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E-wallet Adoption, Innovative Behaviour and Technology Readiness in Jordan: The Mediating Effect of Customer Awareness

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Abstract
The objective of this paper is to recognize all different aspects of E-wallet, increase customer awareness and increase E-wallet adoption in Jordon. This study identifies how people in Jordan react to technological changes and how they deal with them. This study analyzes the personal impact of technical aspects for welcoming a new mode of transaction.
Methodology: This study has employed a quantitative research method using a descriptive research design. The targeted population for the present study was 660,000 users of orange money in Jordan in 2020. A sample of 370 orange money user was selected based on probability simple random sampling technique. A self-administrated survey questionnaire was designed to adapt and adopt theories from previous studies. A questionnaire was used as a research instrument for collecting data and validated using expert review and pre-testing.
Results: The findings demonstrated that there is a significant and direct relationship between innovative behaviour and customer awareness, a significant and direct relationship between technological readiness and customer awareness, and a significant and direct relationship between customer awareness and E-wallet adoption. On the other hand, findings proved that customer awareness mediates the relationship between innovative behaviour and E-wallet adoption and technological readiness and E-wallet adoption. The results show that due to rising awareness related to benefits, E-wallet users are expected to grow if a direct experience with E-wallet impacts future behaviour.
Keywords*:* Customer Awareness, E-wallet, Innovative Behaviour, Jordan, Technological Readiness.

Introduction

With an increase in technological advancement, the current scenario's business condition looks promising and dynamic. The E-wallet industry and the adoption of technology with innovative behaviour in the 21st-century work in aggressive and complex situations with the change in the circumstances and financial market. In the economic development of any country, technology plays an important role (Nizam et al., 2018). Due to constant innovations

and the changes in electronic services, technology is also changing rapidly. People worldwide have become aware of global conditions with a single touch due to access to technological advancements. In the current scenario, E-wallet and technological innovations play a vital role as it helps in staying connected, shopping, entertainment, sharing of knowledge through online services (Soodan & Rana, 2020). Thus, it becomes essential for such industries to work on their effectiveness and competence.

The adoption of an E-wallet effectively introduces a virtual cashless service that continuously replaces physical cash notes. With the innovation of advanced technologies, it has become possible to directly transact on individual smartphones with proper security and convenient payment options. In the present, people do not have to run on banks or ATMs to withdraw their cash; they can directly make payments from their mobile phones for purchasing anything. With the increased number of online transactions made every day, it is assumed that using an E-wallet will be the upcoming transaction for everything (Aji et al., 2020). Although in the current scenario, there is some limited concept of different factors of E-wallet found in people. Through other awareness processes, it needs to be increased to make their transactions free of any tension or fear. It also found that in different countries, the implementation of mobile payment systems is relatively low. It completely varies on the economic condition, economic management strategies, and the acceptance of ideas in these countries. Although with the flow of time and change in the customer's behavior, individual governments are adopting E-wallet methods and effectively increasing awareness about this new payment trend among their citizens (George et al., 2021).

No doubt that E-wallet provides flexibility to end-users in performing their daily financial transactions. However, the adoption of E-wallet in Jordan is still suffering from core issues from the end users' side. First, is the security issue, since the cyber-attacks and card fraud performed on financial transactions is considered the main concern when using the E-wallet (Mater et al., 2021). Because of that, the Jordanian society is more distrustful of utilizing the E-wallet compared to the use of physical cash. Besides, the person's information such as names, mobile number, credit card number, and so forth become available online when using the E-wallet, which means this information then becomes vulnerable and accessible by illegitimate parties, and consequently, the illegitimate parties might use the users' information for illegal goals.

In addition to the security issues, some E-wallet users realize that using the E-wallet might often occasionally occur in unpleasant and repulsive situations such as unrecognized e-transactions and double e-payments (Pham et al., 2021). If a double payment occurs, then the users have to contact all related parties to cancel the payment and of course, the refund procedure consumes time. Further, in Jordan, limited services are covered by the E-wallet that only includes limited online stores, government payments, and hypermarkets, which means that the end-users yet have to use the physical money (cash) as not all stores utilize the E-wallet services, especially in the rural cities that have very limited infrastructure and customer awareness for E-wallet.

Although Jordan has a well-organized financial payment system, only 42% of its citizens have a bank account. And surprisingly, only 1.5% of citizens there used online transaction applications on their smartphones (Teoh et al., 2020). Individual surveys have been conducted in various places in Jordan, such as ILO (International Labor Organization) and JNCW (Jordanian National Commission for Women). This survey significantly comes to know more than 55% of males and females do not have any E-wallet financial account (Jaafar, 2020). After this, it also estimates that only 33% of citizens use online transactions in Jordan, which is a

deficient number of active E-wallet user databases compared to the neighboring countries present time. Many people in Jordan also do not feel safe making digital payments (Bakar et al., 2020).

As mentioned earlier, the fundamental objective of an E-wallet is to make the transaction faster. However, it is significantly found that there still exists a lack of trust in digital payments that directly affect the rate of adoption of E-wallet in Jordan. However, after the outbreak of the COVID 19 pandemic and the global lockdown situation, the online transaction process has been subjected to visible growth. Not only in Jordan but also in other countries all over the world. In this growth, the support of the Jordanian government is significant. During this pandemic, the Government of Jordan encourages people to open mobile wallets to get financial help to survive. In the present time, there are also many people in Jordan who do not feel safe making digital payments (Bakar et al., 2020). It found that they do not want to associate with security risks.

Given these facts, the Jordanian government and E-wallet service providers are encountering challenges in attracting Jordanians to use E-wallets as a daily e-payment method. Convincing users to adopt new technology is not unpretentious since human attitude and behavior are a complicated process. Therefore, this study is conducted to understand Jordanian users' readiness for innovative behavior and awareness of the E-wallet.

