

# The Effectiveness of AI in Marketing "Spotify Wrapped": How it Affects Indonesian Customer's Engagement

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**Abstract:** With the rise of Industry 4.0, everything has become more digitalized. Many companies have started implementing technologies in their digital marketing activities to enhance productivity. Spotify is one of the companies that used AI in their digital marketing campaign called "Spotify Wrapped" from 2016 until today. With the rise of the digital campaign, many consumers were interested in the campaign and the application. There are 3 topics that will be discussed related to how Spotify Wrapped does its marketing, the impact of the campaign on user engagement, and the way Spotify Wrapped could succeed. The data will be gathered in quantitative ways through a survey which will become the primary data. A literature study from a related journal has also been conducted to gain secondary data. The final outcome from this study has found that users participate actively and passively in this marketing strategy. In order to understand the link between dependent and independent factors and the usage of AI in Spotify Wrapped and how it impacts users' engagement with the application, the analyzed data were also utilized to support the hypotheses that were developed. It also demonstrates that one of the factors influencing users' decisions to continue using the Spotify app is Spotify Wrapped. The research is constrained by the fact that it can only include 100 Indonesian respondents who have used or are presently using the Spotify app. This study looks at consumer behavior, particularly how consumers respond to personalized content and other digital marketing tools. This report also examines and offers advice on how a company might use artificial intelligence to grow its business.

**Keywords**: Artificial Intelligence, Digital Marketing, Spotify Wrapped, Customer Engagement, Personalization Marketing

# 1. Introduction

#### 1.1 Background

Nowadays, this fourth industrial revolution has transformed into something more digital. Marketing is one business sector that is becoming digitalized. Digital marketing has gained popularity among businesses recently. Based on American Marketing Association (2007), marketing is the act of organizing and executing the development, pricing, promotion, and distribution of ideas, commodities, and services to generate exchanges that meet individual and organizational goals. While digital marketing is the practice of doing promotion for goods or services via digital, which usually uses the Internet but can also use a mobile application, online advertising, and other digital media. (Desai, 2019). In its digital marketing methods, Spotify, an audio streaming service, has successfully applied artificial intelligence (AI). The company's



annual campaign, Spotify Wrapped, launched in 2016, demonstrates how AI may increase user engagement. Spotify Wrapped collects and compiles their users' activities over the previous year and allows them to share them on social media. This highlights how AI and digital marketing can effectively combine to improve user experience. Companies must adapt and embrace the changes as technology advances to enhance customer engagement. The main objective of this study is to assess how artificial intelligence technology will affect digital marketing and user engagement.

# 1.2 Research Question

- i. What is the implementation of AI in Spotify Wrapped?
- ii. How does "Spotify Wrapped" impact the engagement of the users?
- iii. In what ways can "Spotify Wrapped" be considered as a successful marketing strategy?

#### 1.3 Scope and Limitations

This study examines the effectiveness of artificial intelligence in the marketing campaign Spotify Wrapped and its impact on Indonesia customer engagement. The respondents of this study are limited to users that are using Spotify or have used Spotify. This study will be done during the time frame from January 2023 to May 2023. The first limitations are this study only focuses on researching and discussing Spotify's marketing campaign "Spotify Wrapped". Second, the questionnaire was distributed through one social media, which is Instagram. Lastly, the respondents of this study were limited to those who are living in Indonesia, which may create a different result if the data was gathered from another country.

#### 2. Literature Review

#### 2.1 Artificial Intelligence

Following the fourth industrial revolution, human reliance on technology has significantly increased. The integration of the Internet into daily activities has become prevalent. Artificial Intelligence (AI) has emerged as a prominent and widely discussed technological advancement. While the concept of AI dates back to the 1940s, the term itself was introduced in 1956 (Haenlein & Kaplan, 2019). Artificial Intelligence has been a subject of research and development for a considerable time. It can be categorized into four main types: systems that think and act like humans, and systems that think and act rationally. These categories encompass reasoning, behavior, human performance, and rationality. (Norvig & Russell, 2021). The capability of the created system to think rationally and to behave like a human being has become crucial to the use of AI in daily life.

