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Evaluating Enablers and Outcomes of Clients' Behavioral Intention to Use Electronic Mobile Payment Services during Covid-19 Pandemic: An Empirical Study on Jordanian Insurance Companies

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ABSTRACT

By applying the Unified Theory of Acceptance Use of Technology 2 (UTAUT2), this study aimed to evaluate the enablers and outcomes of National Wallet (NW) company clients' behavioral intention to use electronic mobile payment services in the Jordanian insurance industry during the pandemic of Covid-19. The current study employed quantitative and qualitative research approaches. The proposed hypotheses were tested quantitatively by developing and examining the UTAUT2 model along with the Perceived Risk (PR) variable which was added to the original model and tested based on the moderators of income, education, age, gender and experience that would influence clients' behavioral intention to use mobile payment services and in turn influence clients' use behavior. Based on a sample comprised of 426 NW clients who used mobile payment services in the Jordanian insurance companies during Covid-19 pandemic, the Hayes Process Macro by Andrew F. Hayes plugin was used as a statistical analysis in Statistical Package for Social Sciences (SPSS) software to evaluate path coefficients. Data was collected *via* an online survey questionnaire and then analyzed and hypotheses were examined by employing both Structural-equation Modeling (SEM) and Machine-learning (ML) techniques. Results showed that performance expectancy, hedonic motivation, price value, perceived risk and habit impacted behavioral intention, whereas effort expectancy, social influence and facilitating conditions did not. Moreover, behavioral intention had statistically significant path coefficients on use behavior and habit on use behavior. In addition, several qualitative interviews were conducted with NW clients to verify the research results. Quirkos 2.3.1 application was used for qualitative analysis of three interviews.

Keywords: Electronic mobile payment, UTAUT2, e-National Wallet, Covid-19 pandemic, Insurance companies, Jordan.

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تقييم عوامل التمكين والنتائج للنية السلوكية للعملاء لاستخدام خدمات الدفع الإلكتروني عبر الهاتف المحمول في أثناء وباء فيروس كورونا (كوفيد -19): دراسة تطبيقية على شركات التأمين الأردنية

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ملخص

من خلال تطبيق النظرية الموحدة لقبول استخدام التكنولوجيا 2 (UTAUT2)، هدفت هذه الدراسة إلى تقييم عوامل التمكين والنتائج للنية السلوكية لعملاء شركة المحفظة الوطنية (NW) لاستخدام خدمات الدفع الإلكتروني عبر الهاتف المحمول في الأردن، وذلك لأغراض التأمين في أثناء الجائحة (Covid-19). استخدمت الدراسة الحالية مناهج بحثية كمية ونوعية. وتم اختبار الفرضيات المقترحة كميًا من خلال تطوير وفحص نموذج UTAUT2 جنبًا إلى جنب مع متغير خطر الاستخدام (PR) الذي تمت إضافته إلى النموذج الأصلي، واختبار متغيرات وسيطة وهي الدخل والتعليم والعمر والجنس والخبرة التي من شأنها التأثير على نية العملاء السلوكية لاستخدام خدمات الدفع عبر الهاتف المحمول، وبالتالي التأثير على سلوك استخدام للعملاء. وكانت أداة البحث لهذه الدراسة عبارة عن استبيان استقصائي عبر الإنترنت، تم توزيعه بين مارس ويوليو 2020 على العملاء من خلال رسائل SMS عبر أجهزة الهاتف المحمول التي تحتوي على رابط للاستبيان. واستنادًا إلى عينة مكونة من 426 عميلًا لشركة المحفظة الوطنية استخدموا خدمات الدفع عبر الهاتف المحمول لشركات التأمين الأردنية خلال جائحة Covid-19، تم استخدام المكوّن الإضافي لـ Hayes Process Macro بواسطة Andrew F. Hayes كتحليل إحصائي في برنامج الحزمة الإحصائية للعلوم الاجتماعية (SPSS) لتقييم معاملات المسار. وقد تم تحليل البيانات وفحص الفرضيات من خلال استخدام كل من تقنيات نمذجة المعادلات الهيكلية (SEM) والتعلم الآلي (ML). وأظهرت نتائج (SEM) و(ML) أن النية السلوكية (BI) تتأثر بشكل كبير وإيجابي بتوقع الأداء (PE) والدافع الممتع (HM) والقيمة بالنسبة للسعر (PV) والعادة (HB)، وكانت سلبيّة من خلال خطر الاستخدام (PR). وأظهرت النتائج أيضًا أن سلوك الاستخدام (UB) يتأثر إيجابًا بالعادة (HB) والنية السلوكية (BI). ومع ذلك، لم يكن الجهد المتوقع (EE) والتأثير الاجتماعي (SI) والتسهيلات المتاحة (FC) تؤثر على النية السلوكية (BI). بالإضافة إلى ذلك، تم إجراء العديد من المقابلات النوعية للتحقق من نتائج البحث. وقد تم استخدام تطبيق Quirkos 2.3.1 للتحليل النوعي لثلاث مقابلات.

الكلمات الدالة: الدفع الإلكتروني عبر الهاتف المحمول، UTAUT2، المحفظة الوطنية الإلكترونية، جائحة Covid-19، شركات التأمين، الأردن.

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1. INTRODUCTION

Corona virus (Covid-19) makes the global target electronic payment through mobile phones. As the Covid-19 public-health emergency unfolds, one thing is clear: this virus will have huge economic and human effects. To begin with, the corona virus is altering the way how people shop. They are becoming more warried shopping in public places and since many people now work from home, this is affecting how they shop and make payments. For example, China allocated about 4 billion Yuans of latest banknotes and cleansing operations for all the cash in China, especially in Wuhan, and placed restrictions on cash and dealing with banknotes. Banks' recommended instructions have been issued with a preference for people using contactless payment under this pandemic "Covid-19" (Xinhuanet, 2020). Also, dealing with banknotes can help spread the virus and people should use contactless payments rather than addressing with cash. People are advised to use contactless-payment technology rather than cash, as banknotes could also be spreading corona virus, along with the recommendation and encouragement of frequent hand washing, personal hygiene and taking the mandatory protections once they use cash and ATMs (Al-Dmour et al., 2020; CBJ, 2020; CDC, 2020; Mayo Clinic, 2020; MWC, 2020; WHO, 2020; Alhamad et al., 2021). It has also been proven that by touching contaminated objects and surfaces, the infection transmitted easily (Collinson, 2020; Gardner, 2020; Steafel, 2020; Al-Dmour et al., 2022).

Precautionary measures have been circulated by the Central Bank of Jordan announcements and reports published to financial institutions and Jordanian people about the financial procedures to be followed to reduce cash handling through the Jordan Payments & Clearing Company (JOPACC). As a managing entity of national micro and retail digital payment systems in Jordan, it supported studies through a gaggle of international banks (CDC, 2020). Accordingly, measures are taken regarding payment systems and promoting the utilization of electronic payment services during the pandemic Covid-19, aimed at protecting the Jordanian financial set-up and reducing unwanted effects on all segments of the Jordanian society, through the permanent operational services and electronic clearing 24/7. The JOPACC also issued a circular in which it made sure for financial institutions to continue providing electronic financial services through the points of sale, ATMs, online payment and electronic wallets (JOPACC, 2020), recommending using electronic wallets for all commercial segments with no costs reciprocally for those who create transfers, send/receive salaries, aid and donate without being restricted to place and time (CBJ, 2020; JOPACC, 2020).

Evaluating the success of mobile payment services, which is the foremost mobile commerce promising revolution, widespread trending technology towards commercial and financial services through a smartphone. Banks and card companies allow individuals to control their accounts and other financial services through the smartphone, such as mobile payment and electronic wallet (Laudon & Laudon, 2018), in addition to money transfers between accounts and many other e-services. Improving the technology associated with using smartphones among the functions has facilitated the processes of buying and paying because of the flexibility and convenience for daily payment activities (Masa'deh, 2013; Abrahão et al., 2016; Alshurideh et al., 2021; Alsyouf et al., 2022). The widespread use of mobile payment aims to carry out the payment transaction or transferring value through telephones to be cashless with the participation of financial institutions (Phonthanukitithaworn, 2015; Kalinić & Marinković, 2019; Liu et al., 2019).

Moreover, mobile payment is of value in expanding our understanding of technology adoption and expanding theoretical limits. Based on the extension of this theory, it has been customized and designed for the context of consumer acceptance and technology use

(Venkatesh et al., 2012). This was accompanied by the importance of this technology in relation to study challenges, due to the lack of its use in developing countries in relation to the current research subject, particularly those issues related to financial services through smartphones in Jordan (Alalwan et al., 2017; Abuhashesh et al., 2021).

