

**THE IMPACT OF AI-BASED PERSONALIZATION MARKETING OF BRANDS
(WITH SPECIAL REFERENCE TO NYKAA)**

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ABSTRACT

Everybody knows the craze and love for machines of GenZs and GenAlphas but due to the high consumption of social media and online shopping, sometimes it's very difficult for the brands to just rely on their high quality products that are just there in the market without any marketing.

Especially, if we talk about beauty industry, we all know how cluttered it is and entering a market where trends matters the most, spending a worthwhile amount of money on marketing is not a waste.

In recent trends, AI is transforming the beauty product marketing trends by enabling personalized and efficient customer experiences. Through personalized recommendations and virtual try-ons, AI is a total game changer and if brands don't adapt to this then there will be very less chance of their survival in this fast moving market.

By leveraging AI, beauty brands can deliver more personalized, engaging and data-driven customer attraction and marketing strategies, increasing sales and enhancing customer loyalty.

If we take an example of NYKAA, a leading Indian beauty and fashion retailer giant, leverages AI in its marketing strategies to enhance customer satisfaction, optimize product recommendations, and drive personalized marketing techniques.

NYKAA's marketing techniques includes AI tools used by their marketing team and if we focus on that then we will get to know that how effortlessly and smoothly NYKAA adopted the AI-driven marketing techniques and they have released their virtual try-ons and in the beauty industry people are more willing to buy products if they know how they are going to look on their skin.

Keywords : AI-driven marketing, AI-based personalization, shopping patterns, Personalized Communication

INTRODUCTION

AI-based personalization has dramatically changed the way a brand communicates with consumers, resulting in profound changes within consumer buying behavior. Using advanced data analytics, machine learning, and predictive algorithms, companies can provide outstandingly tailored experiences that map individuals' preferences and needs, which is a tremendous advantage for consumers themselves. This happens most predominantly in digital retail, particularly in brands such as *NYKAA*, a leading Indian beauty and personal care platform, which have adopted AI- driven personalization to model their marketing techniques and improve consumer engagement

Marketing with AI-Based Personalization

Marketing using AI-based personalization entails the use of artificial intelligence technologies to customize marketing content, product suggestions, and communication strategy to suit the specific behavior, preferences, and demographics of an individual customer. Here are some of the ways:

- **Product Recommendations:** AI scans past browsing and purchase history to suggest products within the customer's preferences.
- **Personalized Communication :** AI-powered chatbots and recommendation engines send targeted messages, offers, and content.
- **Dynamic Pricing :** AI systems can change prices based on consumer demand, purchase history, and behavior.
- **Behavioral Targeting :** AI traces consumer behavior across one platform and another to personalize advertisements and marketing content.

AI-based personalization greatly influences consumer behavior while purchasing due to deeper Engagement It results in higher engagement as a targeted marketing strategy towards specific consumer needs, making the rate of conversion higher.

REVIEW OF LITERATURE

Ramanathan et al. (2019)- "AI-driven customer relationship management (CRM): The key to brand growth" :- this paper very generously focused on how AI- powered CRM systems enhances customer engagement and create loyal users and retain them, and directly influencing consumers buying patterns.

Dzyabura, D., El Kihal, S., Hauser, J. (2019) - "AI and transfer learning: Revolutionizing customer behavior analysis in marketing":- this paper finds out the use of AI and transfer learning to enhance marketing models that predict consumer behavior and convey a 'not buying anything customer into sticking to the website and frequently buying something customer.

Keegan, J. (2019) -"The role of AI in content personalization: A case study of Netflix":- this paper revolves around how Netflix's AI- powered recommendation system influences user engagement and consumer's consumption behaviour. This paper focuses on how to analyze consumer's data to send them personalized recommendation so that they stick by your website.

Firat, D. & Lee, S. (2020)- "AI and consumer behavior: Personalization as a key driver in retail business" :- this paper investigates upon the topic that how intensely it is important to send AI-based personalized product recommendations to enhance retail business and increased consumer satisfaction and loyalty.

Lempel, M. (2020) - "The impact of AI on personalized music recommendations and consumer behavior: A Spotify case study":- this paper delves into a music world star brand Spotify and focuses on how AI- based personalization on Spotify influences user engagement and premium subscription.

Huang, J. % Wang, Y. (2021)- "AI and consumer insights: Personalized marketing techniques" :- this research paper focuses on how AI helps brands uses consumer data for personalized recommendation marketing, enhancing their purchase decision and retention and explores how an individual consumer can become their buyer and a permanent consumer of their brand.

