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To cite this article: Pezhman Hatamifar, Zahed Ghaderi & Adel Nikjoo (2021) Factors affecting international tourists’ intention to use local mobile apps in online purchase, Asia Pacific Journal of Tourism Research, 26:12, 1285-1301, DOI: 10.1080/10941665.2021.1983626

To link to this article: https://doi.org/10.1080/10941665.2021.1983626

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Factors affecting international tourists’ intention to use local mobile apps in online purchase

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ABSTRACT

Previous research investigated factors affecting the intention of international tourists to use smartphone apps in online buying under normal conditions. However, this intention has not yet been examined under different circumstances and in sanction-ridden and crisis-affected destinations. Moreover, previous studies have not examined the differences between different generations using multiple group analysis (MGA) on how the intention of tourists using Smartphone apps affects their buying behavior when the control variables change. This study attempts to fill this gap by surveying 385 international tourists in Isfahan, Iran. This study has both theoretical and managerial implications and introduces directions for future research.

KEYWORDS

Online shopping; mobile apps; technology acceptance model; smartphone; crisis-affected destination; multiple group analysis (MCA)

Introduction

Recent advancement in information and communication technologies, and especially the rapid popularity of mobile phones around the world, has led to the emergence of new mobile-based applications (Lee et al., 2006). Contemporary mobiles are not limited to their traditional function as a tool for calling others, and they have been transformed into a multi-function device helping people to save their time and money (Islam et al., 2013; Kim et al., 2013). Besides, mobile apps have gradually found the way into e-commerce and trade (Natarajan et al., 2017; Pappas et al., 2014; Yoon, 2002). Purcell (2011, p. 2) define mobile apps as “end-user software applications that are designed for a mobile device operating system and which extend the device’s capabilities by enabling users to perform particular tasks”. Along with the popularity of mobile apps and their importance in promoting tourism services, tourists show increasing interest in using these apps for all tourism-related activities because of the various advantages they might offer. Information sharing, information exchange, reservation, and shopping are among the most recognized functions of these apps by tourists (Natarajan et al., 2017).

Furthermore, mobile apps make a wide range of services and resources accessible to users without the need of a web browser. Some most common of which are social media, news services, online games, e-mail, weather, health, sports, and podcasts (Tan et al., 2017; Yang, 2013). Apps are also being used as a purchasing channel. Compared to the conventional browsers, several benefits are mentioned in using the apps in shopping. First, mobile apps are optimized for mobile usage and make the life easier for users (Wang & Wang, 2010). Second, mobile apps can track customers’ daily activities and get matched with them; and finally, clients can find the software easier in comparing prices, getting discounts, evaluating products and services, finding the locations and relevant information. From the business perspective, mobile apps can lead to customer loyalty,
enhance the effectiveness of promotions, reduce costs, improve safe communication with customers, and serve as an opportunity to interact closely with mobile shoppers anytime and anywhere.

Although tourists’ online purchase of tourism products and services is common worldwide, this function is more complicated and restricted in developing countries like Iran due to the imposed economic and political sanctions on the country’s international banking (Ghaderi et al., 2018a, 2018b). Many apps on Apple Store are not functional in Iran, and the company removed several popular Iranian apps from its App Stores due to the U.S. sanctions (Toor, 2017). Nevertheless, Iranians are among the highest mobile app users, and sanctions did not restrict them in developing new apps for their daily tasks. Many tourist mobile apps have been introduced to the market by Iranians, of which several are very popular such as Snapp Trip, Phone Pay and Tap30, etc. However, investigating the intention of tourists to use such local mobile apps for online shopping is indispensable which remained untouched or less researched in the literature (Chang et al., 2016; Tan & Ooi, 2018; Wang et al., 2016). Moreover, understanding the influential factors in tourists’ decision to use mobile apps among varieties of choices is essential. Previous studies have focused only on international tourist apps and those factors influencing tourists’ intention to use mobile apps under normal circumstances which are functional worldwide. Nevertheless, up to the authors’ knowledge, no study examined how these factors affect tourist intention of selecting local mobile apps for online purchase in a crisis-affected and sanction-ridden destination. Using the Technology Acceptance Model (TAM) theory, the purpose of this research is to investigate how international tourists select and use local mobile apps for online purchase under the aforementioned circumstances. To achieve the aims of this study, international tourists who visited the city of Isfahan in Iran were surveyed in 2017 and 2018. The present study develops our understanding of the TAM among travelers in two ways; first, it adds implications about the demographic differences between groups; and second, it examines intention to purchase through local apps by international travelers in a sanctioned developing country, which may impose a more perceived risk to the buyers. It further contributes to the wider literature of tourist behavior and the application of modern and smart technologies in tourism (Figure 1).

Literature review

Mobile applications (apps)

The emergence of smartphones in 1993 by IBM with features like world clock, calculator, contact book, and later, the release of the Blackberry smartphone in 2002 were the beginning steps in mobile application development (Rajput, 2015). Since then, various mobile apps with different functions have been introduced to the market (Höpken et al., 2010; Riebeck et al., 2008). The tourism and hospitality industry has been one of the sectors that has benefited most from these technological advancements because of the needs and characteristics of the travel industry (Kennedy-Eden & Gretzel, 2012).

Simultaneous with the growth of other mobile apps, the travel-related app market has been progressed, with numerous apps listed in the Apple Store and Google Play (Choi et al., 2018). Tourism-related mobile apps operate as a guide for tourists in their information search (Aluri, 2017; Cacho et al., 2016; Lai, 2015; Smirnov et al., 2015), assist them in their travel planning (Huang et al., 2017; Okazaki et al., 2015; Vallespín et al., 2017; Xiang et al., 2015), ease transformation and accommodation booking (Ahmed et al., 2018; Fong et al., 2017; Jeon et al., 2018; Ozturk et al., 2015; Ozturk et al., 2016), and other tourism-related shopping (Agrebi & Jallais, 2015; Wang et al., 2016), as well as serving as a marketing tool for tourism and hospitality organizations (Enache & Man, 2017; Rahimi et al., 2017; Selvi, 2016).

