# Determinants of Online Hotel Booking Adoption in Jordan: A Modified UTAUT2 Model with Trust and Risk Factors

Ghadeer Al-Kateb, Sultan Alzyoud

Department of Business Administration, Business School, The Hashemite University, Zarqa, Jordan

#### ghadeer\_9@hu.edu.jo (Corresponding author)

**Abstract.** This study investigates the factors influencing customers' intentions to use online hotel booking platforms in Jordan by extending the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) model with trust and risk factors. Data were collected from 214 Jordanian customers who had used booking apps in the past two years through an online survey distributed via Facebook. Structural equation modeling was used to test the hypothesized relationships between the UTAUT2 constructs, trust, risk factors, and behavioral intentions. The results showed that performance expectancy, facilitating conditions, and habit were the main predictors of online hotel booking intentions, while social influence, price value, trust, financial risk, privacy risk, and fraud risk were not significant. An alternative model was proposed, which revealed that habit mediated the effects of effort expectancy, hedonic motivation, and trust on behavioral intentions. The findings provide insights into the key factors driving online hotel booking adoption in Jordan and offer practical implications for hotel managers and booking platform providers. Future research could extend the model to other countries or regions and investigate the long-term effects of the identified factors on actual booking behavior.

**Keywords:** Customers' Behavioural Intentions, Online Hotel Booking, Extended UTAUT2, Habit, Risk, Trust

# 1. Introduction

The hotel sector is one of the contexts where customers are moving toward using various online channels as a result of their rising dependence on technology, increased internet connectivity and the modernization of e-payment systems. Internet usage is rapidly growing all over the world. In the Middle East region, there are over 206 million Internet users. The period from 2000 and 2020 shows an outstanding growth of internet usage with a rate of 6,182 % in the region according to Internet World Stats. Furthermore, in Jordan, internet users are just a little under 9 million in the year of 2022 compared to only 127,300 in 2000, around 7 million of whom are Facebook members. (WIS report, 2024).

A fiercely competitive online travel market is significantly impacted by the electronic service provided by hotels. Many online channels are now available for customers in the hotel sectors such as: Booking.com, Trip Advisor, Trivago, HolidayCheck, online websites and social media. These online platforms provide a convenient way for customers to compare prices, read reviews, and find the best available deals. Additionally, booking through these platforms often comes with added benefits such as loyalty rewards, time and effort saving or exclusive discounts. Trip Advisor.com, for instance, is not only an online review site, it also provides hotel managers' with huge amounts of data regarding customers' experience, which they can then exploit to improve the level of service quality, in order to attain customer's satisfaction (Abdelouahab, 2019). Moreover, Booking.com has approved customer services' ability, ensuring reliability and validity and enabling individuals to distinguish between different alternatives (Díaz and Rodríguez, 2017).

Customers in Jordan are aware of these advantages, they are constantly moving toward adopting electronic platforms mainly social media as well as other booking channels, to find and book hotels, instead of the traditional sources such as newspapers, radio and brochures. 71% of the citizens use Facebook, and 20% of them made a hotel selection decision as a response to advertisement on Facebook. (WIS report, 2024). Depending on Facebook, customers can easily compare different hotel alternatives, find online reviews about hotels and the best offers due to the information availability. As a result, hoteliers are attempting to motivate customers to stay in their hotels by creating effective content and offering promotions in their Facebook pages (Abuhashesh, et al., 2019). The main contribution in the Tourism Sector in Jordan are online sales, and by 2028, online sales are expected to grow exponentially, which will increase sales revenue up to 78%. (Statista, 2024).

According to the UTAUT2 model, customers' behavioural intention to use technology is positively affected by social influence, facilitating factors, habit, hedonic incentive, effort expectancy, performance expectancy, and price value. To illustrate, Social influence is the degree to which an individual recognizes the importance of others to believe that he or she should use new technology; on the other side, facilitating conditions refers to the degree of technical and infrastructure support provided by companies to simplify system usage. Habit refers to the individuals' ability to use technology automatically based on their learning and experience, while hedonic motivation reflects the degree of pleasure connected when using a certain technology. How easy it is to use the application is defined by effort expectancy, and the performance benefits gained by a system is the performance expectancy. Finally, price value is financial cost of using the system compared to the benefits gained by the individual's disposition to use electronic platforms. (Venkatesh et al., 2012). When digital platform considered the mentioned factors, customers moving forward will accept and use the platform for several purposes.

The present UTAUT2 model was modified from the original model that contains performance and effort expectancy only, to include social influence and facilitating conditions. later on, price value, hedonic motivation and habit were added to the model forming the present UTAUT2 model (Venkatesh et al., 2012; Morosan & DeFranco, 2016). These factors underline how crucial it is for anyone working in the hotel booking software sector to comprehend and deal with these issues, however there is a paucity of research regarding the influence of the proposed factors in the hospitality sector, particularly in Middle Eastern countries such as Jordan. For instance, some research targeted internet banking in Jordan rather than online hotel booking (e.g., Alalwan et al., 2018), whereas in Egypt other research targeted users' attitude of mobile online shopping rather than electronic hotel reservation (e.g., Bendary & Sahouly, 2018). Therefore, this study tries to fill this gap.

Moreover, there is a need to extend the UTAUT2 Model by examining the effect of more influences on people's behavioural intention to use technology. Thus, this study adds two other factors to the model; risk and trust, because these factors are strongly connected with online hotel booking. Especially that some researchers investigated the impact of trust and risk on online hotel reservation solely, without considering other variables in the UTAUT2 Model. For example, Akhtar, et al., (2022) approved the positive connection between trust and customers' intention to use online hotel platforms on a sample of 454 Chinese respondents. Baki mentioned in his research conducted in (2020) that Turkish customers are using online hotel booking, when they trust the website, their trust is derived from secure payment systems and clear information about hotel services available on the hotels' website. Risk also has a significant negative influence on online reservation intention according to (Zhao et al., 2022) research results.

Indeed, there exists little research on the impact of trust on customers' intentions to make online hotel reservations. Recently, (Nusairata, at al., 2023) mentioned trust as a mediator in the relationship between website's quality and the Jordanian citizens' intention to use travel agency's website. Moreover, (Kilani, et al., 2023) applied a modified UTAUT2 Model on 314 e-wallet Jordanian customers by replacing social influence with trust; the result was that trust has a significant connection with customers' intention to adopt mobile wallet. Eneizan et al., (2019) conducted the extended UTAUT2 Model with trust and risk on mobile marketing in general in Jordan.

Furthermore, up to our knowledge, there is no earlier research that investigated how risk influences Jordanian online booking intention behaviour. For instance, Masoud (2013) studied the impact of different risk types (financial, product, delivery, and information) on online shopping behaviour in Jordan rather than the customers' intention to book hotel online. Moreover, (Alalwan et al., 2018), investigated the link between risk and online behaviour on a sample of a Jordanian banking customer.

This paper examines the direct and indirect elements of the factors influencing online booking in Jordan. The goal is to update the UTAUT2 model and to include more new factors. We can better understand the factors influencing online booking behaviour in this particular situation by examining the influence of trust and three types of risk (fraud, privacy, and financial risk) as new influencers on behavioural intention to use booking apps. this research results may provide practical recommendations for hoteliers to understand and predict customers' behaviours, and to develop marketing plans that can attract more customers to reserve hotels electronically instead of the face to face booking. Especially that there is still a lack in the number of customers who accept and use hotel mobile apps; for example, 40% of the respondents of this research questionnaire were excluded, because they didn't book hotels online in the last two years.

Moreover, this research will enable decision makers to recognise the significant variables that should be considered in order to impact customer's accepting the idea of a mobile hotel reservation platform; electronic platforms must be easy to use, useful, trustable and enjoyable. Customers are generally moving toward technology to gain the highest benefits which include spending less time, cost, risk and effort and staying consistent with other's recommendations. (Morosan & DeFranco, 2016; Khumalo-Ncube, & Motala, 2021). Additionally, research results will contribute to the theoretical background of the online hotel booking in Jordan and in the Middle East in general, by providing a nature of relationships between the proposed variables and customer's intention to reserve a room in a hotel, giving more attention to the influence of trust and risk, in addition to the high light the connections between the variables it selves.

Therefore, two research questions are investigated in this study:

- RQ1: What are the relationships between the seven factors in the UTAUT2 model and the behavioural intention for Jordanian online hotel booking?
- RQ2: Can more factors be included that affect the behavioural intention for Jordanian online hotel booking?

The first research question investigates the applicability of the UTAUT2 model on Jordanian customers. Does each factor have direct impact, indirect impact or no impact on the hotel online booking in Jordan? Seven research hypotheses have been tested to answer this question. The second question investigates the possible impact of trust and three types of risks on Jordanian intention behaviour. Four research hypotheses have been tested in order to address the second research question. The total number of tested hypothesis are eleven. The expected result from addressing the above two questions is a modified

UTAUT2 model for online hotel booking in Jordan. A detailed study has been conducted and carefully analysed to address the research hypotheses, hence answering the research questions.