## **Opportunities and Limitations of Artificial Intelligence**

As the world evolves, customer demands are rising. Implementing Artificial Intelligence provides companies with a competitive edge and sets them apart from competitors. Recent research reveals that around 85% of organizations believe AI can grant or maintain a competitive advantage. (Ransbotham et al., 2017). Implementing AI presents new opportunities for companies, enhances user experience, and explores new industries. While some companies perceive potential risks associated with AI, these risks can impact individuals, organizations, and society as a whole (Cheatham et al., 2019). Companies often utilize AI technology to process their complex data. But using this innovation increases the possibility of mishandling data breaches, and it can lead to reputational damage and ethical concerns, particularly in countries with privacy protection laws. While AI can bring financial benefits, its implementation may clash with established company culture and traditional business processes.



## 2.2 Use of AI in Marketing

As artificial intelligence advances, companies increasingly incorporate AI into their marketing strategies. AI is now widely used in digital marketing due to its capability to handle large and diverse datasets, machine learning capabilities, and cost-effectiveness in computing (Huang & Rust, 2021). AI can play a crucial role in marketing strategies, enabling companies to enhance their brand image, reach a wider audience, and boost customer loyalty. The three-stage framework for strategic planning, which is based on the cycles of marketing strategy, research, and action, is one of the frameworks that has been produced by one of the studies (Huang & Rust, 2021). These three cycles suggest that AI may be crucial at every stage. Mechanical, cognitive, and emotional AI intelligence are the three types of AI that may help marketers to enhance their marketing strategy (Huang & Rust, 2021). AI can be used for data collection, market analysis, and understanding consumers throughout the marketing research stage. To collect data, mechanical AI surpasses mere collection by expanding its capabilities of capturing psychographics, opinion and attitudes (Huang & Rust, 2021). To help the marketing strategy work more efficiently, they are also able to help with STP and consumer segmentation. AI could also help the segmentation by providing personalized marketing (Mishra & Pani, 2021). AI offers various capabilities that enable companies to identify patterns in unstructured data, provide optimal segmentation recommendations, and communicate effectively with target customers. This ultimately enhances marketing effectiveness by enabling companies to reach the right customers with tailored strategies (Enholm et al., 2022). AI is incorporated into marketing strategies through personalized content, recommendations, and gamification, aiming to provide experiences based on customer preferences and personal data (Chandra et al., 2022). Spotify is recognized for its unique marketing approach called Spotify Wrapped, which leverages AI to collect customer data and provide personalized recommendations. While AI offers numerous benefits for marketing, it also faces limitations and risks. One drawback is the absence of emotional understanding. Additionally, the complexity and potential lack of understanding of AI pose strengths and potential weaknesses (Bruyn et al., 2020).

# 2.3 Customer Engagement

Customer engagement is crucial to any business's marketing plan. Customer engagement can be viewed as a connection or relationship between customers and the company (Grewal et al., 2017). Customer interaction and communication with business play a crucial role. Even though they don't buy the products, but maintaining communication with them can greatly impact the business. While effective customer engagement can lead to acquiring new customers and maintaining loyalty, it does not guarantee exclusivity, as customers may switch their interactions to rival over time. Customer participation is a key factor affecting customer engagement, according to the framework created by (Vivek et al., 2012). Customer participation can be done in various ways, including word-of-mouth recommendations, spending behavior, and sharing personal data with the company. It can also encompass passive actions, like following a company on social media, and active engagement, such as attending the company's special events directly. Online customer engagement aims to increase the customer's time and attention devoted to a brand across multiple channels.

# 2.3.1 Personalization Marketing

Maintaining the relationship between consumers and businesses is, as previously mentioned, one strategy to improve customer engagement. Personalized marketing is one technique to do this among many others. Designing and creating in a way that aligns with consumer preferences is the definition of personalization (Chandra et al., 2022). To provide a better or unique experience, personalization work uses insight or data based on each customer's personal information and behavioral data (Chandra et al., 2022). Customer participation has shifted in



today's digital marketing era from offline activities like visiting a physical store or making purchases in person to online activities such as providing personal information for business purposes, following social media accounts, advertising products through online platforms, and much more. According to (Vesanen, 2005), marketers and customers both benefited from personalization. Customers who provide their data to a company face the risk of sacrificing their privacy and being subjected to spam, but they can also benefit from better preference-matched products and services. For marketers, they must invest more on brand conflict, technology, and education. However, they can also profit from higher response rates, customer loyalty, and client pleasure.

