

Factors Influencing Consumer's Intention to Use Recommendation Agents

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The internet allows us to quickly access any information we want, but the increased volume of information causes an overload. In e-commerce, Recommender Systems (RS) assist users of e-service providers as a tool to access appropriate information proportionate to their needs with the least amount of effort and complete confidence in a short period of time. The research under consideration seeks to influence consumers' attitudes toward recommendation agents in recommender systems on e-commerce websites. We conducted our research on the Digikala website, which is one of Iranian's most popular e-commerce sites. The data came from 384 customers, and structural equation modeling was used to test statistical hypotheses. Our analysis of the collected data revealed that all of the hypotheses in the model were accepted. According to the findings, all factors such as perceived accuracy, perceived diversity, perceived novelty, recommendation quality, recommendation transparency, explanation, perceived risk, ease of use, usefulness, satisfaction, trust, and loyalty have a significant impact on the intention to purchase a product recommended by recommender systems. The proposed model assists online store managers in improving their website RSs and increasing product sales through improved customer satisfaction. Furthermore, it can help them gain loyalty and thus increase trust.

Keywords: Recommender System, Satisfaction, Trust, Intention to Use, E-Commerce

1. Introduction

The rapid development of social media and Web 2.0 enabled several opportunities to shift e-commerce from a product-focused to a consumer-focused environment (Esmaeili and Hashemi G, 2019; Han et al., 2018; Shanmugam and Jusoh, 2014). Electronic commerce (e-commerce) refers to the purchase and sale of goods and services over computer networks such as the internet (Bamfield, 2013; Chintagunta et al., 2012). Consequently, companies should consider the most effective platforms to reach the desired audience and message type toward better results. Due to the rapid change in the business environment, they need a dynamic approach to continue the competition. The internet is a revolutionary technological development that has affected almost all industries. Retailers observe the appropriate costs offered by the internet, which are beneficial for consumers due to ease of usage and price transparency (Nisar and Prabhakar, 2017). The significant progress and growth of the internet encourage people to depend on web-based applications to address their problems and needs (Bilge and Kaleli, 2014). An aspect of this type of user involvement is in the online

shopping of goods and products. Many online sites in Iran are active in goods sales and products. One of them is the Digikala website. In 2015, Forrester estimated that the number of people who regularly buy products online is about 69% (Forrester, 2015). Due to the COVID-19 pandemic, people have consented to a new lifestyle (Abumalloh et al., 2021; Nilashi et al., 2021a; Nilashi et al., 2022a; Nilashi et al., 2021d; Nilashi et al., 2020a; Rupani et al., 2020), including social distancing and self-isolation. Therefore, some sectors such as tourism, airline, and offline retail outlets faced sales reductions. However, online retail experienced a sharp increase. In Iran, like other countries, the number of internet users and online shopping increased dramatically. Today, many people can acquire more information about goods through online stores and purchase all sorts of products.

In e-commerce, recommendations are an essential element that helps users explore interesting items tailored to their needs. Therefore, we can adjust the recommendation based on the users' sequential behaviors (Jiang et al., 2015; Ren et al., 2019). Using RSs on online websites helps improve the performance of these websites. For instance, when a consumer searches for a good or product on the website,