EXAMINING THE DETERMINANTS OF MOBILE ACCOUNTING APP ACCEPTANCE AMONG SAUDI WHOLESALERS: AN EMPIRICAL INVESTIGATION USING THE UTAUT2

Awni Rawashdeh, Mashael Bakhit

ARTICLE INFO
Article history:
Received 10 July 2023
Accepted 12 October 2023

Keywords:
Mobile App Acceptance; UTAUT2; Trust; Performance Expectancy; Effort Expectancy; Hedonic Motivation; Behavioral Intention; Wholesaling; Saudi Arabia.

ABSTRACT
Purpose: This research aims to identify the determinants of Mobile App Acceptance (MAA) intention and usage within the Saudi wholesaling sector.

Theoretical Framework: Drawing upon the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2), this study examines the factors that influence the acceptance and utilization of mobile apps among Saudi wholesalers.

Design/Methodology/Approach: The study employs a structured approach, analyzing data gathered from Saudi wholesalers. The research integrates the UTAUT2 model with an additional construct, trust, and employs Structural Equation Modelling (SEM) to test the hypothesized relationships.

Findings: The research results highlight the significance of various factors in shaping the behavioral intention towards MAA. Performance expectancy, effort expectancy, hedonic motivation, and trust play pivotal roles in influencing users’ attitudes toward MAA. Furthermore, behavioral intention and facilitating conditions emerge as key predictors of MAA acceptance.

Research, Practical & Social implications: The findings contribute to both academic research and practical applications. MAA providers can leverage these insights to enhance user experience and build trust, thereby encouraging higher adoption rates. Additionally, the study provides valuable insights for the Saudi wholesaling sector to effectively incorporate MAA into their operations.

Doi: https://doi.org/10.26668/businessreview/2023.v8i10.3955

EXAMINANDO OS DETERMINANTES DA ACEITAÇÃO DE APLICATIVOS DE CONTABILIDADE MÓVEL ENTRE ATACADISTAS SAUDITAS: UMA INVESTIGAÇÃO EMPÍRICA USANDO O UTAUT2

RESUMO
Objetivo: Esta pesquisa visa identificar os determinantes da intenção e uso de aceitação de aplicativos móveis (MAA) no setor atacadista saudita.

Estrutura Teórica: Baseando-se na Teoria Unificada de Aceitação e Uso de Tecnologia 2 (UTAUT2), este estudo examina os fatores que influenciam a aceitação e utilização de aplicativos móveis entre atacadistas sauditas.

EXAMINANDO OS DETERMINANTES DA ACEITAÇÃO DE APLICATIVOS DE CONTABILIDADE MÓVEL ENTRE ATACADISTAS SAUDITAS: UMA INVESTIGAÇÃO EMPÍRICA USANDO O UTAUT2

RESUMO
Objetivo: Esta pesquisa visa identificar os determinantes da intenção e uso de aceitação de aplicativos móveis (MAA) no setor atacadista saudita.

Estrutura Teórica: Baseando-se na Teoria Unificada de Aceitação e Uso de Tecnologia 2 (UTAUT2), este estudo examina os fatores que influenciam a aceitação e utilização de aplicativos móveis entre atacadistas sauditas.

A PhD in Accounting. Department of Accounting, Faculty of Business, Applied Science Private University, Middle East University-Jordan, Amman, Jordânia. E-mail: drxbrl@yahoo.com
Orcid: https://orcid.org/0000-0003-3382-1529

B PhD in Accounting. Assistant Professor. Department of Accounting, College of Business administration. Princess Nourah bint Abdulrahman University (PNU), Riyadh, Saudi Arabia.
E-mail: maahdeurhman@pnu.edu.sa Orcid: https://orcid.org/0000-0002-3814-6449
Desenho/Metodologia/Abordagem: O estudo emprega uma abordagem estruturada, analisando dados coletados de atacadistas sauditas. A pesquisa integra o modelo UTAUT2 com um construto adicional, confiança, e emprega Modelagem de Equações Estruturais (SEM) para testar as relações hipotéticas.

Resultados: Os resultados da pesquisa destacam a importância de vários fatores na formação da intenção comportamental em relação ao MAA. A expectativa de desempenho, a expectativa de esforço, a motivação hedônica e a confiança desempenham papéis fundamentais influenciando as atitudes dos usuários em relação ao MAA. Além disso, a intenção comportamental e as condições facilitadoras emergem como principais preditores da aceitação do MAA.

Pesquisa, Implicações práticas e Sociais: As descobertas contribuem tanto para pesquisas acadêmicas quanto para aplicações práticas. Os provedores de MAA podem aproveitar esses insights para melhorar a experiência do usuário e construir confiança, incentivando assim taxas de adoção mais altas. Além disso, o estudo fornece informações valiosas para o setor atacadista saudita incorporar efetivamente MAA em suas operações.