Nevertheless, the Intention to buy via apps in tourism-related purchases and investigating the influential factors in selecting a specific app in this regard is less researched (Agrebi & Jallais, 2015; Kim et al., 2015; Tan & Ooi, 2018). Several studies have explained the intention of customers to buy online via smart phones in different areas (Chang et al., 2016; Kim et al., 2015; Law et al., 2009; Tan et al., 2017). For example, they showed that perceived ease of use, perceived usefulness (Agrebi & Jallais, 2015; Xiang et al., 2015), and perceived risk (Bicen & Sadikoglu, 2016; Tan et al., 2017) significantly affect the intention to purchase via apps.

From the business point of view, mobile apps, besides increasing customer loyalty, boost the effectiveness of advertisements and facilitate
communication with customers (Cameron et al., 2012). One benefit of shopping online via mobile apps is the ability to personalize programs and overcome the difficulties of using web browsers. People can use these apps to compare prices, get informed about discounts, locate stores, and find local activities (Wang & Wang, 2010). The ease of using these apps compared to websites can lead to an increased daily performance among users (Kim et al., 2013). In other words, the main reason for the growing use of smartphones is their ability to easily access the Internet (Batkovic & Batkovic, 2015). Considering this, smartphones also have changed the business models and structure of the tourism industry. Tourist companies provide their customers with different smartphone applications to encourage them to purchase products and services online (Mo Kwon et al., 2013).

Tourist online shopping in Iran

Technology has facilitated almost all travel activities, particularly online shopping (Xiang et al., 2015). Many contemporary tourists, especially international ones, prefer to purchase products or services online (Choi et al., 2018; Guo, 2016). However, shopping online is not always an easy decision, and many barriers may hinder purchasing travel products when using online platforms (Gupta & Khincha, 2015). Given that technology is originated from developed nations, they may limit the usage of some technologies in their foe countries to pressure them in favor of their international strategies.

Iran is a recognized case of countries affected by various political, technological, and economic sanctions imposed mainly by the U.S. (Ghaderi et al., 2018a, 2018b). The long-term sanctions have pushed countries like Iran toward a resistive economy (Seyfi & Hall, 2019), and arguably, the development and ubiquity of local mobile apps in Iran has a link to the inaccessibility of international apps in the country. After the 1979 Revolution, Iran has suffered from various long-term sanctions by which the country’s tourism industry has been severely affected (Ghaderi et al., 2018a, 2018b; Khodadadi, 2016).

Sanctions have hindered the collaboration of international monetary organizations (such as Visa Card and MasterCard), banks, insurance companies, and other service providers with Iranian companies (Ghaderi et al., 2018a, 2018b; Pratt & Alizadeh, 2018). The actions that harshly influenced Iran’s tourism industry reduced the competitiveness of Iran as a tourism destination. As an example, international tourists are not able to directly book any Iranian accommodations from Booking.com platform, global insurance companies, credit card providers do not cover their services in Iran, and many global mobile apps stopped working in Iran due to the sanctions and difficulty in money transaction (Ghaderi et al., 2018a, 2018b).

Although these problems have hindered online shopping through international platforms, by adapting a resistive economy (Seyfi & Hall, 2019), domestic
banks issue temporary debit cards for international travelers enabling them to shop online and offline while visiting Iran. Nevertheless, the adverse effects of sanctions do not be confined to functional operations. Beyond that, as Seyfi et al. (2020) mentioned, the psychological effects of sanctions such as the creation of negative destination image and the reduction in trusting to sanctioned nation’s monetary transactions negatively impact international travelers’ intention to travel to sanctioned country or using their tourism-related services and products.

Theoretical framework and hypotheses development

The theory of technology acceptance model (TAM)

Proposed by Davis (1989), the TAM relates user acceptance of technology to user behavior. According to the model, the use of a technology-based product depends on the customers’ Intention to purchase via apps (I.P.), which depends, in turn, on their attitude towards the new technology. This attitude is essentially formed by an assessment of the perceived ease of use (PEOU) and the perceived usefulness (P.U.) of a technology. Technology Acceptance theory can be extended to various types of technology (Natarajan et al., 2017; Venkatesh & Davis, 2000) and be linked to “behavior intent attitude belief” to describe the technology acceptance among potential users (Gillenson & Sherrell, 2002).

Due to the increasing importance of online shopping, the intent to buy via apps attracts the attention of researchers and practitioners (Burton-Jones & Hubona, 2006; Shih & Chen, 2013). Statistics show that more and more people are adopting different types of technologies, such as technology services, smart phones and new media on a daily basis (Aqag & El-Masry, 2016). In short, the TAM predicts people’s intention to use technology by evaluating their past experiences and their perceived benefits of new technologies (Kim & Woo, 2016; Venkatesh & Davis, 2000).

Given the importance of technology in tourism and hospitality, previous researchers have investigated some aspects of technology acceptance in the travel context, such as the source of travel information (Castaneda et al., 2009), hotels’ front office (Kibe et al., 2019), convenient guide services (Chuang, 2020), app-based mobile tour guide (Lai, 2015), and travelers’ purchase intention (Vahdat et al., 2020). Kim et al. (2008) were among the pioneers who adopted the TAM in tourism research. They suggested two external variables, including travel and technological experience, and two influencing determinants: perceived ease of use and perceived usefulness. They noted that external variables have positive effects on influential determinants, all of which increase intention to use among travelers.

Surprisingly, there is no consensus among previous tourism studies on the impact of influencing determinants on intent to use. While some studies (Huang et al., 2019) suggest that both dimensions have positive impacts on intent to use, and even some studies like (Oh et al., 2009) show that usefulness has a greater impact on the intention, there are still studies (Castaneda et al., 2009; Vahdat et al., 2020) that suggest ease of use is more important than usefulness in tourism experiences. In a demographic comparison study on these elements Assaker (2020) explains that while perceived usefulness is the most important factor among male and younger generations, perceived ease of use is more important for females and older travelers. In addition to this, cultural values such as power distance, collectivism, masculinity, and uncertainty avoidance influence technology acceptance (Sun et al., 2020). Considering the above discussion, we applied this theory to investigate the intention of tourists to use local mobile apps in online shopping in Iran.