#### 2.4 The Impact of AI on Customer Engagement

The shift to digital platforms has transformed customer-company interactions, leading to new online customer behaviors. Through various forms of online customer engagement, companies can gather data to support customer decision-making processes and derive insights. In the current era, companies face the challenge of efficiently processing extensive data for personalized customer experiences. But now that machine learning has been implemented, businesses can examine and comprehend huge amounts of data related to consumer engagement behavior. We can see how data from online clients may be gathered and processed by artificial intelligence to develop an automatic response based on the conceptual framework created by (Perez-Vega et al., 2021).

# 2.5 Spotify Application

Spotify is one of the digital business Sweden-based streaming audio platforms released in 2008 by Daniel Ek and Martin Lorentzon (Tricahyono et al., 2018). When Spotify was first launched in Indonesia, it achieved 10 million users in its first year of operation. This certainly positions Indonesia as one of the countries that can be seen as a potential market (Tricahyono et al., 2018). One aspect that makes Spotify more frequently used by many people is the freemium user system it implements. Freemium itself is a strategy or business model often used by digital businesses. The 'Freemium' term is increasingly used in commerce to designate a business model focused on two products or services or a combination (Holm & Günzel-Jensen, 2017). However, in the context of Spotify, it provides two types of users: free and premium users. Free users of Spotify can access the platform for free but have limitations when listening to songs, as they will be interrupted by advertisements. They also cannot listen to songs without an internet connection and have access to other basic features. On the other hand, premium members can enjoy numerous benefits, including the ability to choose songs without listening to ads first, listen to songs offline, access exclusive release songs from various artists, and much more (Mäntymäki & Islam, 2015), which leads Spotify to have a different customer journey with other business.

## 2.6 Hypotheses of Research

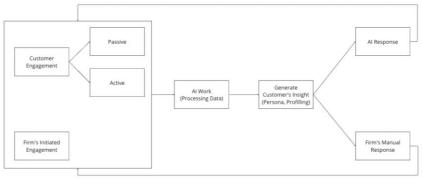


Figure 1: Conceptual Framework



Figure above shows the conceptual framework of this study based on (Perez-Vega et al., 2021) works. As we can see, it all started with customer participation, where the engagement activities can be done passively and actively. Passive engagement can be in the form of seeing the social media content, and active ways can be done in various ways, starting from actively participating in the business/campaign, sharing the business/campaign with other people, providing customer data, and many more. While firm's initiated engagement was the communication ways that the firm does to communicate with the customer. All the data collected through the connection between firms and customers are then processed through AI, which will generate customer insight. Customer insight can be in various forms, such as customer persona or customer profiling, where the firms can know the preferences of each customer. The results of the processing data are the automated response and manual response, where both can also affect engagement.

According to the literature review, users or customer engagement itself is stated to be impacted by a number of things and to have a varied effect on every firm. It is clear from the conceptual framework outlined in the previously mentioned literature review (Vivek et al., 2012) that one factor that leads to customer engagement is the customer's individual participation. As an outcome, hypothesis one is created.

 $H_1$ : Customer engagement is positively impacted by the utilization of personal customer data.

According to the conceptual framework developed in accordance with (Vivek et al., 2012), consumer participation can positively impact customer engagement. The purpose of this hypothesis is to see whether or not utilizing this data can improve customer engagement. Personalized content is one of the strategies for consumer engagement, as mentioned in the literature review. One of the results of personalization is personalized content, which offers consumers a completely unique experience by using their own data or customer insight (Chandra et al, 2022). As a result, hypothesis two is created.

 $H_2$ : The impact of personalized content on customer engagement is positive.

Because it relates to what Spotify Wrapped provides, personalized content is one of the key elements examined in the context of this study. The purpose of this hypothesis is to investigate whether or not offering clients personalized materials can increase their engagement or not.

## 3. Research and Methodology

# 3.1 Research Methodology

In this study, I have three research questions that I will answer using quantitative data collection methods. Quantitative research techniques focus on gathering and examining organized data that may be represented numerically (Goertzen, 2017). The study utilized a literature review and a survey to address the research questions. The literature review provided secondary data for understanding Spotify's implementation of Artificial Intelligence in Spotify Wrapped. The survey, conducted among Indonesian Spotify users, served as the primary data to investigate customer engagement and assess the validity of the hypotheses. Data analysis was performed using the SPSS application, employing linear regression calculations to establish relationships between the variables of interest.