EXAMEN DE LOS DETERMINANTES DE LA ACEPTACIÓN DE APLICACIONES DE CONTABILIDAD MÓVIL ENTRE MAYORISTAS SAUDÍES: UNA INVESTIGACIÓN EMPÍRICA UTILIZANDO UTAUT2

RESUMEN
Propósito: Esta investigación tiene como objetivo identificar los determinantes de la intención y el uso de la aceptación de aplicaciones móviles (MAA) dentro del sector mayorista saudí.
Marco teórico: Basándose en la Teoría Unificada de Aceptación y Uso de la Tecnología 2 (UTAUT2), este estudio examina los factores que influyen en la aceptación y utilización de aplicaciones móviles entre los mayoristas saudíes.
Diseño/Metodología/Enfoque: El estudio emplea un enfoque estructurado, analizando datos recopilados de mayoristas saudíes. La investigación integra el modelo UTAUT2 con un constructo adicional, la confianza, y emplea el modelado de ecuaciones estructurales (SEM) para probar las relaciones hipotéticas.
Hallazgos: Los resultados de la investigación resaltan la importancia de varios factores en la configuración de la intención conductual hacia MAA. Las expectativas de rendimiento, las expectativas de esfuerzo, la motivación hedónica y la confianza desempeñan papeles fundamentales a la hora de influir en las actitudes de los usuarios hacia MAA. Además, la intención conductual y las condiciones facilitadoras emergen como predictores clave de la aceptación de MAA.
Implicaciones prácticas, Sociales y de Investigación: Los hallazgos contribuyen tanto a la investigación académica como a las aplicaciones prácticas. Los proveedores de MAA pueden aprovechar estos conocimientos para mejorar la experiencia del usuario y generar confianza, fomentando así mayores tasas de adopción. Además, el estudio proporciona información valiosa para que el sector mayorista saudí incorpore eficazmente MAA en sus operaciones.

Palabras clave: Aceptación de Aplicaciones Móviles, UTAUT2, Confianza, Expectativa de Desempeño, Expectativa de Esfuerzo, Motivación Hedónica, Intención de Comportamiento, Comercio Mayorista, Arabia Saudita.

INTRODUCTION
Mobile Accounting Apps (MAAs) have changed wholesaling by letting sales reps record sales and purchases (Tudoran & Ionescu, 2014). “Wholesalers” in this study are companies that use vans and other vehicles to offer items directly to customers in various locations. These wholesalers buy in bulk from manufacturers or suppliers and sell them elsewhere (Helmold, 2022). Mobile wholesalers often sell groceries, food, apparel, or gadgets in specific regions or consumer groups. Their methodology streamlines sales and distribution
for wholesalers and improves client convenience. This allows wholesaling enterprises to use cloud accounting and mobile accounting technologies like smartphones and mobile devices at the point of sale (POS) for financial transactions (Rawashdeh, 2023; Shaikh et al., 2022; Spilnyk et al., 2022). Due to mobile and communications technology advances, wholesalers are integrating MAAs into their logistical systems (Chopdar et al., 2022). This computerized accounting revolution has given wholesalers convenient methods for updating their transactions with high-quality services over broad geographies, especially in circumstances when traditional branches are limited (Castells et al., 2009). With global communications development, MA services are predicted to grow and attract more users, serving customers, sellers, and wholesalers (Mateo et al., 2015). In 2021, 7.1 billion people used mobile phones (Bhat & Chandra, 2021).

Saudi Arabia boasts the Middle East's fastest-growing mobile and telecommunications technology sector (Yen et al., 2021). The telecom sector has led the development, promotion, and commercialization of 5G technology (Justinia, 2022) and installed 4G networks before other countries. Saudi Arabia has three major mobile phone service providers (Singh & Sharma, 2020), with 48.96 million connections under the country code +966 in 2020 and an average of 1.2 phones per person (Worlddata, 2022). This provides a suitable environment for wholesalers to develop accounting information systems to keep pace with their mobile commercial activities. However, MAA acceptance rates are lower than expected, and wholesalers are less interested in adopting these services as new accounting technologies.

Wholesalers' reluctance to replace existing applications with MAAs is the biggest barrier to acceptance (Ameen et al., 2020; Saraireh, 2020). Many academics, have studied MAA acceptance issues, but their study of wholesalers is limited (Alhamzi, 2018). Other variables including the external environment (e.g., facilitating conditions), service value (pricing value), and inner motivation (hedonic motivation) need additional examination from the wholesaler perspective in Saudi Arabia as alternatives to legacy accounting systems. Hence, a wholesaler-focused conceptual model can fill the literature gap on MAA acceptance in Saudi wholesaling. A conceptual model is needed to empirically evaluate the most influential elements that could affect wholesalers' intention and acceptance of MAA. This model should accurately define MAA acceptance in the Saudi wholesaling industry, taking into account additional factors. To empirically analyze the most important factors influencing Saudi Arabia's MAA intention and use, structural equation modeling (SEM) is suitable to be used. This study seeks to fill the
vacuum in the literature on MAA acceptance in Saudi Arabia and among wholesalers by identifying the key characteristics that affect MAA acceptance and use.

CONCEPTUAL MODEL

The present study utilizes the expanded Unified Theory of Adoption and Use of Technology (UTAUT2) (Venkatesh et al., 2012) to understand technology acceptance from the perspective of wholesaling providers. The UTAUT2 was chosen as the theoretical foundation for the conceptual model due to its comprehensive coverage of various factors that influence the acceptance of MAA among wholesaling providers. Fig. 1 presents the conceptual model, which depicts the UTAUT2 components of performance expectancy (PE), effort expectancy (EE), social influence (SI), hedonic motivation (HM), and post value (PV) as direct predictors of wholesaling providers' inclination to use MAA. Consistent with Venkatesh et al. (2012), the present study also identifies behavioural intention (BI) and facilitating conditions (FC) as significant predictors of the acceptance behaviour of MAA. However, the present study proposes a modification to Venkatesh et al.'s (2012) model in order to study the acceptance of MAA in the Saudi environment from the perspective of wholesalers.

