

Interactive Marketing in the Toll Road Industry: Strategies to Increase User Engagement in the Digital Era

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ABSTRACT

Interactive marketing is a two-way communication strategy between companies and consumers that utilizes digital technology to create a more personalized and responsive experience. This study aims to analyze the effectiveness of interactive marketing in increasing consumer engagement and its impact on brand loyalty. In the context of the toll road industry, interactive marketing has become relevant with the increasing digitalization of services such as electronic payments, traffic information applications, and loyalty programs. Through literature review and case analysis, it was found that an interactive approach can enhance the emotional connection between users and toll road service providers, strengthen trust, and encourage repeat use. Therefore, toll road operators need to adopt data-driven and participatory marketing strategies to remain relevant in the modern digital transportation ecosystem.

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1. Introduction

The development of information and communication technology over the past two decades has brought about major transformations in various aspects of life, including marketing. Digitalization has transformed the way companies interact with consumers, fostering a more dynamic, open, and participatory marketing model. While marketing previously tended to be one-way—where companies were the senders of messages and consumers were the passive recipients—the paradigm has now shifted toward more responsive and integrated two-way communication.

In the toll road industry, this change is evident in the increasing use of mobile apps and electronic payment systems by operators to improve user service. Modern consumers demand a fast, efficient, and digitally accessible experience. Furthermore, toll road users are increasingly relying on real-time information such as traffic conditions, estimated travel times, and the availability of rest areas.

The concept of interactive marketing emerged as a response to this change. Interactive marketing is an approach that utilizes digital technology to create two-way communication between

companies and consumers. This strategy enables real-time dialogue, allowing companies to respond to consumer needs and preferences quickly and accurately. In the context of toll roads, this can be realized through digital customer service applications, chatbot features, and interactive social media content from operators.

Furthermore, interactive marketing focuses not only on delivering information but also on creating engaging, relevant, and emotional brand experiences for consumers. Toll road users who feel engaged and valued in the communication process tend to develop stronger relationships with service providers, ultimately contributing to increased loyalty and repeat usage.

Thus, a thorough understanding of interactive marketing is crucial for toll road operators. This article will discuss the concepts, strategies, and impact of interactive marketing on user engagement and loyalty to toll road services, based on a literature review and analysis of relevant cases in today's digital era.

2. Literature Review

Interactive marketing has been widely discussed in various studies as an effective approach to increasing consumer engagement through two-way communication based on digital technology (Mahmoud, 2020; Yuliana, 2022). According to Wijaya (2013), modern marketing strategies emphasize consumer emotional engagement as the key to loyalty, which is further strengthened by the presence of social media and data-driven applications. In the context of public services such as toll roads, Firdaus and Fasa (2025) show that service digitization can encourage user participation through features such as gamification, chatbots, and content personalization. Furthermore, Nawawi and Nur (2025) emphasize the importance of relevant and user-experience-driven content strategies in shaping positive perceptions of service brands. This literature demonstrates that the application of interactive marketing in the toll road sector not only enables efficient information delivery but also builds long-term relationships based on trust and digital experiences.

3. Method, Data, and Analysis

This study uses a descriptive qualitative approach with literature review and case analysis methods to explore the application of interactive marketing and its impact on consumer engagement and brand loyalty. Data were collected from various secondary sources such as scientific journals, books, professional articles, and industry reports covering the topics of digital marketing, consumer behavior, and interactive communication technology.

This update also includes a study of toll road operators such as PT Jasa Marga, PT Hutama Karya, and the Toll Road Regulatory Agency (BPJT), which have implemented interactive technology. The primary focus is on the interactions created through digital toll road applications, the level of user engagement with the features provided, and the impact on user perception and loyalty to the service.

The analysis focused on digital communication strategies, the implementation of interactive technologies such as live chat and loyalty points systems, and the results achieved in increasing toll road user engagement. The data analysis technique used was content analysis, identifying key themes and patterns of effective interactive strategies as a basis for drawing conclusions.

4. Results and Discussion

In its implementation in the toll road sector, interactive marketing has evolved into a crucial strategic tool for creating a user experience that is not only efficient but also more personalized and

memorable. Toll road operators recognize that today's users demand not only speed in service but also emotional engagement that can foster long-term loyalty. Therefore, various strategies have been implemented to strengthen two-way communication and enrich digital interactions between users and service providers. Some key strategies deemed effective in this context include:

Gamification

Gamification is one of the most compelling approaches in interactive marketing because it transforms functional interactions into fun and motivating activities. In the context of toll roads, gamification has been integrated into applications such as Jasa Marga Integrated Digitalmap (JID) and similar digital services, where users can earn points based on the number of trips, off-peak usage times, or even safe driving behavior. These points can then be exchanged for various incentives such as toll discounts, vouchers for rest area use, and access to premium traffic information. These programs not only increase user retention but also encourage more responsible driving behavior, while strengthening users' emotional connection to the service.