The expectation performance as well as other joints in UTAUT2 theory (the second generation of the Unified Theory of Acceptance and Use of Technology) were important variables in the actual prediction of financial companies for mobile payment services (Venkatesh et al., 2012; Alalwan et al., 2017). Mobile payment is also experiencing high growth; it is one of the foremost popular growing financial activities. Many shoppers value more highly using cash for their payment habit and there are still high rates in the developing world in terms of cash payment as a primary method of payments (Kalinić & Marinković, 2019; Alsyouf et al., 2021). It represents more than 90% of all payment methods being still the dominant one. Besides, the barrier to accepting payment *via* smartphone with the expectation of its growth was the process of persuading consumers to use technology (Verkijika, 2019).

UTAUT2 model is well-known and future-looking as a technology-acceptance model (Verkijika, 2019). The objective of this study is to address assessment and evaluation of the success of mobile payment services during the Covid-19 pandemic in Jordan through applying the UTAUT2 model to analyze clients' intention to use mobile payment services under Covid-19 pandemic. Specifically, the authors aim to:

(1) Examine the impact of performance and effort expectancy, social influence, facilitating conditions, hedonic motivation, perceived risk and habit on clients' behavioral intention to use National Wallet mobile payment services for insurance purposes during Covid-19 in Jordan;
(2) Examine the impact of behavioral intention on clients' use behavior toward mobile payment services for insurance purposes during Covid-19 in Jordan;
(3) Examine the moderator effects of UTAUT2 variables on behavioral intention and use behavior toward mobile payment services; and
(4) Determine the main variables that impact Jordanian clients' intention to use National Wallet mobile payment services for insurance purposes in light of the Covid-19 pandemic.

This study uses UTAUT2 as a starting and assessment point of the research goal of evaluating the success of phone payment services (Abrahão et al., 2016), with adding income, education and perceived risks, taking into consideration the National Wallet (NW) company as a mobile service provider and the first companies adopting JOMOPAY (CBJ, 2020; JOPACC, 2020).

The rest of this study is structured as follows: Section 2 offers the literature review. Section 3 presents the theoretical framework and development of hypotheses. Section 4 shows the research methodology for the study. Section 5 offers the data analyses and Section 6 presents the discussion and conclusions.

2. Literature Review

2.1 Mobile Payment Service

Providing the latest technologies could support the acceptance of electronic payments within the Points of Sale (PoS) that are available by all business sectors, such as QR code (abbreviated from Quick Response code), ATM deposits and cash withdrawals from electronic wallets as mobile payment services (CBJ, 2020; JOPACC, 2020). Affiliated with foremost widespread banks without requirements for cards (all types) as a contactless payment that organizes and encourages contactless electronic payments, this enables clients to execute payments for the advantages of merchants and businesses in fragmentation from using business-specific investigative factors, like the need to sign a receipt up to 55 JD, which is the maximum limit for payment transaction (low-risk

contactless payment transaction) (CBJ, 2020; JOPACC, 2020).

Mobile payment research started after Coca Cola experimented vending machines that accepted payment through SMS about 23 years ago (Dahlberg et al., 2015). Mobile payments were defined as payments for goods, services and bills with a mobile device by taking advantage of wireless and other communication technologies. Mobile payment is a transaction approved with a mobile payment device (Dahlberg et al., 2015). Mobile payment through wallets is the same as through a regular wallet. It is a simulation of the traditional wallet. Besides, in the circumstance of a mobile wallet, an amount of money is charged through a card that already issues or e-banking that allows making payments. Mobile wallets' module includes consumer to business, consumer to consumer, consumer to government, consumer to machine and consumer to online payments (Chawla & Joshi, 2019).

The types of mobile wallets in Jordan are used to purchase products, withdraw cash from ATMs or agent and transfer money. The Central Bank of Jordan introduced Jordan Mobile Payments (JOMOPAY) through JOPACC, a mobile wallet that allows companies to use national wallets, Mhafazti, Zaincash, Orange Money, Denarak and Ayah. All these wallets were specially announced under the Covid-19 pandemic to encourage citizens to use mobile payment services (JOPACC, 2020). Mobile wallet is the extension of mobile banking and mobile money, where users can store their personal information along with details of various payment methods. The money can be digitally stored and payments made through a smartphone (Chawla & Joshi, 2019).

The usage of mobile payment appears in various payment scenarios, such as access to electronic payment services to pay bills or invoices, like Efawatercom (JOPACC, 2020). Mobile payment services make payment transactions and enable payment processing on mobile devices, which makes a huge effect on the financial technology revolution (Choi et al., 2020). Mobile payment is renowned as the primary transaction channel for the current mobile financial services and value-added services from mobile phones. Mobile payment services enable users to make the transactions in a well-organized and suitable manner from anywhere and at any time, which is considered to be the next generation for the world payment system.

To clarify the definition of mobile financial services, mobile payment refers to any payment transaction made using a mobile device, ranging from approving a transaction to confirming payment transactions (Choi et al., 2020). Mobile wallet is a mobile application simulating the traditional wallet with the capability to collect payment information and replace cash and convert it digitally, so that we can define the mobile money and enable the user to make the payment, transfer money and buy and sell without having a bank account (Choi et al., 2020). Mobile payment service takes many advantages over traditional payment systems because of suitability, instant transaction, security, flexible transaction payments and being cashless. Many researchers adopted different kinds of technology acceptance for the adaptation of mobile payment service (Dahlberg et al., 2015), displaying that the common models used for mobile payment systems are as listed below:

- The Technology Acceptance Model (TAM).
- The Unified Theory of Acceptance and Use of Technology (UTAUT).
- The Diffusion of Innovation (DOI) Theory.
- Task-Technology Fit (TTF) Theory.
- The Theory of Reasoned Action (TRA).
- The Theory of Planned Behavior (TPB).

Most of the researchers extended technology acceptance model variables, such as risk, trust and security. However, after reviewing several studies in mobile payment systems (Dahlberg et al., 2015; Verkijika, 2019), we found that those studies developed the united model and extended from UTAUT to UTAUT2. They modified the UTAUT2 by

containing elements of perceived security variable from the DOI model. The proposed model explained 71.8% of the variance in behavioral intentions and 61.3% of the variance in the intention recommended for technology acceptance and use. Using UTAUT2 is recommended for understanding mobile payment adoption (Dahlberg et al., 2015; Verkijika, 2019), as UTAUT2 has been stretched with elements (perceived trust and perceived risk). Researchers got a variance of 58.4 percent in behavioral intention to use mobile payment systems as a result of their research. This leads us to choose this model for this study to measure the mobile payment technology success.

2.2 Evaluation Model of UTAUT2

Previous studies have approved the usage of TAM and UTAUT to clarify consumers' intentions and the adoption of technologies; there are few studies that expressed the implementation of mobile wallet (Chawla & Joshi, 2019). UTAUT 2 has been more evocative for future studies and instant suggestions for researchers who want to examine behavioural intentions, acceptance and use of new technology (Shin, 2010). The UTAUT2 model has been selected, because it has originated from the UTAUT theory that provides a unified view by removing duplications and integrating them from the following theories and models: TRA, TAM, TPB, TPB, the model of PC utilization, DOI and the social cognitive theory (Hussain et al., 2019).

UTAUT2 is the abstract model for understanding mobile-payment adoption. As mentioned in a previous study, TAM for example has limited capabilities to explain and clarify mobile adaptation; it does not consider the element of social influence (Shin, 2010). Previous studies established the importance of TAM, UTUAT2 and other technology-adoption models as a foundation theory and measured the relationship between merchants and consumers to use a mobile payment technology (Singh & Sinha, 2020). The UTAUT2 united the variables of hedonic motivation, price-value and habit as experiences of the behavioral intention. Similarly, the habit elements are also in a straight line related to the use of precise technology hedonic motivation, price-value and habit, being recognized and shown at UTAUT2 laterally with performance expectancy, effort expectancy, social influence and facilitating conditions (Venkatesh et al., 2012; Al-Manaseer et al., 2019). UTAUT2 shows new mechanisms, such as basic motivation and perceived risk that were found to be theoretically and operationally different from the main concepts of UTAUT2. The UTAUT model has been extended by considering hedonic motivation, price-value and habit. UTAUT2 has been implemented in many fields (e-services, mobile banking, online shopping, internet banking, smartphone and e-learning). It is a fitting model for adapting technology in organizations and consumer positions (Tamilmani et al., 2019).