Chintalapati, P. & Pandey, M.(2022)- "AI-powered chatbots in personalised marketing: Sephora's strategy" :- this paper unflods secrets of another beauty market giant Sephora and finds out how Sephora uses AI- driven chatbots for delivering personalised customer experiences and its impact on their overall sales.

Gao, Y. & Liu, H. (2023) - "Artificial Intelligence-enabled personalization in interactive marketing: A customer journey perspective":- this paper discusses about AI-enabled personalization (AEP) throughout the race of enhancing customer satisfaction and focusing on managerial recommendations for optimizing AI applications in marketing.

Gera, R. & Kumar, A.(2023)- Artificial Intelligence in consumer behaviour: A systematic literature review of empirical research" :- this paper primarily focuses on analysis of empirical research on AI and its influence on consumer behaviour across various marketing contexts and this paper also focuses on how drastically consumer buying behavior changes with the emerging trends.

Panwar, S., & Sharma, M. (2022) -"Digital Marketing and AI: A Study on Personalization Strategies of NYKAA”:- This paper finds out the role of AI in landscaping the marketing algorithm, with a focus on NYKAA. It discusses how AI algorithms, including machine learning and natural language processing, enable personalized customer experiences through recommendations, tailored content, and targeted promotions.

HYPOTHESIS OF THE STUDY

H₀ - There is no significant relationship between AI-based personalization marketing and brand recognition.

OBJECTIVE OF THE STUDY

- To analyze how the specific use value of AI in different market sections.
- To identify and discuss key AI application for marketing
- To identify how AI will take over traditional marketing techniques.
- To analyze how new brands will grow with the help of AI.

RESEARCH METHODOLOGY

During the period of this research project, the aim is to find out the impact of AI based personalization marketing in brands, so the methods for study that will be used is mixed-method approach and this will be used to understand the key aspects of AI in marketing especially in the field of beauty products.

Sources for quantitative data collection- qualitative data will be collected from academic papers and relevant articles to find out the impact of AI based marketing techniques adopted by NYKAA.

Sources for quantitative data collection- quantitative data will be collected from official website of NYKAA and different other articles that tracks the level of success of NYKAA before and after the use of AI in marketing

Sources of primary data collection- During this period of time the research methodology

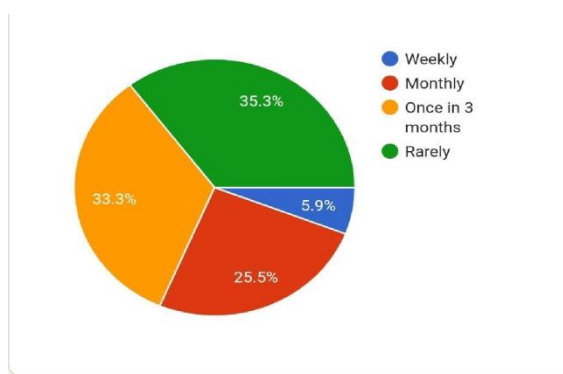
involves both primary and secondary data collection. The primary data will be collected through convenient sampling and will be taken through google forms with the help of questionnaire.

Sources for secondary data collection - Secondary data will be collected through relevant research papers and articles already publishes in this field.

DATA ANALYSIS AND INTERPRETATION

For collecting primary data, a questionnaire has been made in the form of Google Forms. A total of hundred responses has been collected and their interpretations are as follows:

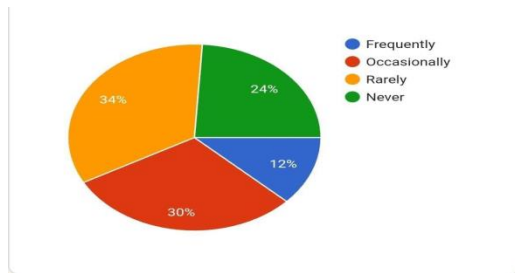
How often do you shop for beauty or personal care products online?



This chart shows that people tend to shop online in 3-5 months interval and very less people are there who shops frequently.

Online shopping in the infrequent majority: More than 70% of these buyers shop online not more often than once every three months, or 35.3%, which may indicate that online shopping may still not be a habit for most. Potential growth through the weekly shopper: Infrequent shoppers represent an important opportunity to grow as 5.9% of all weekly shoppers and may become more frequent shoppers if online shopping continues to prove to be more convenient, with better offers or more diverse products.

