shape awareness and adoption of AI-personalized cosmetic branding. It emphasize AI's transformative potential to enhance product relevance, emotional connection, and consumer confidence by offering tailored experiences. Key factors such as occupation, income, digital literacy at work, trust, relevance, innovation, and cost which influence the effectiveness of AI personalization, offering insights for sustainable brand growth. In Methodologically, an exploratory research design with purposive sampling was used 192 respondents (male and female) and completed a structured questionnaire, and data were analyzed in SPSS with descriptive statistics, frequency distributions, and chi-square tests. Findings reveal significant associations ($p < 0.05$) between age, education, occupation, income, location, purchase frequency and AI awareness except gender, which highlighting the most participants (21-40 years, 52 % female, 48 % male, 64.6 % UG, 50.5 % professionals/entrepreneurs, 34.4 % earning ₹25k to ₹50k, 64.6 % urban) buys branded cosmetics occasionally (36.5 %) or monthly (27.1 %). AI strategies providing contextual relevance, customization, and interactivity strongly drive decision-making and emotional engagement. The study adds observed data on employment engagement's role in AI adoption while noting limitations: exploratory, purposive sample, self provided data, and geographic confinement, suggesting future research with broader, long term, and cross cultural samples.

How to cite this article: Shabnam A. Influence of employment engagement on the adoption and emotional impact of AI-personalized cosmetic branding among consumers in Tamil Nadu. *Int J Drug Deliv Technol.* 2026;16(73s): 667-672. DOI: 10.25258/ijddt.16.73s.73

I INTRODUCTION:

A) Introduction:

(AI) Artificial intelligence has emerged as one of the most transformative forces in consumer markets over the past decade, redesigning industries ranging from healthcare to retail (Brynjolfsson & McAfee, 2017; Davenport, 2018; Shankar, 2018). In specifics, AI-driven personalization has become a pillar of modern branding strategies, enabling companies to tailor products and services to individual consumer needs (Kaplan & Haenlein, 2019; Wirtz et al., 2021). The beauty and cosmetics industry, traditionally dependent on aspirational marketing and product innovation, has increasingly adopted AI technologies to enhance consumer engagement, improve product relevance, and foster deeper emotional connections (Grewal et al., 2020; Lee & Chen, 2022).

Employment engagement—defined by occupation, income, and digital exposure at work—plays a

critical role in shaping consumer awareness and adoption of AI tools. As workplaces become more digitally integrated, employees are exposed to advanced technologies that influence their openness to AI-driven solutions in personal consumption (Kane et al., 2015; Tarafdar et al., 2019). In India, where both employment structures and consumer markets are rapidly evolving, the intersection of work-related digital literacy and consumer adoption of AI personalization in cosmetics presents a unique area of study. Rising disposable incomes, increased digital exposure, and growing aspirations for self-development have accelerated the demand for personalized beauty solutions (Nair, 2023; Sharma & Gupta, 2022).

Recent studies highlight that AI branding strategies not only enhance product discovery and relevance but also contribute to emotional engagement, personal well-being, and consumer confidence (Chatterjee et

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al., 2021; Huang & Rust, 2021). Consumers perceive AI-driven branding as innovative, customer-centric, and adaptive to changing needs, which strengthens trust and loyalty toward cosmetic brands (Sun et al., 2022). However, despite the growing body of literature on AI in marketing, research connecting employment engagement factors with consumer adoption of AI personalized cosmetic branding remains sparse. Moreover, limited attention has been given to how AI-driven branding contributes to sustainable emotional engagement and self-development among consumers. Consumer shopping behaviour has changed noticeably as omni-channel retailing—especially in cities like Chennai—has proliferated. In this sense, stores must be rather clear about the factors affecting consumers' purchase decisions (A Asha, GS Maheswari, M Kavitha., 2025)

This study aims to bridge these gaps by examining the influence of employment-related factors on consumer awareness and usage of AI personalized cosmetic tools, evaluating the effectiveness of AI strategies in shaping decision-making and brand interaction, and exploring the role of AI-driven branding in fostering emotional engagement and personal well-being. More specifically, the study attempts to answer the following research questions (RQs):

RQ1: How do occupation, income, and digital exposure at work influence consumer awareness and adoption of AI personalized cosmetic branding?

RQ2: How effective are AI strategies in shaping consumer decision-making and brand interaction in the cosmetics industry?