# 3.2 Sampling

Data collection in this study utilized non-probability sampling due to the large population size. Although non-probability sampling has limitations, it is valuable when randomization is impossible, such as with extremely large populations. (Etikan et al., 2016). Convenience sampling was used in this study, selecting respondents based on availability and similarity. The sample consisted of 100 Spotify users residing in Indonesia who had been using the application for at least one year. Data from all respondents were processed using the SPSS program.

# 3.3 Questionnaire

The data collection involved a survey with four distinct sections, each serving a specific purpose. The initial section aimed at gathering demographic information, while the second focused on respondents' experiences with the Spotify app and Spotify Wrapped. The third and fourth sections, each containing five questions, were designed to extract data for the variables of Personalized Recommendation and Customer Engagement. These inquiries, as outlined in Table 1, delved into aspects such as personalized content, presentation, customer loyalty, engagement, and feedback integration.

Table 1: The variables of Personalized Recommendation and Customer Engagement

Variable		Sub Variable	Item (Likert Scale)
Independent Variable	Personalized Content	Customer Data (based on (Kunz et al., 2017))	Q1 - It's critical for businesses to understand what users want.  Q2 - As a customer, I enjoy being able to be provided particular details regarding my interactions with a company's products.
		Personalized Content Presentation (Chandra et al., 2022)	Q3 - As a consumer, I like personalized suggestions from businesses. Q4: It's crucial to give personalized product recommendations. Q5: Receiving a personalized suggestion improves my shopping experience.
Dependent Variable	Customer Engagement	Customer Loyalty (based on (Vesanen, J. (2005))	Q6: Product features have an impact on how loyal and involved I am with utilizing a product.  Q7 - In order to keep me interested in the product as a consumer, interaction with the company is crucial.  Q8 - As a sign of my brand loyalty, I frequently recommend the items I use to other people.  Q9: If a company knows what I want before I do, I feel more engaged with their products as a consumer.
		Customer Feedback (based on (Carlson et al., 2018)	Q10 - The digital marketing process should take client input into account when introducing new innovations to the product.

#### 3.4 Validity Test

Finding out if each prior question is still valid is the first test that has to be done. In this validity test, 10 questions on personalized content and customer engagement that are presented below will have their validity calculated. When  $r_{value} > r_{table}$ , a validity test's fundamental judgment is made. Since there were 100 participants in this study (n = 100), the  $r_{table}$  is 0.195. The results of the validity test, which was conducted using the SPSS program, are described below. Based on the validity test indicates that both the Personalized Content and Customer Engagement variables are valid. The R-values obtained for all the items under these variables exceed the critical R-value (R-table) of 0.195, suggesting a statistically significant relationship between the variables being measured. This implies that the statements and items related to personalized content and customer engagement in the survey accurately capture the constructs



they intend to assess. Therefore, it can be concluded that the survey items effectively measure the importance of personalized content and customer engagement in the context of the study.

#### 4. Data Analysis and Result

#### 4.1 Population and Corresponding

A total of 100 people successfully answered the distributed questionnaires for primary data. The same criteria were used to choose these 100 individuals by convenience sampling. The outcomes of the demographic characteristics of the 100 respondents are as follows.

- i. Gender: The survey respondents comprised 26 males, 73 females, and one person who preferred not to disclose their gender.
- ii. Age: The respondents' age distribution reveals that the largest age group is 18 25 years, with 89 individuals falling within this category. Only a small number of respondents were below 18 years (2), between 26-40 years (5), or over 40 years (4).
- iii. Current usage of Spotify application: Most respondents (98) indicated that they are currently using the Spotify application, while only two respondents reported not using it again.
- iv. Awareness of Spotify Wrapped: A significant proportion of respondents (93) have heard about Spotify Wrapped, while the rest of the seven respondents needed to be made aware of this feature.

#### 4.2 Result

In this instance, I separated the questionnaire into three parts. Respondents are questioned about their personal experiences using the Spotify app and their involvement with the "Spotify Wrapped" marketing campaign in the survey's first section. The second segment of the survey includes a number of questions that measure respondents' opinions on personalized material. This directly connects to Spotify's "Spotify Wrapped" marketing campaign, in which users receive personalised material. Then, in the last section, there were a number of questions aimed at measuring respondents' opinions on brand communication and customer involvement.

#### **4.2.1 Personalized Content**

In this area, the issue of personalized material has been addressed effectively. This section's primary goal is to demonstrate the correlation of hypothesis 1. The information that Spotify Wrapped collects comes directly from the user's personal data, which is afterwards examined using artificial intelligence. Respondents are given five statements to rate on a scale of 1 to 5.