Research Questions

For effectively conducting this paper, few research questions have been introduced, which will support the study's research objectives.

i. RQ1: Does the innovative behavior can introduce a significant impact on E-wallet adoption in Jordan?
ii. RQ2: Does technology readiness introduce a significant impact on E-wallet adoption in Jordan?
iii. RQ3: Does the innovative behavior have a significant relationship with customer awareness in Jordan?
iv. RQ4: Does technology readiness have a significant relationship with customer awareness adoption in Jordan?
v. RQ5: Does customer awareness significantly impact E-wallet adoption in Jordan?
vi. RQ6: Does customer awareness mediate the relationship between innovative behavior and E-wallet adoption in Jordan?
vii. RQ7: Does customer awareness mediate the relationship between technology readiness and E-wallet adoption in Jordan?

Related Works

With time, there is a growing number of literatures conducted in recent years to explore digital or mobile payments due to the rapid expansion of e-banking and the development of the payment system. It has also been demonstrated that a significant number of these publications have explored several factors that impact the use of different digital payments, customer acceptance, and adoption of digital payment such as customer satisfaction (Bagla et al., 2018), security and risk (Sinha et al., 2019), design (See-to et al., 2016) and innovation (Makki et al., 2016). Despite the growing number of studies related to m-wallet, or E-wallets, there are limited peer-reviewed studies related to how innovative behaviour of customers and technological readiness and awareness can impact or determine E-wallets.

According to Dahlberg et al (2015), there is still a need to conduct an extensive investigation that can provide suggestions to adopt a digital mode of payment. It has also been argued by Dahlberg et al (2008), that there is a rise in the publication; however, it is still a missing gap to explore the adoption of an advance mode of payment." The studies of Taylor (2016) were also limited to mobile payment in the retail industry, whereas Alkhowaiter (2020) limited work to review the adoption of digital mode of payment banking in Gulf countries. On the other hand, COVID-19 has also changed the daily lives and working style, and many transformations have anchored in "state-of-the-art" technology, including digital payment activities that generated some new ways for the researcher to study technology-related behaviour and readiness of customers to adopt new technology in the pandemic crisis (Khatib & Nour, 2021)."

Furthermore, COVID-19 related measures have also contributed to the significant change in payment behaviours. For instance, Kraenzlin et al (2020), has identified that there is a significant decline in the "retail card payments" and crisis have influenced to facilitate and secure the settlement of electronic mode of payments. It can be determined that COVID-19 has shed light on the significance of the external environment of digital payment adopting behaviours related to innovativeness and technology, which requires more work, particularly in the content of the Gulf Region. So far, research appears to be fractured and lack of proper roadmap in the content of Jordan, which explore innovative behaviours and technological readiness, which also determines the digital mode of payments. Furthermore, awareness also has a significant impact on influencing the adoption of E-wallets as the mode of payment during the pandemic crisis. Besides this, a lack of studies related to E-wallet adoption and insufficient research questions have not been answered on E-wallet adoption in the context of Jordan.

A combination of gaps in the form of variables, methodology, sampling, tools of analysis are found in the literature concerning the constructs of innovative behaviour, technology readiness, customer awareness towards E-wallet adoption in the context of Jordan (Pathak, 2019). Moreover, it has also been mentioned that financial inclusion aspects related to mobile payment systems were not better than expected compared to "Jordanian society culture" and advanced level of financial and banking service; therefore, the outcome was not satisfactory (Sehwail & Bahou, 2017). Despite technological advancement and availability of financial infrastructure to use different digital, mobile or E-wallet systems of payment, there is still a low acceptance rate (Al-Okaily et al., 2020). It has also been surveying by Al-Shawwa (2019), that a small amount of the population has adopted E-wallet payment systems in Jorden, showing that there is still a need to explore the factors that can impact E-wallet adoption in Jordan.

Research Methodology

This paper's conceptual structure is shown in Figure 1. This conceptual framework has four fundamental constructs: Innovative Behaviour, Technology Readiness, Customer awareness, and E-wallet Adoption. Innovative Behaviour and Technology Readiness are the independent variables. The mediator is Customer Awareness and E-wallet Adoption as a dependent variable. The causal relationships among the variables are shown in the figure below.

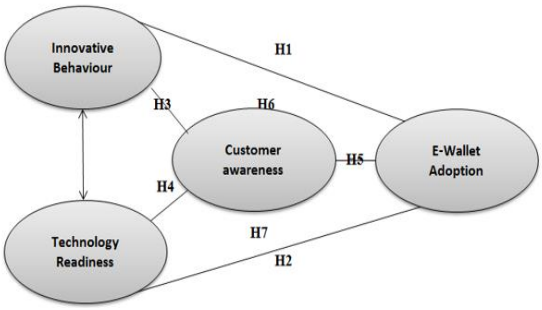


Figure 1: Conceptual Framework

Based on research questions; following hypotheses have been developed that have been tested.

i. H1: Innovative behaviour has a significant effect on E-wallet adoption in Jordan.
ii. H2: Technology readiness has a significant effect on E-wallet adoption in Jordan.
iii. H3: Innovative behaviour has a significant effect on customer awareness in Jordan.
iv. H4: Technology readiness has a significant effect on customer awareness in Jordan.
v. H5: Customer awareness has a significant effect on E-wallet adoption in Jordan.
vi. H6: Customer awareness mediates the relationship between innovative behaviour and E-wallet adoption in Jordan.
vii. H7: Customer awareness mediates the relationship between technology readiness and E-wallet adoption in Jordan.

Research Method

Qualitative and quantitative are two primary research methods that are primarily used in research. This study is inclined to a quantitative research method that stresses objective measurement and the utilization of statistical methods and techniques using numerical data that are collected through polls, survey questionnaires, and by employing pre-existing statistical data through computational methods (Kyburg, 2012).

Unit of Analysis

The research is propagated to tackle the problem and try to explore the solution of the problem. There is no purpose of the research conduction and assessing results if the situation would not resolve appropriately. To solve the statement of the problem, the researcher must reach the level of justification for applying the method of analysis. The analysis is entirely dependent upon the data aggregation while following data analysis (Dubrow, 2013). The unit of analysis is Orange Money E-wallet, which has experience in using an E-wallet. Considering orange money-E-wallet as a unit of analysis with help to collect data from defined users because it is not easy to cover customers of all E-wallets.