3. Theoretical Framework and Development of Hypotheses

3.1 Performance Expectancy

Performance expectancy focuses on the benefit of using technology activities and the advantage perceived in daily transactions. It has a significant effect on users' behavioral intention, as it is equivalent with perceived usefulness in the TAM model (Kalinić et al., 2019). The degree of faith in applying technology will help individuals reach advantages in job performance (Venkatesh et al., 2003). Clients appear to be more willing to use and accept new technologies if these technologies are more advantageous and beneficial in their daily transactions (Venkatesh et al., 2003; Alalwan et al., 2017). Accordingly, the following hypothesis is projected:

H1: *Performance expectancy positively impacts clients' behavioral intention to use National Wallet mobile payment services for insurance purposes during Covid-19.*

3.2 Effort Expectancy

The same as with perceived ease of use was found in the Technology Acceptance Model (TAM) (Venkatesh et al., 2012). Clients were more inclined to choose a technology that requires little effort to utilize (Kalinić et al., 2019). As a result, using mobile payment applications does not necessitate a high degree of commitment level of knowledge, ability, awareness and skills. We hypothesize the following:

H2: *Effort expectancy positively impacts clients' behavioral intention to use National Wallet mobile payment services for insurance purposes during Covid-19.*

3.3 Social Influence

The spectrum of opinions that customers and important others have about employing technology is referred to as social influence, by which an individual notices others about what has to apply to the new system (Venkatesh et al., 2003). For example, as they recorded subjective norms, employee groups, families, leaders, friends and colleagues observed satisfaction and word-of-mouth about mobile shopping. As the significant conjecturers for satisfaction and its significant influence on clients' satisfaction in mobile social applications (Kalinić et al., 2019), the following hypotheses are projected:

H3. *Social influence positively impacts clients' behavioral intention to use National Wallet mobile payment services for insurance purposes during Covid-19.*

H3a*: Age moderates the relationship between social influence and behavioral intention.*

H3b*: Experience moderates the relationship between social influence and behavioral intention.*

H3c*: Income moderates the relationship between social influence and behavioral intention.*

H3d*: Education moderates the relationship between social influence and behavioral intention.*

3.4 Facilitating Conditions

Facilitating conditions refer to the extent to which a person believes that technical infrastructure exists that supports the use of mobile payment service system (Venkatesh et al., 2003). They give clients insights into resources and available provisions for using the technology (Venkatesh et al., 2012). Although researchers found no indication that facilitating conditions have a significant impact on continuance intention for using mobile applications (Kalinić et al., 2019), we projected the following hypotheses:

H4*. Facilitating conditions positively impact clients' behavioral intention to use National Wallet mobile payment services for insurance purposes during Covid-19.*

H4a*: Age moderates the relationship between facilitating conditions and behavioral intention.*

H4b*: Gender moderates the relationship between facilitating conditions and behavioral intention.*

H4c*: Experience moderates the relationship between facilitating conditions and behavioral intention.*

H4d*: Income moderates the relationship between facilitating conditions and behavioral intention.*

H4e*: Education moderates the relationship between facilitating conditions and behavioral intention.*

3.5 Hedonic Motivation

It is defined as the enjoyment, joyfulness or pleasure attained and anticipated with a performance of using technology (Merhi et al., 2019). Expounding on the utilization of mobile services can be a lot of fun (Alalwan et al., 2017). Hedonic motivation is a very important variable that makes users satisfied (Hussain et al., 2019). Hence, the suggested hypotheses are:

H5*: Hedonic motivation positively impacts clients' behavioral intention to use National Wallet mobile payment services for insurance purposes during Covid-19.*

H5a*: Age moderates the relationship between hedonic motivation and behavioral intention.*

H5b*: Gender moderates the relationship between hedonic motivation and behavioral intention.*

3.6 Price Value

It is the trade-off between the perceived advantage of technology and the cost of employing it (Hussain et al., 2019). So, clients should make a cognitive comparison between the benefits of using modern technology and the cost of doing so (Venkatesh et al., 2012). Thus, we hypothesize:

H6*: Price value positively impacts clients' behavioral intention to use National Wallet mobile payment services for insurance purposes during Covid-19.*

H6a*: Income moderates the relationship between price value and behavioural intention.*

H6b*: Education moderates the relationship between price value and behavioural intention.*

H6c*: Gender moderates the relationship between price value and behavioural intention.*

3.7 Habit

Habits refer to the degree to which people are likely to perform behaviors routinely for the reason of learning (Venkatesh et al., 2012). Thus, a habit is linked to the automaticity and repetition of a particular action. Understanding the habit as having a significant effect on behavioral intention is essential for increasing the use of a technology (Gupta & Arora, 2019). Habit is the degree of observed routine behavior subsequently accrued from learning technology after using it (Hussain et al., 2019). Consequently, we hypothesize:

H7*: Habit positively impacts clients' behavioral intention to use National Wallet mobile payment services for insurance purposes during Covid-19.*

H7a*: Age moderates the relationship between habit and behavioral intention.*

H7b*: Gender moderates the relationship between habit and behavioral intention.*

H7c*: Experience moderates the relationship between habit and behavioral use.*

H7d*: Experience moderates the relationship between habit and behavioral intention.*

H8: *Habit positively impacts clients' behavioral use of National Wallet mobile payment services for insurance purposes during Covid-19.*

3.8 Perceived Risk

Most consumers believe that financial technology is susceptible to physical or emotional attack or harm and uncertainty (Pal et al., 2020). The degree to which consumers believe that they may be unprotected and influenced through any variables, for instance (financial, social, psychological, physical or time risks), has a negative influence on behavioural intention (Liu et al., 2019). In this research, we hypothesize:

H9: *Perceived risk negatively impacts clients' behavioral intention to use National Wallet mobile payment services for insurance purposes during Covid-19.*

3.9 Behavioural Intention and Behavioural Use

The behavioural intention has a significant positive effect on the variable of the TAM model effective use by consumers of a future product or service (Venkatesh et al., 2003). The effort expectancy, facilitating conditions and performance expectancy have optimistic influences on behavioural intention (Gupta & Arora, 2019). They found that performance expectancy and facilitating conditions positively predicted behavioural intention to accept mobile payment systems. Consequently, we hypothesize:

H10: *Behavioural intention positively impacts clients' behavioral use of National Wallet mobile payment services for insurance purposes during Covid-19.*

H10a*: Experience moderates the relationship between behavioral intention and behavioral use.*

Behavioral use is a result of behavioural intention that was to increase mobile diffusion, leading to encouraging behavioural use (Gupta & Arora, 2019).

3.10 Moderating Effect

Age, gender, experience, income and education were projected in this study as moderating impacts that influence the main element of UTAUT 2 towards intention and use of mobile payment service. The moderating variables of age, gender and experience were projected based on the UTAUT2 model from (Venkatesh et al., 2012). Income-and occupation-based prior research was made as exploratory research (Handarkho & Harjoseputro, 2019).

3.11 Conceptual Framework

UTAUT2, theorized to explain technology acceptance from the clients' perspective (Venkatesh et al., 2012), was selected as a theoretical foundation to propose the conceptual model, which has been applied in this study. After an appraisal of relevant literature on UTAUT2, perceived risk was found to be conceptually and operationally different from the main variables in UTAUT2. As shown in Fig. 1, the main theories in UTAUT2, specifically Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), Hedonic Motivation (HM), Price Value (PV), Habit (HB) and Perceived Risk "extended" (PR) were planned as direct variables of Behavior Intention (BI) to Use Behavior (UB). Figure (1) shows the research model.

