

CONSUMER BEHAVIOR AND ARTIFICIAL INTELLIGENCE: THE ROAD TO PERSONALIZED SHOPPING EXPERIENCES

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Abstract

The present article delves into how nowadays advancements in artificial intelligence can shape consumer behavior. Due to the novelty degree of this research topic, we choose a theoretical approach by conducting a literature review of relevant studies. We identified the main advantages and disadvantages that artificial intelligence triggers for companies and consumers, which appeared after the emergence of this cutting-edge technology. We also addressed in detail the crucial possibility for companies of personalizing shopping experiences and catering to consumers' needs with the help of AI tools integrated into next-level search platforms, which can learn clients' preferences and recommended products/services with a high accuracy degree.

Keywords: consumer behavior, artificial intelligence, personalized shopping, hyper-personalization, customer loyalty, data privacy

JEL Classification: D12, D22, M30

1. Introduction

Artificial intelligence or AI can be regarded as one of the timeliest topics and buzzwords that have conquered public discourse, business initiatives, the agenda of international bodies, professionals and regular consumers alike. Whether one runs a business, works for a business, manages big corporations, drafts public policies, or supervises international markets, analyzing the rise in AI use should be among priorities since this technology is here to stay [1]-[2]-[3]-[4]-[5]-[6]-[7].

Simply put, artificial intelligence is a technology that manages to “simulate human learning, comprehension, problem solving, decision making, creativity and autonomy” by means of computers and machines [8]. Being a “simulation of human intelligence”, AI is meant to improve with experience while constantly incorporating new information release globally [9]. Considering the rapid development and integration of this technology, the possibilities regarding its usage seem endless. Moreover, the fact that AI tools mitigate business costs and time spent performing tasks speaks in favor of this technology. In a world where “time is money”, a technology maximizing both resources could be the right answer.

Nowadays, people have become increasingly familiar with AI applications integrated into autonomous vehicles, e-commerce, language translation, marketing, natural language processing, social media, etc. [10]. Nevertheless, the exponential rise of this new technology makes people wonder about its advantages and challenges. As the CEO of Apple, Tim Cook, once stated: “What

all of us have to do is to make sure we are using AI in a way that is for the benefit of humanity, not to the detriment of humanity”.

This article explores the advantages and challenges of artificial intelligence in understanding and shaping consumer behavior through personalized shopping experiences.

The goal of the present article is to investigate how artificial intelligence enhances consumer behavior shopping experience. In this sense, we have formulated the following research objectives: O1 – theoretical insights on the artificial intelligence concept; O2 – advantages and disadvantages of artificial intelligence that influence companies’ activities on the market; O3 – advantages and disadvantages of artificial intelligence that influence consumer behavior; O4 – theoretical insights on personalized experiences.

2. The present and future of consumer behavior

On the journey to understand consumer behavior [11], companies are becoming more aware of the importance of creating consumer behavior profiles with the purpose of: adapting products and services; studying their positions on the national/regional/global market. Consumers’ needs and demands constantly fluctuate according to trends, individual cashflows and marketing promotions. In this context, AI is an important tool that can be used worldwide by companies and consumers to get in touch with the categories of products or services that they require.

For **companies** (that are interested in boosting profit margins, sales and market shares), the use of AI can create the following *advantages*:

- Most companies compile a database where they store data about their consumers, which can include elements related to: age, gender, shopping preferences, family structure, income, preferred marketing technique. With the help of AI, companies can easily extract from such databases the information needed to start a promotional campaign, create a profile of their consumers, analyze shopping behavior or general market trends.
- Companies reach consumers faster by crafting engaging personalized messages, adapted to target segments.
- Companies can create forecasts of upcoming sales and can influence consumers’ preferences toward the products and services they sell.
- Companies could rapidly explore big data with the help of AI assistants, link various financial indicators concerning performance, internal costs, productivity, run bankruptcy models and proactively identify potential financial distress, high indebtedness levels, consistent negative cashflows [12]-[13]-[14].
- AI could be used as a starting point for conducting research on the company’s image among clients or targeted segments.