Population and Sampling

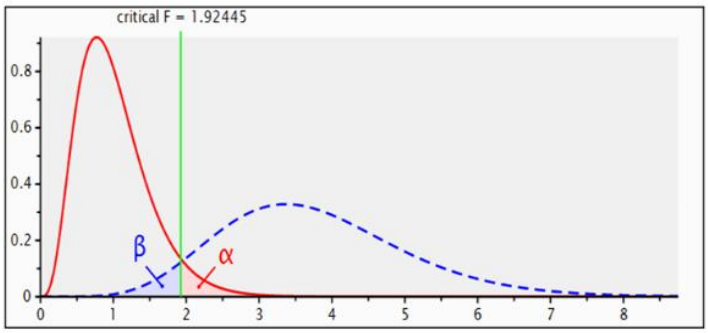
In this study, all E-wallet users in Jordan have been considered as the population of the study. In Jordon, there are more than 660,000 users of orange money in Jordan in 2020 according to (Annual Organge Report, 2020). The data collection accompanied the specific group from which the researcher would like to gather his study data.

Sampling Design and Sampling Size

In this study, non-probability sampling method was used to select the most fixed comprehensive plan. Avoiding duality or biasness in selecting respondents, through the appropriately chosen sampling method, assured that the relevant population's characteristics are well-represented. This step demands the time and cost-effectiveness. Simple random sampling method has been used in this study which is a probability sampling method which is very easy to use and present accurate representation of targeted population. There is no any other easy method which can be used to extract a sample from a large target population than simple random sampling method. The researcher suggested that 300 cases for factors analysis will be comfortable as a common rule of thumb. Furthermore, if accurate population data is available, it can be possible to recognize the sample size with a 95% confidence interval. Moreover, if factor loading is more significant than 0.80, then 150 cases will be sufficient. Hence, the selected sample size of this study will be at least more.

Sample Size Determination

Sample size indicates the number of observers that participate in the investigation (this research's questionnaire). GPower V3 was used in this paper to determine the sample size needed to implement the conducted research. Based on GPower V3 analysis, as illustrated in Figure 2, the minimal number of respondents (sample size) required for the presented research tool is 221. However, the total sample size gathered in the present research was 370, thus better results and more generalized findings could be provided consequently.



Effect size f² = 0.1111
a err prob = 0.05
Power (1-ß err prob) = 0.95
Number of predictors = 9
Output: Noncentrality parameter λ = 24.553100
Critical F = 1.924452
Numerator df = 9
Denominator df = 211
Total sample size = 221
Actual power = 0.950061

Figure 2: Sample size calculation

Questionnaire Sections

The survey questionnaire has been divided into two major parts. As illustrated in Table 1, Part (A) was related to respondents' demographic, such as age, education, year of using E-wallet, income, and marital status. While part (B) of the questionnaire was related to dependent, independent, and mediating variables such as innovative behaviors and technological readiness have been taken as an independent variable.

Table 1
Questionnaire Sections

Section	Content
A	Demographic Information
B	Variables (dependent, independent, and mediating)

Where demographic section represents the participants', demographic information including gender, status (i.e., student, housewife, salaried employee, or businessman), age interval (i.e, 18-27, 28-37, 38-47, 48-60, or 61 years and above), qualification (primary school, middle school, high school, collage, or university graduate), and E-wallet usage status (yes, or no). Whereas, customer awareness has been taken as mediating variable, and E-wallet adoption is a dependent variable. Table 2 describes the variables that have been considered in this study with the help of literature.

Table 2
Variable Description

Variables and Definition		**Reference Studies**
1	*E-wallet Adoption* "It is defined a mobile application software that is used for transaction or payment through using mobile or software"	(Pachpande & Kamble, 2018)
2	*Customer Awareness* "It is defined as an act of making sure that customer is full aware regarding the all information about goods and services"	(Nedumaran & Mehala, 2019)
3	*Innovative Behaviour* "It is defined an introduction and use of new ideas, products and process to an individual's work and organization"	Purc & Laguna (2019); Kang and Lee (2017)
4	*Technological Readiness* "It is defined the individual inclination to adopt new technology for achieving their goals in home and work" *Innovativeness* "Innovativeness is defined as a tendency to be the first using a new technology" *Optimism* "Optimism is defined as a positive belief about technology to increase control, flexibility and efficiency" *Discomfort* "Discomfort is defined as having a need for control and a sense of being overwhelmed" *Insecurity* "Insecurity is defined as distrusting technology for security and privacy reasons"	Rojas-Mendez et al (2015); Wiese et al (2018, 2019). Purba (2015).

Language Validity

To ensure the language validity of the questionnaire, a certified translation centre is consulted, named AL BAYAN CERTIFIED TRANSLATION in the Kingdom of Saudi Arabia. Then the translated version was also reviewed by the researcher and the supervisor to verify the semantic consistency of the instruments

Ethical Consideration

In this research, the research title and aim were clearly stated to all participants at beginning of the questionnaire. No doubt that the integrity of the acquired information is ensured, and the findings of this research are profitable to users, decision makers, and service providers of E-wallet in Jordan. Besides, to guarantee the privacy of all respondents, their names and other personal information are not listed in the questionnaire, and each respondent has the right to answer or refuse to answer any question since the participation is voluntary. In addition, the application for field work and data collection process to conduct the research tool the Academic & Graduates Deanship in 23, Nov 2020 with the application number: UniSZA.H/2/606-4 JId. 15 (18).