Hypotheses development

This research examines the intention of international tourists to use smartphone applications for online purchases based on the TAM framework. The perceived benefit is one of the key drivers of technology acceptance in this platform. Convenience as an advantage of new technology makes it easier for customers to buy through apps (Davis, 1989). Although it is generally believed that ease of use is not as important as perceived benefit, it has constantly shown that the experience of convenience in the use of technology has a direct impact on post-purchase behavior and the intention to purchase through applications in the future (Choi et al., 2011).

Past research on the TAM has shown the importance of both perceived benefits and ease of use in determining whether users intend to use mobile telephone services (Agrebi & Jallais, 2015; Bigné et al,
assumptions are made: the provision of online services. Hence, the following this factor in the design of mobile applications and the perceived bene.

Security is another critical factor for users when buying goods and services online. It refers to financial security in online purchases through its links to preventing fraud and theft in transactions (Bart et al., 2005; Miyazaki & Fernandez, 2001). Therefore, if people do not feel a sufficient sense of security while purchasing, they will be more likely to cease the process of buying (Miyatake et al., 2016). Since some users are not familiar with the collection, recording and use of information in the online environment (Kim et al., 2011), they are often pessimistic about the inclusion of their personal information in these online environments (Yenisey et al., 2005). Miyazaki and Fernandez (2001) introduced security as a key factor in online shopping and claimed that recent e-commerce efforts focus on security more than any other issue. In a research on the role of cost, Miyatake et al. (2016) found that although online shopping costs less for both sellers and buyers, consumers are less willing to buy online mainly because of the sense of insecurity in cyberspace. Before them, Thakur and Srivastava (2013) emphasized that security and privacy issues reduce the users’ willingness to use mobile apps in businesses. Considering security as an important factor in purchasing by mobile phone, the following hypothesis is developed:

H3 (+): Security has a positive and direct influence on the intention to purchase via apps.

Another factor influencing the intention of using mobile apps is trustworthiness, which is a key variable in business ethics and online shopping (Akroush & Al-Debei, 2015; Bilgihan et al., 2016). However, Lee and Turban (2001) noted that trust would be improved over time through experience and interaction. Trust is the most influential customer mindset (Zhou, 2012) in reducing potential risks when customers purchase through mobile devices (Chua et al., 2015). Several scholars have emphasized the importance of trust in the Intention to purchase via apps (Akroush & Al-Debei, 2015; Amaro & Duarte, 2013; Kim et al., 2011). The more the trustworthiness customers perceive in online purchasing, the more the chance they have to continue shopping (Amaro & Duarte, 2013). Thus, the fourth hypothesis is defined as:

H4 (+): Trust has a positive and direct influence on the experience of purchase via apps.

Finally, previous experience has a determinant role in the Intention to purchase through apps (Liu et al., 2018). Previous studies showed that a successful online shopping experience via apps improves the Intention to purchase it again (Jeon et al., 2018; Maruping et al., 2017; No & Kim, 2014). Research also indicate that those with negative experiences in online shopping in the past will not be motivated to buy online again, at least for a specific period of time (Fong et al., 2017; Hsu & Lin, 2015). Therefore, the following assertion is made:

H5 (+): Experience of use has a positive and direct influence on the intention to purchase via apps.

Method

Samples and data collection

The study’s population was international tourists who visited Iran in 2017 and 2018. The questionnaires were mainly distributed in the Naqsh-e Jahan Square, Isfahan, Iran. Naqsh-e Jahan, as a UNESCO World Heritage Site, is the most visited place in Isfahan – the most touristic city of Iran (Ghaderi et al., 2018a, 2018b). The questionnaire was designed in English and has been distributed among potential respondents assisted by local tour guides. In general, older tourists travel to Iran in organized tours and have little knowledge of English compared to younger generations that usually travel independently. At first, we considered random sampling to minimize the bias, but this sampling strategy was not successful because the majority of selected cases rejected our requests arguably because of language insufficiency and shortage of time as they were in planned visits. After two months, we decided to change our strategy to convenience sampling. We, therefore, asked every
individual tourist to fill in the questionnaire. Finally, a total of 396 questionnaires were issued in conformity with the maximum recommended Cochran sample size, of which 385 were usable for analysis. Hair Jr et al. (2016) also recommended at least 70 measurements to obtain a statistical power of 80% to detect $R^2$ values of at least 0.25 (with a 5% error probability). Therefore, considering this limitation, the use of PLS in the present study was justified. Similarly, when the Multi-group Analysis (MGA) test is considered, the minimum sample size was determined using G*Power to ensure data adequacy (Faul et al., 2009). Furthermore, Goodhue et al. (2006) proposed using a sample size of 45 or more for PLS-SEM. As a result, the sample size of 385 is sufficient for data analysis in this research.

### Scale measurement

We used the quantitative survey of international tourists visiting Isfahan to examine their intention to use mobile apps in online purchases. A self-administered questionnaire was designed consisting of two sections; socio-demographic characteristics, and the main variables including perceived usefulness, perceived ease of use, security, trust, experience, and the Intention to purchase via apps. Table 1 lists these variables, which were initially drawn from previous studies. Each item was measured by a Likert five-point scale in which one corresponds to “strongly disagree” and five to “strongly agree”. An online pretest involving 30 participants was undertaken to verify the questionnaire and measuring instruments as advised by Kothari (2004). It helped us make few minor changes in variables to increase the liability of data. Details of the statistical testing are included in the account of the results.