How frequently do you shop from NYKAA?

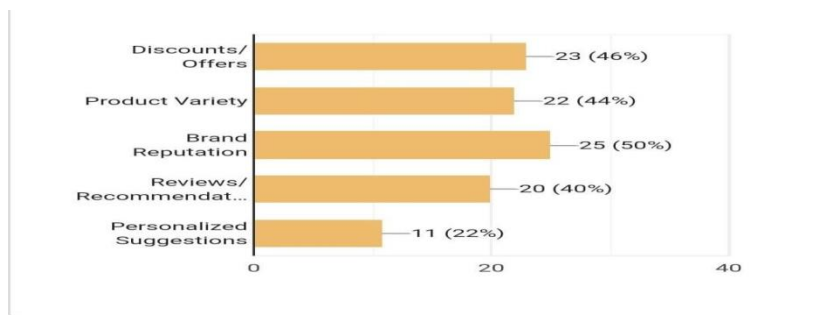


Potential in occasional shoppers: The 30% of the occasional shopper category holds potential, because one can make them shop more often through incentives, presentation of the right experience, or through better engagement.

Large proportion of infrequent and never shoppers: A large 50 percent of the respondents did not have much interaction with NYKAA or had never seen the brand. Which essentially requires strong retention strategies coupled with better user experience and marketing towards this huge group.

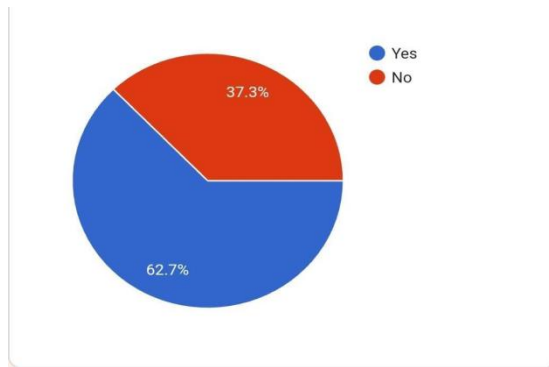
Low-frequency customers: Only 12% shop frequently. This is the challenge for NYKAA as it cannot develop a core customer group. Building this base can be achieved by working on the pain points or strengthening incentives toward loyalty.

What factors most influence your decision to purchase from NYKAA?



Personalized Recommendations (11): The least influential is personalized recommendations, with only 11 respondents who said it's important, or 22%. Although personalization is an excellent vehicle for augmenting customer experience, NYKAA's buyers seem to think that this is less important at this time than other factors, such as reputation and discounts. NYKAA potentially has future success in this area as perhaps a tool for increasing the chances of customer engagement and subsequent repeated buying.

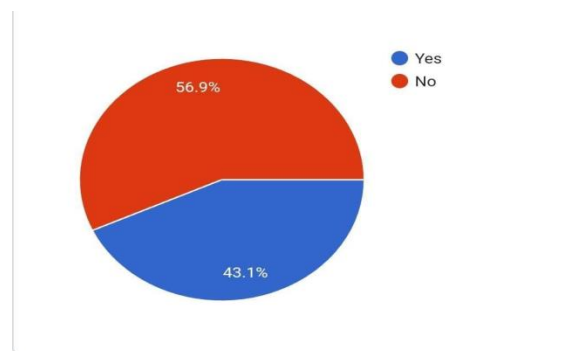
Are you aware that NYKAA uses AI-based personalization techniques for marketing and product recommendations?



High awareness. The 62.7% consumer awareness about AI-based personalization suggests that the company has comprehensively integrated these technologies into its user experience. It further means that, in general, all the personalization features like product recommendations, targeted offers, and even content personalization are successful.

Opportunity: Where the 37.3% of customers unaware about the usage of AI, NYKAA has an opportunity to educate them about how personalization of AI helps in their shopping process and encourages them more. These aspects would be shown in its advertisements, and it would say that according to a user's preference, some product recommendation would save time or be the perfect match.

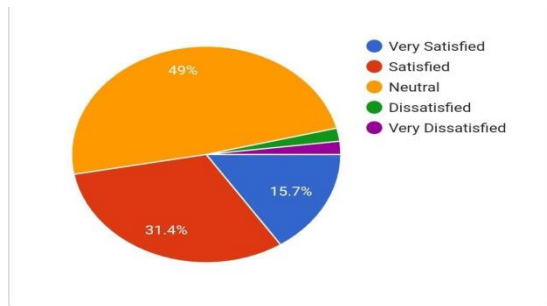
Have you ever made a purchase from NYKAA based on a personalized recommendation?