Analysis and Discussion

Validity and Reliability of the Construct

The research quality is evaluated by the usage of validity and reliability that indicates a techniques' wellness. The Measurement Model's Fitness Indexes assessed the Construct Validity, the AVE (Average Variance Extracted) computation assessed the Convergent Validity, and the establishment of Discriminant Validity Index Summary assessed the Discriminant Validity. As far as reliability is concerned, the assessment of Composite Reliability (CR) is ample for the research, as it replaced the traditional method of Cronbach Alpha calculation that is used for the Structural Equation Modeling (SEM) analysis (Rahlin et al., 2020). The validity of particular latent construct is considered valid if its fitness index values attained the three categories of Model Fit including Parsimonious Fit, Absolute Fit and Incremental Fit (Afthanorhan et al., 2020). Table 3 gives the categories of Fitness Index as well as their relevant thresholds.

Table 3
The Three Categories of Model Fit and Their Level of Acceptance

Name of category	Name of index	Level of acceptance
Absolute Fit Index	RMSEA	RMSEA < 0.08
	GFI	GFI > 0.85, Ideal if > 0.90
	AGFI	AGFI > 0.85, Ideal if > 0.90
Incremental Fit Index	CFI	CFI > 0.85, Ideal if > 0.90
	TLI	TLI > 0.85, Ideal if > 0.90
	NFI	NFI > 0.85, Ideal if > 0.90
Parsimonious Fit Index	ChiSq /df	Chi-Square/ df < 5.0, Ideal if < 3.0

***The indexes in bold are recurrently reported within the literature and recommended (Awang et al., 2016)

The CFA (Confirmatory Factor Analysis) for Individual Construct

The second-order construct is shown within Figure 3 that represents one of the model constructs having certain sub-construct number however, each sub-construct is computed via given measuring items numbers within the questionnaire that is given in Figure 5.3. A scale range is used to measure each item from 1 that represents strongly disagree to 10 that shows strongly agree towards the given statement (Awang et al., 2018).

The present research elected to perform procedure of CFA separately for second-order construct. As soon as the CFA assessment is finished, the study then combines latent contracts

and start performing Pooled-CFA in order to do the discriminant validity assessment between these constructs. Before the structural model modelling as well as SEM execution, the investigator has to prove all constructs included within the model are discriminant of each other or not highly correlated more importantly among exogenous constructs (Afthanorhan et al., 2019). It there is high correlation among two exogenous constructs (correlation more than 0.85) then there must be a serious issue known as multi-collinearity and the research needs to use their respective remedial measures.

The Procedure of CFA for construct's Validating Technology Readiness

Technology Readiness belongs to the second-order construct as described earlier and have four sub-constructs or components as represented within Figure 4.4. Figure 5.4 highlights the factor loading for every item, the factor loading for every sub-construct (component) and fitness indexes for the whole construct. Hence, via assessing the results shown in Figure 4, an investigator can assess the reliability and validity of this specific construct (Technology Readiness).

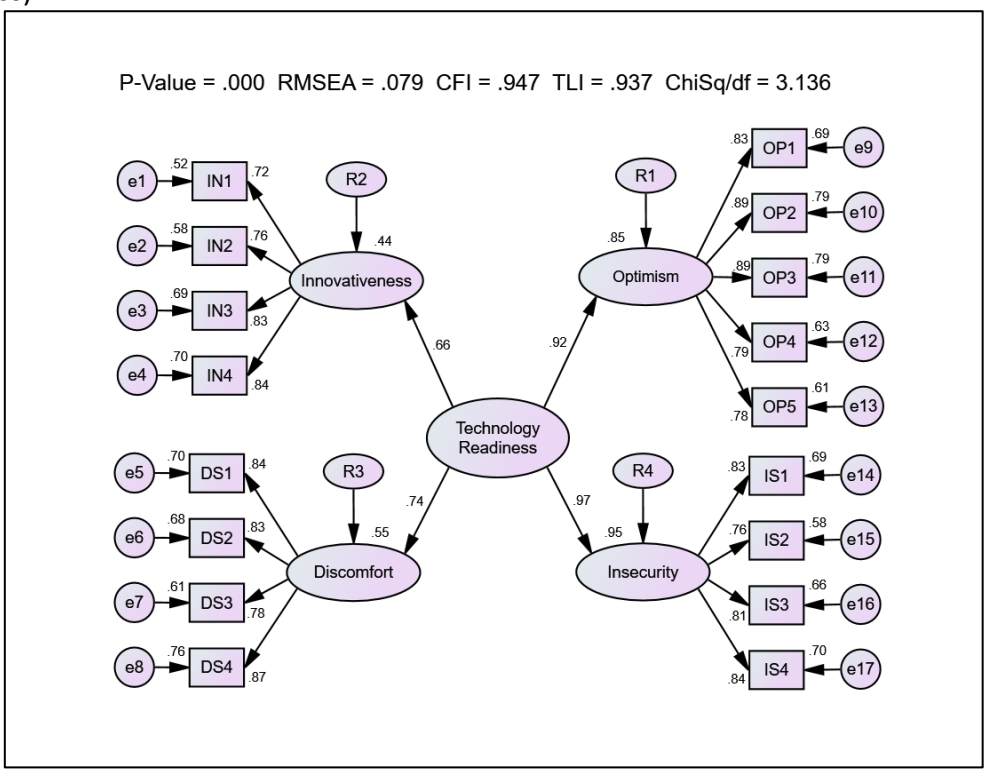


Figure 3: Technology Awareness Construct

The Assessment for Composite Reliability and Convergent Validity

Average Variance Extracted (AVE) must be computed by the study to assess the Convergent Validity. The Convergent Validity of construct is attained only if the AVE value exceeds the value of threshold that is 0.5 (Alarcón, Sánchez, & De Olavide, 2015). Moreover, study must compute CR in order to assess Composite Reliability and its values must be greater than the values of threshold which is 0.6 for the achievement of this reliability (Awang et al., 2018), Table 4 shows the assessment of normality.