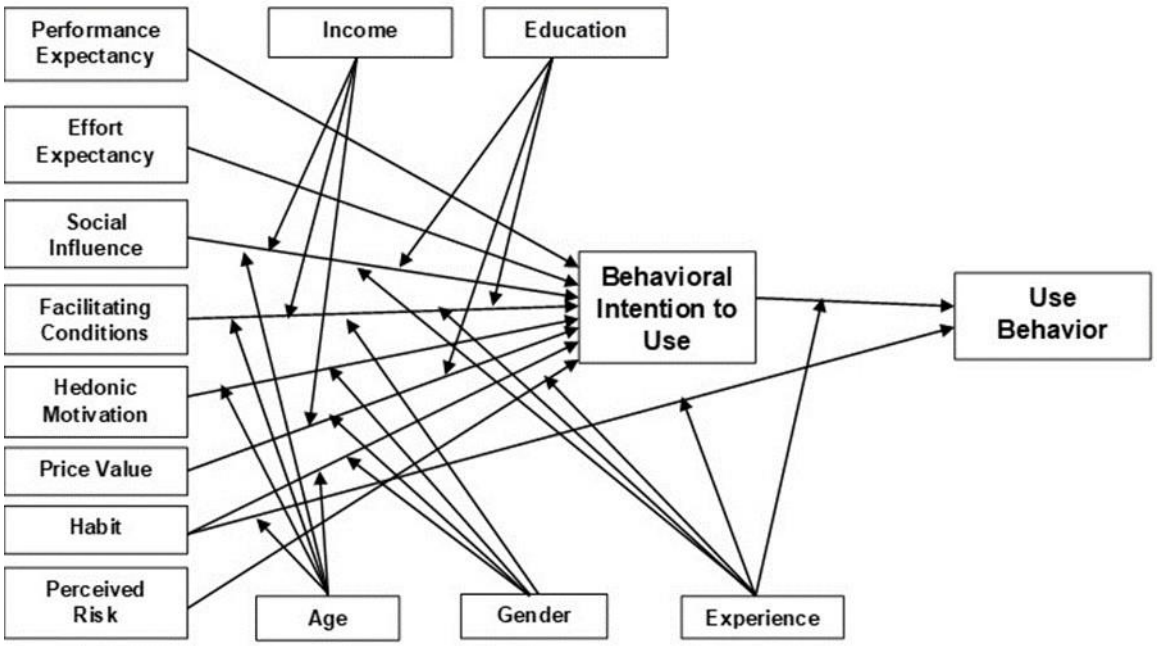

Figure (1)
Research model

In addition, Table 1 shows the research variables and items, originally adapted from Venkatesh et al. (2012).

Table 1
Research variables and items

PE	**Performance Expectancy**
PE1	I find that National Wallet in the insurance industry is useful in my daily life during the corona virrus pandemic.
PE2	Using National Wallet in the insurance industry increases my chances of achieving things that are important to me during corona virus pandemic.
PE3	Using National Wallet in the insurance industry helps me accomplish things more quickly during corona virus pandemic.
PE4	Using National Wallet in the insurance industry increases my productivity during corona virus pandemic.
EE	**Effort Expectancy**
EE1	Learning how to use National Wallet in the insurance industry is easy for me during corona virus pandemic.
EE2	My interaction with National Wallet in the insurance industry is clear and understandable during corona virus pandemic.
EE3	I find that National Wallet in the insurance industry is easy to use during corona virus pandemic.
EE4	It is easy for me to become skillful in using National Wallet in the insurance industry during corona virus pandemic.
SI	**Social Influence**
SI1	People who are important to me think that I should use National Wallet in the insurance industry during corona virus pandemic.
SI2	People who influence my behavior think that I should use National Wallet in the insurance industry during corona virus pandemic.
SI3	People whose opinions I value prefer that I use National Wallet in the insurance industry during corona virus pandemic.
FC	**Facilitating Conditions**
FC1	I have the resources necessary to use National Wallet in the insurance industry during corona virus pandemic.
FC2	I have the knowledge necessary to use National Wallet in the insurance industry during corona virus pandemic.
FC3	National Wallet usage in the insurance industry is compatible with other technologies that I use during corona virus pandemic.
FC4	I can get help from others when I have difficulties using National Wallet in the insurance industry during corona virus pandemic.
HM	**Hedonic Motivation**
HM1	Using National Wallet for insurance purposes is fun during corona virus pandemic.
HM2	Using National Wallet for insurance purposes is enjoyable during corona virus pandemic.
HM3	Using National Wallet for insurance purposes is very entertaining during corona virus pandemic.
PV	**Price Value**
PV1	National Wallet for insurance purposes is reasonably priced during corona virus pandemic.
PV2	National Wallet for insurance purposes is a good value for money during corona virus pandemic.
PV3	At the current price, National Wallet for insurance purposes provides a good value during corona virus pandemic.
HB	**Habit**
HB1	The use of National Wallet in the insurance industry has become a habit for me during corona virus pandemic.
HB2	I am addicted to use National Wallet for insurance purposes during corona virus pandemic.
HB3	I must use National Wallet for insurance purposes during corona virus pandemic.
HB4	Using National Wallet for insurance purposes has become natural to me during corona virus pandemic.
PR	**Perceived Risk**
PR1	I would not feel completely safe by providing personal information through the National Wallet system for insurance purposes during corona virus pandemic.
PR2	I am worried about the future use of National Wallet services for insurance purposes, because other people might be able to access my data during corona virus pandemic.

PR3	The likelihood that something wrong will happen with the National Wallet system for insurance purposes is high during corona virus pandemic.
BI	**Behavioral Intention**
BI1	I intend to continue using National Wallet for insurance purposes in the future during corona virus pandemic.
BI2	I will always try to use National Wallet for insurance purposes in my daily life during corona virus pandemic.
BI3	I plan to continue to use National Wallet for insurance purposes frequently after corona virus pandemic.
UB	**Use Behavior**
UB1	I use the "money transfer" service from the National Wallet for insurance purposes frequently during the current crisis, "corona virus pandemic".
UB2	I use the "pay bills" service from the National Wallet for insurance purposes frequently during the current crisis, "corona virus pandemic".
UB3	I use the "online payment" service from the National Wallet for insurance purposes frequently during the current crisis, "corona virus pandemic".
UB4	I use the "pay for purchases" service from the National Wallet for insurance purposes repeatedly during the current crisis, "corona virus pandemic".
UB5	I frequently use the "deposit and withdrawal" service from the National Wallet for insurance purposes during the current crisis, "corona virus pandemic".

4. Research Methodology

By using a quantitative research approach, the proposed hypotheses were tested by employing both Structural-equation Modeling and Machine-learning techniques. A 5-point Likert scale ranging from (1 strongly disagree) to (5 strongly agree) was used to measure the research items of UTAUT2 variables. Also, a qualitative research method was used by conducting several interviews with NW clients.

4.1 Data Collection, Population & Sampling

A survey questionnaire was chosen as the study's instrument. A Microsoft form was used to create an online survey. There were two aspects to the poll. The demographic variables were presented in a nominal scale in the first section (gender, age, education, occupation, income, NW usage frequency and place of residence). The UTAUT2 model variables were used in the second section (Venkatesh et al., 2012). The PR (perceived risk) variable was taken into account (Featherman & Pavlou, 2003). A cover letter describing the study's goal and participant rights for participation accompanied the online survey.

In addition, to ensure content validity, the questionnaire was pre-tested with Jordanian lecture specialists. A pilot study was done with 20 possible participants from NW clients to ensure the readability and clarity of the questionnaire items, as well as to see whether the obtained data answered the research questions and had face validity. Following the findings of the pilot survey, items were initially translated into Arabic, with some items reworded for clarity. Then, another researcher translated these Arabic items back into English to reassure consistency.

The population of the study was all National Wallet clients who use the JOMOPAY network through JOPACC for mobile payment services in the Jordanian insurance companies during Covid-19. This study used convenience sampling, which is a non-probabilistic and self-selection sampling strategy that allows researchers to obtain data from possible participants depending on their availability. Indeed, the online survey questionnaire was distributed between March and July 2020 to 513 clients, as a convenience sample, through SMS mobile massages that contain a link of the questionnaire. Questionnaire forms were distributed across Jordan's four regions: the capital, northern cities, middle cities except the capital and southern cities. After deleting the missing and incomplete data surveys from the 513 questionnaire forms, 426 valid responses were considered for data analysis. Table 2 shows the demographics of the sample.

Table 2. Distribution of sample demographics

Category	Frequency	Percentage (%)
Gender		
Male	256	60.1
Female	170	39.9
Total	426	100
Age (years)		
18–24	56	13.1
25–34	165	38.7
35–49	118	27.7
50–64	75	17.6
65 +	12	2.8
Total	426	100
Monthly household income (net)		
Below 750 $	92	21.6
750 - 1400 $	158	37.1
1400 – 2100 $	97	22.8
2100 - 2800 &	49	11.5
2800 $ and above	30	7.0
Total	426	100
Education		
Secondary school certificate or below	54	12.7
Diploma	79	18.5
Bachelor	217	50.9
Master	56	13.1
Doctorate	20	4.7
Total	426	100
National Wallet experience		
Less than 6 months	182	42.7
6 month-1 year	160	37.6
More than 2 years	84	19.7
Total	426	100
Place of residence		
Capital	159	37.3
Northern cities	99	23.2
Middle cities except capital	69	16.2
Southern cites	99	23.2
Total	426	100
Occupation		
Private sector	189	44.4
Public sector	106	24.9
Student	32	7.5
Freelance	51	12.0
Retired	48	11.3
Total	426	100

5. Data Analysis

5.1 Descriptive Analysis

According to Tekin (2000), the variable's mean level of 1-1.79 is very low, 1.8-2.59 is low, 2.6-3.39 is medium, 3.4-4.19 is high and 4.2-5 is very high. We found that the means of all variables in this study were greater than 3.5, with the exception of perceived risk, the mean of which was moderate. This indicates that the vast

majority of participants have generally positive reactions to the variables addressed in this study. Table 3 shows the variables' means and standard deviations.