The remaining parts of the paper is structured as follows: the second section discusses past studies and presents study's hypotheses. The third section demonstrates research methodology. Section 4 presents the analysis and results whereas Section 5 responds to research questions. Section 6 presents and analyses the alternative model and section 7 discusses the results of the study in light of past studies. Section 8 discusses theoretical and practical implications and section 9 demonstrates limitations and directions for future research. Finally, section 10 concludes the study.

# 2. Related works and Research Hypotheses

The interest in understanding what motivates people to adopt new technology has expanded quickly in recent years; considering that there were 2.87 billion smart phone users in 2020, and about 258.2 billion downloaded apps in 2022 (Saumell et al., 2019), definitely, these numbers are likely to grow by the forthcoming years. Hence, factors needed to boost customer's apps usage should be incorporated and tested.

### 2.1. The UTAUT2 Model

The Unified Theory of Acceptance and Use of Technology (well known as UTAUT2 model) is widely recognized and employed in the technology acceptance field. Originally, UTAUT Model is the integration of many previous acceptance models which are: Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), The Social Cognitive Theory (SCT), Innovation Diffusion Theory (IDT), Theory of Planned Behaviour (TPB), The Model of PC Utilization (MPCU), Motivational Model (MM) (Venkatesh et al., 2003). This model reveals that customers' intention to use apps is impacted by various elements, including performance and effort expectancy, social influence and facilitating conditions. Venkatesh et al., (2012) proposed the expanded UTAUT model (UTAUT2 Model) by incorporating three constructs: hedonic motivation, price value and habit.

UTAUT2 Model is used in this study, because it represents a more comprehensive model to explore the factors that affect online hotel booking intentions which are mentioned above in contrast to other alternative models, such as: Technology Acceptance Model (TAM). Through TAM model, customers' behaviour intention to adopt specific technology as well as actual behaviour are investigated based on only two factors: ease of use and usefulness of electronic platforms. Many researchers conducted their studies about online hotel booking based on this model, for example, (AlNawafleh et al., 2023) applied this model on a sample of four hundred Jordanian customers in order to explore their intentions to use hotel mobile apps based on the apps' ease of use and usefulness. Therefore, UTAUT2 Model includes both factors of TAM Model and additional factors such as: habit, social influence, facilitating conditions, hedonic motivation and price value. Investigating customers' online booking intention's behaviour considering more variables, will expand the understanding of customer behaviour and help in making an extensive prediction about their future intentions, finally, this gives managers the flexibility to take into consideration more alternatives to enhance their electronic booking.

This model has been used in a variety of service contexts, including restaurants (Saumell, et al., 2019), banks (Alalwan et al., 2018), airplanes (Kim et al., 2017), and in online booking (Lata, 2021), and in developing countries such as Egypt (Bendary & Sahouly, 2018), Saudi Arabia (Baabdullah et al., 2014), and Jordan (Alalwan et al., 2018). The, UTAUT2 model is reviewed in the following sub sections, with a focus on the behavioural elements that affect this model in the hotel sector.

#### 2.1.1 Performance Expectancy and Behavioural Intention

Performance Expectancy is a key factor in determining why customers have certain intentions under the context of UTAUT2. performance expectancy is the expected enhancement in a customer's performance when using specific technology or mobile applications. (Lata ,2021). For example, women in Taiwan are more likely to reserve hotel electronically if benefits and support are provided (Chang, et al., 2019). There is consensus regarding the significant influence of performance expectancy on behavioural intention, hence, hotel managers should include all the useful features needed by customers in their mobile apps, to increase their propensity to use them to book a hotel room (Lata ,2021). The impact of performance expectancy on online hotel booking intention is confirmed by Morosan and DeFranco (2016), who found that performance expectancy is the strongest predictor for customers' inclinations to utilize mobile payment hotels. This conclusion is limited to the hotel industry, as well as to the American citizens. Furthermore, Malaysian clients used mobile hotel reservation apps to book hotels, if reservation via these apps is easy, quick and cheap. (Ismail et al., 2020). researchers not only agree that performance expectancy is one of the key elements in explaining customers' usage of online hotel platforms, they also agree that findings could be limited to specific countries, due to the differences in cultures and customers' preferences. (Lata ,2021).

### 2.1.2 Effort Expectancy

Initially called "ease of use" by Davis (1989), it refers to the amount of energy expended by a person to complete a given task while utilizing a specific type of technology (Morosan & DeFranco, 2016). Inconsistencies exists between results regarding the relationship between effort anticipation and customers' online hotel reservations. These contradictory results reflect the differences in individual's skills level within different countries. Ismail et al., (2017) contributed to the hotel industry by indicating the strong positive connection between effort expectancy and online customer behaviour, and recommending hotel managers to develop easy hotel booking applications. Information availability on the website, high quality and good visual appearance, will enhance customer experience to use a website for hotel booking (Khumalo-Ncube, & Motala, 2021). On the other hand, mobile app's easiness is not certified as a main contributor on customer's intention toward using hotel applications, this conclusion could not be generalizing, as it reflects U.S. individual's behaviour only (Morosan and DeFranco, 2016). Additionally, online Indian's customers booking is also not affected by effort expectancy, so hotel managers in India may considered other factors to influence their online booking intentions rather than easiness (Lata, 2021).

#### 2.1.3 Social Influence

Social impact is a crucial factor that influences customers' use of technology together with other important factors. The decision to book a hotel stay online may be supported or opposed by family members, close friends, and even hotel brands (Ismail et al., 2017). Anyone who has a Facebook, Instagram or YouTube account could be an influence on customer's online booking decision; according to a survey conducted by Trip Advisor, about 96% of hoteliers depends on online reviews and ratings before they reserve a room in a hotel online (Nafi & Ahmed, 2019). Numerous studies have emphasized the beneficial connection between social influence and internet hotel reservations. customers are more likely to adopt mobile hotel reservation apps, when considering other's positive reviews (Ismail et al. (2017). Lata (2021) enhances the theoretical base of the positive impact of the recommendation from others on consumers' behavioural intentions for hotel booking. To explain the adoption of online mobile booking from a social perspective, customers' intentions to use specific platforms will increase, if this will boost their status in a group or when they gain support from others. This explanation may be constrained by the differences between national and international customers' behaviour patterns (Chang et al., 2019). As a result, Policy makers and advertisers should emphasize on the extroverted individuals; those who like to provide feedback or introduce their reviews about online hotel booking, by providing them with the added benefits to use electronic hotel's platforms and considering their feedback, since those individuals are considered strong influencers (Morosan and DeFranco, 2016).

#### 2.1.4 Facilitating Conditions

Facilitating Conditions (FC) refers to a customer's perception of the availability and accessibility of resources such as tools, information, and assistance required to work with particular technology; they may include technical support or training (Venkatesh et al. ,2012). Companies usually provide customers with mentioned resources freely or within low cost (Alalwan et al., 2018), because they are essential for customers to use technology (Boonsiritomachai & Pitchayadejanant, 2019; Twum et al., 2021). Continuous facilitation and real - time help must exist instantly, to enforce customers' intention to reserve hotels, especially for older individuals who usually need more external facilitating resources. Hence, information technology companies are recommended to provide customers with appropriate applications upon request (Chang et al., 2019). Hotels must also design their booking applications based

on familiar technologies to mitigate barriers of electronic platform usage (Morosan and DeFranco ,2016).

Ismail et al., (2020) enriches literature by revising one of the essential variables of the UTAUT2 model and conclude that facilitating conditions were seen as a strong predictor of customers' intentions to use technology, therefore it is important to ensure the availability of necessary conditions to utilize technology effectively, particularly in the online hotel context. Nevertheless, social and cultural differences have restricted research result's generality.

### 2.1.5 Habit

Habit (H) refers to the extent to which people acquire the ability to do behaviours on their own (Chang et al., 2019). People tend to carry out specific actions automatically based on their knowledge, education and experience (Aliane and Silem, 2024). Habit is served as intrinsic advantage for the hotel visitor who is depending on technology frequently, once they are delighted with their earlier experience and favourite content. Enhancing the experience of using a technology could be a viable strategy to potentially increase the habitual use of mobile internet, which can be done by providing personalized services according to the customer's needs and preferences and giving discount vouchers to users who are using technology regularly. (Cheng et al.,2020). The outcomes of UTAUT2 provide an explanation of customer intention toward the use of technology through the direct and indirect effects of habits; though, to increase the habitual use of hotel apps, managers may advertise the applications of mobile hotel services in different occasions, like sharing the experience of others, taking photos by hotel workers and sending greeting cards to families (Venkatesh et al., 2012). The impact of age in habitual implementing of technology (Venkatesh et al., 2012).