Table 4
The Assessment of Normality

Construct	Item	Factor Loading	CR (Above 0.6)	AVE (above 0.5)
Technology Readiness	Innovativeness	0.66	0.898	0.693
	Optimism	0.92		
	Discomfort	0.74		
	Insecurity	0.97		
Innovativeness	IN1	0.72	0.868	0.623
	IN2	0.76		
	IN3	0.83		
	IN4	0.84		
Optimism	OP1	0.83	0.921	0.701
	OP2	0.89		
	OP3	0.89		
	OP4	0.79		
	OP5	0.78		
Discomfort	DS1	0.84	0.899	0.690
	DS2	0.83		
	DS3	0.78		
	DS4	0.87		
Insecurity	IS1	0.83	0.884	0.657
	IS2	0.76		
	IS3	0.81		
	IS4	0.84		

The Pooled-CFA for entire constructs' Measurement Model

Figure 4 represents the pooled construct. Now the validation of the measurement model for second-order construct can be performed through separate CFA procedure and in order to minimize complexity this procedure simplified it into first order construct (Awang et al., 2015). The acting reason behind performing the pooled-CFA for all construct collectively is the Discriminant Validity assessment between models constructs (Afthanorhan et al., 2019). The assessment of pooled-CFA procedure all simultaneously is given in Figure 5.

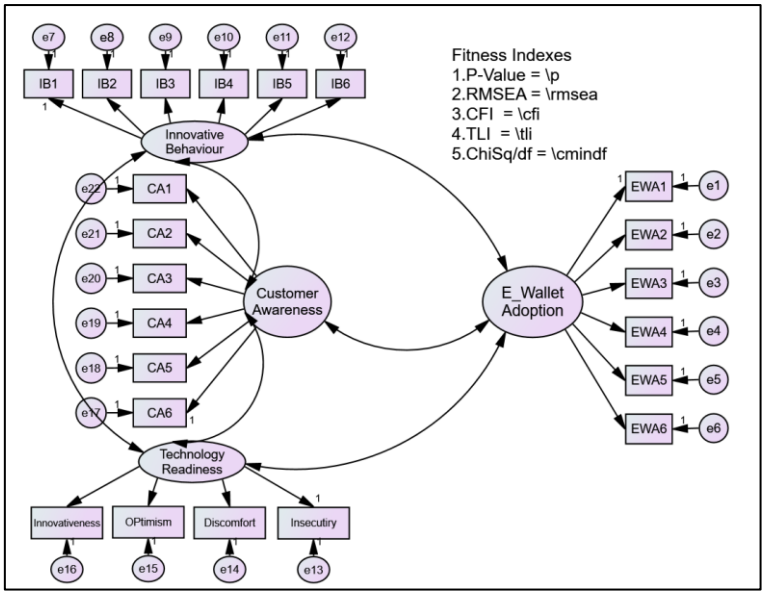


Figure 4: The second construct is pooled together with other constructs for the Pooled-CFA

Output represented the fitness indexes for all the constructs within the model, the main construct, the correlation among the construct in the model as well as the factor loading for every sub-construct or component measure. The threshold values must be met by the fitness indexes, the factor loading for each item must be less than 0.6 as well as any two construct's correlation coefficient must not be greater than 0.85 (Sahoo, 2019). There will be the emerging of multi-collinearity problem if the correlation among any two construct becomes greater than 0.85. While looking at the values of correlation (at the double-headed arrow), it is seen that none of the values exceeds the limit of 0.85. Therefore, there is no problem of multi-collinearity.

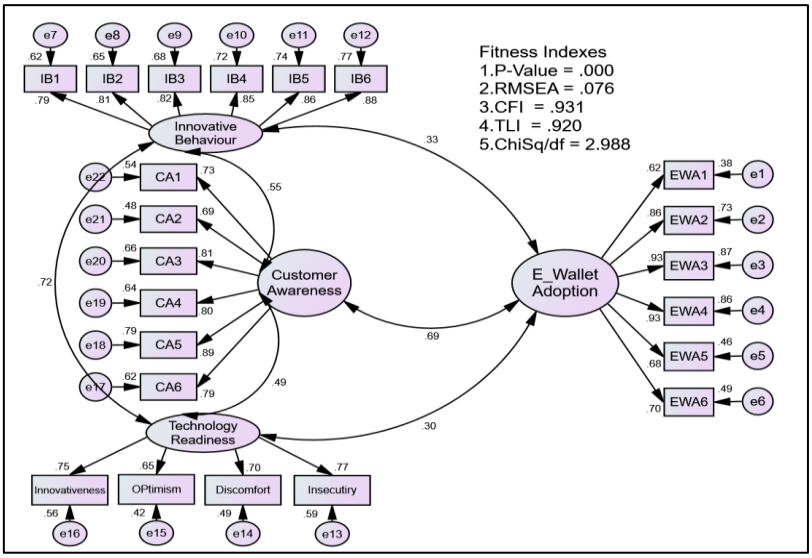


Figure 5: The Pooled-CFA results representing correlation and factor loading among constructs

The table 5 presents the value of R-square (R2) shows the share of variance that is accounted for by the customer awareness and E-wallet adoption. It shows that customer awareness and E-wallet adoption contribute 32 percent and 47 percent in the model respectively. The regression path coefficients for all independent constructs are shown in Figure 6.

Table 5
The R^2 and its implication in this study

Endogenous Construct	R2	Conclusion
Customer Awareness	0.32	The Innovative Behaviour and Technology Readiness as perceived by the respondents contribute about 32 percent of Customer Awareness regarding the E-wallet.
E-wallet Adoption	0.47	Innovative Behaviour, Technology Readiness and Customer Awareness contribute about 47 percent of E-wallet Adoption.

