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Expectation-Confirmation Model and IPA Continuance Behavior

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Expectation-Confirmation Model and IPA Continuance Behavior

TREO Talk Paper

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Abstract

With the emergence of Intelligent Personal Assistants (IPAs) such as Amazon Alexa, Google Home, and Apple Siri, etc., IPA arises as one of the fastest-growing artificial intelligence applications in recent years. Since the success of information technology (IT) depends on the continuance of its usage (Bhattacharjee, 2001), studies on IPA continuance behavior should also attract academic attention. IPA continuance refers to long-term or sustainable use of intelligent personal assistants, which make use of Natural Language User Interfaces (NLUI) to provide users with information about the weather, maps, schedules, calls, events, etc. (Kennington & Shukla, 2017). Prior studies in the IPA usability domain mainly focus on improving user interactions, understanding how people use IPAs, and explaining their uses (de Barcelos Silva et al., 2020). Previous literature related to IT continuance behavior captures satisfaction, attitude or habitual responses, and emotional attachment (Mamun et al., 2020), ignoring the usability of specific IT applications like IPAs, especially the interaction quality between humans and IPAs. Exploring IPA Continuance based on the expectation-confirmation theory (ECT) is the goal of this study.

Oliver (1980)'s expectation-confirmation theory (ECT) is broadly used in consumer behavior studies to examine consumer satisfaction and post-purchase behaviors. Derived from ECT, Bhattacharjee (2001)'s expectation-confirmation model (ECM) investigates user continuance intention for a system, which is widely accepted by IS scholars. Whether the API can accurately recognize natural human language and respond quickly may determine the user's satisfaction with the API product. Therefore, we introduced the concept of API Interaction Quality, based on the ECM, to extend the original model, exploring the key factors affecting the continued use of IPA.

The proposed model was empirically tested within the context of most popular IPAs, such as Amazon Alexa, Google Home and Apple Siri. we will collect empirical data from college students who are users of IPA, a class of conversational, where ages limit from 18 to 30. This research will contribute to both theory and practice in the IT area. It will enrich the theory of ECT and extend expectation-confirmation model in IS research. Tech giants who have developed their own IPAs like Apple, Microsoft, and Amazon may benefit from our research findings in the perspective of how to improve interaction quality between their IPA products and potential users.