Table 3
Means and standard deviations

Type of variable	Variables	Mean	S.D.	Level	Order
Independent Variable (IV)	Performance Expectancy (PE)	4.0053	0.549	High	1
IV	Effort Expectancy (EE)	3.9818	0.532	High	2
IV	Social Influence (SI)	3.8717	0.594	High	7
IV	Facilitating Conditions (FC)	3.9736	0.522	High	3
IV	Hedonic Motivation (HM)	3.5939	0.890	High	9
IV	Price Value (PV)	3.9468	0.563	High	4
IV	Habit (HB)	3.6062	0.854	High	8
IV	Perceived Risk (PR)	3.3764	0.875	Moderate	10
Dependent Variable (DV)	Behavioral Intention (BI)	3.9108	0.654	High	5
DV	Use Behavior (UB)	3.9103	0.583	High	6

Table 4 establishes the mean, standard deviation, level and order for the items of each variable.

Table 4
Means, standard deviations, levels and orders of the variables' items

Variable	Mean	SD	Level	Order
Performance Expectancy (PE)				
PE1	3.9648	0.62586	High	4
PE2	3.9906	0.59401	High	3
PE3	4.0258	0.61494	High	2
PE4	4.0399	0.64411	High	1
Effort Expectancy (EE)				
EE1	3.9624	0.67108	High	4
EE2	3.9883	0.59988	High	3
EE3	3.9953	0.60194	High	1
EE4	3.9812	0.59774	High	2
Social Influence (SI)				
SI1	3.8779	0.62432	High	2
SI2	3.8451	0.68561	High	3
SI3	3.8920	0.67394	High	1

Facilitating Conditions (FC)				
FC1	3.9695	0.65188	High	3
FC2	4.0211	0.58774	High	1
FC3	3.9883	0.58800	High	2
FC4	3.9155	0.69105	High	4
Hedonic Motivation (HM)				
HM1	3.6174	0.90311	High	2
HM2	3.6268	0.92756	High	1
HM3	3.5376	0.97486	High	3
Price Value (PV)				
PV1	3.9319	0.58416	High	3
PV2	3.9460	0.63572	High	2
PV3	3.9624	0.62384	High	1
Habit (HB)				
HB1	3.6455	0.92733	High	1
HB2	3.4038	1.04325	High	4
HB3	3.6408	0.97745	High	2
HB4	3.7347	0.90362	High	3
Perceived Risk (PR)				
PR1	3.3568	0.92770	Moderate	2
PR2	3.3427	0.98693	Moderate	3
PR3	3.4296	0.94606	High	1
Behavioral Intention (BI)				
BI1	3.9178	0.68963	High	2
BI2	3.8920	0.73730	High	3
BI3	3.9225	0.73315	High	1
Use Behavior (UB)				
UB1	3.8357	0.71702	High	5
UB2	4.0047	0.59407	High	1
UB3	3.9460	0.70253	High	2
UB4	3.8662	0.81943	High	4
UB5	3.8991	0.72055	High	3

5.2 Structural-equation Modelling (SEM)

Structural-equation Modelling (SEM) is a statistical technique that allows researchers to test and estimate hypothesized links in a conceptual model at the same time, allowing them to see whether there are any correlations between numerous dependent and independent variables. Furthermore, in the context of information-technology acceptance, SEM's capacity to determine the validity of the proposed model's variables was noted (Kline, 2010). Due to the appropriateness of this particular approach regarding theory testing and confirmation, this study uses a covariance-based SEM approach, Analysis of Moment Structures (AMOS, version 21.0) was used to analyze the proposed models.

Initially, in Table 5, Cronbach's alpha values for all variables were above the cut-off 0.7. This suggests that the variables have a high level of internal consistency (Lunneborg, 1979).

Table 5
Properties of final measurement model

Variables and indicators	Std. loading	Std. error	Square multiple correlation	Error variance	Cronbach's alpha	Composite reliability	AVE
Performance Expectancy (PE)					0.91	0.9632025	0.71702
PE1	0.825	1	0.686	0.132			
PE2	0.856	0.046	0.768	0.101			
PE3	0.877	0.044	0.733	0.082			
PE4	0.828	0.048	0.68	0.123			
Effort Expectancy (EE)					0.882	0.9525913	0.66217
EE1	0.831	1	0.554	0.111			
EE2	0.849	0.049	0.682	0.101			
EE3	0.826	0.05	0.721	0.114			
EE4	0.745	0.058	0.69	0.2			
Social Influence (SI)					0.879	0.9433317	0.70863
SI1	0.859	1	0.712	0.119			
SI2	0.822	0.048	0.676	0.152			
SI3	0.844	0.043	0.737	0.112			
Facilitating Conditions (FC)					0.855	0.934768	0.59656
FC1	0.682	1	0.557	0.255			
FC2	0.822	0.068	0.689	0.112			
FC3	0.83	0.068	0.676	0.107			
FC4	0.746	0.074	0.465	0.188			
Hedonic Motivation (HM)					0.947	0.9537774	0.85753
HM1	0.926	1	0.875	0.135			
HM2	0.917	0.029	0.84	0.137			
HM3	0.935	0.027	0.858	0.102			
Price Value (PV)					0.904	0.9620717	0.76154
PV1	0.839	1	0.781	0.115			
PV2	0.894	0.047	0.798	0.081			
PV3	0.884	0.043	0.704	0.074			
Habit (HB)					0.908	0.9142813	0.71641
HB1	0.856	1	0.773	0.218			
HB2	0.858	0.048	0.625	0.252			
HB3	0.79	0.054	0.736	0.408			
HB4	0.879	0.044	0.733	0.195			
Perceived Risk (PR)					0.907	0.915996	0.76539
PR1	0.864	1	0.677	0.218			
PR2	0.934	0.047	0.873	0.124			
PR3	0.823	0.046	0.746	0.288			
Behavioral Intention (BI)					0.894	0.9448144	0.74461
BI1	0.881	1	0.623	0.12			
BI2	0.913	0.04	0.833	0.091			
BI3	0.79	0.041	0.777	0.179			
Use Behavior (UB)					0.877	0.9335902	0.58833
UB1	0.736	1	0.627	0.237			
UB2	0.814	0.065	0.514	0.166			

UB3	0.772	0.055	0.596	0.142			
UB4	0.717	0.067	0.663	0.249			
UB5	0.792	0.076	0.542	0.25			

5.2.1 Measurement Model

This study used a two-step approach to analyze the links in the suggested conceptual framework, as recommended by (Anderson & Gerbing, 1988). To verify model fitness, validity and reliability, it first used Confirmatory Factor Analysis (CFA). The structural model was then used to assess the hypothesized links between the independent variables (PE, EE, SI, HM, FC, HM, PV, HB and PR) and the dependent variables (BI and UB) in the proposed model with the moderator variables (age, gender, experience, income and education). The following indices were used as recommended by (Hair et al., 1998) "Goodness of Fit Index (GFI); Normed Fit Index (NFI); Root Mean Square Residuals (RMSR); Comparative Fit Index (CFI); Adjusted Goodness-of-Fit Index (AGFI); Tucker-Lewis Index (TLI) and Root Mean Square Error of the Approximation (RMSEA)".

The results of CFA model indicate that the chi-square (χ^2) value of the model was 1635.651 with 549 degrees of freedom. Table 6 shows a summary of the model fit with the final measurements and structural model sample, indicating that the research sample has a satisfactory measurement model fit.

Table 6
Fit indices summary of measurements and structural model

Fit index	**Recommended values**	**MM**
df	n/a	549
df/2	<5 preferable <3	2.979
GF	>0.90	0.83
AGFI	>0.80	0.793
CFI	>0.90	0.916
RMSR	<0.08	0.032
RMSEA	<0.08	0.068
NFI	>0.90	0.88
TLI	values close to 1	0.904
Recommended values as recommended by Hair et al. (1998).		

