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IPA Continuance Intention: The Role of Interaction Quality

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TREO Talk Paper

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Abstract

The adoption and continued use of intelligent personal assistants (IPAs) have received increasing amounts of attention in research on information technology (IT) and information systems (IS), over the last decade. IPAs are known as systems that "can understand, respond to spoken inputs, and process the user request" (de Barcelos Silva et al., 2020; p. 1). These virtual assistants are useful for a wide range of applications, for example, allowing users to control their home appliances, schedule their appointments, check the weather, but also monitor performance indicators and in the acquisition of new skills, such as learning a new language (Han & Yang, 2018). The perceived benefits of IPAs for its users have become apparent, however, in a market with fierce competition and ample alternatives (e.g., Google's Google Assistant, Amazon's Alexa, Apple's Siri, Microsoft's Cortana, and Samsung's Bixby), the question remains: what factors enhance the continued use of a given IPA? The goal of this study is to understand users' continuance intention of IPAs, based on the level of interaction quality and its relation to two separate measures of user satisfaction.

Oliver's (1980) expectation-confirmation theory (ECT) asserts that user satisfaction is the primary predictor of continuance intention, followed by confirmation of pre-adopted expectations and perceived usefulness. The expectation-confirmation model (ECM) based on this theory, developed by Bhattacherjee (2001), has been widely used within IT and IS literature, to investigate user continuance intention for a given system or technology. Although interaction quality, referring to "the customers' perception of how the service is delivered during service encounters" (Choi & Kim, 2013; p. 190) has received fragmented attention in the context of service industries, it has largely been overlooked as a variable influencing IT or IPA user continuance behavior. Higher levels of interaction quality have been linked with improved customer satisfaction, with possible additional impacts on loyalty (Ranjan et al., 2015).

The purpose of this study is to build a model investigating IPA continuance intention, including interaction quality as a predictor for both cognitive and emotional user satisfaction. To test the proposed model, empirical data will be collected from college students that have some experience using IPAs. According to Nguyen et al. (2019), students represent a crucial subset of voice user interface (VUI) consumers, hence, they are considered to be an appropriate population for this study. The theoretical implications of this study will include providing novel guidelines for IT post-adoption behavioral research, considering interaction quality and the bilateral nature of satisfaction. Managers may want to consider the important role of interaction quality in enhancing user satisfaction and continuance intention in the development and distribution of their IPAs.