Path Analytic Investigation of the Intention to Adopt E-government Services through Mobile Applications in Qatar

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Introduction

"E-Government refers to the use by government agencies of information technologies (such as wide area networks, the internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government"(World Bank, 2009).

The Qatari government established its e-Government initiative in July 2000 to perform a new dynamic relation between government and citizens (Al-Shafi and Weerakkody, 2010).

Kylie Wansink states that 2,400 e-government services made available in Qatar in 2018 through both website and mobile applications (Wansink, 2020). The Hukoomi website made it clear that "Qatar Digital Government 2020 strategy will benefit everyone" (Hukoomi, 2020).

The Covid-19 crisis has highlighted the need for governments to offer more e-services as more of our daily lives move into the online realm.

Countries with advanced e-services managed to continue to successfully serve their citizens and residents during the COVID-19 pandemic .

Objective

The aim of this research is to examine the factors that affect user's intention to use e-government services through mobile applications in Qatar.

Technology Acceptance Model

Previous research has shown that the technology acceptance model (TAM) has been used to explain and predict the intention of using technologies.
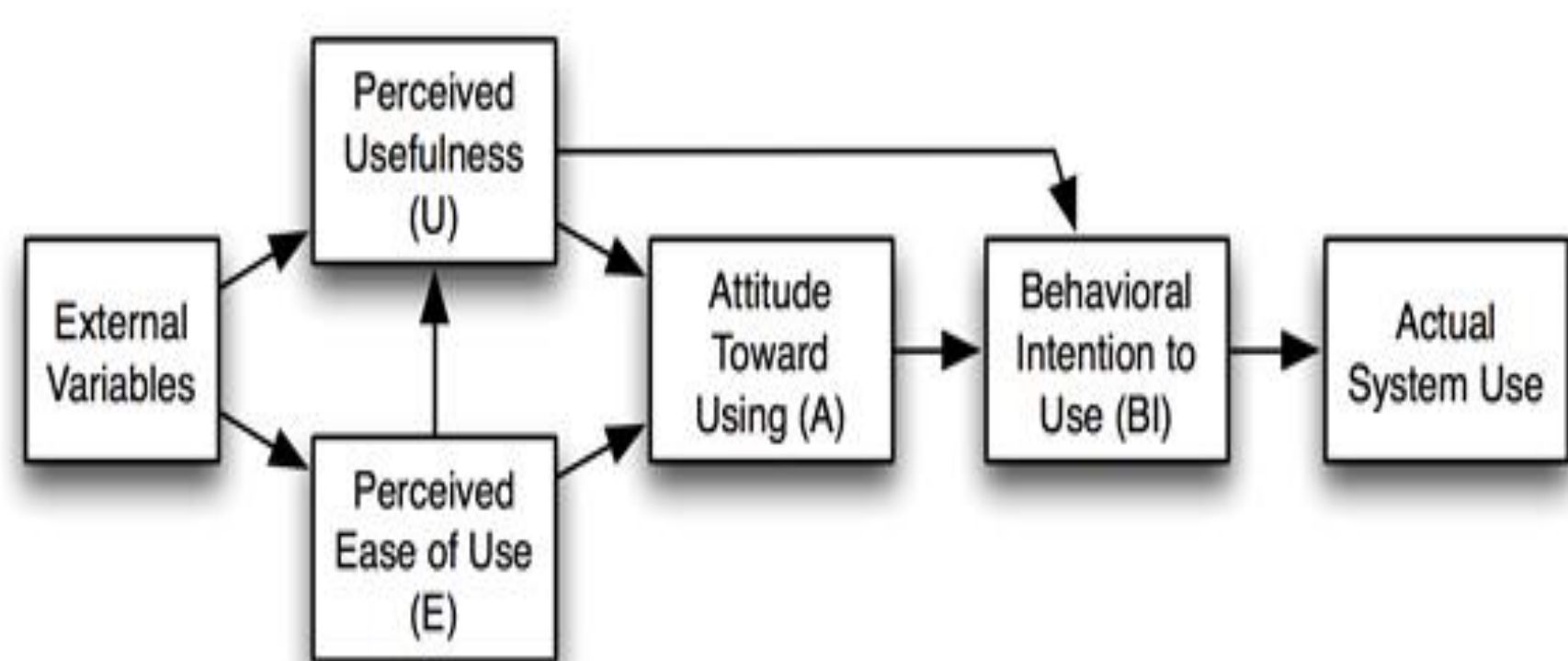
The research model used in this study is premised on technology acceptance model (TAM) developed in 1989 by Davis, Bagozzi, and Warshaw.

Hypotheses

H1. The more positive respondents' awareness of the e-government services provided by mobile applications, the more likely they are to adopt e-government services through mobile applications.

H2. The more the respondents' trust of the e-government services provided by mobile applications, the more likely they are to adopt e-government services through mobile applications.

H3. The more positive respondents' perceived ease of use, the more likely they are to adopt e-government services through mobile applications.

H4. The more positive respondents' perceived usefulness of the mobile applications, the more likely they are to adopt e-government services through mobile applications.

Methods and Materials

A representative sample of 1,340 adults in Qatar aged 18 years and older were selected and interviewed using Computer-Assisted Telephone Interviewing system (CATI) to reflect the views of the general population in the State of Qatar (Qataris and Expats).