From the **consumer’s** standpoint, some of the *advantages* of using AI would be the following aspects:

- Consumers can easily find information about the products or services that they would like to buy.
- Consumers have access to information about market trends and they can spot companies that adopt certain trends.
- They can create personalized messages, which might help them communicate better with companies.
- Consumers are able to identify the position of a company on the market, its leaders, market challengers or companies posing no threats to the other competitors.
- Consumers can find new possibilities for personal development and companies that can provide such services.
- They have also access to detailed information about universities programs, location, campus facilities.

Since there are two sides to every story, the use of artificial intelligence engenders the rise of certain *disadvantages* for **companies**, as follows:

- In some cases, data extracted from company databases with the help of AI can omit consumers. Hence, companies may draft an inaccurate consumer profile and can mislead marketing communications towards the target segment.
- Without correlating AI results from exploring big data, client feedback and sales indicators, marketing campaigns might send the wrong message, thus concluding in poor sales and customers’ migration towards competitors.
- Using company advertisements generated with AI (i.e., without personal touch) could seriously affect company sales because emotions and the human factor are key factors in adapted marketing communications for each target segment.

Last but not least, the set of disadvantages from the standpoint of **clients** might encompass the following aspects:

- Information found via AI might not always reflect reality. Hence, clients would be advised to compare AI-generated information with multiple sources to avoid biased decisions and mistargeted purchasing behaviors [15].
- So far, AI tools are able to provide general information on a particular subject. If consumers aim to find in-depth information about a company, subject, trend, product, service, they need to engage in a wide research process that should include accurate and more diverse sources of information.
- Clients could experience breaches of personal information by allowing companies access to personal data, which might not always be used by companies for the benefit of the consumer.
- As AI chat bots and AI-based customer service tools are implemented on a larger scale [16]-[17], the lack of human interaction in some cases like filing a complaint, wanting to know the full range of features for a product, blocking certain services might increase frustration levels, stress, anxiety among customers. Consequently, customers might choose to migrate to companies that use less AI-based tools of communication with clients [18]. At the end of the day, humans are social creatures who get energy from everyday interactions, drive, inspiration, creativity spikes, all elements that ensure societal progress.

3. Personalized shopping experiences

The advent and rapid spread of AI facilitated important changes to how companies promote their brands among their customers and try to enhance customer loyalty [19]. In fact, surveys report that most customers want to spend money on brands that cater to their preferences and tailor adequate purchasing suggestions. Certain companies go beyond personalization with the so-called “hyper-personalization”, which means delivering *unique* offers of products and services that encompass a client’s wants, needs and shopping habits. The integration of the personalization component entails several benefits also for companies, such as: mitigation of unnecessary inventory and related storage costs; waste reduction and decrease of pollution levels; accomplishment of sustainability objectives [20]. For that matter, a key ingredient for attaining success in the business environment is to always surprise clients and deliver a bit more than they expect. And personalization via artificial intelligence has the intrinsic power to surprise all segments of clients, no matter the generation they belong to (e.g., boomers, millennials, Gen Z, Gen Alpha).

Personalized shopping experiences are facilitated by “next-generation search platforms” that incorporate AI tools, are able to observe and learn customers’ preferences, craft offers addressing these customers with high accuracy [21]. One possible explanation for the success of

personalization is that humans in general feel the need to be seen, considered, valued, appreciated, heard in their communities and in relation to the entities they interact with. Companies that understand this profound need and change the way they do business will register higher profit margins in the upcoming future.

Therefore, AI tools can virtually bring consumers to stores or tourist attractions, can create a profile adapted to customers' needs and generate personalized shopping experiences by presenting customers with the exact products and services that they need/desire/look up to.

At the same time, AI can create accurate visual presentations of products designed according to consumers' preferences, thus increasing the level of sentimental attachment for that particular product.

4. Concluding remarks

The study explores the advantages and disadvantages engendered by the use of artificial intelligence or AI when shaping consumers' purchasing decisions from the standpoint of both companies and loyal/potential clients.

The study also draws on the power of personalized shopping experiences, facilitated by AI tools, to surprise customers, engage them with companies and their brands, gain their attachment and loyalty via products and services that are designed following personal preferences, wants, needs.

Artificial intelligence is on the rise, is continuously developing and only the future will show its full influence on consumer decision-making and the process of crafting products/services.

As a future research path, starting from the theoretical approach of the present paper, we aim to conduct a quantitative study using an online questionnaire.

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