Performance expectancy is a key factor that influences users' intention (e.g., salesperson) to adopt new technology (Venkatesh et al., 2003). In the context of this study, performance expectancy refers to the perceived usefulness of MAA for enhancing accounting transaction recording performance among Saudi wholesalers. Previous research has shown that users are more likely to accept and adopt new technology if they believe it will be beneficial and helpful for their profession (Matusik & Mickel, 2011; Nikolopoulou et al., 2020). Mobile applications have been praised for their convenience and flexibility in allowing users to access services anytime and anywhere (Shareef et al., 2017). These benefits are shown by how important it is for accounting transactions to be recorded correctly and updated quickly in places far from the corporate headquarters. Zhou et al. (2010) found that performance expectations strongly predict clients' propensity to use mobile applications. Therefore, we hypothesize that performance expectancy will positively influence Saudi wholesalers' intention to adopt MAA, as follows:

H1. Performance expectancy has a significant influence on Saudi wholesalers' intentions to adopt MAA.

Venkatesh et al. (2003) articulate the concept of "effort expectancy" as an individual's perception of the ease associated with using a system or technological platform. This perception encompasses multiple elements including the intricacy of the user interface, the volume of steps
required to complete an activity, system consistency, error prevention, and the temporal extent necessary to fulfill a task (Wilson, 2013). Wilson (2013) suggests that users could perceive a product or system as challenging or steep in its learning curve if it necessitates considerable effort for utilization. This could manifest if the product or system fails to provide adequate flexibility, control, or autonomy. As posited by Davis (1989), the intention of users to adopt a new system is contingent on their appraisal of its value and simplicity. Therefore, users' decision to engage with a new system rests significantly on the perceived usability and worth they ascribe to it. This underlines the critical role played by user perception in system design and implementation. Even though the tasks involved in MAA are limited, like entering invoices, issuing bonds, and updating inventory, they still require some accounting knowledge and skill. So, users' expectations about how much work will be a key factor in whether or not they will use the technology (Cheng & Shao, 2022; RaedHanandeh et al., 2021). Studies in the field (Alalwan et al., 2019; Nan et al., 2020) have shown that users' expectations of how much work it will take to use mobile accounting software affect their decision to use it. Also, studies on mobile applications (Baabdullah et al., 2019) have shown that how easy users think the technology is to use is a big factor in how likely they are to use it. Based on the above discussion, we propose two hypotheses:

H2. Effort expectancy has a significant influence on Saudi wholesalers' intentions to adopt MAA.

H3. Effort expectancy has a significant influence on performance expectancy for MAA.

According to the UTAUT model, social influence is "the amount to which an individual feels that influential others believe he or she should implement the new system" (Venkatesh et al., 2003). As for MAA, social influence may be conceptualized as the influence of the surrounding social business environment on a user's intention to use MAA, such as customers, vendors, competitors, managers, and coworkers (Alkailani & Nusairat, 2022; Zhou et al., 2010). In other words, the knowledge and encouragement offered by those who surround users could significantly influence their awareness and purpose regarding technology (Alalwan et al., 2019). The selection of social influence as a crucial factor of behavioural intention is supported by past research demonstrating the effect of social influence on users' inclination to utilize MAA in wholesaling channels (Kholid et al., 2020). In another study, Zhou et al. (2010) revealed that social influence positively influences the acceptance of mobile commerce technology among Chinese consumers. This study, therefore, proposes the following hypothesis:
H4. The social influence has a significant influence on Saudi wholesalers' intentions to adopt MAA.

Facilitating conditions are “the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system” (Venkatesh et al., 2003). Indeed, wholesaling channels require a specific skill set, resources, and technological infrastructure (Alalwan et al., 2019; Kholid et al., 2020). For example, wholesalers must have access to dependable internet connectivity, secure storage facilities for financial data, and technical support services to resolve any software-related issues (Fortuin, 2021). In addition to mobile tools that can be used as accounting application incubators, customers may be more inclined to utilize mobile accounting software if they believe it is compatible with existing technologies and have access to a particular level of support service and resources. In addition, considerable research has provided theoretical support for the effect of favorable situations on the usage behaviour of mobile applications (Kholid et al., 2020). This study, therefore, proposes the following hypothesis:

H5. Facilitating conditions will positively influence Saudi wholesaling’ acceptance of MAA.

Hedonic motivation is an important factor in the acceptance of new technology, as it relates to users' desires to engage with technology for enjoyment, pleasure, or intrinsic satisfaction (Venkatesh et al., 2003). In the context of MAA acceptance in Saudi Arabia, hedonic motivation may play a particularly significant role, given the creative and innovative nature of the technology (Alalwan et al., 2019). Indeed, Alalwan et al. (2019) have identified hedonic motivation as a substantial predictor in the context of consumers' intentions to embrace mobile devices. Furthermore, the empirical body of work has consistently indicated that intrinsic motivation, encompassing facets like technological enjoyment and fascination, plays a pivotal role in fostering heightened utilization and acceptance (Shaw & Sergueeva, 2019; Thusi, 2018). Consequently, grounded in this empirical foundation, we posit the ensuing hypothesis:

H6. Hedonic motivation will positively influence Saudi wholesaling firms' acceptance of MAA.