Using SPSS, the researcher employed the Kaisers-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartless test of sphericity to establish the construct validity of the instrument.

The five extracted and rotated dimensions are: awareness, perceived trust, perceived ease of use, perceived usefulness, and intention to adopt e-government

Results

In regressing the dependent variable "Intention to Adopt E-government Services through Mobile Applications" on the other four explanatory variables, it was found that the regression equation is highly significant (F = 29.198, p = 0.000).

Findings from multiple regression analysis have confirmed that the four independent variables: awareness, perceived trust, perceived ease of use, perceived usefulness, are significant in predicting the intention to adopt e-government services through mobile applications in Qatar.

Path Analysis
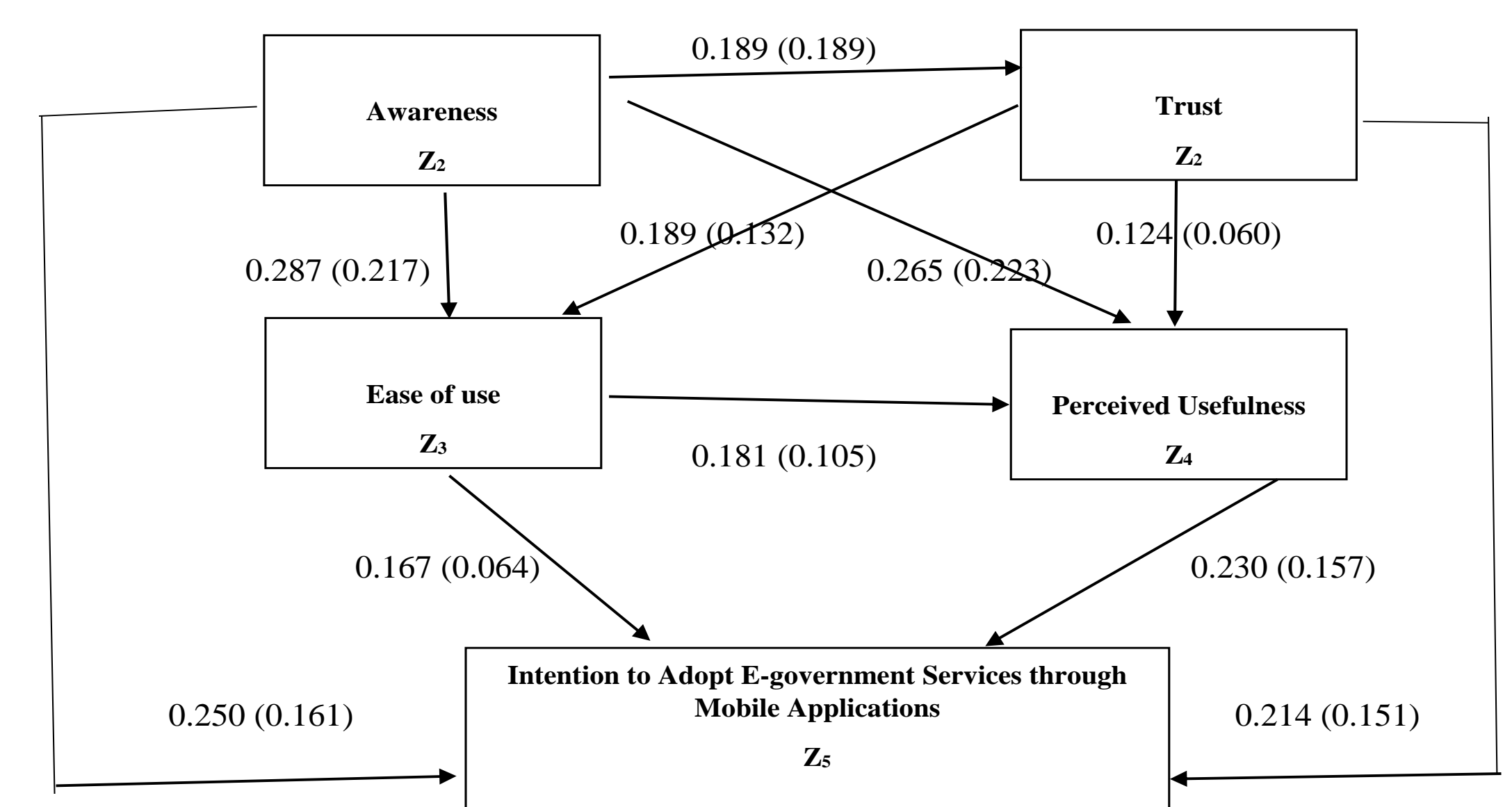
The number between parenthesis is the true relation between the two variables which exemplifies the direct effect. The other number is the Pearson simple relation, which exemplifies the total effect (direct plus indirect).

Conclusion

The increase of awareness about mobile applications and its benefits will increase the perception of usefulness and ease of use of mobile applications and consequently the intention to adopt mobile applications.

Moreover, the hypothesis that the more the respondents' trust of the e-government services provided by mobile applications, the more likely they is to adopt e-government services through mobile applications is also supported. This study's results further support the hypothesis that the more the positive the respondents' perceptions of the usefulness and ease of use, the more likely they are to adopt e-government services through mobile applications.

The originality and novelty of this paper becomes apparent when we relate the findings of this paper and its future e-government recommendations to the needs of the current Covid-19 pandemic to e-government applications such as Ehtraz in Qatar.

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