

## Exploring the Impact of Value Co-Creation through AI-Driven Chatbots on Customer Repeat Purchases

Dooyoung Choi, Old Dominion University  
Jaeha Lee, North Dakota State University

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### Introduction

The concept of value co-creation embodies the evolving dynamics where the boundaries between firms and customers are increasingly blurred due to the continuous redefinition of their roles (Saarijärvi et al., 2013). Understanding value co-creation solely from the production process perspective is insufficient; recognizing value creation within the context of customer purchasing and consumption is essential (Grönroos, 2008). As artificial intelligence (AI) has gained prominence in the retail industry, AI-driven chatbots have evolved to effectively engage with customers in the digital marketing era (Ruan & Mezei, 2022). In the United States, 27% of adults have engaged with chatbots for shopping at least once, with nearly 40% expressing a preference for this shopping experience (Jovic, 2020). These outcomes include encouraging continued use of chatbot services and future purchases, aligning with the long-term strategic objectives of corporations. Thus, AI-driven chatbots can also facilitate value co-creation between customers and AI shopping assistants during online shopping. However, value co-creation has rarely been addressed in research on chatbot services. This study seeks to investigate how the perceived co-value creation during online shopping affects customer repeat purchases.

### Conceptual Frameworks and Hypotheses

Co-creation, as defined by Prahalad and Ramaswamy (2004), refers to the joint creation of value by the company and the customer. The interactive communication facilitated by chatbots serves as a platform for the co-creation of value, enabling consumers to construct individualized experiences, thereby fostering more positive consumer behavior towards the brand (Sawhney et al., 2005). Value co-creation using interactive technologies can influence customer behavioral intention (Morosan & DeFranco, 2019). As chatbots have evolved from performing standardized routines to offering more personalized service actions (Huang & Rust, 2018), they have the potential to encourage customer engagement and purchases by co-creating personalized customer experiences (Buhalis & Sinarta, 2019). For example, it has been found that value co-creation affects purchase intention (Cossío-Silva et al., 2016).

The Stimulus-Organism-Response (S-O-R) framework suggests that specific elements within an environment trigger cognitive and emotional states in individuals, ultimately influencing their behavioral intentions (Donovan & Rositer, 1982). The value co-creation element of chatbots can elicit cognitive evaluations and emotional reactions, as users perceive the chatbot service as both useful and entertaining. Furthermore, research in robotics recognizes increasing levels of automated social presence, the extent to which machines make consumers feel that they are in the presence of another social entity in services (Heerink et al., 2010; Kim et

al., 2013). Thus, consumers can perceive the social value of the chatbot service. Based on this rationale, the following hypotheses are proposed:

H1: Perceived value co-creation will increase repeat purchase intention.

H2: The effects of perceived value co-creation on repeat purchase intention will be mediated by (a) cognitive evaluations, (b) emotional reactions, and (c) social value that consumers experience from a chatbot service.

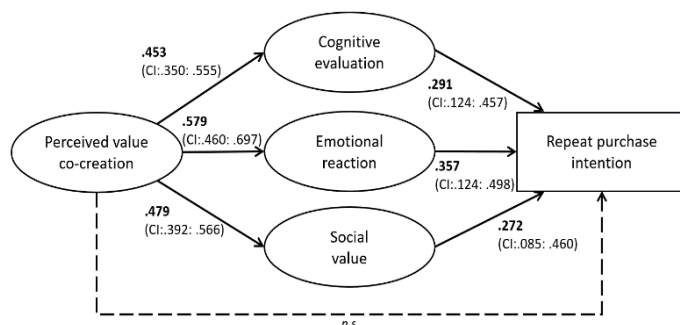
## Method

Participants were recruited from students and employees enrolled of a large land-grant state university through the campus-wide email listserv and invited to participate in an online survey. During the survey, they viewed a 1-minute video depicting a consumer's interacting with a chatbot for personalized assistance. Following the video, participants responded to questions asking their perceptions about the chatbot service they watched as well as behavioral intention toward the retailer. The survey included several constructs, including perceived value co-creation, cognitive evaluations, emotional reactions, and social value, and repeat purchase intention. These constructs were adapted from existing measures and rated on 5-point Likert scales. In total, 220 completed responses were gathered, with participants averaging 37 years of age from 18 to 72, a 65% female representation, and 90% identifying as Caucasians.

## Results

A parallel mediation analysis was conducted using the PROCESS Macro Model 4 with 5,000 bootstrap samples (Hayes, 2018). As shown in Figure 1, results indicated that the effects of perceived value co-creation on consumer's repeat purchase intention were significant ( $b=.511$ ,  $p=.000$ , 95% CI [.378: .643]). While the total effect was significant, however, only the indirect paths through mediators were significant ( $b=.469$ , 95% CI [.359: .590]), and the direct path was not ( $b=.042$ , 95% CI [-.105: .189];

**Figure 1.** Results of Mediation Analysis



rejecting H1). Specifically, the indirect effects through cognitive evaluations ( $b=.132$ , 95% CI [.046: .225]; supporting H2a), emotional reactions ( $b=.207$ , 95% CI [.115: .311]; supporting H2b), and social value ( $b=.130$ , 95% CI [.029: .231]; supporting H2c) on consumer's repeat purchase intention were significant.

## Conclusion

This study extended the S-O-R model by affirming value co-creation as an antecedent to customer repeat purchase intention within the domain of AI chatbot services. Due to the nature of conversational chatbots, customers contribute significantly to value creation in their shopping experiences. This is because they have the autonomy to personalize their interactions while engaging with a chatbot. The findings support the notion that value co-creation via chatbot interactions can influence consumers' intentions to make repeat purchases. However, perceived value co-creation alone did not result in increased intention for repeat purchases. The effects were only significant when consumers experienced when consumers experienced positive cognitive evaluations, emotional reactions, and social value through the chatbot service. Hence, it is crucial for retailers to incorporate features that promote functionality, emotion-provoking entertainment, and social presence into their chatbot services. Customers will only translate perceived value co-creation into repeat purchase intentions when they discern cognitive, affective, and social benefits from their experiences.

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