Aliane and Silem, (2024) shed light on how habit leads to users' adoption and usage of the hotel booking apps in Algeria. Even though, this research is conducted on 303 hotel users in the east of Algeria, it provides strong contributions to the hotel's field in the Middle East, and it serves as a basic for future investigations in other countries in the region. This study is consistent with Morosan and DeFranco (2016) who approved that stronger habit will lead to significant consumer purchase intention, but, to imitate the current results, further investigation of the deployment of Mobile applications in hotels must be conducted.

#### 2.1.6 Hedonic Motivation

The concept hedonic motivation (HM) refers to the feeling of pleasure, joy and entertainment that derives from exploiting technology, regardless of any expected performance concerns (Brown & Venkatesh, 2005; Venkatesh et al., 2012). Hedonic motivation is connected with fun and emotional benefits the customer experiences, while taking a virtual tour in the hotel's website and seeing pictures of its rooms and facilities' for example (Tuti and Saputra, 2022). This study implicated to hotel industries by directing hotels to integrate their website, Facebook page and apps with dynamic appearance, such as: animation, colours, images and sounds. Hedonistic drive has been cited by various academics as significant predictor of behavioural intention (e.g., Chang et al., 2019; Lata, 2021; Morosan & DeFranco, 2016). Entertaining apps will motivate customers to use the hotel's online platform for reservation purposes, so, hoteliers and mobile application developers are recommended to design enjoyable and attractive online platforms. (Ismail et al., 2020). (Aliane and Silem (2024) occupies an exceptional position in the technology adoption literature, by giving evidences on the significant role of hedonic motivation to ensure the optimal use of hotel apps. Moreover, they provide strategies to attract customers to visit their online platform depending on entertainment-related applications that conclude music, videos, games, and promoting offers.

#### 2.1.7 Price Value

Price value describes the amount of money paid to book a room in a hotel through bookings apps (Syed & Suroso, 2018). It is the cognitive exchange made by the customer between perceived paybacks and financial cost (Saumell et al., 2019). It should come as no surprise that pricing value is seen as a driving force for customer's decision to book a room in a hotel electronically, especially for individuals who have price sensitivity. An electronic reservation of a hotel is worthwhile, if the consumer considers the pricing to be fair, affordable, and acceptable and believes that the hotel provides high expected value

(Lien et al.,2015). What distinguishes this study is that it investigates the impact of price value on purchase intention directly as well as indirectly; mediation effect through value. Chang et al., (2019) provides a vigorous base for the systematic examination of electronic hotel platforms, by considering the marital status effect; they concluded that married individuals are more interested in finding Inexpensive, appropriate and acceptable price using online hotel booking systems. As a result, hotel managers can promote a variety of reasonable room types to enhance the use of booking apps. However, it is important to consider cultural and attributive differences between local and global environment.

In short, hotels are recommended to consider the pricing of online booking in comparison with traditional booking, since gaining much more reasonable prices, discounts and promotions will enhance the optimal use of this type of booking (Mohamad et al., 2021). Results of this current study are significant to strengthen the past conclusions, even so generalization is not applicable due to differences in ages and time context. Another important recommendation is the customization of hotel promotions according to the customer's income to allow them to gain the highest value of their money during electronic bookings (Aliane and Silem, 2024).

## 2.2. The Research Hypotheses for RQ1

Based on the factors of the UTAUT2, we hypothesize the following seven hypotheses that lead to address the first research question:

H1: Performance expectancy is positively associated with Jordanian customer's behavioural intention to book hotels online.

H2: Effort expectancy is positively associated with Jordanian customer's behavioural intention to book hotels online.

H3. Social Influence is positively associated with Jordanian customer's behavioural intention to book hotels online.

H4. Facilitating conditions is positively associated with Jordanian customer's behavioural intention to book hotels online.

H5. Habit positively is positively associated with Jordanian customer's behavioural intention to book hotels online.

H6: Hedonic motivation is positively associated with Jordanian customer's behavioural intention to book hotels online.

H7: Price value is positively associated with Jordanian customer's behavioural intention to book hotels online.

## **2.3. More Influential Factors**

Trust and risk are two main new factors proposed to be included as influential factors. Three types of risk are investigated. These types are financial risk, privacy risks and fraud risk. These factors have been selected for inclusion for many reasons; first; to expand the UTAUT2 Model by investigating the effect of more influences on customer's behavioural intention to use technology, in order to provide additional strategies to be used in the hotel industry. Inclusion risk in the expanded UTAUT2 model was one of the recommendations of a recent research conducted in the Middle East by (Aliane and Silem, 2024) Moreover, these factors are strongly connected with online hotel booking as well as, they are expected to impact the online hotel booking in Jordan in similarly to what approved in the literature.; for instance, Masoud (2013) research on 2013 highlighted the negative connection between financial risk, product risk, delivery risk, and information security risk and online shopping behaviour in general in Jordan rather than hotels. Furthermore, Kim et al., (2017) discovered that customers' trust in hotels affect their intention to book a room in this hotel. Finally, some researchers investigated the impact of trust and risk on online hotel reservation solely, without considering their connection with other variables in the UTAUT2 Model. Such as the study of (Baki, 2020) which investigated the effect of risk and trust in Turkey without considering the whole variables in the UTAUT2 model, thus, the new relationships may provide new theoretical implications.

#### 2.3.1 Risk

Risk experienced by potential customers prior to making a purchase since there is ambiguity and unknown outcome (Komalasari et al., 2021). Electronic purchase may increase customer's tension because of the probability of unsuccessful transactions, difficulty in usage and high insecurity about new technology (Delgado et al., 2020). Risk is a negative predictor of booking intentions; the higher the risk level, the less likely an individual is going to book a hotel room online, as a result, it is a necessity to provide a secure and convenient reservation system (Zhao et al., 2022). Hotels must also reduce any difficulty of use, insecurity connected with personal information and money to attain customer satisfaction which results in high usage of electronic hotel platforms (Delgado et al., 2020).

Researchers have related the behavioural intention toward online booking in the hotel context to various sorts of risks mentioned by various researchers. The following types of risks will be investigated:

**Financial Risk (FinR)** is one of the key variables influencing consumers' decisions about spending money on the internet. It refers to the conviction that a particular amount of money could be lost or needed to create a product or particular functions as intended; it may reflect a feel of insecurity while using credit card for instance (Masoud, 2013). Financial risk is viewed as a bad precedent for online shoppers' intentions for services in Iraq, nevertheless, the level of education may be considered in future studies, as it could decrease this feel of risk (Younusa & Jarallah, 2020). A conclusion that was proved by (Komalasari et al., research in (2021) has not only there is a negative impact of financial risk on online electronic customer's intention behaviour in general, but is that this result may be applied in different contexts, such as; hotels at different locations. Meanwhile, limitation related to time and respondent differences must be considered. In general, managers are advised to recommended managers to follow a security strategy regarding customers' payment details to decrease the financial risk (Masoud, 2013).

**Privacy Risk (PR)** is the potential for companies to obtain personal information about customers and utilise it incorrectly; when individuals use specific apps, their personal information such as address, phone number and interests, will be available for companies before making an online purchase. Companies may misuse this sensitive information, so it is recommended to esteem the customer's privacy (Nyshadham, 2000). Reducing privacy risk is the task for hotel managers by considering the customer's concern, as it plays a crucial role in encouraging customers to purchase goods online (Naiyi ,2004). Furthermore, privacy risk has a negative and indirect impact on customers' online booking decisions through its effects on perceived value and customer satisfaction, therefore, this type of risk needs to be mitigated in order to improve positive behaviour toward online hotel accommodations (Kim et al., 2019). This conclusion is limited to the Korean individuals, rather it provides a base for further research interconnected with the threats of customers' privacy.

**Fraud Risk (FR)** is about customer's assessment of the reliability of the merchant, which is strongly linked with the precision of the available information about online companies, available support and after-sale services, it is among the key reasons why people hesitate to make purchases online (Naiyi, 2004). Through adopting this study's recommendations, managers will be able to understand customers' perception toward fraud risk and to predict their online shopping behaviour' intentions. Vague refund program and the absence of purchase guarantees increased customers' mistrust toward online shopping (e.g., Akhtar et al., 2022). Due to this connection, fraud risk may be a significant factor in forecasting people's online intended behaviour, hence, it is necessary to ensure the trustworthiness in electronic transactions (Pappas, 2016).

Based on the literature, it is predicted to have a negative connection between financial, privacy and fraud risk and the Jordanian customers' intention to book hotel online.

#### 2.3.2 Trust

Trust (T) is described as a view of someone or something's trustworthiness and dependability, higher trust in a company is connected with lower risk and increasing online booking behaviour 's intention, this could be explained by the effect of trust on value (Lien et al., 2015). In online reservation, trust is not only the confidence in the hotel website itself, rather, it is the reliability in the third party hotel booking websites, it is usually measured based on individual online reviews. When consumers trust

hotels' online channel information, this will improve their booking decision's experience (Kim et al., 2017).