By considering the role of hedonic motivation in MAA acceptance, wholesalers can better understand how to engage with potential users and promote the technology's features that align with users' intrinsic desires. For example, emphasizing the creativity and enjoyment
associating with using MAA may lead to increased acceptance among users who are motivated by hedonic factors.

Utilizing technology in the context of wholesaling providers is associated with additional financial charges compared to traditional accounting app users. As a result, users are likely to evaluate the benefits of using new technologies against the financial costs of implementation. Venkatesh et al. (2012) argue that a favorable price-value ratio can motivate users to adopt new technologies. This implies that users must perceive the advantages and value of utilizing technology as outweighing the monetary price paid (Venkatesh et al., 2012). Furthermore, accounting programs, 4G services, smartphones, and Wi-Fi are among the resources and facilities required to run MAA, which might be linked to users’ financial costs, reinforcing the importance of a price value in the conceptual model (Shaw & Sergueeva, 2019). Budgetary constraints have a significant influence on the acceptance of mobile applications by consumers (Hassan & Farmanesh, 2022). Tamilmani, Rana, Dwivedi, et al. (2018) also suggested that the price of mobile services had a negative impact on the acceptance of mobile applications. However, they found that the lower prices of financial transactions associated with MAA were one of the positive influences on the acceptance of MAA. The relationship between service value and price value has been extensively discussed and studied in the context of online accounting applications (Alalwan et al., 2019). For example, Alalwan et al. (2019) empirically demonstrated the role of perceived value in the user’s intention to use online accounting. In conclusion, the study highlights the importance of a favorable price-value ratio in motivating the acceptance of new technologies, such as MAA, among wholesaling providers. Accounting providers should offer a price-value ratio that considers the financial charges associated with utilizing technology to encourage user acceptance.

H7. Price value will positively influence Saudi wholesaling’ intention to MAA.

In accordance with Gefen et al. (2003) definition of trust, user trust in MAA can be operationalized as the accumulation of user beliefs of integrity, benevolence, and competence that could increase user willingness to rely on MAA to complete financial transactions. Trust is a critical component that influences users' attitudes and intentions towards mobile applications (Ranaweera & Prabhu, 2003; Tamilmani, Rana, & Dwivedi, 2018). Alalwan et al. (2019) found that trust significantly impacts the user's intention and performance expectations. Zhang et al. (2022) confirmed that trust is a crucial component in determining the possibility of users employing MAA in their investigation of the characteristics that predict users' first trust in MAA. The current study also suggests that trust is expected to directly influence the users’
intention to embrace MAA or indirectly influence BI by facilitating the function of performance expectation (Zhang et al., 2022). Therefore, we propose that trust plays a vital role in the acceptance of MAA, and it is likely to positively influence Saudi wholesaling’s intention to adopt MAA and the performance expectancy associated with using MAA.

H8. Trust will positively influence Saudi wholesaling’s intention to adopt MAA.

H9. Trust will positively influence the performance expectancy associated with using MAA.

According to past scholarly research in the realm of information systems and technology, behavioral intention has been identified as a pivotal element in determining the acceptance and application of novel technologies (Ajzen, 1991; Venkatesh et al., 2003; Venkatesh et al., 2012). As such, this study posits that the likelihood of adopting Mobile Accounting Applications (MAA) can be prognosticated on the premise of users' readiness to espouse such a technology. This proposed relationship is not novel; it has been substantiated by an array of studies investigating online services (Almajali et al., 2022; Martins et al., 2014). As such, the premise is hypothesized to remain consistent in the context of MAA acceptance as well. However, it is crucial to acknowledge that acceptance of MAA may also be swayed by other determinants, including perceived usefulness, ease of use, and perceived risk (Venkatesh et al., 2012). Therefore, while behavioral intention is an integral predictor, it ought to be evaluated alongside these other influencers to secure a holistic comprehension of users' acceptance decisions. Following this analysis, the study proposes the following hypothesis:

H10 The behavioral intention will positively influence the acceptance of mobile accounting software by Saudi wholesaling.

METHODOLOGY

To distribute questionnaires to wholesalers in the Kingdom of Saudi Arabia using online survey and snowball sampling (Rawashdeh et al., 2023), a methodology was proposed (Wright, 2005). Initially, an online survey was created and distributed through different social media platforms and email to collect data from a diverse population (Wright, 2005).

In order to ensure the representation of the target population, snowball sampling was employed (Rawashdeh, 2023), which allowed participants to share the survey link with others within their social network who met the inclusion criteria (Babbie, 2020). Snowball sampling was deemed appropriate to reach business owners and decision-makers who are hard to reach (Parker et al., 2019).
The survey instrument consisted of Likert-scale questions, which evaluated the respondents' replies to questions on UTAUT2 constructs and trust, while demographic data such as age, gender, income, level of education, Internet experience, and computer experience were also collected (Whittaker & Schumacker, 2022).

By using online survey and snowball sampling methods, a larger and more diverse sample was obtained, which allowed for greater generalizability of the results (Babbie, 2020; Wright, 2005).

This study aimed to investigate the perceptions, behavioral intention, and acceptance of Mobile Accounting Applications (MAA) among Saudi wholesalers. To achieve this, questionnaires were distributed to the participants. The study used a seven-point Likert scale with anchors ranging from strongly agree to strongly disagree to evaluate respondents' replies to questions on UTAUT2 constructs and trust, to determine their perceptions and behavioral intention regarding MAA acceptance.