### Data analysis

The research model is assessed by PLS-SEM in a three-stage process related to the measurement, structural

<table>
<thead>
<tr>
<th>Author</th>
<th>Measure</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agag &amp; El-Masry, 2016; Agrebi &amp; Jallais, 2015; Bilgihan, 2016; Dong et al., 2017; Islam et al., 2013; Lu, 2014; Natarajan et al., 2017; Tong, 2010; Venkatesh &amp; Davis, 2000; Xia et al., 2017</td>
<td>Perceived usefulness</td>
<td>– Using mobile apps for online purchase will enable me to accomplish transaction more quickly, conveniently, and usefully. – Using mobile apps for online purchase will increase my productivity. – Using mobile apps for online purchase will enhance my effectiveness.</td>
</tr>
<tr>
<td>Agag &amp; El-Masry, 2016; Agrebi &amp; Jallais, 2015; Batkovic &amp; Batkovic, 2015; Bilgihan et al., 2016; Dong et al., 2017; Islam et al., 2013; Natarajan et al., 2017; Venkatesh &amp; Davis, 2000; Xia et al., 2017</td>
<td>Perceived ease of use</td>
<td>– Using mobile apps for online purchase does not require great mental effort. – Using mobile apps for online purchase is simple to use, and this function is important to me. – Using mobile apps for online purchase is clear and understandable.</td>
</tr>
<tr>
<td>Chaffey, 2007; Kim et al., 2011; Miyatake et al., 2016</td>
<td>Security</td>
<td>Online shopping through mobile apps is safe. In general, making payments online via apps has no risk. Mobile apps can be trusted to safeguard my personal information.</td>
</tr>
<tr>
<td>Akroush &amp; Al-Debei, 2015; Bigné et al., 2010; Bilgihan et al., 2016; Hsu et al., 2013; Hsu et al., 2012; Miyatake et al., 2016; Pappas et al., 2014; Shi &amp; Chow, 2015; Zhang et al., 2017</td>
<td>Trust</td>
<td>Online shopping through mobile apps is reliable in Iran. Online shopping through mobile apps is trustworthy in Iran. In my future shopping, I will use mobile apps, and I trust them.</td>
</tr>
<tr>
<td>Bilgihan et al., 2016; Dedeoglu et al., 2018; Dong et al., 2017; Hsu et al., 2012; Pappas et al., 2014; Shi &amp; Chow, 2015; Tong, 2010; Xia et al., 2017; Zhang et al., 2017</td>
<td>Experience</td>
<td>I bought products frequently through mobile apps. Mobile apps have more to offer compared to traditional shopping methods, hence I get more experiences and fun. I consider myself to be quite knowledgeable about using mobile apps before I purchase any things.</td>
</tr>
<tr>
<td>Agrebi &amp; Jallais, 2015; Bigné et al., 2010; Dong et al., 2017; Islam et al., 2013; Lu, 2014; Natarajan et al., 2017; Pappas et al., 2014; Tong, 2010; Venkatesh &amp; Davis, 2000</td>
<td>Intention to purchase via apps</td>
<td>I think using mobile apps for online purchase is the right choice. Assuming that if I have access to Iranian mobile apps, I intend to use it in online purchasing. I will give priority to use mobile apps in online purchasing in Iran.</td>
</tr>
</tbody>
</table>

Table 1. Variables and measures.
components and MGA. The validity and reliability of the association between the latent variables (L.V.s) and other observable variables are examined. The reason to use PLS-SEM is that it has a higher predictive power (Vinzi et al., 2010). It also enables the retention of more indicator variables and confirms the potential of a second-order construct (Hair Jr et al., 2016; Vinzi et al., 2010). In this article, we employed PLS-SEM because of its ability to handle small sample sizes, complex models with numerous endogenous and exogenous constructs, and indicator variables (Astrachan et al., 2014).

**Multi-group analysis (MGA)**

In tourism research, the homogeneity of a statistical sample is usually assumed, but it is almost impossible for a similar statistical sample because there is no single population at the time of data collection. A review of the literature demonstrates that several research have examined the group-specific effects in determining population heterogeneity (Henseler, 2012; Suhartanto, 2019; Ting et al., 2019). However, MGA received limited attention in tourism and hospitality. In order to have an in-depth understanding of the differences between groups, it is necessary to divide a statistical sample into different groups and compare the findings accordingly. The purpose of using MGA in this study is to determine if there is a significant difference among the groups. Due to the importance of MGA in tourism research, we have tried to understand the differences in tourist behavior while using mobile apps in online purchases. For this purpose, we compared tourists according to generation, gender and source of information.

Based on the research hypotheses and previous studies, the conceptual framework of the MAG is described as follows:

**Research findings**

**Respondent profile**

Details of the study respondents can be found in Table 2, which shows that 59% of our respondents are women and 41% men. About one-third of the sample are retired, 25.4% self-employed, 23% have government jobs, and 16.1% are unemployed. The highest proportion, 42.3%, had Masters’ degree, 15.3% PhDs, while 23.9% had a degree or diploma. Travel information sources are Internet and social media (35.8%), word of mouth (31.9%), other categories such as newspapers and print material (23.5%), and travel agencies (8.8%). Over 93.5% use smart tools daily compared to 6.5% who do not use them.

**Model measurement**

The theoretical model is assessed by PLS-SEM analysis in a two-stage process related to the measurement and structural components (Schubring et al., 2016). With regard to the former, the validity and reliability of the association between the latent

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**Table 2. Respondents’ profile.**

<table>
<thead>
<tr>
<th>Demographic variants</th>
<th>Percentage</th>
<th>Demographic variants</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td><strong>Generation/Age</strong></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>59</td>
<td>Baby boomer</td>
<td>29.7</td>
</tr>
<tr>
<td>Male</td>
<td>41</td>
<td>X</td>
<td>36.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y</td>
<td>34.2</td>
</tr>
<tr>
<td><strong>Tendency to buy with APP</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generation Y</td>
<td>53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generation X</td>
<td>43.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baby boomers</td>
<td>12.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-employed</td>
<td>25.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Governmental</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>16.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retired</td>
<td>29.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without occupation information</td>
<td>5.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Source of Information</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Word of mouth</td>
<td>31.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel agencies</td>
<td>8.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet and social media</td>
<td>35.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>23.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
variables (L.V.s) and other observable variables are examined. As previously noted, six reflective constructs are used in the measurement model, including perceived usefulness, perceived ease of use, security, trust, experience, and the Intention to purchase via apps. Two main criteria of composite reliability (CR) and average variance extracted (AVE) were used to examine the reliability and variance. The CR co-efficient is deemed more appropriate for PLS-SEM than Cronbach’s alpha. As previous research showed (Hair et al., 2011), a loading over 0.6 demonstrates acceptable reliability, which in our study, all loading factors fulfilled this criterion (Table 3). In addition, the CR for all LVs is greater than 0.831, which indicates internal consistency and the model’s reliability.

The convergent validity of the reflective measurement model is also tested, considering LVs and AVE values which should be greater than 0.5 to be acceptable (Campón-Cerro et al., 2017; Götz et al., 2010). Again, Table 3 reveals that the AVE values for all constructs are greater than 0.623, and the loading is higher than 0.691. Therefore, the model has a satisfactory level of convergent validity.