#### **Descriptive Analysis**

According to the data that were collected on 100 respondents, the respondents showed a high level of agreement in considering the importance of companies knowing what they want (Q1) and the importance of the presentation of personalized recommendations (Q4). They also expressed positive preferences for specific and detailed information (Q2), personalized recommendations (Q3), and the impact of personal recommendations on their customer experience (Q5). However, there was slightly more variability in the responses for Q2, Q3, and Q5 compared to Q1 and Q4. These findings provide insights into the respondents' perceptions and attitudes regarding personalized recommendations.

# **4.2.2** Customer Engagement

In this area, the issue of personalized material has been addressed. This section's primary goal is to demonstrate how hypothesis 2 is correlated. Since Spotify Wrapped is a method of brand-



user communication, this is clearly significant in this study. Respondents are asked to rate five statements or questions on a scale of 1 to 5 in this part.

# **Descriptive Analysis**

According to the data that were collected from 100 respondents, the respondents generally agreed that product features affect loyalty/engagement (Q6) and that communication with the brand is important for maintaining engagement (Q7). There was a moderate inclination to share products as a loyalty behavior (Q8). They also agreed that feeling connected/engaged is influenced by the products' understanding of their wants (Q9) and that customer feedback should be considered in the digital marketing process (Q10). However, there was slightly more variability in the responses for Q8 compared to the other questions. These findings provide insights into the respondents' perceptions and attitudes regarding customer engagement.

#### 4.2.3 Regression Analysis

I used regression analysis to evaluate the data for this research. This analysis was carried out for each hypothesis to investigate the relationship between independent and dependent variables. Below are explanations of the findings and analyses for each data set.

#### **Hypothesis One**

 $H_1$ : Customer engagement is positively impacted by the utilization of personal customer data. The utilization of consumer data for marketing purposes is an independent variable, and the impact on customer engagement when a company understands what the client wants as a dependent variable.

Some results are based on the data produced by the regression analysis performed using the SPSS program. The R square for the model's summary is.248 or 24.8%. According to this, only 24.8% of customer engagement can be explained by using customer data; other factors can influence the remaining portion. The F value of these two variables is 32,386, explained by the ANOVA findings, and indicates that the regression model utilized is statistically significant. The difference between the two mean groups tested is statistically significant, which can be interpreted as a strong influence from the independent variable (use of customer data) on the dependent variable (customer engagement), and for the sig. it is written that the number sig. the result is.001.

#### **Second Hypothesis**

 $H_2$ : The impact of personalized content on customer engagement is positive. Personalized content is the independent variable, and influence on consumer involvement is a dependent variable.

Some results are based on the data produced by the regression analysis performed using the SPSS program. The model summary table shows that the square is.406 or 40.6%. According to this, using personalized content to deliver to consumers may account for up to 24.8% of customer engagement, with the remaining factors affecting the remaining percentage. The F value of these two variables is 66.910, explained by the ANOVA result, indicating that the regression model utilized may be considered statistically significant. The difference between the two mean groups tested is statistically significant, which can be interpreted to mean that the independent variable (presenting personalized data) significantly impacts the dependent variable (customer engagement), and for the sig. it is written that the number sig. the result is .001.



#### 5. Conclusion and Recommendations

#### 5.1 Conclusion

The study's findings reveal that Spotify utilizes artificial intelligence, particularly machine learning, in its Spotify Wrapped digital campaign. This implementation enables personalized content creation, enhancing customer decision-making and strengthening the Spotify-customer relationship. The study confirms that these strategies enhance customer engagement and drive profitability, supported by secondary data. Additionally, the research demonstrates the significant impact of Spotify Wrapped on customer engagement among Indonesian customers, with active participation and positive influence observed. Regression analysis and validity tests validate the interconnectedness of the data. Spotify Wrapped is deemed successful based on customer enthusiasm and influence, contributing to customer retention and continued app usage.

# 5.2 Recommendations

The fourth objective of this study is to provide recommendations for Spotify and future research. While Spotify's Wrapped campaign has become a popular trend, there are areas that could be improved. Spotify should better integrate social media platforms to reach a wider audience. Additionally, incorporating a survey section in Spotify Wrapped can enhance customer engagement and gather valuable feedback. Because customer engagement is one of the activities that can be considered as customer participation. The customer can give their real experience on the product or campaign, and the business can learn directly which part needs to be more evaluate and which one is not.

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