

RESPONSIBLE AI-DRIVEN MARKETING AND SALES CONVERSION: EXPLORING CONSUMER TRUST, PERSONALISATION AND PRIVACY ISSUES IN INDIAN E-COMMERCE

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ABSTRACT

With growing use of artificial intelligence (AI) in digital marketing, new opportunities arise for attracting consumers, tailoring promotion efforts and converting leads into sales. With the help of AI, products recommendations, targeted advertisement, analytics and conversational agents become a valuable resource for improving marketing efficiency and sales conversion rates. Still, issues related to consumer privacy and algorithmic transparency might affect the effectiveness of such tools. This research proposes a model that will be used to investigate the influence of AI-driven marketing personalisation on consumers' purchase intentions and sales conversion in Indian e-commerce context. Particularly, it focuses on the effects of personalisation perceptions, consumer trust, perceived transparency and privacy concerns on consumer response to marketing practices with AI tools. Based on the Stimulus–Organism–Response framework and technology adoption trust perspective, hypotheses will be developed for further examination. Quantitative research design will be applied with the help of a structured questionnaire administered to consumers with experience of online shopping. Reliability analysis, confirmatory factor analysis and structural equation modelling will be possible options of data analysis depending on the final size and design of the sample. The study will contribute to sales and marketing literature by integrating the concepts of consumer trust and privacy into an understanding of AI-driven marketing effectiveness. Managerial significance of this research lies in providing guidance on balancing personalisation and transparency and responsible approach to consumer data collection.

Keywords: Artificial intelligence; digital marketing; sales conversion; consumer trust; personalisation; privacy concerns; e-commerce; India.

1. INTRODUCTION

Digital transformation has significantly altered the relationship between marketing operations and sales performance. In traditional marketing, organisations use wide segmentation of target audience, standardised messages and sales reports as the bases for their decisions. In turn, current digital marketing allows companies to analyse interactions with consumers, predict their purchase preferences and send tailored messages.

Nowadays, artificial intelligence is actively utilized in such areas as product recommendation, automated customer service, targeted advertising, customer segmentation and predictive sales analytics. Such applications provide the ability for organizations to identify their potential customers and create marketing interventions that suit the needs of the latter and their behaviour on the Internet. At the same time, the success of such marketing initiatives is determined not only by the technical side of the processes, but by the attitude of consumers to the latter.

The use of personalization in marketing communications may become relevant by creating offers for consumers that are in line with their preferences. Relevant communications may have positive effect on the engagement of consumers and increase purchase intention. On the other hand, overly personalized ads may become disturbing because of the possibility of collecting and processing personal data of consumers without transparency and permission from the latter.

At the same time, the level of consumer trust becomes another factor that should be considered in the context of AI enabled marketing. Consumers may react positively to recommendations which seem relevant, accurate and transparent for them. However, the issues with privacy, data misuse and lack of clarity may affect their trust in the platform or desire to do something on the platform.

The difference between purchase intention and sales conversion is crucial here. The former is defined as the intention of the consumer to buy some goods, while the latter means completing some desirable commercial actions like placing an order. While purchase intention is a crucial marketing outcome, it does not guarantee the completion of the action itself.

In this context, the present paper provides a framework for studying the effects of AI driven personalization, consumer trust, transparency and privacy concerns on purchase intention and sales conversion in Indian e-commerce.

2. REVIEW OF LITERATURE

2.1 AI-driven personalization in digital marketing

Personalization through artificial intelligence means the application of computational methods for making customized recommendations, advertisements, and customer relations based on consumer characteristics and behavioral data. Such a strategy might help to increase the relevancy of marketing communications and enhance the efficiency of promotional activities.

Personalized marketing could minimize search efforts and assist customers in finding out about the existence of products that suit their requirements. The effectiveness of personalization would depend on consumers' perception of appropriateness, usefulness, and consistency of recommendations.

2.2 Consumer trust in AI-enabled marketing

The importance of trust should be highlighted as one of the main factors in digital transactions since consumers often do not have an opportunity to check out products themselves or communicate with sellers. In the case of AI-based marketing, such factors as reliability of recommendations and proper data handling could affect the level of trust.

The development of trust towards digital platform could lead to consumers' acceptance of its recommendations and further transactions. In other words, trust could become an intermediary between personalized marketing and purchase intentions.

2.3 Transparency and privacy concerns

Transparency could be defined as the degree to which consumers perceive the mechanisms of information usage and the generation of recommendations. It could allow customers to evaluate the legitimacy of AI-based marketing practices.

Privacy concerns come up if consumers feel there are risks in collecting, processing, storing, or sharing their information. Privacy concerns can undermine the effect of personalization

since consumers may feel that personalization does not provide enough benefits to warrant the risks associated with privacy.

2.4 Purchase intention and sales conversion

Purchase intention shows how much a consumer is willing to buy a product. On the other hand, sales conversion denotes the execution of a specific action. Therefore, these two concepts are related but are different from each other.

It is crucial for marketing managers to know not only whether AI-based recommendations impact the purchase intentions of consumers but also whether these intentions are turned into actual commercial activity. Hence, it would be necessary to conduct a study that would separate these two variables when there is enough data to do so.

2.5 Research gap

Several studies have been conducted concerning AI marketing, consumer experience, trust, and purchase intention. However, an integrated study of responsible AI marketing, privacy concerns, and the intention-to-conversion process within the Indian e-commerce environment provides an interesting field for further empirical research.

