



## Challenges and Opportunities of the Transmission to Use Cashless Payment Methods in Egyptian Hotels and Travel Agencies

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### ABSTRACT

Moving towards digitalization is a common approach for all business sectors nowadays. Tourism industry as a pioneer service industry is moving rapidly and staidly towards digitalizing all its' activities and operations to achieve more business efficiency and sustainability. Cashless payment tools are an important feature of digitalizing tourism business operations, as it fulfils the needed requirements for achieving tourism business sustainability and efficiency, through providing a wide range of advantages and opportunities. This study aims to investigate the challenges and opportunities of widening the use of cashless payment tools by Egyptian hotels and travel agencies, and their readiness and awareness degree in this concern. The study used quantitative approach by distributing a questionnaire to managers in 4- and 5-star hotels and travel agencies in Cairo, to measure and assess the awareness of Egyptian hotels and travel agencies concerning the advantages and challenges of the transformation to use non-cash payment methods, and their effect on their willingness and readiness concerning the transformation process. The study concluded that Egyptian hotels and travel agencies are ready enough and willing to be more dependable on cashless payment tools, but there are some challenges causing the transformation process to be slow and non-smooth. As well the study recommended that the Egyptian government must work together with hotels and travel agencies to demolish all challenges and maximize the advantages and benefits of digital transformation©2023 Faculty of Tourism and Hotels, Fayoum University All rights reserved

### 1. Introduction

Digitalization has brought lots of technological transformations and innovations to ease the routine economic transactions with less cash options (Deborah & Passah, 2018). Noncash transaction grew globally with 10.1% in 2016 (World Payments Report, 2018), however, the highest growth rates for noncash transactions are seen in Asia, Eastern Europe, the Middle East and Africa (World Payments Report, 2017). Globally, the underground economy operates mainly through cash transactions. Reducing cash transactions

would help reduce the functionality of such an economy, which would result in the reduction of robberies, crime, money laundering, counterfeit currency, tax evasion and bribes (Warwick, 1993; Alba, 2003; Felson & Boba, 2010; Mehta, 2009; Zabyelina, 2015). As well, a cashless society would achieve increased consumption, enhanced trade, more foreign investments and improved employment opportunities leading to the acceleration of economic growth and human development enhancement (Vimal *et. al.* 2020). Since 2016, financial technology (Fin-Tech) has

become a major buzzword in the business world, and according to consulting firm McKinsey, 35% of Fin-Tech companies offer services connected with payments (McKinsey, 2021).

As tourism industry is experiencing, a boom in contactless services. Which include credit cards, debit cards, key fobs, smartphones and other mobile devices that eliminate the need for legal access during a transaction by using radio frequency communication with a reader (tourismtiger.com. 2022). Tech giants like Apple, Samsung and Google are offering mobile payments to the consumer market, as travelers increasingly use mobile phones instead of plastic cards to make payments. Also, Single-use virtual card numbers have been the fastest-growing product not only for Air-Plus International but many other corporate travel payment providers over the last few years. They will become increasingly important, often in conjunction with mobile payments (Air plus International. 2022). And on top of those two technologies will come invisible payments, where travelers don't have to stop to pay at all. Whether riding in a car, driving out of a car park or eating in a restaurant, payment automatically happens without the traveler having to show a piece of plastic or wave their mobile phone over an electronic reader (visisoft.co.uk. 2022).

This combination of Virtual, mobile and invisible payments is called digital payment, by which business, travelers and employers alike will benefit, as there will be no need to waste the time of travelers, line managers or accounting departments by going through an expense management process (Air Plus International. 2022).

This study aims to identify the advantages and challenges of using cashless payment methods in Egyptian hotels and travel agencies to accomplish the majority of tourist economic transactions. As well as their readiness and awareness concerning using these new technologies and its' positive effect on their business processes and performance in general.

## 2. Literature Review

### 2.1 Cashless Society Concept, instruments and Drivers

Cashless means simply moving beyond cash, by storing and exchanging currency in a digital form. Cashless transactions include digital forms of exchanging money that enable people to choose

between various cashless options which are based on the digitalization of value storage and exchange. Most of these are based on transfers of fiat money and often linked to a traditional bank account in some form. Meanwhile, the rise of cryptocurrencies adds an additional dimension to this digital world (David & Gantori, 2018).

Electronic or digital payments is a form of financial instrument, where buyers and sellers are facilitated by electronic communication without using any paper instruments, as it can be defined as an instrument of payment between parties, for which transactions occur through electronic means (Abrazhevich, 2004; Tella, 2012; Wendy et al., 2013).

Electronic payment instruments are classified into four categories based on the underlying systems of each instrument: Cash-like system with electronic cash (e-cash) instrument, Check-like system with credit card and debit card instrument, Hybrid system with stored-value card instrument and Internet payment system with several electronic payment instruments, as electronic wallet (e-wallet); mobile payment; mobile banking; and internet banking (Rahadi et al., 2020). Cashless society is a society without cash, where most transactions in their economic system are not carried out for exchange in the form of actual cash (Thomas et al., 2013). Cashless transformation process is controlled and influenced by different drivers with complementary duties as shown in the following table.