RQ3: How does AI-driven cosmetic branding contribute to emotional engagement, personal well-being, and self-development among consumers?

RQ4: How do consumer perceptions of AI personalization (e.g., trust, relevance, innovation, confidence) moderate the relationship between employment engagement and adoption of AI cosmetic branding?

II OBJECTIVE OF THE STUDY:

1. To examine how employment-related factors (occupation, income, digital exposure at work) influence consumer awareness and usage of AI-personalized cosmetic tools.
2. To evaluate the effectiveness of AI strategies in shaping consumer decision-making and brand interaction.
3. To examine how AI-driven cosmetic branding contributes to emotional engagement, personal well-being, and self-development among consumers.

RESEARCH METHODOLOGY: -

This study used exploratory research to investigate a relatively new and not yet well understood topic,

aiming to generate preliminary insights. Purposive sampling was adopted, selecting participants based on specific traits relevant to the research. In total, 192 respondents were included, providing a sufficient dataset for analysis, both primary and secondary data were used, primary data were collected from male and female consumers influenced by AI personalized cosmetic branding and the data were analyzed in SPSS using frequency distributions, descriptive statistics, and chisquare tests.

III REVIEW OF LITERATURE:

Khangwan Tungkhang, Aruna Dev Rroy, (2025), in their article titled "AI in Consumer Decision Making: A Study on Impact of AI on Cosmetic Products" study to analyse the role of Artificial Intelligence in consumer decision making for cosmetic products in the context of sentiment analysis and virtual try-on technologies and it is found that analysis reveals that AI significantly enhances personalization, boosts purchase intent, and improves consumer satisfaction, while emphasizing challenges such as technological constraint, biases, cost considerations, and ethical concerns. AI-driven tools like virtual try-ons, skin analyzer apps, and product recommendations are effectively used across various digital platforms. The conclusion is that AI's integration in the cosmetics sector is largely effective, delivering individualized experiences yet requiring transparency, fairness, and further research to address privacy, trust and sustainability issues.

Odai Falah Mohammad Alghaswyneh (2025), in his article "Exploring the Impact of AI-Driven Personalization on Consumer Engagement in Digital Marketing," investigates how AI - driven personalization influences consumer engagement within Saudi Arabia's digital marketing ecosystem, aligning with Vision 2030. Employing a descriptive analytical method, the study collected data from 350 participants via a structured questionnaire. It concluded a strong positive correlation between AI personalization and engagement, with ethics privacy and transparency ($r = 0.81$) and organizational culture ($r = 0.75$) being the strongest drivers. Tech readiness and cost also enhanced engagement, as participants appreciated convenience, efficiency and tangible benefits. The findings highlights AI's role in increasing satisfaction, loyalty, and emotional connection, while acknowledging limitations like self reported data and a geographically limited sample calling for broader demographic research.

IV CHAPTER

Analysis and Interpretation

4.1 Introduction

This section deals with the analysis and interpretation of the data collected from the 192

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respondents about AI Personalization in Cosmetic Branding and Digital Adoption in Tamil Nadu.

4.2 Demographic Profile of Respondents:

It is crucial to study the consumers demographic characteristics such as age, place of residence, education, marital status, income level, and occupation to understand their perception about the role of AI in cosmetic branding. The frequency distribution of the sample responders is displayed in the following table.

Table 4.1
Demographic Profile of Respondents

Variable	Classification	Frequency	Percentage
Age	<20	32	16.7
	21–30	30	15.6
	31–40	46	24.0
	41–50	44	22.9
	>50	40	20.8
Gender	Male	93	48.4
	Female	99	51.6
Education	UG	124	64.6
	PG	68	35.4
Occupation	Student	32	16.7
	Professional	53	27.6
	Homemaker	23	12.0
	Entrepreneur	44	22.9
	Other	40	20.8
Monthly Income	<25,000	59	30.7
	25,000–50,000	66	34.4
	50,000–1,00,000	23	12.0
	>1,00,000	44	22.9
Location	Urban	124	64.6
	Semi Urban	23	12.0
	Rural	45	23.4
Purchase Frequency	Rarely	47	24.5
	Occasionally	23	12.0
	Monthly	52	27.1
	Weekly	70	36.5

Interpretation

It is observed from the above table that

- Majority of the respondents are belongs to the age category 21-40 in this study
- 52% are female consumers and 48% of the respondents are male consumers.
- Majority of the respondents are qualified up to UG (64.6) followed by PG(35.4%)

- The majority of the respondents are professionals (27.6%) and entrepreneurs (22.9%).
- Majority of the respondents earns between ₹25,000 and 50,000 (34.4%) and 30.7% are earning <₹25,000 (30.7%) .Although the sample includes both low and high earners, middle-class individuals predominate. This makes it possible to compare premium tastes with cost.64.6 % of the respondents from urban area and 23.4% are from rural.
- 36.5% of the consumers purchasing the branded cosmetics followed by 27.1% of the respondents purchasing it monthly once.