The study of Lata in (2021), contributed to the literature by extending the UTAUT2 Model with trust and cited it as a vital element in determining consumers' intention to use mobile apps for booking. According to this study, to sustain customers' trust, correct up-to-date and dependable information must be provided by hotels. However, customers' perception differences and personal judgement may be considered to increase the generalization possibility (Lata ,2021). Building the customer's trust is a critical issue, not only as a result of its effect on customers' intention to use electronic channels for hotel bookings as mentioned earlier, but through its further influence on the usefulness and easiness of the use of the electronic channel, which are connected significantly to online reservation intentions (Lai et al., 2013).

In Jordan, it is expected that trust will have a positive impact on electronic platforms usage, this is justified by a conclusion of (Aliane and Silem, 2024), this study tries to fill a gap in the theoretical literature of Hotels in the Middle East by expanding the UTAUT2 model with trust. It acknowledges the importance of the compatibility between what hotels are offering through their electronic platforms and the actual situation to win the customers' trust.

#### 2.4. The Research Hypotheses for RQ2

The following four hypotheses are provided based on the proposed new factors. Testing these hypotheses will address the second research question. The four hypotheses are:

H8: Trust is positively associated with Jordanian customers' behavioural intention to book hotels online.

H9: Financial Risk is negatively associated with Jordanian customer's behavioural intention to book hotels online.

H10: Privacy Risk is negatively associated with Jordanian customers' behavioural intention to book hotels online.

H11: Fraud Risk is negatively associated with Jordanian customer's behavioural intention to book hotels online.

# 3. Research Methodology

#### **3.1 Sampling and Procedures**

In this quantitative study, the data were gathered via an online survey that was distributed randomly, mainly in Facebook groups and pages in Jordan with many followers. This method enabled the authors to target a wider population and save time and effort. An overview of the study and its purposes was introduced with the questionnaire link to motivate people to participate in the study. A filtering question was employed to guarantee that participants have had an experience with booking apps so they can answer the study's questions. The filtering question was "During the past two years, have you used booking apps for hotel reservations?" A total of 356 respondents replied to the survey; 142 responded that they had not used booking apps during the past two years whereas 214 did. Therefore, 214 responses were pertained for the analysis.

#### 3.2 Measures

The UTAUT2 technology Adoption theory was employed in this research. The measures of UTAUT2 were borrowed from Alalwan et al., (2017) and Mahmoud (2017), which they produced depending on the instrument designed by Venkatesh et al. (2012). The initial elements of the UTAUT2 model are performance expectancy, effort expectancy, price value, habit, facilitating conditions, social influence, hedonic motivation, and behavioural intention. The Likert-scale format was selected for the questionnaire due to its widespread usage and reputation for being a straightforward structure (Alzyoud, 2019). A five-point scale was utilised in this study due to its potential to enhance response rate and quality, as well as alleviate participants' frustration (Babakus and Mangold, 1992; Sachdev and Verma, 2004). Furthermore, the implementation of a five-point scale may facilitate the participants' recitation of the entire set of scale descriptors (1 = strongly disagree, 5 = strongly agree) (Dawkes, 2008). On the contrary, the utilisation of more rigorous point scales, such as a seven-point scale, may impose additional cognitive load on the participants, thereby increasing the likelihood of incomplete responses

(Alzyoud, 2019). Therefore, A five-point Likert scale was employed in this research where the possible responses ranged from 1: strongly disagree to 5: strongly agree.

The element performance expectancy was measured in three items such as "Using hotel booking apps helps me accomplish tasks more quickly", and "Using hotel booking apps increases my productivity". Cronbach's alpha for this scale was 0.94. Four scale items were employed to measure effort expectancy. An example of these items is "Learning how to use hotel booking apps is easy for me". Cronbach's alpha for this scale was 0.95. Trust was measured through four measurement items such as "I believe that hotel bookings apps are trustworthy". Cronbach's alpha for this scale was 0.91. Also, four items measured the construct behavioural intention to use hotel booking apps. An example of the scale items is: "I will always try to use hotel booking apps in my daily life". Alpha reliability for this construct was 0.96. Additionally, four items were used to measure facilitating conditions such as "I have the resources necessary to use hotel booking apps". Alpha reliability for this construct was 0.93.

Three items were adopted to measure hedonic motivation such as "Using hotel booking apps is entertaining". Cronbach's alpha for this scale was 0.93. Likewise, three items were measuring price value such as "hotel booking apps offer good value for money". Cronbach's alpha for this scale was 0.93. Three items were measuring social influence such as "People who are important to me think that I should use hotel booking apps". Cronbach's alpha for this scale was 0.90. Habit was measured through three items such as: "The use of hotel booking apps has become a habit for me". Alpha reliability for this construct was 0.85.

The construct fraud risk was measured via four items borrowed from Naiyi (2004). An example of these items is "I am afraid that online information about the product is not true." Cronbach's alpha for this scale was 0.88. Privacy risk was measured through three items that were adopted from Naiyi (2004). An example of this scale items is "I feel worry about that my personal address, telephone number could be misused by others." Cronbach's alpha for this scale was 0.93. Finally, the element financial risk was measured through four items that were adopted from the work of Masoud (2013). An example of this measure is "I feel that my credit card number may not be secure". Alpha reliability for this construct was 0.92.

#### 3.3 Data Analysis

Structural Equation Modelling (SEM) analysis technique is employed in this work, performed through SPSS AMOS software version 26. A two-step approach to SEM is conducted, as recommended by Anderson and Gerbing (1988), in which Confirmatory Factor Analysis (CFA) is performed first to assess the constructs' validity, and then a structural model is performed to test the research's hypotheses. This two-step process is commonly used technique that enables an in-depth analysis of intricate interactions and hidden variables inside the study framework (Alzyoud et al., 2024). Various indices were utilized to assess model goodness of fit. As suggested by Hair, Black, Babin, and Anderson (2014), these fit indices with cut-off values were employed: Chi-square divided by degree of freedom (preferable to be under 3); Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI), both to be greater than .90; Root Mean Square Error of Approximation (RMSEA), ought to be less than 0.80. Paths were drawn from each one of the exogenous variables to the endogenous variable to specify the proposed relationships. Maximum Likelihood Estimation was used as a default model estimation.

## 4. Research results

#### 4.1 Preliminary Analysis

A total of 214 valid responses were used in the analysis. Table 1 demonstrates the profile of participants. As shown in the table, the sample for this study is sex-balanced, with males making up 50.5% of the population and females 49.5%. In terms of age, around a third of the participants (31.1%) were 25 years old and below, whereas about 61.7% were over 36. Generally, the vast majority of the respondents are considered educated people as just over half of them had a bachelor's degree (53.3%), and about 36.4% had masters and Ph.D. degrees. Furthermore, the overwhelming majority of participants make 1 to 2 hotel reservations per year (83.6%), and the rest make more than two per year.

Characteristics	Frequency (n)	Percentage (%)				
Sex Male Female	108 106	50.5% 49.5%				
Age (Year) 25 and below 26-35 36-44 45 and above	67 15 71 61	31.3% 7% 33.2% 28.5%				
Education Level High school and less Diploma Bachelor Masters and above	8 14 114 78	3.7% 6.5% 53.3% 36.4%				
Number of reservations per year 1-2 times 3-5 times 6 times and more	179 27 8	83.6% 12.6% 3.7%				

#### Table 1. Participants' Characteristics (N = 214)

The normality of the data was assessed through the values of skewness and kurtosis, as suggested by Pallant (2016). For SEM analysis, Kline (2005) and West et al. (1995) recommended that skewness values should fall below 3 whereas the value of kurtosis not exceed 8. As demonstrated in Table 2, the values of skewness and kurtosis are well under their cut-off, which indicates that the assumption of normality was not violated.

