

This chatbot is a smart one! Does perceived expertise increase willingness to interact with chatbots?

Sebastian Molinillo^a, Giampaolo Viglia^b, Javier Domínguez Gómez^c and Yuksel Ekinci^d

^a *Department of Business Management, Faculty of Economics and Business, University of Malaga, Campus El Ejido, 29013 Malaga, Spain. Email: smolinillo@uma.es*

^b *Department of Marketing and Sales, Portsmouth Business School, Portland Street, PO13DE, United Kingdom. Email: giampaolo.viglia@port.ac.uk*

^c *Faculty of Commerce and Management, University of Malaga, Campus Teatinos, 29071 Malaga, Spain.*

^d *Professor of Marketing, Department of Marketing and Sales, Faculty of Business and Law, University of Portsmouth, Portsmouth, UK. Email: yuksel.ekinci@port.ac.uk*

Keywords: *chatbot, appearance, perceived expertise, trust, continuance intention to use, personalized service*

Short abstract

The development of artificial intelligence has led many companies to introduce computer operated chatbots that provide highly personalized services. The aim of this study is to explore the effect of perceived expertise on continuance intention to use a chatbot. Specifically, we portray that perceived trust is the mechanism behind this relationship and chatbot appearance (i.e., human-like vs. robot-like) a boundary condition for the effect. The research hypotheses were experimentally tested with a pilot study (n=89). Participants accessed to a simulated online chatbot for booking hotels: 41 were randomly assigned to a human-like chatbot and 38 to a robot-like chatbot. The perceived expertise of the service agent influences - through trust - consumers' continuance intention to use the chatbot again. However, we do not find support for the moderating effect of perceived expertise on trust.

These findings have practical implications as they encourage companies to adopt the chatbot as an effective channel for the provision of certain services. In addition, they can help developers to improve the design of online interactions mediated by robots.

References

- Araujo, T. (2018). Living up to the chatbot hype: The influence of anthropomorphic design cues and communicative agency framing on conversational agent and company perceptions. *Computers in Human Behavior*, 85, 183-189.
- Beldad, A., & Kusumadewi, M. C. (2015). Here's my location, for your information: The impact of trust, benefits, and social influence on location sharing application use among Indonesian university students. *Computers in Human Behavior*, 49, 102-110.

- Beldad, A., Hegner, S., & Hoppen, J. (2016). The effect of virtual sales agent (VSA) gender-product gender congruence on product advice credibility, trust in VSA and online vendor, and purchase intention. *Computers in Human Behavior*, *60*, 62-72.
- Bilgihan, A., Nusair, K., Okumus, F., & Cobanoglu, C. (2015). Applying flow theory to booking experiences: An integrated model in an online service context. *Information & Management*, *52*(6), 668-678.
- Go, E., & Sundar, S. S. (2019). Humanizing Chatbots: The effects of visual, identity and conversational cues on humanness perceptions. *Computers in Human Behavior*, In Press, <https://doi.org/10.1016/j.chb.2019.01.020>
- Gray, H. M., Gray, K., & Wegner, D. M. (2007). Dimensions of mind perception. *Science*, *315*(5812), 619.
- Ha, S., & Stoel, L. (2009). Consumer e-shopping acceptance: Antecedents in a technology acceptance model. *Journal of Business Research*, *62*(5), 565-571.
- Hayes, A. F. (2017). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-based Approach*, 2nd Edition. New York: Guilford Press.
- Io, H. N., & Lee, C. B. (2018, April). Understanding the Adoption of Chatbot. In *Future of Information and Communication Conference* (pp. 632-643). Springer, Cham.
- Johnson, D., & Grayson, K. (2005). Cognitive and affective trust in service relationships. *Journal of Business Research*, *58*(4), 500-507.
- Kim, M. J., Chung, N., & Lee, C. K. (2011). The effect of perceived trust on electronic commerce: Shopping online for tourism products and services in South Korea. *Tourism Management*, *32*(2), 256-265.
- Lam, S. Y., & Shankar, V. (2014). Asymmetries in the effects of drivers of brand loyalty between early and late adopters and across technology generations. *Journal of Interactive Marketing*, *28*(1), 26-42.
- Lasek, M., & Jessa, S. (2013). Chatbots for customer service on hotel's websites. *Information Systems in Management*, *2*(2), 146-158.
- Liébana-Cabanillas, F., Molinillo, S., & Ruiz-Montañez, M. (2019). To use or not to use, that is the question: Analysis of the determining factors for using NFC mobile payment systems in public transportation. *Technological Forecasting and Social Change*, *139*, 266-276.
- Mimoun, M. S. B., Poncin, I., & Garnier, M. (2017). Animated conversational agents and e-consumer productivity: The roles of agents and individual characteristics. *Information & Management*, *54*(5), 545-559.
- Moon, Y. (2000). Intimate exchanges: Using computers to elicit self-disclosure from consumers. *Journal of Consumer Research*, *26*(4), 323-339.
- Nowak, K., & Rauh, C. (2008). Choose your 'buddy icon' carefully: the influence of avatar androgyny, anthropomorphism and credibility in online interactions. *Computers in Human Behavior*, *24* (4), 1473-1493.
- Ozturk, A. B., Nusair, K., Okumus, F., & Hua, N. (2016). The role of utilitarian and hedonic values on users' continued usage intention in a mobile hotel booking environment. *International Journal of Hospitality Management*, *57*, 106-115.

- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, 7(3), 101-134.
- Qiu, L., & Benbasat, I. (2009). Evaluating anthropomorphic product recommendation agents: A social relationship perspective to designing information systems. *Journal of Management Information Systems*, 25(4), 145-182.
- Verhagen, T., Van Nes, J., Feldberg, F., & Van Dolen, W. (2014). Virtual customer service agents: Using social presence and personalization to shape online service encounters. *Journal of Computer-Mediated Communication*, 19(3), 529-545.
- Zhao, L., Lu, Y., Zhang, L., & Chau, P. Y. (2012). Assessing the effects of service quality and justice on customer satisfaction and the continuance intention of mobile value-added services: An empirical test of a multidimensional model. *Decision Support Systems*, 52(3), 645-656.
- Zhou, T. (2013). An empirical examination of continuance intention of mobile payment services. *Decision Support Systems*, 54(2), 1085-1091.