The next step is to assess the variables in the proposed model for their reliability and validity. Convergent validity determines whether each variable may be accurately represented by its own set of indicators. The degree to which the measures of distinct ideas are statistically different is determined by discriminant validity (Hair et al., 1998). To analyze reliability, convergent validity and discriminant validity, Composite Reliability (CR) and Average Variance Extracted (AVE) can be used. For good reliability, CR should be more than 0.7. Convergent validity is achieved by comparing the square roots of AVE *vs.* correlations between variables, with the former (square roots of AVE) being higher than the latter (correlations between variables). Discriminant validity is achieved by comparing the square roots of AVE *vs.* correlations between variables, with the former (square roots of AVE) being higher than the latter (correlations between variables). As shown in Tables 5 and 7, the AVE values for all variables in both samples were all greater than 0.5 and greater than 0.7 for CR, implying that the factors were reliable and convergent. Furthermore, the square roots of AVE are greater than their correlation values, implying that all of the variables had acceptable discriminant validity, which was demonstrated.

Table 7

CR, AVE and correlation matrix for the research variables

	CR	AVE	PE	EE	SI	FC	HM	PV	HB	PR	BI	UB
PE	0.963	0.717	**0.846**									
EE	0.952	0.662	0.823	**0.813**								
SI	0.943	0.708	0.662	0.670	**0.841**							
FC	0.934	0.596	0.771	0.762	0.742	**0.772**						
HM	0.953	0.857	0.354	0.468	0.522	0.425	**0.925**					
PV	0.962	0.761	0.643	0.655	0.625	0.743	0.430	**0.872**				
HB	0.914	0.716	0.358	0.427	0.499	0.450	0.797	0.536	**0.846**			
PR	0.933	0.588	-0.172	-0.197	0.023	-0.193	0.161	-0.168	0.109	**0.766**		
BI	0.944	0.744	0.661	0.648	0.597	0.627	0.605	0.639	0.705	-0.100	**0.862**	
UB	0.933	0.588	0.172	0.197	0.663	0.772	0.475	0.700	0.545	-0.039	0.687	**0.766**
Diagonal values in bold are the square roots of AVE.												

5.2.2 Structural Model

The coefficient values of the paths leading to behavioral intention, including performance expectancy, used in path coefficient studies ($\gamma = 0.361$, $p<0.000$); hedonic motivation ($\gamma = 0.131$, $p<0.03$); price value ($\gamma = 0.153$, $p<0.007$); perceived risk ($\gamma = -0.101$, $p<0.014$) and habit ($\gamma = 0.45$, $p<0.000$) were found to be statistically significant (Table 8). Yet, the path coefficients of effort expectancy ($\gamma = 0.071$, $p<0.258$), social influence ($\gamma = 0.015$, $p = 0.781$) and facilitating conditions ($\gamma = 0.58$, $p<0.349$) on behavioral intention were recognized as non-significant. Moreover, behavioral intention ($\gamma = 0.43$, $p<0.000$) had a statistically significant path coefficient on use behavior and habit ($\gamma = 0.169$, $p<0.001$) had a statistically significant path coefficient on use behavior. Therefore, except for H2, H3 and H4, research hypotheses (H1, H5, H6, H7, H8, H9 and H10) were supported.

Table 8

Results of standardized estimates of structural model

Path			B	P-value	Significance
PE	⇨	BI	0.361	0.000	Yes
EE	⇨	BI	0.071	0.258	No
SI	⇨	BI	0.015	0.781	No
FC	⇨	BI	0.058	0.349	No
HM	⇨	BI	0.131	0.03	Yes
PV	⇨	BI	0.153	0.007	Yes
HB	⇨	BI	0.452	0.000	Yes
PR	⇨	BI	-0.101	0.014	Yes
HB	⇨	UB	0.169	0.001	Yes
BI	⇨	UB	0.435	0.000	Yes

5.2.3 Coefficient of Determination (R^2*)*

There is no ordinary standard to define the level of analytical acceptance. Henseler et al. (2009) projected a rule at for acceptable R^2 with (0.75, 0.50 and 0.25) being described as substantial, moderate and weak, correspondingly. The model explained substantial variance of behavioral intention (R^2 =0.613), representative of that variables of PE, EE, SI, FC, HM, PV, HB and PR explained 61.3% of the variance in BI. Moreover, the model explicated a moderate variance of use behavior (R^2 = 0.377), representative of that variables of Habit and BI accounted for 37.7% of the variance in UB.

5.3 Machine-learning Technique Analysis

In order to evaluate the learning models, this study employed correlation coefficient metrics that measure how well the predictions are correlated with the original values. The current study applied classification learning algorithms of different families which contain Linear Regression (LR), Multi-layer Perceptron (MLP), SMO (Sequential Minimal Optimization for Support Vector Machine (SVM), Random Forest (RF) and Bagging (Witten et al., 2011). The current study used several ML techniques from different families using two models of data formulation. The first model includes PE, EE, SI, FC, HM, PV, HB and PR as independent variables, whereas BI is the dependent variable. Table 9 demonstrates the results of the research scenarios for each machine-learning technique regarding the first model, which found that PE, HM, PV, HB and PR impacted BI.

Table 9

Analysis of machine-learning techniques for model 1

Method	Correlation coefficient	Mean absolute error	Root mean squared error	Relative absolute error	Root relative squared error
Linear Regression	0.714	0.2767	0.4729	68.93%	69.92%
MLP	0.5929	0.4177	0.5983	104.04%	88.47%
SMO	0.7113	0.2699	0.4752	67.24%	70.26%
Random Forest	0.655	0.2995	0.5135	74.60%	75.93%
Bagging	0.6804	0.284	0.4944	70.75%	73.10%

As shown in Table 9, LR gains a high correlation coefficient value in the function family with a performance value of 0.714 compared to MLP, SMO, RF and Bagging with 0.592, 0.711, 0.655 and 0.68, respectively. The second model contains HB and BI as independent variables, whereas UB is the dependent variable. Table 10 illustrates the results of the research scenarios for each machine-learning technique regarding the second model; which found that HB and BI impacted UB.

Table 10

Analysis of machine-learning techniques for model 2

Method	Correlation coefficient	Mean absolute error	Root mean squared error	Relative absolute error	Root relative squared error
Linear Regression	0.6648	0.2776	0.4525	81.62%	74.59%

MLP	0.6266	0.3181	0.4807	93.52%	79.23%
SMO	0.6156	0.2652	0.4856	77.97%	80.04%
Random Forest	0.6211	0.2616	0.4802	76.92%	79.16%
Bagging	0.6224	0.2611	0.4754	76.76%	78.37%

As indicated in Table 10, LR gains a high correlation coefficient value in the function family with a performance value of 0.664 compared to MLP, SMO, RF and Bagging with 0.626, 0.615, 0.621 and 0.622, respectively. Therefore, predicting the values of BI and UB in Model 1 and Model 2 provides an intuition for decision-makers to enhance the systems early for users. Consequently, they should build an optimal and effective model for such points. Overall, using the two data-formulation models, some promising methods from each family achieve high-performance results in an effective manner.

5.4 Moderator Hypotheses

Simple moderation was examined using "Model 1" in Process Macro (Hayes, 2013), as shown in Tables 11 and Table 12. Gender, age, education, income and experience were entered into the Process Macro as covariates. 95% confidence and 5,000 bias-corrected bootstraps were chosen in the analysis and intervals were used in the model (Preacher & Hayes, 2008).

To test the moderator hypotheses stating that behavioral intention is a function of various previous circumstances, more specifically whether demographic variables moderate the relationships of variables, Table 11 and Table 12 show the first step which is the overall model; nine variables were included: (SI, HM, FC, HM, PV, HB, PR, BI and UB) and the demographic variables were (gender, age, education, income and experience). These variables accounted for a significant amount of the variance in behavioral intention to use National Wallet mobile payment. However, the second step shows the interactions between behavioral intention and all IVs moderated by demographic variables, whereas (H3c, H4a, H4b, H4c, H4d, H4e, H5b, H6a, H7b and H10a) were not significant. This means that demographic variables do not strengthen the direct effect of antecedents of those IVs on behavioral intention. The results show that between the negative LLCI and the positive ULCI, a value of zero exists. As a result of these findings, no moderation is taking place.

The third step shows that behavioral intention was positive and a significant predictor for (H3a, H3b, H3d, H5a, H6c, H6b, H7d, H7a and H7c), controlling for the other effects in the model. We see from the Johnson-Neyman output that the slope between all negative IVs (X) and BI (Y) becomes increasingly positive over levels for those demographic moderators (Hayes, 2013) and was statistically significant for those variables in this model.