Construct	Item	Skewness	Kurtosis
Performance Expectation (PE)	PE1	-1.197	1.090
	PE2	-1.498	1.882
	PE3	-1.418	1.698
Effort Expectation (EE)	EE1	-1.184	1.264
	EE2	-1.004	0.833
	EE3	-1.094	0.836
	EE4	-1.106	1.113
Social Influence (SI)	SI1	-0.173	-0.474
	SI2	-0.266	-0.422
	SI3	-0.670	0.019
Facilitating Conditions (FC)	FC1	-1.010	0.433
	FC2	-0.858	0.255
	FC3	-0.903	0.469
	FC4	-0.758	0.062
Habit (H)	H1	-0.684	0.039
	H2	-0.379	-0.657
	H3	-0.965	0.814
Hedonic Motivation (HM)	HM1	-0.624	-0.146
	HM2	-0.478	-0.536
	HM3	-0.830	0.168
Price Value (PV)	PV1	-0.606	-0.379
	PV2	-1.078	1.646
	PV3	-0.808	0.858
Behavioral Intention (BI)	BI1	-0.931	0.528
	BI2	-0.978	0.604
	BI3	-1.011	0.740
	BI4	-0.989	0.767
Trust (Tr)	Tr1	-0.735	0.238
	Tr2	-0.419	-0.298
	Tr3	-1.005	1.107
	Tr4	-0.498	-0.209
	FR1	-0.037	-0.734
Fraud Risk (FR)	FR2	-0.011	-0.736
	FR3	-0.072	-0.788
	FR4	-0.164	-0.869
Privacy Risk (PR)	PR1	0.205	-0.754
	PR2	0.140	-0.880
	PR3	0.196	-0.654
Financial Risk (FinR)	FinR1	0.342	-0.558
	FinR2	0.152	-0.965
	FinR3	0.026	-0.929
	FinR4	0.027	-1.004

#### Table 2. Measurement Items Skewness and Kurtosis

The preliminary analysis included the assessment of Common Method Bias (CMB). Following Podsakoff et al. (2003) guidelines, Harman's single-factor test was conducted to evaluate CMB for all the constructs and scale items. The output showed that all the scale items account for only 43.82% of the variance and that is less than the cut-off value of 50%. Consequently, it can be concluded that CMB is not an issue in this research.

### 4.2 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was performed to ensure the validity of the research's constructs in which the measurement items would provide a significant load to the scales they were connected to. The outcomes of the CFA indicated an acceptable fit with the data as CMINI/DF = 1.743, IFI = 0.940, TLI = 0.927, CFI = 0.939, and RMSEA = 0.059 and they met the recommended guidelines of Byrne (2010) and Hair et al. (2014). Likewise, factor loadings were assessed using the weights of standardized regression. According to Byrne (2010) and Hair et al. (2014), the minimum acceptable value of factor loadings is 0.50, otherwise, the measurement item should be considered for extraction. The outputs in Table 3 demonstrate that the loadings of the measurement items ranged from 0.69 to 0.94, and these values are well above the cut-off value. As such, the data can be pertained for further analysis. Furthermore, the constructs' reliability and validity were evaluated through Composite Reliability (CR) and Average Variance Extracted (AVE), respectively. CR values above 0.70 denotes sufficient reliability whereas AVE values greater than 0.50 indicate adequate validity. Table 3 also demonstrates the values of CR, AVE, and correlations amongst the study constructs. The results revealed that the CR and AVE values are well above their threshold, which denotes that the reliability and validity of all the constructs are confirmed.

Construct	CR	AVE	Measurement items	Loadings
Performance Expectancy	.948	.858	PE1	.890
			PE2	.951
			PE3	937
Effort Expectancy	.957	.847	EE1	.915
			EE2	.940
			EE3	.922
			EE4	.903
Social Influence	.910	.771	SI1	.919
			SI2	.909
			SI3	.802
Facilitating Conditions	.934	.781	FC1	.869
			FC2	.951
			FC3	.942
			FC4	.759
Habit	.860	.674	H1	.905
			H2	.694
			H3	.850
Hedonic Motivation	.937	.831	HM1	.924
			HM2	.904
			HM3	.907
Price Value	.931	.817	PV1	.896
			PV2	.907
			PV3	.909
Behavioural Intention	.964	.871	BI1	.925
			BI2	.945
			BI3	.960
			BI4	.902
Trust	.911	.720	Tr1	.910
			Tr2	.760
			Tr3	.918
			Tr4	.795
Frud Risk	.883	.655	FR1	.827
			FR2	.776
			FR3	.759
			FR4	.870
Privacy Risk	.939	.837	PR1	.874
			PR2	.937
			PR3	.933
Financial Risk	.936	.787	FinR1	.784
			FinR2	.930
			FinR3	.884
			FinR4	.941

#### 4.3 Hypotheses Testing

The hypothesized model was tested where paths were drawn from twelve exogenous constructs to one endogenous construct. Maximum Likelihood Estimation was used as a default model estimation. Confidence Intervals (CI) for significant relationships are reported. According to Hair and Alamer (2022), confidence intervals that do not include a zero indicate statistical significance. Furthermore, f-

squared and effect size are reported for significant relationships. Following the recommendations of Aiken and West (1991), f-squared values above 0.02 and under 0.15 denotes small effect size, values above 0.15 and less than 0.35 indicates medium effect size whereas values greater than 0.35 denotes large effect size. The results are illustrated in Figure 1. Contrary to expectations, the results supported only three hypotheses: H1, H4, and H5, whereas the hypotheses H2, H3, and H6-H11 were rejected. For instance, a positive association was found between performance expectancy and behavioural intention to use hotel booking apps (0.310, P < .01), which supports Hypothesis 1 (H1). However, the results did not support the proposed association between effort expectancy and behavioural intention (-0.151, P=.228) nor the hypothesized relationship between social influence and behavioural intention (-.045, P=.459), which led to the rejection of hypotheses H2 and H3 respectively.

The findings support hypothesis H4, which proposed that there would be a significant positive association between facilitating conditions and behavioural intention to use hotel booking apps (0.193, P < .05). Furthermore, the outcomes support hypothesis H5, which posited that there would be a positive and significant association between habit and behavioural intention to use hotel booking apps (0.420, P < .001). Conversely, no significant relationship was found between hedonic motivation and behavioural intention to use hotel booking apps (-0.021, P= .788), which led to the rejection of hypothesis H6. In addition, no significant relationship was found between price value and behavioural intention to use hotel booking apps (0.006, P= .946), and that led to the rejection of hypothesis H7. Moreover, the posited association between trust and behavioural intention to use hotel booking apps was not supported as no significant relationship was found (0.155, P= .160), which denotes the rejection of hypothesis H8.

The output did not support the proposed relationships between the exogenous variables: fraud risk, privacy risk and financial risk and the endogenous variable behavioural intention as the paths from the exogenous variables to the endogenous variable were not significant (0.083, P=.263; -0.057, P=.435; 0.109, P=.201, respectively), which led to the rejection of the hypotheses H9, H10, and H11.

#### 4.4 Addressing Research Questions

Based on the results of the tested hypotheses, the two questions can be answered as follows:

RQ1: What are the relationships between the seven elements in the UTAUT2 model and the behavioural intention for Jordanian online hotel booking?

Answer: Only Performance Expectancy and Habit have direct effect on the behavioural intention for Jordanian online hotel booking. On the other hand, both Effort Expectancy and Hedonic Motivation have indirect impact via Habit.

RQ2: Can more factors be included that affect the behavioural intention for Jordanian online hotel booking?





Fig 1: Results of the tested hypothesis

#### 4.5 Alternative Model

The development of regular use among users (habit) is still an essential component for the ongoing use of hotel bookings platforms. Past studies argued that habit is considered among the most significant factors that influence how often people use new technologies (e.g., Cheng et al, 2020). Furthermore, there are compelling evidence in the literature that users' feeling of pleasure that results from utilizing technology (known as Hedonic motivation), effort expectancy and trust can encourage users to develop a habit for using new technology (e.g., Alzyoud et al., 2024; Lata, 2021; Morosan & DeFranco; 2016). Therefore, this study sough to propose an alternative model where the focus is on habit as a mediator in the association between effort expectancy, hedonic motivation and trust as independent variables and behavioural intention as dependent variable. In addition, performance expectancy, habit and facilitating conditions were proposed to directly influence behavioural intention.

The output regarding the alternative model revealed that the data fit the model as CMINI/DF=1.756, IFI=0.997, TLI=0.971, CFI=0.997, and RMSEA=0.062. Maximum Likelihood Estimation was used as a default model estimation. As demonstrated in the previous section, Confidence Intervals (CI) are reported, where values that do not include a zero indicate statistical significance (Hair and Alamer, 2022). In addition, f-squared and effect size are reported. Following the recommendations of Aiken and West (1991), f-squared values above 0.02 and under 0.15 denotes small effect size, values above 0.15 and less than 0.35 indicates medium effect size whereases values greater than 0.35 denotes large effect size. Figure 2 illustrates the results of the proposed alternative model. The results demonstrated that performance expectancy is positively related to behavioural intention to use hotel booking apps (.454, P < .001, CI .104-767, f-squared .0346, small effect). In addition, facilitating conditions were found to be associated with behavioural intention (.115, P < .05, CI .061-356, f-squared .1054, small effect). The construct habit was also found to be associated with behavioural intention (.316, P < .001,

CI .017-.533, f-squared .0798, small effect). Furthermore, the results revealed that effort expectancy is related to habit (.233, P < .001, CI .134-.338, f-squared .1054, small effect) and habit is mediating the relationship between effort expectancy and behavioural intention. Moreover, a significant positive relationship was found between hedonic motivation and habit (.236, P < .001, CI .118-.400, f-squared .0703, small effect). In turn, habit was showed to mediate the association among hedonic motivation and behavioural intention. The outputs also indicated a positive association between trust and habit (.172, P < .01, CI .035-.278, f-squared .0515, small effect), and that habit to mediate the paths between trust and behavioural intention. The study tested the influence of some control variables (age, sex and education) on the exogenous variables habit and behavioural intention. For instance, age was not significantly influencing habit (0.100, P= .354) nor behavioural intention (0.052, P= .704). Similarly, sex was not significantly impacting habit (-0.393 P= .130) nor behavioural intention (-0.023, P= .944). Likewise, education was not significantly affecting habit (-0247, P= .220) nor behavioural intention (0.174, P= .506).