Regarding the acceptance of MAA, the study chose five of the most frequently used MAA, which were recommended by online accounting providers. The survey used a seven-point time scale with anchors ranging from never to many times a day to determine the frequency of respondents' usage of these services (Venkatesh et al., 2012).

In addition to the questions related to MAA acceptance and behavioral intention, the survey included six closed-ended questions dedicated to demographic data, including age, gender, income, level of education, Internet experience, and computer experience.

Out of the 450 questionnaires distributed, 271 questionnaires were deemed valid for analysis, resulting in a response rate of 60.2%. The study's sample size and response rate are considered acceptable and representative of the population being studied.

In conclusion, the study employed a comprehensive survey methodology to investigate the perceptions, behavioral intention, and acceptance of MAA among Saudi wholesalers. The use of a Likert scale and a seven-point time scale to measure respondents' perceptions and usage frequency provides a detailed and standardized approach to data collection. The inclusion of demographic data also enables the identification of potential differences in perceptions and behavior among different subgroups of the population.

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>NO</th>
<th>%</th>
<th>Demographic Characteristic</th>
<th>NO</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 18-25</td>
<td>55</td>
<td>20.3</td>
<td>Less than 1 year</td>
<td>42</td>
<td>15.5</td>
</tr>
<tr>
<td>26-35</td>
<td>110</td>
<td>40.6</td>
<td>1-3 years</td>
<td>65</td>
<td>24</td>
</tr>
<tr>
<td>36-45</td>
<td>65</td>
<td>24</td>
<td>4-6 years</td>
<td>78</td>
<td>28.8</td>
</tr>
</tbody>
</table>

Table 1: Demographic Profile
The demographic composition of the 271 participants engaged in this study showcases a notable diversity in representation. In terms of age distribution, a substantial portion finds its place within the range of 26 to 45 years, particularly noteworthy is the majority (40.6%) that falls within the specific age bracket of 26 to 35 years. When considering gender distribution, male respondents stand as the dominant presence, constituting 90% of the examined sample, while their female counterparts constitute the remaining 10%. The educational landscape exhibits a commendable breadth, with the largest segment (48.0%) holding a Bachelor's degree, closely trailed by those who hold a Master's degree (20.3%). Within the realm of internet experience, the spectrum is characterized by its diversity, where the 4 to 6 years range emerges as the most prevalent (28.8%), closely trailed by the 1 to 3 years range (24.0%). This intricate tapestry of demographics augments the study's relevance within broader contexts and offers invaluable insights into the distinctive perspectives and engagements of distinct subgroups concerning the domain of Mobile Accounting Applications (MAA) (Aljabari et al., 2023; Daoud et al., 2023).

DATA ANALYSIS AND DISCUSSION

The reliability and validity of UTAUT2 have been confirmed through its adaptability and use in multiple experiments. The UTAUT2 model has been utilized to evaluate the validity and reliability of the instrument. Additionally, the paradigm has been expanded by combining UTAUT2 with trust. In line with prior research and literature, the items were adjusted to be scored on a seven-point Likert scale that ranges from "strongly disagree" to "strongly agree".
For the present study, 24 items were utilized to measure the essential aspects of the conceptual model. The same items used by Venkatesh et al. (2012) to validate their new model (UTAUT2) were used to assess PE, EE, SI, FC, HM, PV, and BI. Additionally, two items from Gefen et al. (2003) were incorporated to measure users’ trust in MAA. The questionnaire was formulated grounded on a comprehensive literature review concerning technology acceptance, with the objective of assessing the hypothesized model delineated in Figure 1. In order to ensure clarity, relevance, and precision, a pilot test of the questionnaire was administered to a cohort of 30 respondents, with ensuing revisions made based on the feedback received.

In this research, Structural Equation Modeling (SEM) with AMOS 24 was employed to scrutinize the presumptions as well as the convergent and discriminant validity of the structural model. Convergent validity refers to the degree of consensus among various indicators of a singular concept. To ascertain convergent validity, the factor loading, composite reliability, and average variance extracted (AVE) for each indicator were evaluated (Blunch, 2012; Rawashdeh
et al., 2023). The AVE value can range from 0 to 1, with a value surpassing 0.50 generally deemed satisfactory in terms of establishing convergent validity (Blunch, 2012). These measurements and their corresponding results are depicted in Table 2.

<table>
<thead>
<tr>
<th>CR</th>
<th>AVE</th>
<th>MSV</th>
<th>MaxR(H)</th>
<th>SI</th>
<th>EE</th>
<th>HM</th>
<th>PV</th>
<th>TR</th>
<th>FC</th>
<th>PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI</td>
<td>0.89</td>
<td>0.81</td>
<td>0.06</td>
<td>0.89</td>
<td><strong>0.90</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE</td>
<td>0.84</td>
<td>0.56</td>
<td>0.39</td>
<td>0.84</td>
<td>-0.02</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HM</td>
<td>0.83</td>
<td>0.62</td>
<td>0.03</td>
<td>0.84</td>
<td>0.04</td>
<td>-0.09</td>
<td><strong>0.79</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PV</td>
<td>0.89</td>
<td>0.80</td>
<td>0.03</td>
<td>0.89</td>
<td>-0.02</td>
<td>0.07</td>
<td>-0.160**</td>
<td><strong>0.89</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TR</td>
<td>0.87</td>
<td>0.77</td>
<td>0.05</td>
<td>0.87</td>
<td>0.06</td>
<td>0.11</td>
<td>-0.08</td>
<td>-0.02</td>
<td>0.88</td>
<td></td>
</tr>
<tr>
<td>FC</td>
<td>0.93</td>
<td>0.82</td>
<td>0.11</td>
<td>0.93</td>
<td>0.239***</td>
<td>0.229**</td>
<td>0.158*</td>
<td>0.00</td>
<td>0.217**</td>
<td><strong>0.91</strong></td>
</tr>
<tr>
<td>PE</td>
<td>0.90</td>
<td>0.83</td>
<td>0.11</td>
<td>0.93</td>
<td>0.09</td>
<td>0.10</td>
<td>0.06</td>
<td>0.06</td>
<td>0.149*</td>
<td>0.328*** <strong>0.91</strong></td>
</tr>
</tbody>
</table>