Table 11
Moderated regression results for the effect of MoVs on behavioral intention

Variable	Overall model	Coefficient	SE	T	p	LLCI	ULCI	Hypothesis	Significant
Social Influence									
Age	R^2=0.289, F(57.3006), p< 0.000	-0.1385	0.055	-2.516	0.012	-0.246	-0.0303	H3a	Yes
Experience	R^2=0.316, F(65.14), p< 0.000	-0.2122	0.054	-3.893	0.0001	-0.3193	-0.1051	H3b	Yes

Income	R^2=0.281, F(55.099), p< 0.000	-0.0123	0.042	-0.291	0.77	-0.0951	0.0705	H3c	No
Education	R^2=0.303, F(61.199), p< 0.000	-0.1325	0.044	-2.956	0.003	-0.2206	-0.0444	H3d	Yes
Facilitating Conditions									
Age	R^2=0.337, F(71.70), p< 0.000	-0.0848	0.06	-1.426	0.1547	-0.201	0.032	H4a	No
Gender	R^2=0.337, F(71.614), p< 0.000	-0.188	0.109	-1.714	0.087	-0.403	0.0275	H4b	No
Experience	R^2=0.334, F(70.843), p< 0.000	-0.0547	0.063	-0.872	0.383	-0.177	0.068	H4c	No
Income	R^2=0.332, F(70.192), p< 0.000	-0.0177	0.045	-0.394	0.693	-0.105	0.07	H4d	No
Education	R^2=0.338, F(71.859), p< 0.000	-0.0842	0.048	-1.76	0.079	-0.1782	0.0098	H4e	No
Hedonic Motivation									
Age	R^2=0.324, F(67.70), p< 0.000	-0.1017	0.032	-3.179	0.0016	-0.1646	-0.0388	H5a	Yes
Gender	R^2=0.317, F(65.274), p< 0.000	-0.0184	0.067	-0.276	0.782	-0.149	0.1122	H5b	No
Price Value									
Gender	R^2=0.369, F(82.40), p< 0.000	-0.2857	0.095	-3.003	0.0028	-0.4727	-0.0987	H6c	Yes
Income	R^2=0.355, F(77.485), p< 0.000	0.0122	0.037	0.325	0.745	-0.0617	0.086	H6a	No
Education	R^2=0.365, F(80.955), p < 0.000	-0.0967	0.046	-2.116	0.034	-0.186	-0.006	H6b	Yes
Habit									
Experience	R^2=0.422, F(102.97), p< 0.000	-0.1436	0.038	-3.768	0.0002	-0.2185	-0.068	H7d	Yes
Age	R^2=0.4055F, (95.950), p < 0.000	-0.0941	0.031	-3.062	0.0023	-0.1545	-0.0337	H7a	Yes
Gender	R^2=0.402, F(94.86), p< 0.000	-0.0675	0.066	-1.016	0.31	-0.1979	0.063	H7b	No

Table 12
Moderated regression results for the effect of MoVs on use behavior

Variable	Overall model	Coefficient	SE	T	p	LLCI	ULCI	Hypothesis	Significant
Habit									
Experience	R^2=0.422, F(102.97), p< 0.000	-0.143	0.0381	-3.768	0.0002	-0.2185	-0.0687	H7c	Yes
Behavioral Intention									
Experience	R^2=0.38, F(86.931), p< 0.000	-0.0629	0.044	-1.4094	0.159	-0.15	0.024	H10a	No

5.5 Interview Analysis

Quirkos 2.3.1 application was used for qualitative analysis of three interviews, resulting in a report that uses the participants' own words to summarize the data. Figure (2) and Table (13) show the results.

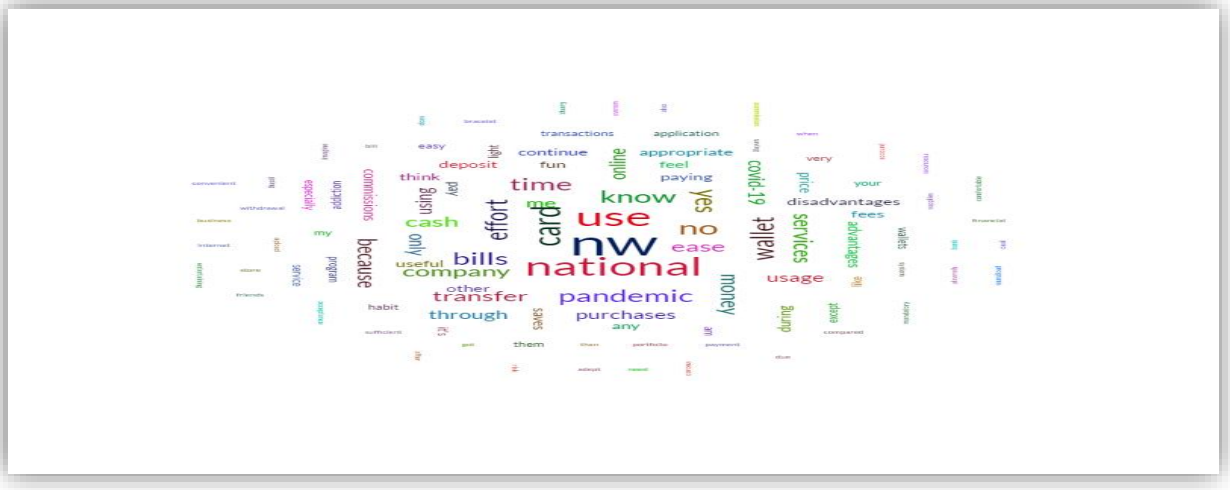

Figure (2)
The qualitative map

Table 13
Interviews answers

Q. no.	Questioner	Int. 1	Int. 2	Int. 3
1	Do you think that National Wallet for insurance purposes among others is useful and could help you expedite the transactions & increase your productivity during Covid-19 pandemic?	Yes, extremely useful, especially in light of the ban and not being exposed to contact with people by paying bills for online purchases and not going anywhere; it is also useful in terms of daily basis.	Yes, it is reducing time and effort compared to cash handling, especially in light of the corona pandemic; it's sufficient for not going to the place to pay the bills.	If you rate this question, it deserves 9/10 and it is necessary for me and this portfolio is better than other portfolios.

2	Was it easy to learn, deal & interact with National Wallet for insurance purposes among others during Covid-19 pandemic?	The completion of transactions is easy and convenient, by transferring and paying through the internet.	I think that I am adept at using this app. for the ease and simplicity of the program.	Easy for learning and good application, clear and I am adept at using it.
3	How did the influencers (family, community) affect your usage of National Wallet for insurance purposes among others during Covid-19 pandemic?	Yes, I got to know NW through my brother after he used it because of corona and he advised me to use NW.	Yes, one of my friends convinced me that NW is easy and saves a lot of time and effort.	From friends, I got to know NW and I am now influencing people and I encourage them to use NW.
4	Do you have the resources and knowledge to use the National Wallet for insurance purposes among others?	I only have a card and I do not know that there is a bracelet and adhesive and I do not see any need for such supplies other than the card.	I know that there is a card and I do not know that there are other supplies.	I only know the existence of a card and I do not know that there is a bracelet or any other resources and I do not think that there is a need for them, because the card is sufficient.
5	Do you feel that the usage of National Wallet for insurance purposes among others is interesting during Covid-19 pandemic?	I feel relaxed, not fun and entertainment; it saves effort and time and this for me is comfortable, not fun and entertaining at all.	It is fun and a convenient application that saves time and effort and gives a sense of ease in doing business, especially for financial transactions.	Routine and comfort in getting work done and paying bills. It is comfortable, but neither fun nor enjoyable.
6	Do you think that the price that is taken for National Wallet for insurance purposes among others as registration fees is appropriate in comparison with its benefits?	The price is very appropriate and it is low compared to cash, saving time and effort and it does not entail any fees for services except for fees for cash withdrawal only.	The price is very appropriate. There are no commissions except for cash-withdrawal commissions only.	I believe that there is no commission except for cash withdrawal, which is the customary commission and the price is very appropriate.
7	Do you think that the usage of National Wallet for insurance purposes among others became a habit or addiction or mandatory in line with Covid-19 pandemic?	Not an addiction, but I usually do not imagine paying the bills through the old system.	Yes, it is a habit and not an addiction when paying bills and purchases through the internet.	Yes, it is a habit and mandatory. I cannot imagine its absence, because it is particularly important.
8	Would you continue using National Wallet for insurance purposes among others after Covid-19 pandemic finish?	I like NW and will always do business with it.	Yes, I will continue to deal with NW if the quality of services currently provided continues, because there is an alternative.	I intend to continue, whether in light of Covid-19 or other conditions, because it is useful and saves effort, time and money. I will continue using NW.
9	Do you think that the usage of National Wallet for insurance purposes among others is risky for your privacy or due to a systematic error?	I do not feel the risk due to the presence of confirmatory passwords for the phone, the NW program and the transfer of passwords.	I do not have any concerns or feelings of risk from NW, because it is known to store owners and be affiliated with visa and be master card.	I feel safe and NW will send an SMS for updated services in case of development.