Fig. 2: The Proposed Alternative Model

#### 5. Discussion

This paper investigates the impact of several factors on consumers' behavioural intentions to adopt hotel booking applications in Jordan such as trust, fraud risk, privacy risk and financial risk in addition to the original components of the UTAUT2 model that were discussed by Venkatesh et al., (2012). The findings of the study indicated that performance expectancy, habit and facilitating conditions are significant to the customer's online booking intention, whereas customers' use of technology are not influenced by social influence, price value and risk. Furthermore, effort expectancy, hedonic motivation and trust have no direct impact on customer's intention toward using hotels' apps, even though they affect customers' intention indirectly through habit.

The output of the study showed that the most influential aspect toward a customer's willingness to book hotel rooms online is performance expectancy. This is in line with the many previous research done in different countries such as the study of Ismail et al., (2020) in Malaysia and (Chang et al., (2019) study

in Taiwan. It seems to have an agreement between researchers that customers will increase their online hotel booking when hotel booking apps are useful, quick and cheap. This conclusion is also approved in Jordan by (AlNawafleh, et al., 2023). Regarding Facilitating conditions, it was found that it is positively associated with online booking intention, similar to Morosan and DeFranco (2016), Chang et al., (2019) and Ismail et al., (2020). This result is also consistent with the researchers' expectations, Jordanian customers will move towards electronic hotels platforms usage, if the needed resources, information and support are available. Results above confirmed what was revealed by past literature and introduced insight to researchers to consider these variables in other contexts related to technology use, as the importance of these factors are obvious even with differences in cultures.

Unexpected conclusion revealed by this study is that customer's intention to reserve hotels online in Jordan is not impacted by the recommendation of friends and family members (social influence) nor the value of money paid to reserve a room in a hotel (price value). This may be due to the higher income for customers who already reserve hotels, and to the Jordanian attitudes to have their own experiences of online hotel booking, regardless the opinions of others. This conclusion is consistent with the results of Morosan and DeFranco (2016) research which considered social influence as an insignificant predictor of customer's intention to make online reservations. It also similar to a recent conclusion discovered by Şeker et al., (2023) who mentioned that price or the financial advantage is not one of the reasons for using hotels 'mobile applications. However, Ismail et al. (2017) stated social impact and Lien et al. (2015) considered price value as a factor that influences customers' use of technology, but their impact is lesser than other factors in the UTAUT2 Model. So, no generalization is applicable regarding the importance of price value and social influence, then there is opportunity to explore their impact in other countries and other contexts and within the customers' attitudes, differences and financial capabilities.

Despite the negative connection between customer's evaluation of hotel trustworthiness and their intention to book hotels online, which were approved by Akhtar et al., (2022) and Naiyi (2004), no relationships were found in this research between the three types of risk (fraud, privacy, and financial risk) and the customer's intention booking behaviour. Such conclusion is considered very interesting, especially that other research conducted in Jordan mentioned that different types of risk reduced online shopping in general (Masoud, 2013). To explain this conclusion, it may be a result of the trust that exists in the mind of Jordanian customers toward online services provided by hotels and the strong influence of their habitual use of such services on online booking behaviour's intention. Of course, similar studies supported the lack of connection between financial risk and online hotel booking are existing, such as (Ahmed et al., 2020). It is worth for future studies to consider the connections between all the factors in the extended UTAUT2 Model, to explore new connections that may exist or to find logical explanations between inconsistent studies.

Regarding habit's, it is the second essential determinants for online customers' behavioural booking intention after performance expectancy. Normally, customers will use technology automatically over constant practice depending on their experience and training. This finding is similar with the findings of Venkatesh et al. (2012) and Morosan and DeFranco (2016), but contradicts the outcomes of other studies (e.g., Lata, 2021), that may be due to the differences in the level of customers' technology usage between different countries. In other countries in the Middle East, such as Algeria, habit is considered a significant predictor for online booking (Aliane and Silem, 2024). Adopting technology as a part of daily life style, will facilitate and encourage individuals to depend on apps instead of traditional channels, especially with the growing dependence on technology by hotels, this is the situation facing Jordanian hotel visitors.

On the other hand, Jordanian customers' intention to book a hotel online was not directly influenced by effort expectancy, hedonic motivation, or trust in the current study. In contrast to Rodríguez et al., (2014), a study that claimed hedonic motivation and effort expectancy were basics for regular online hotel booking. Nevertheless, the result was similar to the conclusions of Morosan and DeFranco (2016) who eliminated effort expectancy from the factors that encourage customer to reserve hotel online. And similar to the work of Lien et al. (2015) who revealed that trust has no significant impact on online hotel booking, unless perceived value is taken into consideration. To conclude, it is not the highest necessity for Jordanian hotel visitors to use easy electronic platforms or interesting ones for booking purposes,

moreover, they couldn't even include trust within their online hotel reservation decisions. This may be because the majority of Jordanian customers have high skills to deal with technology. In addition, they are not making online booking, unless they have the needed skills, otherwise they will book hotels traditionally. This conclusion advances our understanding to explain and predict customers' intention toward electronic hotel booking by depending on the significant factors only and according to customer's evaluation, which vary in different locations and situations.

However, when habit is taken into account as a mediator, it becomes apparent that effort expectation, hedonic motivation, and trust have an indirect impact on customer online booking behaviour. This conclusion was corroborated by earlier researchers; for instance, Khatimahet al., (2019) further supported the significant link between hedonic motivations and electronic behavioural intention payments through habit as a mediator. Moreover, Agaga and El-Masry (2016) found that the impact of trust on online booking will only be substantial in the situation of low habit, when examining the triple interaction between trust, habit, and online booking intention. Habit may also eliminate the connection between effort expectancy and online booking behaviours' intention (Chang et al., 2019). Other contradictory result stated that habit has not moderated the link between effort expectancy and customers switching their intentions towards online apps (Iranmaneshet al., (2022). Inconsistencies between past research provide evidences on the differences of the importance of different variables in different countries and based on customers' attitudes, skills and even their personalities. Moreover, the interrelationship between variables may expand our understanding on the real predictors behind electronic booking behaviour intention. It is worth here to highlight the significant position of Habit as an influential factor for online booking to Jordanians; when people in Jordan have the technologyrelated information and experience, they will not only deal with electronic reservation enthusiastically and frequently, they will also feel more confident about these electronic platforms, an easier and a higher degree of entertainment.

# 6. Conclusion, Limitations and Directions for Future studies

This study extends the UTAUT2 model with trust and risk factors to investigate the determinants of customers' intentions to use online hotel booking platforms in Jordan. The findings highlight the importance of performance expectancy, facilitating conditions, and habit in driving online booking adoption, while social influence, price value, trust, and risk factors were not found to be significant predictors. The alternative model suggests that habit may mediate the effects of effort expectancy, hedonic motivation, and trust on behavioural intentions, offering a more nuanced understanding of the relationships between these constructs.

The study contributes to the literature by providing empirical evidence on the applicability of the extended UTAUT2 model in the context of online hotel booking in Jordan, and by identifying the key factors influencing customers' intentions to use these platforms. This research is amongst the first attempt to provide a comprehensive model for the elements that can motivate customers to use phone apps for hotel bookings in Jordan. At first, the UTAUT2 model is expanded by adding trust and three types of risk to investigate their connection with customer's online booking intention. Moreover, the role of habit in supporting the impact of effort expectancy, trust and hedonic motivation on customer's behavioural intention was approved. The limited research on the impact of trust reveals that trust is important in influencing online booking behaviour but indirectly, through habit. Furthermore, studying the influence of fraud, privacy and financial risk on online booking intention behaviour in a developing country is significant, because it can provide insights into the particular aspects impacting consumer behaviour in this specific setting. Especially, that fraud, privacy and financial risk are combined with other factors in the UTAUT2 Model, in comparison to most researchers who have studied the impact of risk in the hotel context in general and without considering other variables in the UTAUT2 Model. This combination ends to a unified model on the acceptance of technology for customers, and helps in expanding the understanding of the interrelationships between different factors, which contributes to comprehensive explanations and solid backgrounds to future research concerning electronic booking effectiveness.