Source: AMOS 24, Prepared by the authors (2023)

Complementing the examination of convergent validity, this study also scrutinized discriminant validity, employing the heterotrait-monotrait (HTMT) criterion. This particular criterion explores the correlation between measurements of potentially overlapping constructs to ascertain whether a specific item is capable of distinguishing or measuring discrete concepts. The outcomes of the HTMT analysis are displayed in Table 3 and Figure 1. Henseler et al. (2015) have posited that a HTMT value beneath the 0.85 threshold implies an absence of issues with discriminant validity. Notably, all the HTMT values presented in Table 3 fall below this threshold. This suggests that the latent constructs in this study are not collinear (i.e., they are devoid of multicollinearity), and each construct remains independent of the others. Overall, the HTMT analysis confirms that the indicators used in the study adequately distinguish between the different concepts under investigation.

<table>
<thead>
<tr>
<th>SI</th>
<th>EE</th>
<th>HM</th>
<th>PV</th>
<th>TR</th>
<th>FC</th>
<th>PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI</td>
<td><strong>0.04</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE</td>
<td>0.05</td>
<td>0.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HM</td>
<td>0.05</td>
<td>0.09</td>
<td>0.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PV</td>
<td>0.01</td>
<td>0.09</td>
<td>0.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TR</td>
<td>0.06</td>
<td>0.10</td>
<td>0.08</td>
<td>0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FC</td>
<td>0.24</td>
<td>0.20</td>
<td>0.18</td>
<td>0.00</td>
<td>0.22</td>
<td></td>
</tr>
<tr>
<td>PE</td>
<td>0.09</td>
<td>0.07</td>
<td>0.07</td>
<td>0.06</td>
<td>0.16</td>
<td>0.33</td>
</tr>
</tbody>
</table>

Source: AMOS 24, Prepared by the authors (2023)

Prior to the data analysis, common method bias (CMB) was thoroughly assessed, and measures were undertaken to mitigate its impact within the survey design (Podsakoff et al., 2003). Participants were encouraged to provide their responses in an uninhibited manner. Moreover, CMB was empirically evaluated using Harman’s single-factor technique. This
method determines whether a single factor exhibits a predominant explanatory power. The evaluation of CMB entailed implementing Harman's single-factor analysis, a process which encompasses conducting an unrotated factor analysis on the data to ascertain if any single factor accounts for more than 50 percent of the variance as a result of CMB. However, the analysis reveals that the initial factor accounted for merely 21.3% of the total variance (Table 4), a figure considerably below the 50% threshold, signifying that the data is not jeopardized by the presence of CMB. This result implies that the study can proceed to causal modeling as depicted in Figure 1.

Table 4: Total Variance Explained

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
</tbody>
</table>

Source: AMOS 24, Prepared by the authors (2023)

Table 5 displays the outcomes of the structural model fit measures, subdivided into three categories: absolute fit, incremental fit, and parsimonious fit (Blunch, 2012; Collier, 2020). The absolute fit measures appraise the model's goodness-of-fit independently of sample size or complexity of the model. Within the present study, the CMIN/DF value registers at 1.867, aligning with the recommended spectrum of 1-3. A lower value signifies an enhanced model fit, and thus, this value implies a relatively superior model fit. The Comparative Fit Index (CFI) yields a value of 0.962, which surpasses the recommended threshold of 0.95, indicating an excellent model fit. The Root Mean Square Error of Approximation (RMSEA) arrives at 0.057, beneath the suggested maximum of 0.06, denoting an exceptional model fit. The PClose value is 0.618, exceeding the 0.05 threshold, and thus suggesting a satisfactory model fit. Incremental fit measures examine the improvement in fit when additional paths are integrated into the model. The Tucker-Lewis Index (TLI) for this study is 0.955, nearing 1 and thus indicative of a robust model fit. The Normed Fit Index (NFI) is 0.921, surpassing the recommended minimum of 0.90, which suggests a strong model fit. The Adjusted Goodness of Fit Index (AGFI) value is 0.859, slightly beneath the recommended 0.90 threshold, but still indicative of a satisfactory model fit. Lastly, parsimonious fit measures evaluate how adeptly the model corresponds with the data, considering the principle of parsimony. The Parsimonious Normed Fit Index (PNFI) in this study is 0.795, nearly reaching 1 and thus denoting an impressive model fit. The
Parsimonious Goodness of Fit Index (PGFI) is 0.705, which falls within the recommended range, indicating a robust model fit.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Estimate</th>
<th>Threshold</th>
<th>Measure</th>
<th>Estimate</th>
<th>Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute Fit Measures</td>
<td></td>
<td></td>
<td>Incremental Fit Measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMIN</td>
<td>444.373</td>
<td>--</td>
<td>TLI</td>
<td>0.955</td>
<td>Close to 1</td>
</tr>
<tr>
<td>DF</td>
<td>238</td>
<td>--</td>
<td>AGFI</td>
<td>0.859</td>
<td>≥ 0.90</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>1.867</td>
<td>Between 1 and 3</td>
<td>NFI</td>
<td>0.921</td>
<td>≥ 0.90</td>
</tr>
<tr>
<td>CFI</td>
<td>0.962</td>
<td>&gt;0.95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRMR</td>
<td>0.063</td>
<td>&lt;0.08</td>
<td>PNFI</td>
<td>0.795</td>
<td>Close to 1</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.057</td>
<td>&lt;0.06</td>
<td>PClose</td>
<td>0.618</td>
<td>Close to 1</td>
</tr>
<tr>
<td>PClose</td>
<td>0.618</td>
<td>&gt;0.05</td>
<td>PGFI</td>
<td>0.705</td>
<td>Close to 1</td>
</tr>
</tbody>
</table>