Discriminant validity is the extent to which a construct is different from other constructs by empirical standards (Hair Jr et al., 2016) and is evaluated in accordance with a preferred technique (Fornell & Larcker, 1981). This compares the average root of the AVE variables with the LV correlations, and the square root of each should be higher than its highest correlation with any other. Table 4 highlights the AVE value square roots in bold (0.834, 0.839, 0.860, 0.841, 0.789, and 0.863) and establishes discriminant validity as they all meet the requirement.

In order to assess the structural (inner) model, the recommended criterion of path coefficient significance is applied (Hair Jr et al., 2016). The statistics for this exercise are shown in Table 5; showing that the results are satisfactory.

Table 3. The reflective measurement model.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Items</th>
<th>Factor loading</th>
<th>AVE</th>
<th>Cronbach Alpha</th>
<th>Compound reliability</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived usefulness</td>
<td>Q1</td>
<td>0.842</td>
<td>0.740</td>
<td>0.825</td>
<td>0.895</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Q2</td>
<td>0.893</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q3</td>
<td>0.844</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived ease of use</td>
<td>Q4</td>
<td>0.847</td>
<td>0.707</td>
<td>0.824</td>
<td>0.878</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Q5</td>
<td>0.912</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q6</td>
<td>0.756</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>Q7</td>
<td>0.854</td>
<td>0.623</td>
<td>0.693</td>
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<td>Trust</td>
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<td>0.744</td>
<td>0.829</td>
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<td>Experience</td>
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<td>0.763</td>
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<td>0.780</td>
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<td>0.861</td>
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<td></td>
<td>Q18</td>
<td>0.874</td>
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<tr>
<td>Intention to purchase via apps</td>
<td>Q13</td>
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<td>0.703</td>
<td>0.789</td>
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<td></td>
<td>Q15</td>
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Table 4. Discriminant validity.

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<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience (1)</td>
<td>0.834</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Intention to purchase via apps (2)</td>
<td>0.716</td>
<td>0.839</td>
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<tr>
<td>Perceived usefulness (3)</td>
<td>0.446</td>
<td>0.488</td>
<td>0.860</td>
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<tr>
<td>Perceived ease of use (4)</td>
<td>-0.50</td>
<td>0.034</td>
<td>-0.015</td>
<td>0.841</td>
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<tr>
<td>Security (5)</td>
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<td>0.565</td>
<td>0.350</td>
<td>-0.022</td>
<td>0.789</td>
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<tr>
<td>Trust (6)</td>
<td>0.720</td>
<td>0.802</td>
<td>0.508</td>
<td>-0.012</td>
<td>0.659</td>
<td>0.863</td>
</tr>
</tbody>
</table>
**Hypotheses testing**

The outcomes of the hypothesis testing are summarized in Table 5, which supports the first hypothesis with the standardized coefficient showing that the perceived usefulness has a positive and direct influence on the intention to purchase via apps ($\beta = 0.181$; $t = 5.438$). The coefficient of perceived ease of use is $\beta = 0.067$; $t = 1.375$, and the second hypothesis is therefore rejected; whereby, perceived ease of use is not associated with the intention to purchase via apps. The third hypothesis of a positive relationship between security and the intention to purchase via apps is confirmed by the coefficient ($\beta = 0.219$; $t = 4.564$). The fourth hypothesis with the coefficient ($\beta = 0.720$; $t = 29.162$) and the fifth hypothesis with the coefficient ($\beta = 0.519$; $t = 12.176$) are also supported.

**Multi-group analysis**

To examine the differences between gender, source of information, and generation in terms of their path differences, three MGA were performed. In each of the three analyses, one path coefficient was constrained to be equal across the three groups. Table 6 illustrates the MGA results, examining the differences of generation and the source of information towards the relationship between each exogenous and endogenous constructs. The finding shows that there is a significant difference between generations during their online shopping.

Table 6 supports the hypothesis with the standardized coefficient showing that experience has a positive and direct influence on the intention to purchase via apps between all generations ($\beta = 0.512$ $t = 10.466$, $\beta = 0.818$, $t = 9.923$, and $\beta = 0.649$, $t = 24.974$). The coefficient of perceived usefulness is ($\beta = 0.159$, $t = 5.723$, $\beta = 0.626$, $t = 9.817$, and $\beta = 0.433$, $t = 4.792$), and the second hypothesis is therefore accepted whereby perceived usefulness is associated with intention to purchase via apps. Perceived ease of use has a direct and positive influence on the intention to purchase via apps among baby boomers and members of Generation Y ($\beta = 0.080$; $t = 2.632$, and $\beta = 0.270$; $t = 2.540$), but this relationship is rejected among Generation X ($\beta = 0.075$; $t = 1.123$). The finding related to the fourth hypothesis shows that security is not an influential factor for generation Y, and it has no direct effect on their Intention to purchase via apps ($\beta = 0.139$; $t = 1.278$), although it has a direct and positive influence on the intention to purchase via apps among baby boomers, and generation X ($\beta = 0.305$; $t = 2.500$, $\beta = 0.177$; $t = 3.174$). And the fifth hypothesis with a coefficient ($\beta = 0.676$; $t = 0.800$, and $\beta = -0.44$; $t = 0.630$) is rejected among baby boomers and generation X, but it is accepted among generation Y ($\beta = 0.676$; $t = 2.632$).

Table 7 reveals that there is a significant difference between the sources of information on the relationship between variables during tourists’ online purchase. It also shows the MGA results where they examine the differences of the information source with respect to the relation between each exogenous and endogenous constructs. Based on the t-statistics and path coefficient, it can be observed that the relationship between experience and the intention to purchase via apps does not have a significant difference in MGA based on the sources of information. The co-efficient of Internet and social media ($\beta = 0.706$; $t = 1.547$), travel agencies, ($\beta = 0.817$; $t = 1.050$), word of mouth ($\beta = 0.699$; $t = 1.135$), and other sources of information ($\beta = 0.706$; $t = 0.238$), indicates that this hypothesis is not supported in the four different groups.