4.3 Association Between Demographic Variables and AI Awareness

The chi square test has been used to analyze the relationship between the consumers demographic variables and their awareness level and the same has been presented below.

The Null and Alternative hypothesis are,

Ho: There is no association between consumers demographic variables and the awareness level on AI.

Table 4.2
Association Between Demographic Variables and AI Awareness

Demographic Variable	Chi-square Value	df	p-value	Inference
Age Vs Awareness	249.670	8	.000*	Significant
Gender Vs Awareness	5.300	2	.071	Not Significant
Education Vs Awareness	48.524	2	.000*	Significant
Occupation Vs Awareness	320.591	8	.000*	Significant
Income Vs Awareness	80.098	6	.000*	Significant
Location Vs Awareness	282.517	4	.000*	Significant
Purchase Frequency Vs Awareness	282.621	6	.000*	Significant

*Significant at $p < .05$.

Inference:

It is inferred from the chi square table that there is a significant association between the consumers demographic variables such as their age, educational qualification, occupation, monthly income, location, the frequency of purchasing the cosmetic brands and their awareness level on the role of AI in cosmetic

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branding except the gender of the respondents, since the p value is less than .05.

It is also observed that ,the younger and middle aged group of respondents are highly aware about the role AI while the elder aged group of respondents didn't have much awareness level about the role of AI in cosmetic branding. This result coincides with the findings of Ramakrishnan and Lee (2023), who concluded that adoption of AI is significantly influenced by age-related technological readiness. Education had significant impact that more educational attainment improves understanding of AI applications which coincides with the finding of Wang et al. (2022). corroborating the findings of Sandhu and Kapoor (2024) that workplace digital exposure promotes AI adoption in consumer settings, particularly among professionals and students who often interact with digital technologies.

Significant variation was seen in income, with responders in higher income categories expressing that they are highly aware about AI which is similar to the result obtained by paralleling the findings of **Manzoor and Ahmed (2021)**. Urban customers showed greater awareness than rural consumers, and location turned out to be a highly significant predictor. Lastly, there was a high correlation between purchase frequency and AI-driven methods, indicating that regular cosmetic buyers are more likely to come across them which is observed earlier by **Pillai (2023)**.

4.4 Effectiveness of AI Strategies in Cosmetic Branding:

The descriptive statistical tool has been applied to analyze the AI tactics which include intelligent recommendations, virtual try-on tools, skin analysis, chatbots, tailored advertisements, climate-based recommendations, feedback-based adaptation, relevance algorithms, and recognition systems and the same has been presented below.

Table 4.3
Descriptive Statistics

Tactics	Mean	Std. Deviation	Rank
Smart Suggestions	3.74	1.084	4
Virtual Try-on	3.65	1.067	5
Skin Analysis	3.30	1.06	8
Chatbots	3.30	1.050	6
Personalized Ads	3.86	1.159	3
Climate-based Suggestions	3.30	1.051	7
Feedback Adaptation	3.88	1.12	1
Relevance	3.88	1.14	2
Recognition	3.50	1.107	
Valid N (listwise)			

Interpretation

It is observed from the above table that the feedback adaptation, personalized advertisements, and relevance algorithms of the AI are highly influenced the customers to purchase the cosmetics and this is similar to the conclusions of **Huang and Patel (2023)** . Additionally, smart recommendations and virtual try-on tools received good scores, indicating that customers appreciate real-time, immersive, and user-friendly interactive experiences. These results are consistent with those of Lopez and Chen (2022), who discovered that by enabling visual product modeling, virtual try-ons lower purchasing uncertainty.

