Perceptions of Financial Al Assistants and Intentions Toward Al-Assisted Financial Products: Case Study in Vietnam

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ABSTRACT

Artificial intelligence (AI) has evolved for several decades. Much research has focused on how financial institutions should design, build, and operate AI-assisted financial products and services and how customers perceive and adopt individual AI assistants. Nonetheless, separating the perceptions of the AI assistants and the intentions toward their respective offerings is inadequate. This study implemented a case study with Vietnamese university students (n = 458) to examine a theoretical model involving four AI-assistant attributes (anthropomorphism, security, performance, and effort), trust, and six intentions. It found that perceived anthropomorphism, performance (usefulness), and effort (ease of use) could significantly affect intentions to various degrees; the tendency to trust significantly mediated these associations. Perceived security did not show any significant influence. Implications for improving students' financial knowledge and habits and scheduling financial products and services were discussed based on these observations.

KEYWORDS

AI-Assistants, AI-Assisted Offerings, Perceptions, Intentions, Vietnam

INTRODUCTION

Artificial intelligence (AI) has evolved for several decades and has become an integral part of humans' lives in recent years. In the finance sector, banks and insurance companies can adopt AI to assess customers' trustworthiness and merit to control financial risks (Anshari et al., 2021). They can also use AI to determine the prices of their financial products (L. Gan et al., 2020) and promote such products to prospective customers (Mogaji & Nguyen, 2022). Alternatively, AI can help present complex financial information in intuitive visual forms to ease customers' information interpretation and comprehension processes (Choi & Kim, 2023). AI can also serve as financial assistants, including chatbots, loan underwriters, personalized planners, robo-advisors, and virtual assistants, to customers (Amato et al., 2024; Zhu et al., 2023). However, much research has focused on how financial institutions should design, build, and operate AI-assisted financial products (Hentzen

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et al., 2022). Others have investigated customers' perceptions and adoption of individual assistants, such as chatbots and Robo-advisors (Arora et al., 2023; Belanche et al., 2019; Bhatia et al., 2021; Cheng et al., 2024; Zhu et al., 2023). Nonetheless, separating the perceptions of the AI assistants and the intentions toward their respective functions (offerings, products, or services) in a gradually united AI world is inadequate. Facilitating research on customers' perceptions and intentions will help further develop AI-assisted financial operations.

According to Belanche et al. (2019), familiarity could be essential in customers' acceptance of AI assistants. In other words, those who are more open and familiar with robots, AI, and online purchase and payment, such as young university students, are more likely to use AI assistants and AI-assisted products and services (Alt & Ibolya, 2021; Isaia & Oggero, 2022). Unfortunately, previous studies have primarily underestimated these potential customers. A few studies on finance and education have only explored how AI could help process financial information to assist undergraduate financial education (Yang & Stivers, 2024). University students' perceptions of AI assistants and AI-assisted financial offerings and how this understanding can help with their financial behaviors remain principally unknown (Mogaji & Nguyen, 2022; Oehler et al., 2022). The lack of understanding of this particular issue is unhelpful to universities in educating their students about financial management and assisting them in their actual financial practices (i.e., school-banking initiative; Johnson et al., 2018). This fact also is a barrier for the bank partners of universities when designing and delivering suitable services to these young customers (Allahwala et al., 2013). Investigating university students' perceptions of financial AI assistants and intentions toward AI-assisted financial offerings can assist in addressing these issues.

Vietnam, a young financial market, is not AI-resistant. Financial institutions in Vietnam have adopted *fintech* (financial technology) and AI to detect hidden problems and improve their operations (Lokanan et al., 2019; Pham et al., 2023). Students at educational institutions have used AI tools, such as ChatGPT, in their studies (Lan & Tung, 2023; Maheshwari, 2024). Nonetheless, the study of students' perceptions of AI-assisted financial assistants has not been clarified. Accordingly, this study is of great significance, on the one hand filling the research gap and on the other hand contributing to providing empirical results to help financial and educational institutions in Vietnam develop AI-assisted services. This study investigates Vietnamese university students' perceptions of AI assistants and how these perceptions affect their intentions to adopt AI-assisted financial products and services. The findings will enrich the literature on AI assistants and AI-assisted offerings in the finance sector and provide insights for Vietnamese universities and bank partners in their financial education and assistance initiatives.

THEORETICAL BACKGROUND

The theory of planned behavior (TPB), developed by Ajzen, is a fundamental framework for linking an individual's beliefs and behavior and has become a foundation and widely used in predicting human behavior (Singh & Sinha, 2020). Accordingly, on the basis of the TPB, attitudes toward behavior, subjective norms, and perceived behavioral control together shape an individual's intention and behavior (Ajzen, 1991). This theory has also been widely applied to study the relationship between beliefs, attitudes, intentions, and behavior in various fields, including advertising, public relations, advertising campaigns, health care, sports management, and sustainability. For research on technology products and services, many studies also apply this theory to study the relationship between attitudes, beliefs, and other factors with the intention to use technology products and services (Ajzen, 1991; S.-C. Chen & Li, 2010; Dezdar, 2017; Legris et al., 2003; Singh & Sinha, 2020).

On the other hand, the technology acceptance model (TAM) is one of the most influential extension models based on Ajzen's theory of reasoned action. This model explains users' acceptance of new technology products or services and analyzes what factors influence users' acceptance of new technologies or services (Adams et al., 1992). For new technology products or services, the TAM

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