The findings also offer practical implications for hotel managers and booking platform providers. First and foremost, electronic hotel platforms must be carefully designed to be easy to use to save customers' time and effort. Additionally, harnessing mobile applications with specific benefits such as quick service and low cost is key to better satisfy customers. Fostering continuous connections between Hotels and customers are essential to provide clients with technical support, assistance and facilitation immediately. The study underscores the pivotal role of habit in improving electronic booking's intention; increasing the habitual use of mobile internet could be a viable strategy to potentially enforce customers' intentions to reserve hotels, which can be achieved by providing customized services to customers, encouraging them to use electronic platforms instead of traditional platforms as a daily life style through discounts and promotions. Moreover, to enhance the habitual use of electronic platforms, they must be leveraged to be entertainment-related, useful, up to date and contain accurate information to create a sense of excitement and trust. If customers feel more trusting of hotels, and touch pleasure when using smartphone apps, their usage of such apps for hotel bookings will become a regular habit. Hotel managers can also use the study results to forecast client behaviour, set objectives and prepare suitable plans for future requirements needed by customers regarding their online reservation experience as an alternative of traditional booking channels.

However, the study has several limitations that should be acknowledged and addressed in future research. First, the cross-sectional design of the study does not allow for causal inferences or the examination of long-term effects. Longitudinal or experimental studies could provide stronger evidence on the directionality and stability of the relationships between the constructs.

Second, the reliance on self-reported measures and a convenience sample of Facebook users may introduce biases or limit the generalizability of the findings. Future studies could use more objective measures (e.g., actual booking data) and probability sampling methods to enhance the validity and representativeness of the results. Another limitation is the sampling size, only 214 valid responses were used in the analysis process. It can be argued that results may change if the size of the sample was very large. Unfortunately, there is no available statistics regarding users of online booking customers in Jordan, which can influence the representative of the study. As such, it is recommended for future research to gather a larger sample to enhance confidence in the study findings

Third, the study focuses on a single country (Jordan) and a specific type of online booking platform (hotel apps), which may limit the applicability of the findings to other contexts or countries. Initially, this study may provide an indicator to customers' intention behaviours in the Middle East. However, Future research are advocated to build on the result of the study to develop a more comprehensive model that underscores the cultural nuances and extend to different regions or booking platforms (e.g., airline tickets, vacation packages). Moreover, this study may be a reference for preparing a country- specific model of electronic hotel booking intentions worldwide. Finally, the study does not consider the potential moderating effects of individual characteristics (e.g., age, gender, travel experience) or situational factors (e.g., travel purpose, booking complexity) on the relationships between the constructs. Incorporating these variables as moderators could provide a more nuanced and context-specific understanding of the factors influencing online hotel booking intentions.

Despite these limitations, the study makes a valuable contribution to the literature on online hotel booking and technology adoption, and provides a foundation for future research in this area. By extending the UTAUT2 model with trust and risk factors and testing its applicability in the Jordanian context, the study offers insights into the key drivers and barriers of online booking adoption, and suggests avenues for further theoretical and empirical investigation.

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## **References:**

Abdelouahab, I. (2019). Social big data analysis of Five Star hotels. African Journal of Hospitality, Tourism and Leisure, 8(3).

Abuhashesh, M., Al-Khasawneh, M., Al-Dmour, R. & Masa'deh, R. (2019). The Impact of Facebook on Jordanian Consumers' Decision Process in the Hotel Selection. *IBIMA Business Review*, 2019.

Agaga, G., & El-Masry, A.A. (2016). Understanding the determinants of hotel booking intentions and moderating role of habit. *International Journal of Hospitality Management*, *54*(2016), 52-67.

Aliane, F. & Silem, M. (2024). Interpretation of the Customers' Behavioral Intention in Online Hotel Rooms Booking: Application of the Extension of the Unified Theory of Acceptance and Use of Technology, a Field Study of Some Hotels in Eastern Algeria. *Journal of Alafak for Economic Studies*, 8(2), 270-292.

Ahmad, A. H., Fauzi, R. A., Ditta, A. A., Idris, I., Faizun, M. & Yazid, M. (2020). The Role of Perceived Benefits and Perceived Risks Towards the Consumers' Purchase Intention Via ECommerce: An Evidence From Indonesia. *Solid State Technology*, *63*(2s).3257-3274.

Aiken, L. S., & West, S. G. (1991). Multiple regression: Testing and interpreting interactions. Newbury Park, CA: Sage.

Akhtar, N., Siddiqi, U. Islam, T. & Paul, J. (2022). Consumers'untrust and behavioral intentions in the backdrop of hotel booking attributes. *International Journal of Contemporary Hospitality Management* 34(5), 2026-2047.

Alalwan, A., Dwivedi, Y.K, Rana, Nripendra P. & Algharabat, R. (2018). Examining factors influencing Jordanian customers' intentions and adoption of internet banking: Extending UTAUT2 with risk. *Journal of Retailing and Consumer Services*, 40, 125-138.

AlNawafleh, E. A. T., Alsheikh, G. A. A., Al-Gharaibeh, S. M., Alhyasat, K. M., & Hamdan, K. B. (2023). Extension of Intentions to Use Booking Mobile Apps With Service Quality and Customer Satisfaction: Insights From Jordanian Hotels. *International Journal of eBusiness and eGovernment Studies*, 15(1), 47-67.

Alzyoud, S.Y. (2019). *Psychological safety and employee innovation in four- and five-star hotels in the UK*. PhD thesis, Department of Operations, Technology, Events, and Hospitality Management, Manchester Metropolitan University.

Alzyoud, S., Alshurafat, H. and Khatatbeh, I. (2024). Understanding Cryptocurrency Investment Behaviour in Jordan: An Examination of Motivational Drivers Through the Lens of The UTAUT2 Model. Studies in Economics and Finance, Ahead of Print, Ahead of Print

Alzyoud, S., Harb, A., Alakaleek, W. (2024). Factors Shaping the Entrepreneurial Intentions Among Hospitality Students in Jordan: The Mediating Role of Self-efficacy. In: Alareeni, B., Hamdan, A. (eds) Technology and Business Model Innovation: Challenges and Opportunities. ICBT 2023. Lecture Notes in Networks and Systems, vol 924. Springer, Cham.

Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, 103(3), 411–423.

Baabdullah, A., Dwivedi, Y. & Williams, M. (2014). Adopting An Extended UTAUT2 To Predict Consumer Adoption Of M-Technologies In Saudi Arabia .*UK Academy for Information Systems Conference Proceedings* 2014.5.

Babakus, E. and Mangold, W. G. (1992). Adapting the SERVQUAL scale to hospital services: an empirical investigation. *Health Services Research*, 26(6) pp. 767-786.

Baki, R. (2020). Analysis of Factors Affecting Customer Trust in Online Hotel Booking Website Usage. *EJTHR*, 10(2): 106-117.

Bendary, N. & Sahouly, I. (2018). Exploring the extension of unified theory of acceptance and use of technology, UTAUT2, factors effect on perceived usefulness and ease of use on mobile commerce in Egypt. *Journal of Business and Retail Management Research*, *12*(2). 60-71.

Boonsiritomachai, W., & Pitchayadejanant, K. (2019). Determinants affecting mobile banking adoption by Generation Y based on the Unified Theory of Acceptance and Use of Technology Model modified by the Technology Acceptance Model concept. *Kasetsart Journal of Social Sciences*, 40(2), 349-358.

Brown, S. & Venkatesh, V. (2005). Model of adoption of technology in households: a baseline model test and extension incorporating household life cycle. *MIS Quarterly*, *29*(3), 399-426.

Byrne, B.M. (2010). Structural Equation Modeling with Amos: Basic Concepts, Applications and Programming. London, UK: Routledge.

Chang, C. M., Liu, L.W., Huang, H.C. & Hsieh, H.H. (2019). Factors Influencing Online Hotel Booking: Extending UTAUT2withAge,Gender, and Experience as Moderators. *Information*, 10(9), 281.

Cheng, Y., Sharma, S., Sharma, P. & Kulathunga, K. (2020). Role of Personalization in Continuous Use Intention of Mobile News AppsinIndia: Extending the UTAUT2Model. *Information*, 11(1), 33.

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarter*, *13*(3), 319-340.

Dawkes, J. (2008). Do data characteristics change according to the number of scale points used? An experiment using 5-point, 7-point and 10-point scales. *International Journal of Market Research*, 50(1) p. 61-104.

Delgado, T. B., Martín, S.S., & Maestro, R.M.H. (2020). The influence of website quality and star rating signals on booking intention: analyzing the moderating effect of variety seeking. *Spanish Journal of Marketing*, 25(1), 3-28.

Díaz, M.R. & Rodríguez, T.F.E. (2017). Determining the reliability and validity of online reputation databases for lodging: Booking.com, TripAdvisor, and HolidayCheck, *Journal of Vacation Marketing*, 24, (3).