10	What are the services that you normally use from the National Wallet for insurance purposes among others (e.g. payments, money transfer, purchases… etc.)?	I use all NW services and most of what I use is to pay bills and purchases online using the card.	I use bill payments, online purchases and money transfer.	I use it online to pay bills, withdraw, deposit and transfer money and use all NW services.
11	What are the advantages and disadvantages of using National Wallet for insurance purposes among others?	Advantages: Ease of use. Ease of money transfer, bill payment and online purchase Disadvantages: Lack of communication and follow-up by the NW company. The cash-deposit process needs activation. Not accepting a salary deposit; this is not like a bank account. Not knowing the percentage of acceptance of storing owners. There is no illustrative map showing the acceptance centers of the NW company. There are no loyalty programs for NW.	Advantages: Easy money transfer, deposit and transfer without fees. I consider it a saving card to keep my money. Disadvantages: Failure to follow-up by the NW company. Not defining Alawneh as an advertised company to recharge the card. There are no offers on it like the point system in some programs.	Advantages: Safety in use and service by the company. Saving time and effort. Updating information and no commissions for conversion and usage. MEPS financial reputation for the NW portfolio is excellent. Disadvantages: There is no fingerprint for the application. There is no NFC service. High commissions from (e-fawateercom) when charging the card. The program does not have an interface. Shipping operations through the company itself or Alawneh or e-fawateercom or through a bank account only.

6. Discussion and Conclusions

The goal of this research was to determine the evaluation of the success of electronic mobile payment services during (Covid-19) for clients of the National Wallet company for insurance purposes. We found a positive relationship with (H1, H5, H6, H7, H8, H9 and H10), while we confirmed that performance expectancy, hedonic motivation, price value, habit and perceived risk have positive relationships and showed effects on behavioral intention. Also, we found a partial mediation between nine variables (SI, HM, FC, HM, PV, HB, PR, BI and UB) and demographic variables (gender, age, education, income and experience). H3a, H3b, H3d, H5a, H6c, H6b, H7d, H7a and H7c were positive and significant predictors. Nevertheless, the findings supported previous evidence with (Alalwan et al., 2017), except for facilitating conditions and hedonic motivation and without a moderating impact.

Behavioral intention was found to become insignificant when experience served as a moderator on use behavior when correlation test was included. Differentially, social influences on behavioral intention are fitting significance when experience, age and education served as moderators, here with habit influences on behavioral intention are fitting significance when experience and age served as moderators in the model and it is anticipated that gender and education would moderate the influence of PV on BI, which was supported and in line with (Vanktish, 2013). H7c hypothesis specified that the effect of HB on use would rise with increasing experience. Also, this hypothesis was also supported by (Vanktish, 2013). Hedonic motivation was found when age served as a moderator to rise the influence on BI and support the hypothesis.

In the interviews, we found that all variables (PE, EE, SI, FC, PV, PR, BI and UB) were supported by the respondents' answers, except for HM, as they did not have fun or enjoy just the comfort when they use NW. However, HB was found to be partially supported as they use some of the services, like paying bills and online purchasing.

To sum up, the SEM and ML results showed that Behavioral Intention (BI) is significantly and positively influenced by Performance Expectancy (PE), Hedonic Motivation (HM), Price Value (PV), Habit (HB), while being negatively impacted by Perceived Risk (PR). Also, the results showed that Use Behavior (UB) is positively influenced by HB and BI. However, Effort Expectancy (EE), Social Influence (SI) and Facilitating Conditions (FC) were not influencing BI. As for moderators, gender moderated positively the relationship between PV and BI. Age moderated positively the relationships between SI, HM, HB and BI. Experience moderated the relationships between SI, HB and BI, as well as between HB and UB. Education moderated the relationships between SI, PV and BI. Also, the interviews offered further insights and opened the gate for future-research avenues.

6.1 Theoretical Implications

The main imperative theoretical implication is the analysis of the relationship between two variables that addresses the concerns regarding perceived risk and behavioral intention, as we extend the model of UTAUT2 by examining new technologies (mobile payment wallets) in emerging countries (Jordan). The results of the study indicate that perceived risk has a negative effect on the level of confidence of gender correlated with education of respondents. A comparable result was stated by Kalinić & Marinković (2019) as cited by Binde & Fuksa. Certainly, if respondents perceive an NW as a high-risk activity, their level of sureness of services will be low. In addition, more experience weakerns the relationships between UB and BI, HB and BI and between FC and BI. However, relationships between HB and UB, HB and BI, as well as between SI and BI became stronger when experience increased. Then, experienced people are more likely to use National Wallet during the pandemic than those with less experience in mobile wallet payments.

People who are more educated have stronger relationships between PV and BI, as well as between SI and BI. However, the relationships between FC and age, gender, experience, income and education as moderators with BI became weaker. Then, facilitating conditions decrease the use of National Wallet mobile wallet payments during the Covid-19 pandemic. This study meaningfully contributes to knowledge and literature by focusing more on mobile payment and e-wallet in Jordanian insurance field.

6.2 Managerial Implications

The findings of the research hypotheses show positive and significant impacts (as shown in Tables from 8 to 12) with clients making good indicators for success on NW with impacts on their behavioral use and intention in the insurance industry. One of the finest ways to persuade potential customers to use online banking channels in a more useful and valuable manner than traditional encounters is through personal conversation (one-to-one marketing actions) (Alalwan et al., 2017; Abu-Taieh et al., 2022). Setting regulations by the government and motivation toward National Wallet use are good starting points for a cashless intention to use mobile payment wallets in Jordan. The success of domain policies and regulations is incomplete unless the service providers (e-wallets in Jordan) and the Central Bank of Jordan and JOPACC help people gain more positive awareness towards mobile payment transactions through national wallets for insurance purposes among other services.

We endorse a promotional campaign to show the benefits of mobile payment through e-wallets use. It must consider worth of using mobile payment through wallets use as a means to attaining better flexibility and

simplicity of processes of use, especially for young and innovative population of Jordan. NW can be promoted as a modern user's way of life more reasonably than an innovative product. Clearly, promotional campaigns must put emphasis on PS, HM, PR and the benefits of National Wallet mobile payment; for instance, being highly protected and easy dealings. A controlling approach is required to inspire the awareness and practice of National Wallet mobile payment based on thoughts and contacts shared by relatives (*via* social media). This is due to the fact that this matter has to do with money and is primarily personal (Chaurasia et al., 2019).

Significant indicators PE and PR suggest that clients, after using NW, feel safe, familiar and in general improving their productivity. Through this reaction, the NW can consider adding new security features, such as the ability for just the initial user of an account to conduct transactions through it and the ability to make and receive payments using facial, eye or fingerprint identification. We initiate from that SI, EE and FC were weak indicators of BI to accept NW mobile payment using Covid-19. Social influence was concerned and it visibly shows that clients are not using NW due to positive recommendations from family and friends as the major quota of respondents including youth people below 34, but SI is still not significant.

National Wallet must attempt to make software application most common amongst youth by providing some high-technology features, so that it can attract and give an affirmative word-of-mouth. Also, HM clients are satisfied while using NW apps, but they are not happy; so, we recommend to redesign these apps to make them more familiar and enjoyable and can get proper support with user interface (UI), being the point of human-computer interaction and communication in a device (Gupta & Arora, 2019). NW must correspondingly train clients on how they can securely practise and how they can handle any mistrust or hack concerning their user profile. In terms of the importance of the moderated effects in the current research model, we suggest that managers use a market-segmentation strategy to make technology easier. For example, a campaign should target the youth segment, educated client, those with high income, as well as older people to encourage them to use the NW mobile payment system in the insurance industry.

6.3 Limitations and Future Research

Since the study was conducted in Jordan on insurance companies, the results should be verified and generalized to other industries and countries. However, negative correlations have been found in some research paths and some research findings are not in line with previous studies. For instance, most of the previous studies regarding UTAUT2 found a significant influence of behavioral intention on technology use and behavioral intention became insignificantly impacted by facilitating conditions when the moderator effect with experience was tested, so that it seems difficult to test their correlation in this model. The UTAUT2 model had better tested the understanding consumer acceptance and use of new technology (Chang et al., 2019). This study did not analyze all data related to the moderators by groups, such as gender (male, female), in order to demonstrate the effect on each group; as a result, the recommendation for future research is to include trust as a mediator between BI and UB and to cover all variables with geographical-moderator splitting by the suggested groups.

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