However, the relationship between perceived usefulness and the intention to purchase via apps shows a difference between the sources of information. Thus H2e, H2g, and H2h hypotheses are supported, but hypothesis H2f is rejected. When we examined MGA for investigating the relationship between perceived ease of use and the intention to purchase via apps, it can be observed that the relationship has a significant difference: Internet and social media ($\beta = 0.170$; $t = 3.907$), word of mouth ($\beta = 0.215$; $t = 2.279$),

| Hypothesis | $\beta^1$ | $M^2$ | $STDEV^3$ | $|O/STDEV|^4$ | $p^5$ | Test |
|------------|-----------|-------|-----------|---------------|-------|------|
| H1: Perceived usefulness $\rightarrow$ (+) Intention to purchase via apps | 0.181 | 0.180 | 0.033 | 5.438 | 0.00 | Accepted |
| H2: Perceived ease of use $\rightarrow$ (+) Intention to purchase via apps | 0.067 | 0.053 | 0.049 | 1.375 | 0.17 | Rejected |
| H3: Security $\rightarrow$ (+) Intention to purchase via apps | 0.219 | 0.220 | 0.048 | 4.564 | 0.001 | Accepted |
| H4: Trust $\rightarrow$ (+) Experience | 0.720 | 0.723 | 0.025 | 29.162 | 0.000 | Accepted |
| H5: Experience $\rightarrow$ (+) Intention to purchase via apps | 0.519 | 0.517 | 0.043 | 12.176 | 0.000 | Accepted |

Notes: 1Direct influence; 2Sample Mean 3Standard Deviation; 4T-Statistics; 5P-Value.
compared to travel agencies ($\beta = 0.104; t = 821$), and other sources of information ($\beta = 0.209; t = 1.709$). H4e to H4h referred to a significant difference between the sources of information on the relationship between security and intention to purchase via apps. The finding shows that these hypotheses are supported based on these results: Internet and social media ($\beta = 0.262; t = 6.570$), travel agencies, ($\beta = 0.105; t = 6.051$), word of mouth ($\beta = 0.218; t = 6.231$), and other sources of information ($\beta = 0.166; t = 6.635$). Similarly, a significant difference between sources of information on the relationship between Trust and Experience is supported based on the results of Table 7.

Table 8 shows that there is no significant difference between men and women on the relationship between variables during their online shopping. Based on the result of MGA, perceived ease of use has no significant and positive effect on the intention to purchase via apps between two different genders ($\beta = 0.055$ and $t = 0.850, \beta = 0.018$ and $0.218$), thus the finding showed these hypotheses are not supported based on these results. Yet, other hypotheses are supported based on the findings. The results of MGAs can be found in Appendix 1.

Discussion

The purpose of this research was to examine the intention of international tourists to purchase through mobile apps in Iran. The results confirm our first hypothesis that perceived usefulness has a direct and positive impact on intention to purchase via apps. It means that if tourists find mobile apps useful and beneficial, they most likely to use them. This finding is also consistent with the results of previous studies that found apps’ usefulness and their functionality are the main reasons to use them in online shopping (Calisir et al., 2009; Gong et al., 2013; Hung et al., 2003; Peres et al., 2011). As a contribution of this study, we argue that even in a sanction-ridden country in Iran with a higher perceived risk, people still intend to use local mobile apps if they found them functional.

Our findings, on the other hand, show that ease of use for online purchases through the app has little effect on the tourists’ intention to purchase via apps, and therefore, the second hypothesis is rejected. This result implies that the ease of use feature of apps is not a necessary determinant for tourists in their intention to online shopping. It can be argued that tourists nowadays are becoming more familiar with technology applications and know the required know-how to use them, and they may prioritize other features of a local application to decide to use it. There is no consensus among researchers on the importance of ease of use in the intention to purchase via apps and purchase via mobile apps. While some studies (Agrebi & Jallais, 2015; Bigné et al., 2010; Calisir et al., 2009; Davis, 1989; Gong et al., 2013) have mentioned the “ease of use” as a critical factor on intention, some other studies (Gong et al., 2013; Islam et al., 2013), similar to us, have found that the importance of ease of use is not such critical that deter people from using new mobile apps.

We argue that this disagreement about the importance of ease of use on intention is mainly related to the nature of studied applications and the contexts of different studies. In our case, it is understandable that travelers prioritize other factors such as usefulness, security, and trustworthiness to ease of use. For instance, when travelers find Snapp online taxi functional in their city transport, and they trust the application’s security, it is probable that they use it regardless of some potential difficulties.

It also seems rational that when people purchase online, they may encounter a virtual store and do not experience a physical presence to see or touch the product. Therefore, security would be a key factor for them in online shopping. Under such circumstances, they may consider more security dimensions such as secure transactions, personal information confidentiality, and avoiding Internet frauds in online shopping. This factor gains even more importance in under-sanction countries or certain countries like Iran, where the perceived risk of financial transactions and fraud is higher. As a result, using safe and reliable payment portals through apps is vital in the positive attitude of individuals in online shopping. The role of perceived security in buyers’ intention to purchase via apps is consistent with the results of previous studies (Miyatake et al., 2016; Thakur & Srivastava, 2013).

As stated in the literature, trust and experience are interrelated issues meaning that previous experiences act as a driver for repeating the experience. In this regard, the formation of a positive experience in the first use of apps for online shopping is of importance. According to the findings of this survey, the relationship between previous experience and trust in online purchase through apps is confirmed. This outcome,
however, is in line with the results of past research (e.g. Kim et al., 2011; Zhang et al., 2017), which found a positive link between trust in technology and previous experience.

Finally, the fifth hypothesis also confirms the impact of prior experience on purchasing via smartphone apps. Pleasant or unpleasant past experience of using apps in online shopping directly links to the intention to purchase via apps. This study, therefore, confirms the findings of Dedeoglu et al. (2018), which found that tourists’ previous experience is influential in their intention to use hotel services.

Taking the MGA results into account, the links between factors are stronger among generation Y participants compared to the other generations (X and baby-boomers). It implies that younger generations are more tech-savvy and intend to shop online (Beckendorff et al., 2010; Schreurs et al., 2017). Specifically, the results obtained from MGA show that in the case of baby boomers and generation X, trust does not affect the experience. But other factors from these two groups affect entirely the intention to purchase via apps. But for generation X, the results showed that in addition to the weak link of experience on trust, perceived ease of use also does not affect their intention to purchase. Contrary to these findings, perceived security does not affect the intention to purchase among members of generation Y.