Source: AMOS 24, Prepared by the authors (2023)

Overall, the model fit measures suggest that the structural testing model has a good fit for the data.

The Critical Ratio (CR) serves as a test statistic to ascertain the statistical significance of parameter estimates derived through Structural Equation Modeling (SEM). Defined as the parameter estimate divided by the standard error (SE) of that estimate, the CR, at a significance level of 0.05, should equal or exceed 1.96 (Blunch, 2012; Collier, 2020). Any parameter with a value below this threshold can be deemed inconsequential to the model's performance, as elucidated in Table 6.

In the framework of the model analyses, the majority of the postulated hypotheses within the conceptual model received statistical confirmation, save for H7 and H3. The components of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) - specifically performance expectancy (C.R = 7.25, p=0.000), effort expectancy (C.R = 7.031, p=0.000), and hedonic motivation (C.R = 7.096, p=0.000) - demonstrated a reliable propensity to predict behavioral intention. However, price value stood as an exception, displaying an insignificant predictive power (C.R = -0.99, p 0.322).

Furthermore, there was compelling evidence pointing towards the substantial impact of social influence on behavioral intention (C.R. = 6.08, p =0.0001). Upon evaluating the leading predictors of performance expectancy, it was discerned that trust exhibited a significant influence (C.R. = 5.631, p = 0.032), whereas effort expectancy did not hold any consequential effect (C.R. = 0.508, p = 0.611).

Both behavioral intention and facilitating conditions prominently emerged as decisive predictors of Mobile App Acceptance (MAA) (C.R. = 12.6, p=0.000 and C.R. = 13.234, p=0.000, respectively). Consequently, with the exception of H7 and H3, the research
hypotheses were corroborated, offering valuable insights into the dynamics of technology acceptance.

Table 6: Regression Weights for Digital transformation vision

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE &lt;--- TR</td>
<td>0.227</td>
<td>0.104</td>
<td>2.176</td>
<td>0.03</td>
<td>0.148</td>
</tr>
<tr>
<td>PE &lt;--- EE</td>
<td>0.05</td>
<td>0.099</td>
<td>0.508</td>
<td>0.611</td>
<td>0.033</td>
</tr>
<tr>
<td>BI &lt;--- SI</td>
<td>0.227</td>
<td>0.037</td>
<td>6.08</td>
<td>***</td>
<td>0.297</td>
</tr>
<tr>
<td>BI &lt;--- EE</td>
<td>0.26</td>
<td>0.037</td>
<td>7.031</td>
<td>***</td>
<td>0.342</td>
</tr>
<tr>
<td>BI &lt;--- HM</td>
<td>0.284</td>
<td>0.04</td>
<td>7.096</td>
<td>***</td>
<td>0.373</td>
</tr>
<tr>
<td>BI &lt;--- PV</td>
<td>-0.036</td>
<td>0.037</td>
<td>-0.99</td>
<td>0.322</td>
<td>-0.04</td>
</tr>
<tr>
<td>BI &lt;--- TR</td>
<td>0.214</td>
<td>0.038</td>
<td>5.631</td>
<td>***</td>
<td>0.282</td>
</tr>
<tr>
<td>BI &lt;--- PE</td>
<td>0.179</td>
<td>0.025</td>
<td>7.25</td>
<td>***</td>
<td>0.359</td>
</tr>
<tr>
<td>MAA Acceptance&lt;--- BI</td>
<td>0.606</td>
<td>0.039</td>
<td>15.727</td>
<td>***</td>
<td>0.535</td>
</tr>
<tr>
<td>MAA Acceptance&lt;--- FC</td>
<td>0.534</td>
<td>0.04</td>
<td>13.234</td>
<td>***</td>
<td>0.455</td>
</tr>
</tbody>
</table>

Source: AMOS 24, Prepared by the authors (2023)

The R² values, indicating the proportion of variance explained by the model, were 60% for behavioral intention and 70% for acceptance behavior. It's crucial to mention that the structural model was rigorously scrutinized. The primary constructs of UTAUT2 (excluding the trust factor) predicted approximately 53% of the variance in behavioral intention. The inclusion of trust, in conjunction with the UTAUT2 constructs within the same structural model, increased the R² value for behavioral intention to 60%. Thus, the structural model demonstrated improved accuracy in predicting behavioral intention when integrated with both the trust and UTAUT2 constructs.

