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INTERNATIONAL POST DOCTORAL RESEARCH FELLOWSHIP PROGRAMME

FINAL REPORT

TITLE OF THE RESEARCH : **The Effects of Robot Integration on Consumer Engagement Through Mobile Service Quality and Attitude: A Cross-Cultural Comparison of Türkiye and the United Kingdom**

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GENERAL INFORMATION

RESEARCH TITLE	The Effects of Robot Integration on Consumer Engagement Through Mobile Service Quality and Attitude: A Cross-Cultural Comparison of Türkiye and the United Kingdom
RESEARCHER NAME	Prof. Dr. Alper Özer
RESEARCH FIELD	Marketing
RESEARCH DURATION	7 months

Final Report Format:

1. Introduction

The rapid development of technology allows businesses and sectors to develop quite rapidly. In this era of intense competition, artificial intelligence has supported the intensive use of technology, and businesses have begun to operate with applications and tools based on AI. Service robots are an extension of this concept. Introducing service robots has required businesses to demonstrate their activities to improve their efficacy. Similarly, academic studies have attempted to identify the factors that influence consumers' adoption of service robots and how this can advance business marketing practices, given that the speed of response to changes and cost-effectiveness are more crucial.

Although mobile commerce is often considered an extension of electronic commerce, it is acknowledged as a distinct channel that generates value for consumers. Mobile channels are distinct from other known networks. In recent years, mobile applications and services offered through mobile devices have gained prominence by enabling consumers to access services whenever they desire. Studies on the quality of mobile services are limited in the studies on artificial intelligence, which have increased substantially in recent years. Specifically, there are no studies on the perceived quality of AI-enabled mobile applications. The gradual increase in the use of mobile applications, such as AI chatbots, makes this an issue that needs to be examined.

As consumers spend an increasing amount of time in mobile environments, brands have had to place a greater emphasis on digital services. By providing consumers with distinctive experiences, companies expect to increase their brand engagement. Consumer brand engagement is the cognitive, emotive, and behavioural interaction between the consumer and the brand. In other words, consumer brand engagement refers to the consumer's interaction and experience with the brand or business and the consumer's attachment to the brand or business at the conclusion of a cognitive, emotive, and behavioural process. As a consequence of consumer engagement, individuals have favourable emotions and attitudes towards a particular brand or business. Consumer engagement contributes to developing long-term relationships between consumers and businesses; consequently, individuals are willing to pay more and repurchase.

This study examined the impact of these new dimensions, namely performance efficacy, intrinsic motivation, anthropomorphism, social influence, facilitating conditions, and emotions (dimensions of AIUDA framework), on chatbots' quality of mobile service. In addition, the study sought to determine the impact of chatbot mobile service quality on brand engagement.

2. Studies in report terms

I. Term: In the first term, we worked on the model to update due to new studies. Thus, an extended literature review was conducted, and alternative new models were identified. One of these studies was directly on chatbot quality, which was the main focus of the research. This study has inspired us to innovate the model to have a higher contribution. Human-like social cue, human-like personality and human-like empathy variables from the scales related to chatbot service quality developed in the study were included to increase the study's originality. In addition, mobile service interaction quality and mobile application service quality variables were included in the model as dimensions of service quality in the original model.

II. Term: In the second period of the research,. Scales were questionnaires were created based on the scales in the research model. Scales whose validity and reliability have been tested in the literature are used to measure the constructs in the research model. The measurement instruments became available with creating and controlling the scales of the model's variables. After determining the questionnaires, a pre-test was conducted, and the English questionnaire was finalised. Since the original scales were written in English, they were translated into Turkish and then back into English. In addition, it was reviewed by an expert in the discipline with a high level of English. Two pre-tests were administered and finalised for the Turkish. After finalising the questionnaires, we started to collect the data in both countries.