Eneizan, B., Mohammed, A.G., Alnoor, A., Alabboodi, A.S., & Enaizan, O. (2019). Customer acceptance of mobile marketing in Jordan: An extended UTAUT2 model with trust and risk factors. *International Journal of Engineering Business Management*, 11,1-10.

Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research Methods in Applied Linguistics*, 1(3), 100027.

Hair, J. F., Black, W. C., Babin, B. J. and Anderson, R. E. (2014) *Multivariate data analysis* (7th ed.). Upper Saddle River, NJ: Pearson Education Limited.

Internet World Stats (2024), Internet World Stats, accessed 14 April 2024, https://www.internetworldstats.com/stats5.htm#me

Iranmanesh, M., Min, C.L., Senali, M.G., Nikbin, D. & Foroughi, B. (2022). Determinants of switching intention from web-based stores to retail apps: Habit as a moderator. *Journal of Retailing and Consumer Services*, 66.

Ismail, M. N. I., Hanafiah, M.H., Hemdi, M.A., Sumarjan, N. & Azdel, A.A. (2020). Determinants of customer acceptance and usage of mobile hotel reservation apps (MHRA): An exploratory factor analysis *Journal of Tourism, Hospitality & Culinary Arts*, *12*(1), 231-247.

Ismail, M. N. I., Hemdi, M.A., Sumarjan, N., Hanafiah, M.H. & Zulkifly, M.I. (2017). Customer's acceptance, usage and M-Satisfaction of Mobile Hotel Reservation Apps (MHRA). *Journal of Tourism, Hospitality & Culinary Arts*, 9(2), 425-442.

Khatimah, H., Susanto, P. & Abdullah, N. L. (2019). Hedonic Motivation and Social Influence on Behavioral Intention of E-Money: The Role of Payment Habit as A Mediator. *International Journal of Entrepreneurship*, 23(1), 1-9.

Khumalo-Ncube, S. & Motala, T. (2021). Hotel Booking Website Quality, Travel Agent Satisfaction and Purchase Intention. *African Journal of Hospitality, Tourism and Leisure*, 10(6):1932-1943.

Kilani, A.A.Z., Kakeesh, D.F., Al-Weshah, G.A. & Al-Debei, M.M. (2023). Consumer post-adoption of e-wallet: An extended UTAUT2 perspective with trust. *Journal of Open Innovation: Technology, Market, and Complexity*, 9 (3) 100113.

Kim, S. H., Bae, J. H. & Jeon, H.M. (2019). Continuous Intention on Accommodation Apps: Integrated Value-Based Adoption and Expectation–Confirmation Model Analysis. *Sustainability*, *11*(6), 1578.

Kim, S. Y., Kim, J.U. & Park, S.C. (2017). The Effects of Perceived Value, Website Trust and Hotel Trust on Online Hotel Booking Intention. *Sustainability*, *9*(12), 2262.

Kline, R. B. (2005) *Principles and Practice of Structural Equation Modeling* (5th ed.). New York, NY: The Guilford Press.

Komalasari, F., Christianto, A. & Ganiarto, E. (2021). Factors Influencing Purchase Intention in Affecting Purchase Factors Influencing Purchase Intention in Affecting Purchase Decision: A Study of E-Commerce Customer in Greater Jakarta. *BISNIS & BIROKRASI: Jurnal Ilmu Administrasi dan Organisasi, 28*(1), Article 1.

Lai, Y. H., Huang, H.C., Lu, R.S. & Chang, C.M. (2013). The Effects of Website Trust, Perceived Ease of Use, and Perceived Usefulness on Consumers' Online Booking Intention: Evidence from Taiwan B&B Sector *Life Science Journal*, *10*(2), 1516-1523.

Lata, S. (2021). What Determines Consumers' Intention for Hotel Bookings through Smartphone Apps? . *ASEAN Journal on Hospitality and Tourism*, 19(3), 167–184.

Lien, C. H., Wen, M.J., Huang, L.C. & Wu, K.L. (2015). Online hotel booking: The effects of brand image, price, trust and value on purchase intentions. *Asia Pacific Management Review*, 20(2015), 210-218.

Mahmoud, N., (2017). Understanding consumer adoption of cryptocurrencies (Master's thesis, University of Pretoria, Pretoria, South Africa).

Masoud, E. Y. (2013). The Effect of Perceived Risk on Online Shopping in Jordan. *European Journal of Business and Management 5*(6), 76-87.

Mohamad, M. A., Radzi, S. M., & Hanafiah, M. H. (2021). Understanding tourist mobile hotel booking behaviour: Incorporating perceived enjoyment and perceived price value in the modified Technology Acceptance Model. *Tourism & Management Studies*, 17(1), 19-30.

Morosan, C. DeFranco, A. (2016). It's about time: Revisiting UTAUT2 to examine consumers' intentions to use NFC mobile payments in hotels. *International Journal of Hospitality Management*, 53(2016), 17-29.

Nafi, S. M. & Ahmed A., T. (2019). The Ethical Standpoint of Social Influencers on Hotel E-Service scape: A Theoretical Perspective on the Existing Literature. *African Journal of Hospitality, Tourism and Leisure*, 8(1), a17.

Naiyi, Y. (2004). Dimensions of Consumer's Perceived Risk in Online Shopping *Journal of Electronic Science and Technology of China 2*(3), 177-182.

Nusairata, N.M., AlZubib, K.N., Abubakera, L., Abdellatifc, H., Akhors haidehd, A.H.O., Alkhalaylehe, W.A. & Jassim Ahmad Al-Gasawneha, J.A. (2023). Avoiding uncertain buying intentions: Does WebQual matter?. *International Journal of Data and Network Science*, 7 (1), 425–432.

Nyshadham, E. A. (2000). Privacy policies of air travel web sites: a survey and analysis. *Journal of Air Transport Management*, 6(3), 143-152.

Pallant, J. (2016) SPSS survival manual: A step by step guide to data analysis using IBM SPSS. 6th ed., Maidenhead, Berkshire, England: McGraw-Hill Education.

Pappas, N. (2016). Marketing strategies, perceived risks, and consumer trust in online buying behaviour. *Journal of Retailing and Consumer Services*, 29, 92-103.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y. and Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, 88(5) 879-903.

Rodríguez, T. S., Trujill, E.C. & Lozano, P.M. (2014). Factors that influence the perceived advantages and relevance of Facebook as a learning tool: An extension of the UTAUT *Australasian Journal of Educational Technology*, *30*(2), 136-151.

Sachdev, S. B. and Verma, H. V. (2004). Relative importance of service quality dimensions: a multisectoral study. *Journal of Services Research*, 4(1) pp. 93-116.

Saumell, R. P., Coll, S.F. & Robres, E. (2019). User Acceptance of Mobile Apps for Restaurants: An Expanded and Extended UTAUT-2. *Sustainability*, *11*, 1210.

Şeker, F., Kadirhan, G. & Erdem, A. (2023). The factors affecting tourism mobile apps usage. Tourism & Management Studies, 19(1), 7-14.

Statista 2024, *Statista*, accessed 14 April 2024, <u>https://www.statista.com/markets/420/travel-tourism-hospitality/</u>

Syed, A. A. & Suroso, J.S. (2018). Factors Affecting Consumers' Decision for E-Hotel Booking. *CommIT (Communication & Information Technology) Journal*, 12(2), 111-123.

Tuti, M. & Saputra, T. (2022). Hotel Guest's Main Preferences in Hotel Online Booking: Pleasure or Usability. *African Journal of Hospitality, Tourism and Leisure, 11*(1), 263-277.

Twum, K. K., Ofori, D., Keney, G., & Korang-Yeboah, B. (2021). Using the UTAUT, personal innovativeness and perceived financial cost to examine student's intention to use E-learning. *Journal of Science and Technology Policy Management*, 13(3), 713-737.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. MIS Quarterly, 27 (03), pp. 425 478.

Venkatesh, V., Thong, J.Y.L. & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Quarter*, *36*(1), 157-178.

West, S.G., Finch, J.F. & Curran, P.J. (1995). Structural Equation Models with Non Normal Variables: Problems and remedies. In: R. H., Hoyle, (Ed.), *Structural Equation Modeling: Concepts, Issues, and Applications* (pp. 56-75). Thousand Oaks, CA: Sage.

Younusa, A. Y. & Jarallah, S. A. (2020). Perceived Risks and Their Impact on Customer Online Buying Decisions: A Field Study for Online Marketing Services in Iraq. *International Journal of Innovation, Creativity and Change*, *13*(9), 1374-1390.

Zhao, Y., Wang, H., Guo, Z., Huang, M., Pan, Y. & Guo, Y. (2022). Online Reservation Intention of Tourist Attractions in the COVID-19 Context: An Extended Technology Acceptance Model. *Sustainability*, *14*(16), 10395.