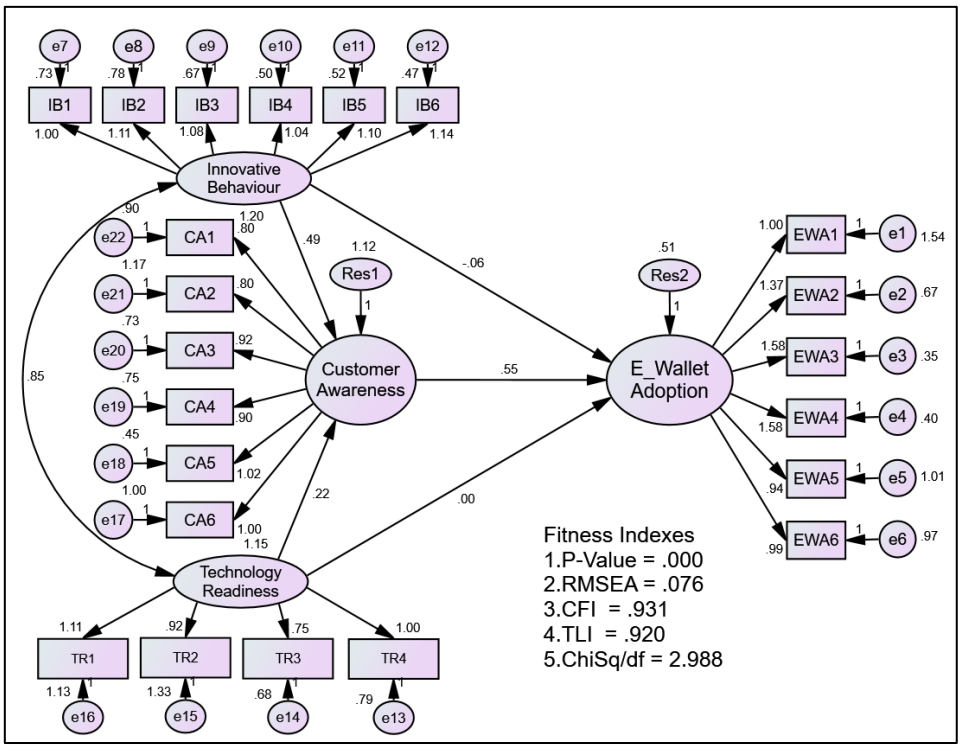


Figure 6: The regression path coefficient between construct

Testing the Hypothesis

The regression path coefficients for all independent constructs are shown in Figure 7.

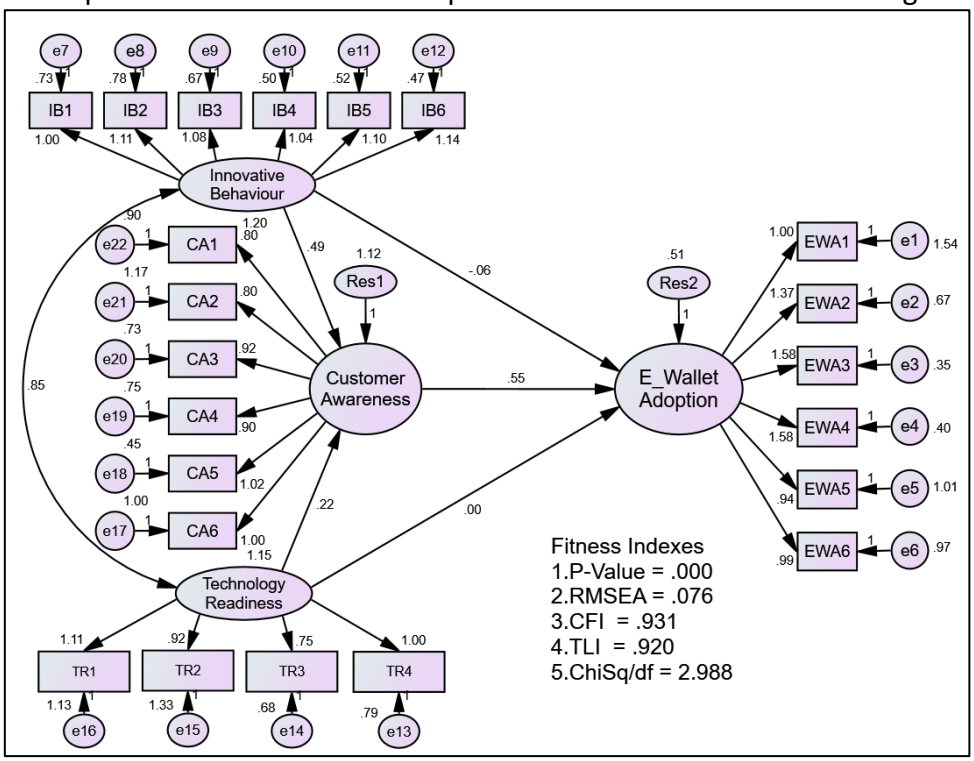


Figure 7: The regression path coefficient between constructs

The text output for every significant relationship in this study as shown by the model in Figure 8 is presented in Table 6. The testing of hypothesis in Table 7 is decided based on the probability value (p-value). The hypothesis is significant if P-value obtained in the text-output is less than the type error value (alpha) 0.05.

Table 6
Regression path coefficient and its significance

			Estimate	S.E.	C.R.	P	Result
Customer Awareness	<---	Innovative Behaviour	.494	.102	4.852	.001	Significant
Customer Awareness	<---	Technology Readiness	.216	.106	2.043	.041	Significant
E-wallet Adoption	<---	Customer Awareness	.552	.062	8.955	.001	Significant
E-wallet Adoption	<---	Innovative Behaviour	-.063	.069	-.912	.362	Not Significant
E-wallet Adoption	<---	Technology Readiness	.004	.071	.056	.955	Not Significant

Table 7 provides the regression path coefficients. It was hypotheses there is a significant relationship between Innovative behaviour and customer awareness, the finding shows that there are positive and significant paths from innovative behaviour to customer awareness. (Path coefficient = 0.49, p=0.001). Besides, it was hypothesized there is a significant

relationship between technological readiness and customer awareness. The results demonstrated that there is a positive and significant path from technological readiness to customer awareness. (Path coefficient = 0.21, p=0.041). It was hypotheses there is a significant relationship between customer awareness and E-wallet adoption, the outcomes that there is a positive and significant path from customer awareness to E-wallet adoption (Path coefficient = 0.55, p=0.001). It was hypotheses there is a significant relationship between Innovative behaviour and E-wallet adoption, the outcomes that there is a negative and insignificant path from innovative behaviour and E-wallet adoption (Path coefficient = -0.063, p=0.362). Finally, it was hypothesized there is a significant relationship between technology readiness and E-wallet adoption. The results show that there is the positive but insignificant path from technology readiness to E-wallet adoption (Path coefficient = 0.004, p=0.071).

