



The fast-food employees' usage intention of robots: A cross-cultural study

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ABSTRACT

Robots are adopted in numerous tourism and hospitality segments, including restaurants. This study aims to empirically investigate the service robots' (SRs) acceptance among fast-food employees across two cultures – Egypt and Malaysia - and examines the moderating role of culture on usage intention. Extending the UTAUT model, Hofstede's culture dimensions, and relevant literature, a survey was developed for data collection from a convenient sample of employees in two international fast-food chains. Structural equation modelling was used for hypotheses-testing purposes. The results revealed that four UTAUT main constructs explain 62% and 44% of fast-food employees' behavioural intention to adopt robots in Egypt and Malaysia, respectively. The findings revealed that easiness-of-use, recommendations of trusted people to use robots, and knowledge and skills required to use robots affect the intention of usage by fast-food employees. This study extends the research of robotics' adoption in tourism and hospitality and consequently supports the planning for the post-Covid-19 resume. It provides several theoretical and operational implications for future research.

1. Introduction

Robots were used in tourism and hospitality sectors, including restaurants (Berezina, Giftci, & Cobanoglu, 2019; Fusté-Forné, 2021; Kazandzhieva & Filipova, 2019; Seyitoğlu & Ivanov, 2020). Therefore, many scholars believe that in the near future, the applications of robotics in hospitality will be growing quickly worldwide (Bowen & Morosan, 2018; Cain, Thomas, & Alonso Jr, 2019). Generally, robots are classified into three main types: industrial, professional, and personal service robots (Murphy, Hofacker, & Gretzel, 2017). Ho, Tojib, and Tsarenko (2020) defined a service robot (SRs) as technology capable of communication and service delivery to customers. The SRs have various forms: anthropomorphic or humanoid, zoomorphic, or more machine-looking robots caricatured and functional (McCartney & McCartney, 2020). Apart from their morphology, SRs have various technical jobs in different sectors of tourism and hospitality as waiters, porters, house-keeping attendants, chefs, room servers, bellboys, bartenders, etc. (Drexler & Lapré, 2019; Ivanov, Webster, & Berezina, 2017). In restaurants, for example, "waiter robots" can take orders, cook, and serve

recipes in smart restaurants and kitchens (Asif, Sabeel, & Mujeeb-urRahman, 2015). The adoption of robots in fast food restaurants is also evident, mainly in doing routine tasks that often result in high staff turnover (Bowen & Morosan, 2018).

Fast food chains (e.g., McDonald's) have spent heavily on customers' self-service technologies to make orders (Klein, 2017). This requires humans, both customers and employees, to accept to work, collaborate and interact with SRs in the workplace. Therefore, understanding consumers' attitudes and intentions to use SRs in hospitality and tourism has become a unique research domain (Ivanov, Seyitoğlu, & Markova, 2020). Accordingly, many studies were conducted on consumers' attitudes and perceptions towards using SRs in hospitality and tourism, (e.g., Abou-Shouk, Gad, & Abdelhakim, 2021; deKervenoael, Hasan, Schwob, & Goh, 2020; Ivanov & Webster, 2018; Ivanov, Webster, & Seyyedi, 2018; Jang & Lee, 2020; Lu, Cai, & Gursoy, 2019; Nakanishi et al., 2020; Tussyadiah & Park, 2018). Although research on employees' attitudes and perceptions towards robots has gained increasing attention (e.g., Lee, Lin, & Shih, 2018; Li, Bonn, & Ye, 2019; Xu, Stienmetz, & Ashton, 2020). Tuomi, Tussyadiah, & Stienmetz, 2020;

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