Yes (43.1%): Those who have bought at least one product from NYKAA because of the AI-based personalization 43.1%. As a result, the fact that this percentage is really high signifies that a huge portion of customers are being influenced by AI-based marketing approaches at NYKAA, while making purchases. For example, product recommendations based on browsing history, preferences, or purchases will definitely entice the major part of the customers, thereby uplifting the shopping experience and conversion rates.

No (56.9%): However, most-spend 56.9% of the time-not used it to make a purchase. It can imply that over half of the customers find the AI recommendations either not attractive or not relevant enough, or they love making product decisions without AI's suggestions. That means it may imply an area where improvement is called for, perhaps in the accuracy or personalization or communication of such recommendations.

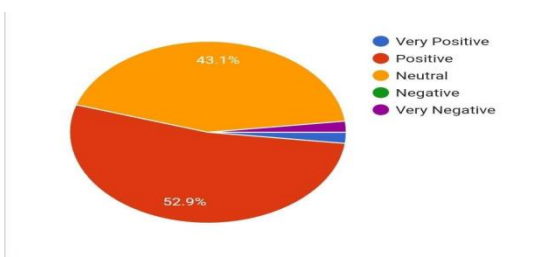
How satisfied are you with the accuracy of personalized recommendations provided by NYKAA?



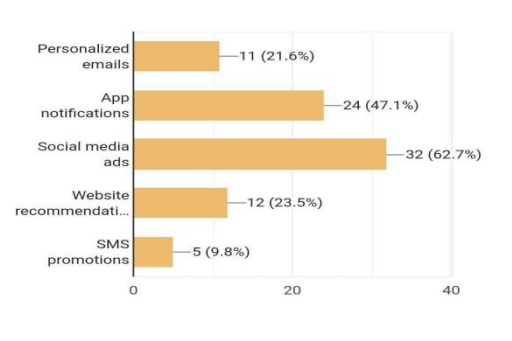
Improvement Area: As many as 47.1% are satisfied or very satisfied, but the majority-at 49%-are neutral. NYKAA could fine-tune its recommendation algorithms to get the remaining majority in the neutral category to be satisfied or very satisfied.

General Positive. Only 3.9% are dissatisfied, so this means that the system will not generate lots of negative feedback most of the time, but as user satisfaction grows, the interaction between the users can get better.

How do you feel about NYKAA using AI to analyze your shopping patterns to offer personalized recommendations?



What type of personalized marketing from NYKAA do you engage with



It has a rather high engagement rate of 64%, indicating that its customers prefer discovering and engaging with offerings from NYKAA through social platforms. The second was App Notifications, implying that even direct push notifications from applications could get noticed.

HYPOTHESIS TESTING

Chi-Square Test is a non-parametric statistical test, and it tests whether there is an association between categorical variables or if the observed distribution of data fits an expected distribution. It is quite useful in cases where data can be classified into categories, such as gender, preferences, or education levels, rather than continuous numerical data.

Mathematical Formula for Chi-Square:-

The chi-square statistic

Is calculated using the formula:

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

Where:

O = Observed frequency for each category E = Expected frequency for each category

Each pair of observed and expected values contributes to the total chi-square statistic, which increases as the observed frequencies deviate from the expected frequencies.

CHI-SQUARE TESTING:-

From a practical point of view we will test the hypothesis that whether the awareness of use of AI based personalization of NYKAA among people affected their buying decisions or not.

H₀- There is no significant relationship between AI-based personalization marketing and brand recognition.

H₁- There is a significant relationship between AI-based personalization marketing and brand recognition.