Consequently, for the source of information, the results ultimately showed that if they obtained information from travel agencies, only security affects their intention to purchase. Similarly, for them, trust also affects their experience. However, if social media and the Internet be their source of information, the previous experience will be the only factor that does not affect them. Also, when tourists use word of mouth as their source of information, the experience did not affect their intention to purchase via apps. Yet e-WOM has a significant role in the intention to purchase via apps (Pareek & Pattison, 2000). On the other hand, as long as tourists use other sources of information instead of the abovementioned sources, experience and perceived ease of use do not affect their intention.

Contrary to previous studies which have mostly pointed out that gender affects the intention to purchase via apps (Assaker, 2020; Eagly & Carli, 2003; Ilie et al., 2005; Nysveen et al., 2005a, 2005b) the findings have shown that there is no significant difference in the intention to purchase via apps between men and women. For none of the genders, ease of use affects their intention to shop online. However, according to the results, it can be considered that other factors affect the intention to use the apps from the point of view of male and female tourists alike. But looking at the T-values, it can be seen that perceived usefulness, security, and trust were more important for women than men. This finding is consistent with the findings of Shemesh and Barnoy (2020) and Teo and Noyes (2014), who have also rejected the difference between men and women in the desire to use technology.

**Conclusion**

The international tourists’ intention to use local mobile apps in online shopping under certain circumstances, such as under-sanction destinations, is new in the literature of behavioral intention. The current study contributes to our understanding of the TAM among tourists in two ways; first, it explores the intention to purchase through local apps by foreign travelers in a sanctioned country, and second, it adds implications regarding demographic differences between communities. Employing the structural equation modeling (SEM), we found a positive link between apps’ usefulness and intention to purchase via apps; apps security and tourists’ intention to purchase; trust in apps and experience of use, and the experience in app use and intention to purchase through them. We found no link between the apps’ ease of use and tourists’ intention to purchase tourism-related products and services. MGA results indicate significant differences between generations (X, Y, and Baby-boomers) in terms of experience, ease of use, security, and the source of information in using Smartphone apps while buying.

Additionally, in this article, three demographic factors, including gender, source of information, and generational differences, were examined using the MGA method. In the case of gender, the findings showed no significant difference between men and women regarding the use of smartphones in certain situations. Also, the difference between generations on using mobile applications is another critical issue that needs more attention because generations have different approaches toward different issues such as using smartphones. In addition, the role of the source of information is another issue that was examined.

The current study has both managerial and theoretical implications. First, destination managers and
other stakeholders should consider the new trends of technology explosion in international tourism and hospitality which are heavily reliant on smart technology. Technology-driven strategies must be put in place in designing, developing, and distributing tourism products and services. Tourists, nowadays, are very sophisticated and heavy users of smart technologies. They would need useful and secure apps to drive their online purchase. As security and trust become determinant factors in online shopping, the new generation of apps must ensure customers’ security and enhance their positive experience. Investment in apps’ security and usefulness is necessary, especially in developing countries like Iran that have been broadcasted as unsafe and unsecure countries in international markets (Ghaderi et al., 2018a, 2018b). It is also advised that the industry stakeholders enhance the technology infrastructure for online shopping, such as developing trustworthy payment portals, high-speed Internet, and developing user-friendly apps to improve user experience. This study has also theoretical contributions. It shows that intention to online shopping through mobile apps would still be a case even in an under-sanctioned destination. The results confirmed that the technology acceptance model is valid in a politically crisis-affected country like Iran. Similar to other studies, this study has some limitations which need to be acknowledged. The questionnaire was designed in English, and we missed many tourists who were not familiar with English. An avenue for future research could investigate the effects of these restrictions on the online purchase of tourists in countries like Iran.

Acknowledgements
Many thanks to Smart-PLS sales team for their supports.

Disclosure statement
No potential conflict of interest was reported by the author(s).

Funding
The author(s) reported there is no funding associated with the work featured in this article.

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**Appendix 1**

**Table 6. Multi analysis group based on generation.**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path coefficient</th>
<th>Path mean</th>
<th>Sample Mean</th>
<th>T-Statistics</th>
<th>P-Value</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baby boomers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>H1a</td>
<td>0.512</td>
<td>0.680</td>
<td>0.065</td>
<td>10.466</td>
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<tr>
<td>H2a</td>
<td>0.159</td>
<td>0.505</td>
<td>0.089</td>
<td>5.723</td>
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<tr>
<td>H3a</td>
<td>0.080</td>
<td>0.303</td>
<td>0.116</td>
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<td>H4a</td>
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<td>0.063</td>
<td>2.500</td>
<td>.012</td>
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<td>H5a</td>
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<td>0.100</td>
<td>0.800</td>
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<td>H1b</td>
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<td>0.033</td>
<td>9.923</td>
<td>.000</td>
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<td>H2b</td>
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<td>0.660</td>
<td>0.067</td>
<td>9.817</td>
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<td>0.089</td>
<td>0.075</td>
<td>1.123</td>
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<td>0.056</td>
<td>3.174</td>
<td>.002</td>
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<td>-0.044</td>
<td>-0.033</td>
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<td>0.630</td>
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<td>Generation Y</td>
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<tr>
<td>H1c</td>
<td>0.649</td>
<td>0.656</td>
<td>0.065</td>
<td>24.974</td>
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<td>H2c</td>
<td>0.433</td>
<td>0.422</td>
<td>0.090</td>
<td>4.792</td>
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<td>H3c</td>
<td>0.270</td>
<td>0.282</td>
<td>0.106</td>
<td>2.540</td>
<td>.011</td>
<td>Accepted</td>
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<tr>
<td>H4c</td>
<td>0.139</td>
<td>0.096</td>
<td>0.109</td>
<td>1.278</td>
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<tr>
<td>H5c</td>
<td>0.218</td>
<td>0.229</td>
<td>0.083</td>
<td>2.632</td>
<td>.009</td>
<td>Accepted</td>
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</table>

H1a-d, Experience $\rightarrow$ (+) Intention to purchase via apps; H2a-d, Perceived usefulness $\rightarrow$ (+) Intention to purchase via apps; H3a-d, Perceived ease of use $\rightarrow$ (+) Intention to purchase via apps; H4a-d, Security $\rightarrow$ (+) Intention to purchase via apps; H5a-d, Trust $\rightarrow$ (+) Experience.