III. Term: Data were collected from Turkey and British people living in the United Kingdom. Due to the difficulty of collecting data for Turkey, a portion of the procedure was completed in the third phase. After cleaning improperly completed questionnaires with a control question, the data from the two countries were merged, and equivalence tests and basic statistical analysis were conducted. The normality of the data was checked using skewness and kurtosis values, and it was determined that the data were appropriate for the study in terms of normality. Harman single factor test and single factor confirmatory factor analysis were conducted to analyse the common method variance. In the study, factor analysis is employed to determine whether or not the statements load on their own factors. For reliability analysis, the Cronbach Alpha value was examined. With confirmatory factor analysis, it was determined if the factor loadings with standardised regression coefficients were sufficient for the study's validity. Composite reliability (CR) and average variance explained (AVE) values were

examined for construct validity. For discriminant validity, the AVE values of the variables were compared to the square of their respective correlations. Fornell and Larcker method was used to determine the validity. In addition, HTMT analysis supported the discriminant validity.

IV. Term: This term, structural equation modelling, was employed for hypothesis testing. Required analyses were performed for comparison between groups. In addition to using structural equation modelling for cross-country comparisons, Chi-Square difference analysis was used to determine if there was a significant difference between the countries. At last, moderating effects of human-like social cue, human-like personality and human-like empathy were also tested.

3. Research results

Firstly, we developed his research model based on the recent literature and finalised it by adopting the AIUDA framework (to Chatbots, a very recent model that explains technology acceptance. Second, after determining the study's measures, we adapted them to the study's context. In the first data collection phase, we decided to make pre-tests for Türkiye and the UK. Prof. Alper collected the pre-test data for both countries. We amended the questionnaire items for the main study based on the pre-test results. The main analyses were also conducted. The validity and reliability of the measurement items were achieved, which led us to test the model and hypotheses.

Path analysis results showed that most of the hypotheses were confirmed by the data. According to the findings, the AUDIA model was found to be valid in the study sample, and mobile service interaction quality and mobile application service quality, which comprise AI chatbot service quality, were found to be positively influenced by the variables that play a role in consumers' AI chatbot acceptance. In addition, mobile chatbot service quality positively impacts consumers' engagement with the brand and consumers' continued use.

Additionally, we observed numerous differences between Turkey and the Unit ed Kingdom. This finding is quite significant given that one of the most important objectives of this project was to investigate differences in AI chatbot service quality between British and Turkish individuals. Hence, we provided evidence stating that the attitudes and behaviours of British and Turkish people differ regarding Chatbot usage. This finding is so valuable for global technology developer companies that they can modify the Chatbot software they produce based on different consumer characteristics.

In the study, a moderating variable analysis was performed to determine the moderating effect of human-like social cue, human-like personality, and human-like empathy on chatbot service quality. The results indicate that human-like personality moderates the relationship between the quality of mobile service interaction and brand engagement. In addition, the results indicate that human-like personality also moderates the relationship between Mobile App Service Quality and brand engagement.

4. Conclusion and Comments

The project has been successfully completed and includes research that will contribute to the literature on AI chatbots and mobile service quality. A limited number of studies have addressed the crucial issue of mobile service quality. In this regard, it can be stated that the project incorporates research that will make substantial contributions to the literature.

In addition to the research conducted within the project's scope, additional research was planned. During the course of conducting the study on chatbots and service quality, new models with publication potential were developed; these new models will be the subject of additional research once the current study has been submitted to the journal.

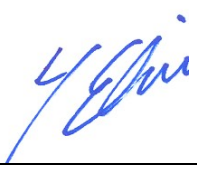
In addition to the studies carried out for research, participation in seminars held regularly has provided information on different subjects and perspectives.

Consideration of exchange programmes between the University of Portsmouth and Ankara University is also a potential collaboration opportunity.

5. Outputs (Publications, presentations, etc.)

Considering the results of the research, the study is intended to be submitted to a high-quality journal titled “Computers in Human Behaviour.” At this point in the study, it is anticipated that it will be submitted to the journal within a short time.

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Professor Yüksel EKİNCİ		28/09/2023