Table 7
The Hypothesis Testing for significant Effect Hypothesis

	Hypothesis statement	P-Value	Result
H3	Innovative Behaviour has significant effect on Customer Awareness	0.001	Supported
H4	Technology Readiness has significant effect on Customer Awareness	0.041	Supported
H5	Customer Awareness has significant effect on E-wallet Adoption	0.001	Supported

It has been found that Innovative Behaviour has a significant effect on Customer Awareness (p=0.001), rejecting the null hypothesis in this case. Moreover, there is a significant effect of Technology Readiness on Customer Awareness (p=0.0041), rejecting the null hypothesis in this case. Besides, a significant effect has been found between Customer Awareness and E-wallet Adoption (p=0.001), rejecting the null hypothesis in this case.

Table 8
Regression Equation

Endogenous Construct	Regression Equation
E-wallet Adoption	= 0.06. Innovative Behaviour + 0.55.Customer Awareness + 0.00.Technology Awareness

Analyzing Mediating Variables

The hypothesis testing for mediation effects of a mediator construct in the model is carried out separately as shown in Table 8.

Table 8
The Hypothesis Testing for Mediation Effects

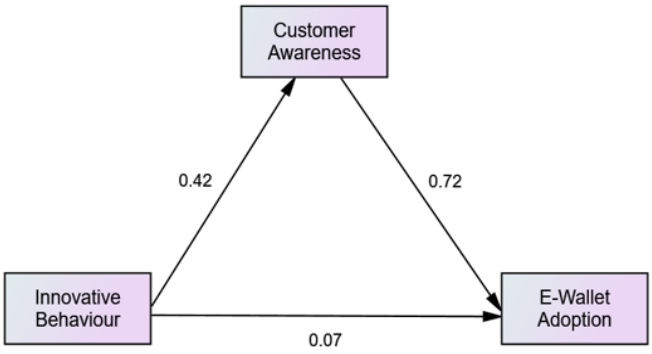
H6	Customer Awareness mediates the relationship between Innovative Behaviour and E-wallet Adoption
H7	Customer Awareness mediates the relationship between Technology Readiness and E-wallet Adoption

The study employed the method of testing the mediation effects in the model as proposed by Awang (2014); Awang et al (2015, 2018) and has been employed by (Schreiber, et al., 2006; Afthanorhan et al., 2019; Rahlin et al., 2019; Bahkia et al., 2020; Mahfouz et al., 2019).

Testing Customer Awareness as a mediator in the relationship between Innovative Behaviour and E-wallet Adoption

The sixth hypothesis the mediating role of customer awareness between innovative behaviour and E-wallet adoption has been tested using the bootstrapping method. Figure 8 shows mediating effect of mediating role of customer awareness between innovative behaviour and E-wallet adoption.

H6	Customer Awareness mediates the relationship between Innovative Behaviour and E-wallet Adoption



1. The indirect effect1 a = 0.42 (statistically significant)
2. The indirect effect2 b = 0.72 (statistically significant)
3. The direct effect c = 0.07 (not statistically significant)
4. Thus, the **mediation occur**s since both a and b are significant
5. The type of mediation is **full mediation** since the direct effect c is not statistically significant.

Figure 8: Mediating role of customer awareness between technological readiness and E-wallet adoption

The study employed the Maximum Likelihood Estimator (MLE) bootstrapping using 1000 bootstrap samples, 95% bootstrap confidence interval and 95% bias-corrected confidence interval. The result for testing customer Satisfaction as a mediator in the relationship between service quality and customer loyalty is presented in the following table. It has been found that there is a non-significant effect between innovative behavior and customer awareness (a=0.42, statistically significant). On the other hand, there is also a non-significant effect between customer awareness and E-wallet (b=0.72, statistically significant). However, there is no significant effect of innovative behavior on E-wallet adoption (c=0.07, statistically insignificant).

Table 9
Significant and non-significant Effect

	Indirect Effect (ab)	**Direct (c)**
Bootstrapping Value	0.304	0.070
Probability Value	0.002	0.489
Results on Mediation	Significant	Not Significant
	Mediation exists since indirect effects are significant	
Type of Mediation	Full Mediation since the direct effect is not significant	

Hypothesis Statement	Result	Type of Mediation
H6: Customer Awareness mediates the relationship between Innovative Behaviour and E-wallet Adoption	Significant (mediation occurs)	Full Mediation

Testing Customer Awareness as a mediator in the relationship between Technology Awareness and E-wallet Adoption.

H7	Customer Awareness mediates the relationship between Technology Readiness and E-wallet Adoption

The Seventh hypothesis the mediating role of customer awareness between technology readiness and E-wallet adoption has been tested using bootstrapping method. Figure 9 shows mediating effect of mediating role of customer awareness between technology readiness and E-wallet adoption.