According to the statistical results presented above, it seems evident that the current study's model has reached an acceptable level of predictive power in all endogenous factors: behavioral intention (60 percent) and acceptance behavior (70 percent). All model fitness, construct reliability, and validity criteria were met. By adding trust to UTAUT2, BI's R² value increases to 60%, supporting its inclusion as an external factor in the conceptual model. This value of R² in behavioral intention exceeded all recommended values, such as 40% (Alalwan et al., 2019; Rawashdeh, 2015; Straub et al., 2004) and 30%. (Holmes-Smith, 2006; Rawashdeh, 2015). This variance is close to what other studies used to calculate UTAUT. Luo et al. (2010) found that Mobile applications acceptance accounted for 60% of behavioral intention. With a beta value of 0.282, trust predicted users' intention to adopt MAA. Trust had a 0.148 beta impact on performance expectations. This implies the importance of trust in motivating users to use MAA and shaping their perception of such technology as productive and novel (Ebubedike, Mohammed, Nellikunnel, & Teck, 2022). This may be due to the sensitive nature of MAA.
Such results align with prior IS and MAA studies regarding the role of trust (Alalwan et al., 2019; Rawashdeh, 2015).

Statistic results confirm the impact of performance expectancy and behavioral intention with a beta of 0.359. This implies that users focus on functional utilities (performance expectations) when adopting MAA. Most studies using UTAUT as a theoretical foundation have confirmed that performance expectancy influences behavioral intention (Rawashdeh, 2015). Empirical results support a significant relationship between effort expectancy and behavioral intention to adopt MAA (beta = 0.342). This means that users are concerned about the extent of using MAA. MAA require a certain level of knowledge and skill, and users must perform all tasks alone without assistance (Rawashdeh, 2015). In the IS/IT literature, it has been argued that people's perception of a system is strongly influenced by how easy it is to use (Davis, 1989; Rawashdeh, 2015).

As for social influence, the results match the study's conceptual model. Indeed, social influence was able to account for any statistical variance in behavioral intention to adopt MAA, which means users seem more interested in the recommendations and attitudes of their reference groups in formulating their intention to adopt the technology. Statistical results empirically confirmed the influence of facilitating conditions on the acceptance of MAA (C.R. = 13.234, p=0.000). Respondents are interested in the facilities, resources, and skills needed to use MAA effectively. Smartphones, 4G services, Internet access, Wi-Fi, and accounting apps are required for MAA to work smoothly and efficiently. Results of facilitating conditions parallel prior studies that examined facilitating conditions or their captured factors (Kholid et al., 2020; Yu, 2012).

As expected, hedonic motivation influenced users' intention to adopt MAA (C.R. = 7.096, p=0.000). This strong association suggests that users who find such novel applications enjoyable are more likely to reach MAA. Indeed, intrinsic motivation enjoys a particular interest in the customers' context, and its impact becomes more effective in the case of hedonic technology that includes novelty seeking and uniqueness (Kholid et al., 2020). Contrary to what is proposed in the study model, statistical results did not confirm a significant impact of price value on customers' intention to adopt MAA. It could be concluded that price value issues do not receive particular interest from wholesaling users in Saudia Arabia to decide to adopt or reject MAA. This is in line with Teoh Teng Tenk et al. (2020) that the financial issues sometimes do not draw considerable attention to the user's context.
CONCLUSION

This research has significantly contributed to our understanding of mobile app acceptance (MAA) among Saudi users, particularly within the wholesaling sector. Drawing upon the UTAUT2 model and integrating the concept of trust, our study provided comprehensive insights into user behavior. Key factors such as performance expectancy, effort expectancy, hedonic motivation, and trust have been identified as significant predictors of behavioral intention, which, along with facilitating conditions, led to MAA acceptance. Despite this study's contributions, it's important to acknowledge its limitations, including its reliance on a convenience sample from Riyadh and its cross-sectional design. Future research should aim for a broader sample and consider a longitudinal design for a more in-depth understanding. The practical implications of this research are considerable for MAA providers, emphasizing the importance of factors like trust and user experience, suggesting that trial accounts might enhance user experience. In the end, our research extends UTAUT2's theoretical horizons and provides practical recommendations for increasing MAA’s acceptance rate.

REFERENCES


Examining the Determinants of Mobile Accounting App Acceptance Among Saudi Wholesalers: An Empirical Investigation Using the UTAUT2


Fortuin, A. (2021). *The effects of mobile cloud accounting on the operations of small, medium and micro-enterprises in selected Cape Town markets* Cape Peninsula University of Technology.


Examining the Determinants of Mobile Accounting App Acceptance Among Saudi Wholesalers: An Empirical Investigation Using the UTAUT2


Examining the Determinants of Mobile Accounting App Acceptance Among Saudi Wholesalers: An Empirical Investigation Using the UTAUT2

Rawashdeh, A., Bakhit, M. (2023)


Tudoran, L. E., & Ionescu, B. Ş. (2014). THE USE OF ACCOUNTING APPS VIA MOBILE CLOUD COMPUTING IN ROMANIA. Annales Universitatis Apulensis-Series Oeconomica, 16(1).


