CUSTOMERS' ATTITUDE TOWARDS ROBOTS IN HOTELS DURING THE PANDEMIC: ROLE OF DEMOGRAPHIC FACTORS

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ABSTRACT

Several studies have suggested that different demographic factors influence customers' technology adoption behavior. While some studies have looked at the impact of demographic characteristics on individuals' attitudes toward robots, research on the human perception of robots and their attitude toward using robots remains scarce. Many believe that contactless solutions and easy sanitization have become a norm and that the attitude towards robots in industries will change. Using a sample of 525 participants, this study uses the MANOVA test to investigate the differences in attitudes towards robots in 5 areas of a hotel (front desk, concierge, housekeeping, and food and beverage) and the level of involvement of customers among different groups of each factor (age, gender, income level, education, and purpose of trip). The findings show significant differences among groups for all the dependent variables. This study is very timely, as it looks at the customer attitude towards using the robot in different parts of hotel operations during the pandemic.

Keywords: Service robot, artificial intelligence, technology adoption, customer behavior, hospitality

INTRODUCTION

Since The COVID-19 pandemic started, there has been a shift in attitude toward adopting robots. Many believe that contactless solutions and easy sanitization have become the norm. Workers and customers both prefer these solutions as it ensures social distancing and touchless processes (Beane & Brynjolfsson, 2020). As a result of the pandemic, scholars believe the attitude toward robots in industries will change. While we already see a surge of robots in healthcare (Aymerich-Franch & Ferrer, 2020a, 2020b; Zemmar et al., 2020), some have forecasted that the pandemic will facilitate and foster using robots in more customer service-sensitive industries such as hospitality (Aymerich-Franch & Ferrer, 2020b; Pani et al., 2020; Seyitoğlu & Ivanov, 2020).

The theory of diffusion of technology states that the adoption of technology happens after going through a process of understanding, persuasion, decision, estimation, and confirmation (Rogers, 1995). Previous studies have suggested that demographic factors such as gender, age, education, and income may explain consumer behavior specifically in the context of technology adoption (Rojas-Mendez et al., 2017). However, previous literature shows contradicting findings regarding demographics. While some studies have looked at the impact of demographic factors on individuals' attitudes toward robots, most of these studies are concentrated on virtual robots such as chatbots (Dinet & Vivian, 2014). Meuter et al. (2003) posit that demographics have not consistently explained consumers' technology adoption, and this is. As a result, this study is very timely, as it looks at the impact of demographic factors on customers' behavioral intentions and attitudes towards using a robot in different parts of hotel operations during the pandemic.

METHODOLOGY

This study was based on an online survey through the Qualtrics platform. Participants were recruited from the Qualtrics database via email. Participants received incentives in the form of money and coupons. After clicking on the link provided in the email, participants were headed to the survey. First, participants agreed to the form of consent, and next, they were screened based on their age (18 and above) and stayed at least one night in a 4- or 5-star hotel in the past six months. The final sample included a total of 525 adults who had stayed at least once in a 4- or 5-star hotel in the past six months. MANOVA test was used to test the differences among different groups of each factor (age, gender, income level, education, and purpose of trip). Data analysis was conducted in SPSS 26. Bonferroni adjustment was used for all univariate and multiple comparison tests.

RESULTS AND DISCUSSION

The findings of the MANOVA tests show that all hypotheses were supported. Age was found to influence the intention to use service robots showing that younger people are more ready to embrace new technology such as service robots. For all the behavioral intention variables (front desk, concierge, housekeeping, room service, food, and beverage) and attitudinal variables (attitude, involvement, and optimism), male respondents' mean score was higher than that of female respondents. The findings support the common finding that men are more open to new technologies and keener to try them. More educated respondents showed a more positive attitude towards service robots compared to their less educated counterparts, supporting the impact of education on technology adoption. Furthermore, there was a significant difference between subjects' attitudes and behavioral intentions based on their income level. More precisely, the mean score of those that made $50k to $100k annually was the highest, and the least belonged to those that made $50k and less annually. Finally, those respondents that stated the purpose of their last leisure trip overall showed a higher intention to use service robots. Similarly, leisure travelers were shown to have a more positive attitude towards service robots than those who traveled for business or both. More specifically, for all five behavioral intention and three attitudinal variables, the mean score for those that stated the purpose of the trip, both leisure, and business, was the highest, followed by business travelers, and the least mean score belonged to those that traveled for leisure.

LIMITATIONS AND FUTURE RESEARCH

The subjects of the study were the U.S. population, and future studies may look at cross-national and cultural differences in regard to the role of demographic factors on users' acceptance and attitude toward service robots. Moreover, ethnicity data was not collected for this study. Future research may look at the role ethnicity plays in users' intention to use service robots and their attitude towards service robots at hotels. The data collection happened during the pandemic. Future studies may look at the differences in the role of profile factors on customers' attitudes toward service robots now that the COVID-19 mandates are lax.

References are available upon request.