OBSERVED FREQUENCY

	Are you aware that nykaa uses AI based personalization marketing and product recommendation?	Are you not aware that NYKAA uses AI based personalization marketing and product recommendation?	Total
Have you ever made a purchase from NYKAA based on personalized recommendations?	38	4	42
Have you not made any purchase from NYKAA based on personalized recommendations?	24	34	58
TOTAL	62	38	100

STEP-2: Calculate Expected Frequencies

	Are you aware that NYKAA uses AI based personalization marketing and product recommendation?	Are you not aware that NYKAA uses AI based personalization marketing and product recommendation?	Total
Have you ever made a purchase from NYKAA based on personalized recommendations?	26.04	15.96	42
Have you not made any purchase from NYKAA based on personalized recommendations?	35.96	22.04	58
TOTAL	62	38	100

STEP-3 : CREATE CONTINGENCY TABLE

	OBSERVED FREQUENCY	EXPECTED FREQUENCY
AB	38	26.04
aB	4	15.96
Ab	24	35.96
ab	34	22.04

STEP-4: CALCULATE CHI-SQUARE STATISTICS

(O-E)	(O-E) ²	$\frac{(O-E)^2}{E}$
11.96	143.04	5.5
-11.96	143.04	8.9
-11.96	143.04	3.9
11.96	143.04	6.5
	$\frac{(O-E)^2}{E}$	24.8

STEP-5: DETERMINE DEGREE OF FREEDOM AND CRITICAL VALUE

Degree of Freedom = Number of Categories – 1 Degree of Freedom = 2-1

Degree of Freedom = 1

CRITICAL VALUE FOR DEGREE OF FREEDOM 1 IS 3.48.

STEP-6: MAKE A DECISION

Since, Chi Square = 24.8 > 3.48, we reject the null hypothesis.

If the value of Chi- square is greater than the critical value then we reject the null hypothesis, but if the value of Chi- square is lesser than the critical value then we accept the null hypothesis.

So the critical value for degree of freedom is less than the chi-square value then we will reject the null hypothesis and accept the alternative hypothesis that shows that there is significant relationship between the use of AI based personalization marketing and brand recognition.

So from this we can conclude that use of AI based personalization marketing promotes great impact on brand recognition and influences the consumer's buying behavior.

AI-based personalization in marketing impacts many substantial factors of the consumer purchasing behavior by delivering unique experiences relevant to customers that add up to a better increase in engagement and satisfaction for consumers. Brands will also connect with their customers through more customized recommendations and messages and customized offers. That personalization would create quick sales, but more importantly, it can also strengthen recognition with the brand, which makes consumers remember and prefer it even in the long run.

RESULT AND CONSLUSION

AI-based personalization techniques of marketing have refurbished the entire approach in which brands interface with the consumers. This section includes a few critical implications about the performance level of these brands, consumer satisfaction rate, and dynamics at market level.

1. Increased Engagement: AI-driven personalization's customized messaging and offers would evoke higher engagement and facilitate brands to engage with consumers on matters concerning their interests, leading to increased possibilities of relevant click-through rates and time spent on brand platforms.
2. Higher Conversions: Personalized marketing can bring a lot higher conversion rates. Brands by studying the behavior and taste of the consumers can offer those products or services at an appropriate time that not only makes shopping a better experience but also

sells. More importantly, it has been proven that it yields higher ROI when compared to other traditional strategies.

3. **Customer Loyalty:** Personalized experience delivery increases customer loyalty. Customers value brands that have knowledge of their needs and cater to them. Through such brands, customers become repeat customers and maintain a long-term relationship with such brands. According to this research, brands that leverage AI personalization strategies observe a significant reduction in churn rate.
4. **Data-Driven Decision Making:** AI personalization relies on the use of large amounts of data for brands to be able to gain deep insights into how consumers behave. Brands can therefore make informed decisions on developing products, marketing strategies, and inventory management, all of which are enhanced for operational efficiency and effectiveness.
5. **Competitive Advantage:** With overcrowded markets, the brand would go ahead with AI-based personalization to provide competitive advantage as only brands differ in personalized experiences to attract customers and retain them.

CONCLUSION

The findings of this study indicate that AI-based personalization marketing techniques can significantly improve brand performance across different metrics. Brands, which implement the strategies better, can achieve higher engagement levels, a higher conversion rate, customer loyalty, and more profitability. But for long-run success, trust among the consumers is a prerequisite, which is built on ethical business practices. Since the domain of the digital marketing scenario continues changing, the insights are aptly underpinned and point towards adaptability and quick responsiveness to changing consumer demand, paving a way towards future innovations of personalized marketing.

The research indicates the deep impact of AI-based personalization marketing techniques on brands, enhancing engagement, conversion, and loyalty. However, for these benefits to be maximized, brands need to navigate ethical considerations and remain responsive to consumer expectations. Future research directions can enhance understanding and implementation of personalized marketing strategies, ensuring that brands not only succeed in the marketplace but also foster trust.

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