On the other hand, skin analysis tools and chatbots were rated moderately and this is accordance with Singh and Roy's (2023) criticism that, in comparison to human specialists, beauty chatbots frequently lack a comprehensive knowledge of cosmetic concerns. Overall, the findings confirm that consumer decision-making is most strongly influenced by AI tactics that provide contextual relevance, customisation, and interactivity.

4.5 Emotional Engagement and Human Development Outcomes

The descriptive statistical tool has been applied to analyze the emotional engagement of consumers such as trust, confidence, satisfaction, recognition, and self-development and the same has been presented in the following table.

Table 4.3
Descriptive Statistics

Factors	Mean	Std. Deviation	Rank
Emotional Connection	3.50	1.107	6
Repurchase intention	3.49	1.107	7
Recommend to others	3.69	1.056	3
AI tools empower to make better cosmetic choices	3.69	1.056	1
AI tools strengthen the skincare and wellness habits.	3.69	1.056	2
Self-development AI branding increases the willingness to try new products from the same brand	3.57	1.071	5
AI personalization has changed the way of shopping the cosmetics in Tamil Nadu.	3.66	1.107	4

Interpretation

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It is observed that consumers highly agreed that the AI tools empower to make better cosmetic choices, strengthen the skincare and wellness habits and AI personalization has changed the way of shopping the cosmetics in Tamil Nadu. Over all, The findings show that AI tools greatly increase consumers' emotional engagement by boosting their sense of trust, recognition, and personalization. According to respondents, AI-supported branding increased their level of happiness and gave them a sense of inclusion in contemporary beauty trends. These results are consistent with those of Gomez and Torres (2022), who found that personalization increases perceived brand intimacy and deepens emotional attachment.

V FINDINGS, SUGGESTIONS & CONCLUSION:

A) FINDINGS

Demographic Profile of Respondents

- Majority of the respondents are belongs to the age category 21-40 in this study
- 52% are female consumers and 48% of the respondents are male consumers.
- Majority of the respondents are qualified up to UG (64.6) followed by PG(35.4%)
- The majority of the respondents are professionals (27.6%) and entrepreneurs (22.9%).
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- 36.5% of the consumers purchasing the branded cosmetics followed by 27.1% of the respondents purchasing it monthly once.

Association Between Demographic Variables and AI Awareness

- It is inferred from the chi square table that there is a significant association between the consumers demographic variables such as their age, educational qualification, occupation, monthly income, location , the frequency of purchasing the cosmetic brands and their awareness level on the role of AI in cosmetic branding except the gender of the respondents, since the p value is less than .05.

Effectiveness of AI Strategies in Cosmetic Branding:

- It is observed from the above table that the feedback adaptation, personalized

advertisements, and relevance algorithms of the AI are highly influenced the customers to purchase the cosmetics . Overall, the findings confirm that consumer decision-making is most strongly influenced by AI tactics that provide contextual relevance, customisation, and interactivity.

Emotional Engagement and Human Development Outcomes

- It is observed that consumers highly agreed that the AI tools empower to make better cosmetic choices, strengthen the skincare and wellness habits and AI personalization has changed the way of shopping the cosmetics in Tamil Nadu. Over all, The findings show that AI tools greatly increase consumers' emotional engagement by boosting their sense of trust, recognition, and personalization. It has found that personalization increases perceived brand intimacy and deepens emotional attachment

B) SUGGESTIONS

To maximize AI-personalized cosmetic adoption, brands should tailor outreach based on employment segments offering corporate wellness pilots and exclusive demos for professionals and entrepreneurs, while providing low bandwidth, multilingual virtual try on tools and transparent privacy messaging for lower income and rural users; reinforce trust through visible data security badges and real time feedback adaptation, and train frontline staff to explain AI benefits, ensuring that contextual relevance, customization and interactivity drive higher emotional engagement and sustainable brand loyalty.

C) CONCLUSION

This exploratory study underscores that employment related factors such as occupation, income, and digital exposure at work significantly shape Indian consumer's awareness and adoption of AI personalized cosmetic branding, especially among urban, 21-40 years olds, entrepreneurs and professionals, who value contextual relevance, customization, and transparent data practices. While the purposive sample (n=192) offers valuable insights, its geographic confinement and reliance on self reported data limit generalizability, calling for larger, longitudinal research across regions. Aligning AI tools with workplace digital literacy and cost value balance can thus drive emotional engagement, self development, and sustainable brand loyalty in India's fast growing cosmetics market.

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