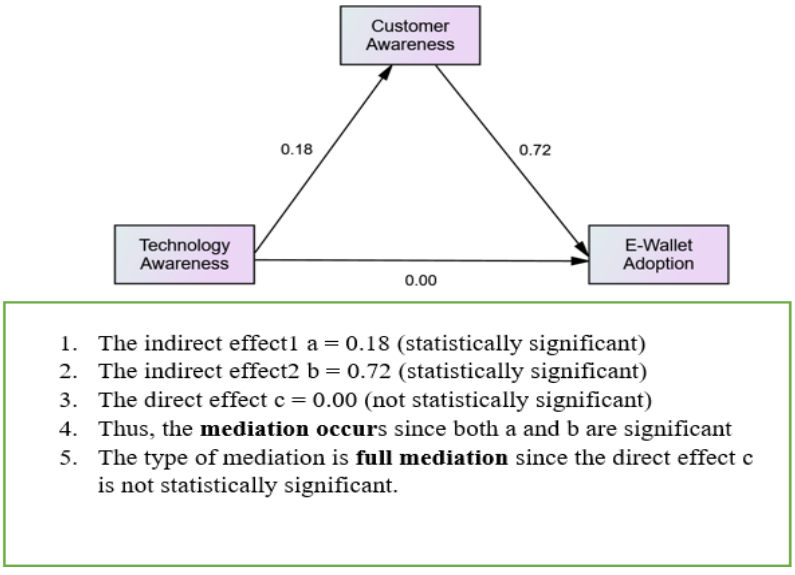


Figure 9: Mediating role of customer awareness between technological readiness and E-wallet adoption

The study employed the Maximum Likelihood Estimator (MLE) bootstrapping using 1000 bootstrap samples, 95% bootstrap confidence interval and 95% bias-corrected confidence interval. the result for testing customer satisfaction as a mediator in the relationship between service quality and customer loyalty is presented in the following table. It has been found that there is an indirect effect between technological readiness and customer awareness (a=0.18, statistically significant). On the other hand, there is also an indirect effect between customer awareness and E-wallet (b=0.72, statistically significant). However, there is no direct effect of technological readiness on E-wallet adoption (c=0.00, statistically insignificant).

Table 10
Direct and Indirect Effect

	Indirect Effect (ab)	Direct (c)
Bootstrapping Value	0.130	0.004
Probability Value	0.019	0.950
Results on Mediation	Significant Mediation exists since indirect effects is significant	Not Significant
Type of Mediation	Full Mediation since the direct effect is not significant	
Hypothesis Statement	Result	Type of Mediation
H7: Customer Awareness mediates the relationship between Technology Readiness and E-wallet Adoption	Significant (mediation occurs)	Full Mediation

In sum, the quantitative findings of the study that has been obtained using the survey to prove the hypothesis of the study. Table 11 demonstrates the summary of the findings and hypothesis testing.

Table 11
Summary of Hypothesis Testing

	Hypothesis statement	Result
H1	Innovative behaviour has a significant direct effect on E-wallet adoption in Jordan	Not supported
H2	Technology readiness has a significant direct effect on E-wallet adoption in Jordan	Not supported
H3	Innovative Behaviour has significant and direct effect on Customer Awareness	Supported
H4	Technology Readiness has significant and direct effect on Customer Awareness	Supported
H5	Customer Awareness has significant and direct effect on E-wallet Adoption	Supported
H6	Customer Awareness mediates the relationship between Innovative Behaviour and E-wallet Adoption	Supported
H7	Customer Awareness mediates the relationship between Technology Readiness and E-wallet Adoption	Supported

Initially, data were screened, coded and transformed to estimate the results through statistical software. Furthermore, reliability and validity of the construct were measures using

various techniques such as the Construct Validity was assessed through the Fitness Indexes of the Measurement Model, the Convergent Validity was assessed through computing the Average Variance Extracted (AVE), and Discriminant Validity was assessed through developing the Discriminant Validity Index Summary. For the reliability, it is adequate for the study to assess the Composite Reliability (CR) for analysis using Structural Equation Modelling.
On the other hand, Skewness and Kurtosis tests were used to inspect the normality of the variables for large data samples (Tabachnick & Fidell, 2001). Structural Equation Modelling (SEM) was also used to prove the relationship among multiple variables which allows a researcher to investigate a set of inter-related research variables in a single and systematic analysis. SEM was considered the most suitable method for the study which allowed the researcher to test and explore the hypotheses relationship among various constructs. Furthermore, it also facilitates simultaneous examination of the measurement and structural models. The findings of the structural model demonstrated that five hypotheses were supported in this study whereas; two hypotheses were not supported. It has been found that there is a significant and direct relationship between Innovative Behaviour and Customer Awareness, a significant and direct relationship between technological readiness and Customer Awareness and a significant and direct relationship between Customer Awareness and E-wallet adoption. On the other hand, findings proved that Customer Awareness mediates the relationship between Innovative Behaviour and E-wallet Adoption and technological readiness and E-wallet Adoption.

Conclusion

It is an innovative technology that has not been much recognised at the mass level among customer of Jordon due to a lack of awareness regarding the potential benefits of using an E-wallet for financial transactions. E-wallet provides a better platform to settle all cashless transactions as it is being used for various purposes such as online shopping, travel booking, online foods order, etc. The researcher has found that many factors contribute adoption of E-wallets such as technological readiness and innovative behaviour of customers which indirectly influence the adoption of E-wallet is a lack of customer awareness. Customer awareness is the key source behind adopting E-wallet among customer because it can also unhide different values and features that can assist individuals in managing their financial activities. This may lead to better recognizing the benefits of E-wallet for transaction purposes. On the other hand, the customer readiness to adopt new and innovative technology is also most important to establish with having sufficient level of awareness to recognize the ease of use in the Jordon related to technologies such as E-wallet. It has been said that this type of information has the potential to make E-wallet payments more familiar to a large segment of the population, particularly with no or less technological background. It has been found that there is a significant and direct relationship between Innovative Behaviour and Customer Awareness, a significant and direct relationship between technological readiness and Customer Awareness, and a significant and direct relationship between Customer Awareness and E-wallet adoption. On the other hand, findings proved that Customer Awareness mediates the relationship between Innovative Behaviour and E-wallet Adoption and technological readiness and E-wallet Adoption. It shows that customer awareness can decrease the resistance to change towards and influence innovative behaviour to adopt E-wallet in Jordan. This finding stressed the significant role of service providers in impacting customer awareness related to E-wallet adoption in Jordan. Hence, innovative behaviour has, and technological readiness has a significant impact on the usage of the E-

wallet payment system. Although, more customers are using E-wallet payment systems, however; it is crucial to create the readiness for reducing the resistance and disinclination towards adoption of new technology.

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