The contribution of the study would be its ability to analyze both the advantages of personalization and possible limitations because of trust and privacy concerns. Thus, the contribution of the study will depend on its novelty, measures used, and results obtained empirically.

3. RESEARCH OBJECTIVES

1. To study the connection between personalization through AI technology and consumer purchase intention.
2. To study the effect of personalization through AI technology on consumer trust.
3. To study the correlation between transparency and consumer trust.
4. To study the effect of privacy concerns on consumer reaction to marketing through AI technology.
5. To study the relationship between purchase intention and sales conversion.
6. To suggest management recommendations for enhancing AI-based marketing effectiveness through responsible use of data.

4. RESEARCH HYPOTHESES

H1: AI-based personalization is positively correlated with customer purchase intention.

H2: AI-based personalization is positively correlated with customer trust.

H3: AI-based marketing transparency is positively correlated with customer trust.

H4: Customer trust is positively correlated with purchase intention.

H5: Consumer trust in privacy issues negatively moderates the influence of personalization through AI on consumer trust.

H6: Sales conversion has positive association with purchase intentions of consumers.

H7: Purchase intention of consumers is affected by consumer trust which mediates the influence of personalization through AI.

These hypotheses are generated for empirical examination and do not represent facts or conclusions.

5. RESEARCH METHODOLOGY

5.1 Research design

For the purpose of the research, a quantitative research design will be employed. The research design will be cross-sectional in nature. Primary data will be collected using a well-structured questionnaire.

5.2 Research population and sampling

The sample population will consist of individuals in India that have transacted on e-commerce sites and come across recommendations, advertisements, and marketing activities that use AI technology.

Purposive sampling can be used to select participants that are experienced in the online purchasing process. The sample size is supposed to be selected based on statistical power considerations, complexity of the proposed model, and the estimation method to be used.

5.3 Data collection instrument

The survey instrument should contain well-known measurement constructs drawn from the peer-reviewed literature. It will assess:

- Personalized recommendation systems (relevance and value of recommendations).
- Consumer trust (trust in the site and its marketing activities).
- Transparency perceptions: clarity with respect to the use of consumer data and recommendations.
- Privacy concerns: perceptions of risk in the process of collecting and using personal data.
- Purchase intention: declared intent to purchase the recommended products.
- Sales conversion: ideally a confirmed purchase, but a properly defined transaction may work as well.

A preliminary study must be performed to evaluate the appropriateness of the survey before conducting the main one.

5.4 Data Analysis

Methods of analysis can include descriptive statistics, missing value analysis, reliability analysis, validity analysis, and hypothesis testing. The structural equation modeling technique may be considered in cases where the conditions allow it to be used.

Analysis will have to take into account the nature of direct relations, mediation, and moderation. If sales conversion will be analyzed through transaction data, the analysis will have to consider the nature of the dependent variable being binary or of some other structure. In case when the purchase intention is only assessed through self-report, the study will not be able to report that purchase intention is a verified sales conversion.

5.5 Ethical considerations

Participants will have to consent to participate in the study. The research will have to ensure confidentiality of the participants, gather only necessary data, and adhere to all applicable requirements from ethics and data protection institutions.

6. PROPOSED CONCEPTUAL FRAMEWORK

The study suggests the following relationships:

AI-based personalization → Trust in AI → Purchase intention → Sales conversion

Transparency perception is considered as an antecedent of consumer trust, whereas privacy concerns are considered as a factor which reduces the effect of personalization on trust.

This research framework combines possible advantages of personalized marketing and potential obstacles in its implementation, due to consumer concerns.

7. EXPECTED THEORETICAL AND MANAGERIAL CONTRIBUTIONS

There are three expected research contributions, but they should be validated empirically.

First, it might widen the scope of Stimulus-Organism-Response approach, by using personalization and transparency as marketing stimuli, trust as consumers' assessment, and purchase intention and conversion as results.

Second, it might provide more balanced understanding of AI-enabled marketing, because it considers both potential advantages and risks of personalization.

Third, it might help marketing managers design better customer journeys through the alignment of personalized recommendations with transparent communication, responsible data usage and measurable sales results.

In practice, the suggested framework would allow organizations to understand the need to measure the impact of AI-based marketing not only in terms of engagement and clicks but also in terms of consumer value creation, trust formation and conversion completion.

8. LIMITATIONS AND FUTURE RESEARCH

Cross-sectional survey can reveal correlation between factors but it cannot prove causality by itself. In addition, self-reported intention of purchase can be different from actual purchase behavior. Future research can include longitudinal studies, controlled experiments and usage of anonymized transactional records to analyze the potential of AI personalization in increasing conversion rates over time.

Future research can explore consumers' responses to AI personalization in different product categories, demographic segments and e-commerce platforms. It can investigate the possibility of differences in effect of personalization due to consumers' digital literacy, prior experience with AI and their perceptions of platform credibility.

CONCLUSION

Personalization based on AI allows organizations to make their digital marketing activities more relevant and to link customer engagement with sales performance more tightly. However, at the same time, the success of such tools is defined by more factors than just technological sophistication.

This paper creates an integrative model that will be used in studying the relationship between these constructs in Indian e-commerce. With a clear distinction made between purchase intention and sales conversion, this study highlights the significance of linking the perceptions of consumers to tangible business results. Empirical validation of the proposed hypotheses is necessary to make any claims regarding the significance and direction of the relationships.

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