

AI TOOLS TO EDUCATE THE CUSTOMERS TOWARDS ORGANIC FOOD PRODUCTS

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Abstract

Growing awareness regarding organic food products that benefits the customer's health, sustainability for the environment, and moral production practices have contributed to the market's expansion. However, a lot of customers are still unaware of the benefits of organic food products, which reduces their desire to quit the normal or ordinary products. By improving customer's education, artificial intelligence (AI) solutions present a possible way to address this issue. The AI-driven technology will help customers to make selections about what to buy, where to buy, why to buy and instantly respond to their enquiries. Hence, the article focuses on AI tools to educate and interact with customers in order to encourage the broad use of organic food products.

Keywords: *artificial intelligence (AI), Educate, customers, organic food products*

Introduction

In recent years, the Growing customer awareness on sustainability, environmental impact, and health has fuelled the demand for organic food products. Although many potential advantages, a large number of customers are still unaware and doubtful about the benefits of purchasing organic food products over conventional ones. Businesses and organizations that support organic food products face these types of issues and challenges. To bridge this knowledge gap and to successfully educate customers, artificial intelligence (AI) solutions have become the most effective remedy.

AI has the power to transform communication by making information more accessible, interesting, and personalized. Businesses and educational platforms can offer personalized content, real-time support, and interactive experiences that point out the quality, environmental impact, and health advantages of organic food products by making use of the latest technologies like chatbots, recommendation systems, virtual assistants, and machine learning algorithms. With these innovative technologies, helping customer to make better decisions and eventually promoting an environmentally friendly and nutritious food system.

Statement of the Problems

This study aims to address the lack of awareness about the advantages of organic food products, which frequently leads to a limited acceptance of these more sustainable and

healthful options. Conventional customer's education techniques, such as ads or in-store promotions, have not been able to effectively reach and engage a large audience. The broad acceptance of organic food has been limited by this information gap, which also limits the potential benefits of organic food for the environment and public health. Thus, this study focuses on AI tools that educate the customers of organic food products.

Review of Literature

(Torrance, (2024).)In the article revealed that, an era where AI plays an increasingly prominent role in content creation, this system would provide transparency for consumers and uphold fair competition in digital markets. The certification would allow website creators to present verifiable evidence of their content's provenance, ranging from entirely human-made, to a mix of human and AI contributions, to fully AI-generated content. The paper explores the legal and policy frameworks necessary for implementing such a system, drawing on principles from trademark law, unfair advertising, and competition law.

(Ding, (2023)) In the article stated that, Artificial intelligence (AI) and big data have become pivotal in strengthening food safety, production, and marketing. With the continuous evolution of AI technology and big data analytics, the food industry is poised to embrace further changes and developmental opportunities. An increasing number of food enterprises will leverage AI and big data to enhance product quality, meet consumer needs, and propel the industry toward a more intelligent and sustainable future. This review delves into the applications of AI and big data in the food sector, examining their impacts on production, quality, safety, risk management, and consumer insights.

Objectives

- To identify the impact of AI tool to educate the customers towards organic food products.

Methodology:

Sample Design

Primary data will be collected using with simple random sampling method and a self-administered questionnaire was send to the respondent through Google forms. This sampling method is chosen for its easiness and cost efficiency to collect the responses.

Sources of Data

The study is based on both primary and secondary data. To carry out the Primary data collection, a self-structure questionnaire was developed based on research objectives. Secondary data required for the study undertaken were collected through Web Sites, Magazines, Reviews, Journals and etc.

Sample Size

The data were collected using well-structured questionnaire method from 100 respondents.

Tools for Analysis:

- Factor Analysis

KMO and Bartlett's Test**Table 1**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.495
Bartlett's Test of Sphericity	Approx. Chi-Square	239.211
	df	45
	Sig.	.000

The value of KMO should be close than 0.5 for a satisfactory factor analysis to proceed. The value of test statistic is given in Table 1 as 0.495 which means the factor analysis for the selected variables is found to be appropriate to the data.

Bartlett's test is another indication of the strength of the relationship among variables. This test, test the null hypothesis that the correlation matrix is an identity matrix. An identity matrix is matrix in which all of the diagonal elements are close to 1. From the Table, the Bartlett's Test of Sphericity test value is 239.211 at Degrees of freedom 45. That significant level is less than 0.05. In fact, it is actually 0.000, i.e. the significance level is small enough to reject the null hypothesis ($p < 0.05$). This means that correlation matrix is not an identity matrix (there exists' correlations between the variables).

Table 2

Rotated Component Matrix^a				
	Component			
	1	2	3	4
Artificial intelligence (AI) can power virtual learning experiences that provide interactive information, films, or courses about the advantages and myths surrounding organic foods.	.799			
AI can recognize several demographic categories (such as age, geography, and economic level) and create personalized strategies to teach each group about organic food.	.715			
Customers can more readily obtain information on organic food products.	.522			
Quizzes, challenges, and prizes can increase consumer engagement and motivation to learn about organic food and make sustainable, healthier choices.		.853		
Carbon footprints, water use, and biodiversity, can be processed and visualized by AI.		.647		

An AI-powered software can make recommendations for organic foods depending on dietary limitations or health objectives.			.903	
AI tools can assist in producing interesting and educational content for social media sites to raise awareness of organic food.			.398	
AI can assist in finding influencers that support the promotion of organic food				.749
Real-time consumer enquiries regarding organic products can be addressed by AI-powered chatbots				.701
AI systems respond to frequently asked consumer enquiries regarding organic food.				.531

The rotated component matrix (Table 2) shows the association between the factors and the variables taken for the study with the help of values ascertained by the variables. These variables together constitute factor 1, which can be termed as **“Awareness”**, the variable representing the factor 2, which can be termed as **“Environmental Consciousness”**, the variable representing the factor 3, which can be termed as **“Health Benefits”**, the variable representing the factor 4, which can be termed as **“Rectification of Queries”**.

Interpretation

The health benefits is a significant factor in the awareness level of customers towards organic food products. Since the organic food products helps to improve the immune system of the Customers.

Conclusion

AI has the power to educate the customers to know about the benefits of organic food products. The use of artificial intelligence (AI) technology could completely change the way that customers are educated about the benefits of consuming organic food products than conventional food products. AI has the potential to make customers more knowledgeable and involved. AI has the potential to greatly increase the awareness and knowledge of organic food products by providing personalized, easily available, and real-time learning experiences. This will help customers throughout the world make healthier and more sustainable food choices. So, the producers may adopt AI technologies to create awareness among their customers of organic food products.

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