User-Generated Content (UGC)

UGC strategies leverage user-generated content as part of marketing campaigns. In the toll road industry, this is realized by encouraging users to share their stories or experiences while using toll facilities, such as during their homecoming trip, discovering interesting spots at rest areas, or receiving excellent service from toll officers. A social media campaign themed "Story of Your Journey on the Toll Road," for example, encourages users to post photos or testimonials, which are then reshared by operators. This strategy not only increases interaction and engagement on social media but also creates authentic social proof, which helps build a positive image and public trust in the services offered.

Live Chat and Chatbot

The development of artificial intelligence technology has enabled toll road operators to improve the quality of customer service through the integration of live chat and chatbot features. These services are now available not only on the operators' official websites but also through mobile apps and instant messaging platforms like WhatsApp and Telegram. One example of a successful implementation is the Toll Road Regulatory Agency (BPJT) chatbot, which provides information on toll rates, quickest route recommendations, estimated travel times, and real-time traffic updates. The presence of this digital service provides added convenience for users who need quick and accurate answers without having to contact a call center. Furthermore, this system can also collect interaction data for further analysis, allowing operators to understand user needs more deeply.

Personalized Email Marketing and Notifications

This strategy leverages user behavior data to deliver relevant and timely information. Toll operators can send location-based notifications and travel history, such as suggested departure times to avoid traffic jams or information on fare discounts at specific times. For example, users who regularly travel between Jakarta and Bandung can receive specific reminders if there are service disruptions or construction work on that route. This personalized approach enhances the relevance of messages received by users, increases the open rate of digital communications, and ultimately encourages compliance with traffic regulations and loyalty to the toll road operator.

Overall Impact of Strategy

The use of the interactive marketing strategies mentioned above not only improves the quality of service perceived by toll road users but also creates an emotional bond between users and service providers. Traveling on a toll road is no longer just a routine activity but has transformed into a fun

and meaningful digital experience. With incentives, social participation, easy access to information, and personalized services, toll operators can build loyal user communities and collect behavioral data that can be used for future service development. Thus, interactive marketing in the toll road industry has transformed into a relational approach that emphasizes collaboration between companies and users, rather than just one-way transactions.

5. Conclusion and Suggestion

Interactive marketing in the toll road sector has proven to be a strategic approach that is not only tactical in conveying information but also highly effective in building long-term relationships between operators and users. This strategy marks a paradigm shift from a one-way communication approach to a dynamic two-way dialogue, allowing toll road operators to not only introduce services but also actively engage users in various aspects of digital interaction.

By integrating various digital technologies such as mobile apps, gamification features that motivate repeat use, AI-powered chatbots for rapid response, and personalized communications based on user preferences and travel history, toll road operators can create a much more relevant and contextual experience. In practice, users not only receive information on fares or the fastest routes but also feel part of a service community that listens and responds to their needs in real time.

Users who feel actively engaged and given the space to interact through digital channels are more likely to develop loyalty to a particular operator. They not only use the service regularly but also act as informal promoters through positive word-of-mouth, sharing their experiences with others both in person and on social media. This kind of loyalty is emotional and difficult to match with price promotions or discount programs alone.

Beyond creating deeper engagement, interactive marketing also opens up significant opportunities for user data collection and analysis. Behavioral data collected through interactions in apps, chatbots, or other digital platforms can be transformed into strategic insights, such as travel patterns, service preferences, favorite travel times, and response tendencies to notifications. This provides operators with a competitive advantage in market segmentation, developing more targeted campaigns, and designing service innovations based on users' real needs.

However, to implement this strategy effectively, a strong foundation is needed, starting with a reliable and integrated digital infrastructure, human resource readiness in understanding and managing technology and data, and a management system that is adaptive to change. Investment in information technology must be accompanied by internal training so that all teams can collaborate across functions—between marketing, IT, operations, and customer service.

Furthermore, ethical challenges in managing users' personal data are a major concern. User trust can be lost instantly if data is used without consent or transparency. Therefore, data security and privacy protection must be key pillars of all interactive marketing initiatives. Data use must comply with applicable regulations and the principle of prudence to safeguard reputation and the sustainability of consumer relationships.

Overall, interactive marketing in the toll road industry is no longer simply a tool to introduce services or increase transaction volume, but has become an integral part of a broader digital transformation process. This strategy enables the creation of a toll road service ecosystem that is more adaptive, efficient, experience-based, and ultimately user-centric. Companies that successfully implement this strategy comprehensively and responsibly will be able to build a strong and sustainable position in the future digital transportation landscape.

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