**Table 7. Multi analysis group based on the source of information.**

<table>
<thead>
<tr>
<th>H</th>
<th>Path coefficient</th>
<th>Path mean</th>
<th>Sample Mean</th>
<th>T-Statistics</th>
<th>P-Value</th>
<th>Test</th>
<th>H</th>
<th>Path coefficient</th>
<th>Path mean</th>
<th>Sample Mean</th>
<th>T-Statistics</th>
<th>P-Value</th>
<th>Test</th>
</tr>
</thead>
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<tr>
<td>Internet and social media</td>
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<td></td>
<td></td>
<td>Other</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>H1e</td>
<td>0.706</td>
<td>0.101</td>
<td>0.070</td>
<td>1.548</td>
<td>.122</td>
<td>Rejected</td>
<td>H1g</td>
<td>0.760</td>
<td>0.030</td>
<td>0.112</td>
<td>0.238</td>
<td>.812</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2e</td>
<td>0.468</td>
<td>0.172</td>
<td>0.061</td>
<td>2.767</td>
<td>.006</td>
<td>Accepted</td>
<td>H2g</td>
<td>0.557</td>
<td>0.211</td>
<td>0.061</td>
<td>3.425</td>
<td>.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3e</td>
<td>0.170</td>
<td>0.259</td>
<td>0.067</td>
<td>3.907</td>
<td>.000</td>
<td>Accepted</td>
<td>H3g</td>
<td>0.209</td>
<td>0.169</td>
<td>0.097</td>
<td>1.709</td>
<td>.087</td>
<td>Rejected</td>
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<tr>
<td>H4e</td>
<td>0.262</td>
<td>0.469</td>
<td>0.071</td>
<td>6.570</td>
<td>.000</td>
<td>Accepted</td>
<td>H4g</td>
<td>0.166</td>
<td>0.557</td>
<td>0.084</td>
<td>6.635</td>
<td>.000</td>
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<tr>
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<td>0.709</td>
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<td>.000</td>
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<td>H5g</td>
<td>-0.27</td>
<td>0.763</td>
<td>0.048</td>
<td>15.665</td>
<td>.000</td>
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<td>Travel agencies</td>
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<td></td>
<td></td>
<td>Word of mouth</td>
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<tr>
<td>H1f</td>
<td>0.817</td>
<td>-0.47</td>
<td>0.126</td>
<td>1.050</td>
<td>.294</td>
<td>Rejected</td>
<td>H1h</td>
<td>0.699</td>
<td>0.065</td>
<td>0.100</td>
<td>1.135</td>
<td>.257</td>
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</tr>
<tr>
<td>H2f</td>
<td>0.752</td>
<td>0.092</td>
<td>0.087</td>
<td>1.196</td>
<td>.232</td>
<td>Rejected</td>
<td>H2h</td>
<td>0.477</td>
<td>0.207</td>
<td>0.061</td>
<td>3.516</td>
<td>.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3f</td>
<td>0.104</td>
<td>0.144</td>
<td>0.128</td>
<td>0.821</td>
<td>.411</td>
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<td>H3h</td>
<td>0.215</td>
<td>0.222</td>
<td>0.088</td>
<td>2.479</td>
<td>.013</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4f</td>
<td>0.105</td>
<td>0.718</td>
<td>0.124</td>
<td>6.051</td>
<td>.000</td>
<td>Accepted</td>
<td>H4h</td>
<td>0.218</td>
<td>0.478</td>
<td>0.075</td>
<td>6.321</td>
<td>.000</td>
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<tr>
<td>H5f</td>
<td>-0.132</td>
<td>0.811</td>
<td>0.076</td>
<td>16.817</td>
<td>.000</td>
<td>Accepted</td>
<td>H5h</td>
<td>0.114</td>
<td>0.701</td>
<td>0.050</td>
<td>14.056</td>
<td>.000</td>
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</table>

H1e-h, Experience $\rightarrow$ (+) Intention to purchase via apps; H2e-h, Perceived usefulness $\rightarrow$ (+) Intention to purchase via apps; H3e-h, Perceived ease of use $\rightarrow$ (+) Intention to purchase via apps; H4e-h, Security $\rightarrow$ (+) Intention to purchase via apps; H5e-h, Trust $\rightarrow$ (+) Experience.

**Table 8. Multi analysis group based on gender.**

<table>
<thead>
<tr>
<th>H</th>
<th>Path coefficient</th>
<th>Path mean</th>
<th>Sample Mean</th>
<th>T-Statistics</th>
<th>P-Value</th>
<th>Test</th>
<th>H</th>
<th>Path coefficient</th>
<th>Path mean</th>
<th>Sample Mean</th>
<th>T-Statistics</th>
<th>P-Value</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Male</td>
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<td>H1i</td>
<td>0.507</td>
<td>0.511</td>
<td>0.065</td>
<td>7.830</td>
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<td>H1j</td>
<td>0.514</td>
<td>0.511</td>
<td>0.057</td>
<td>8.995</td>
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<td>0.166</td>
<td>0.040</td>
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<tr>
<td>H3i</td>
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<td>0.061</td>
<td>0.065</td>
<td>0.850</td>
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<td>H3j</td>
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<td>0.033</td>
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<td>0.218</td>
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<td>0.718</td>
<td>0.056</td>
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<td>H5j</td>
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<td>0.593</td>
<td>0.056</td>
<td>10.632</td>
<td>.000</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

H1i-j, Experience $\rightarrow$ (+) Intention to purchase via apps; H2i-j, Perceived usefulness $\rightarrow$ (+) Intention to purchase via apps; H3i-j, Perceived ease of use $\rightarrow$ (+) Intention to purchase via apps; H4i-j, Security $\rightarrow$ (+) Intention to purchase via apps; H5i-j, Trust $\rightarrow$ (+) Experience.