### 2.2. Benefits and Stages of going Cashless

Roubini Thought Lab & Visa Inc. (2017) launched a report that quantifies the benefits associated with use of digital payments worldwide. This report covered 100 cities from across 80 countries/regions. The benefits covered in this study are based on a combination of primary survey data gathered from across a sample of six representative cities globally, and secondary data from well-recognized organizations such as the World Bank, Organization for Economic Cooperation and Development (OECD) Union International des Transports Publics (UITP), and McKinsey and Company. The report concluded that going cashless guarantees numerous direct and indirect benefits for consumers, business, and governments. The study also concluded that a society passes through five stages to transform to a cashless society and accomplish all cashless transformation benefits.

Figure (1) Stages of Cashless methods transformation process

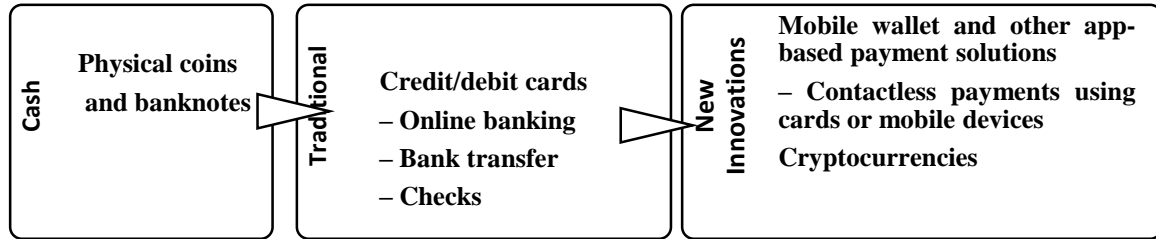
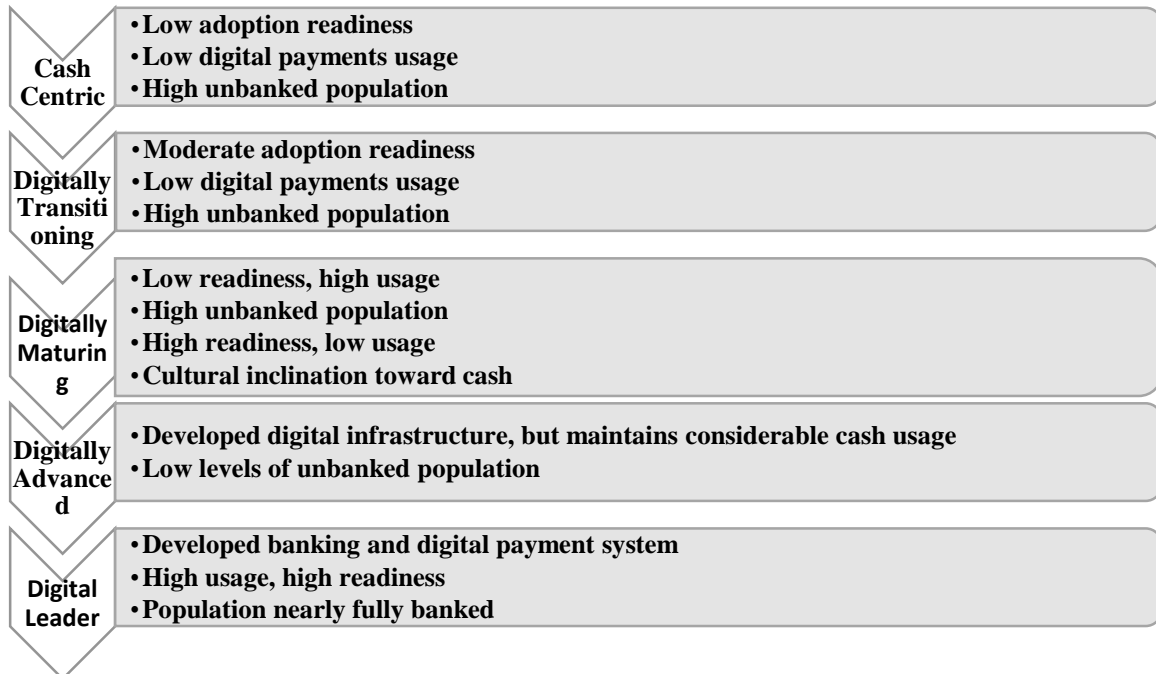


Table (1) Cashless Transformation Drivers’ Roles & Duties.

Cashless Transformation Drivers	Role and Duty
Credit/debit card providers	Oversee large part of the traditional payment infrastructure and launched new innovations like contactless payment options.
Retail and commercial banks	Maintain traditional bank accounts and foster innovation, and try to cope with new market entrants and related disruption.
Technology companies	Provide the market new solutions (e.g. digital wallets) as part of their broader ecosystems with large user bases.
Fintech firms and start-ups	Create new innovations aiming to develop the established landscape.
Telecom operators	Construct mobile phone infrastructure and related technologies.
Institutions, including governments, regulators, and central banks	Identify the policy and regulatory framework in digital innovation and financial services.

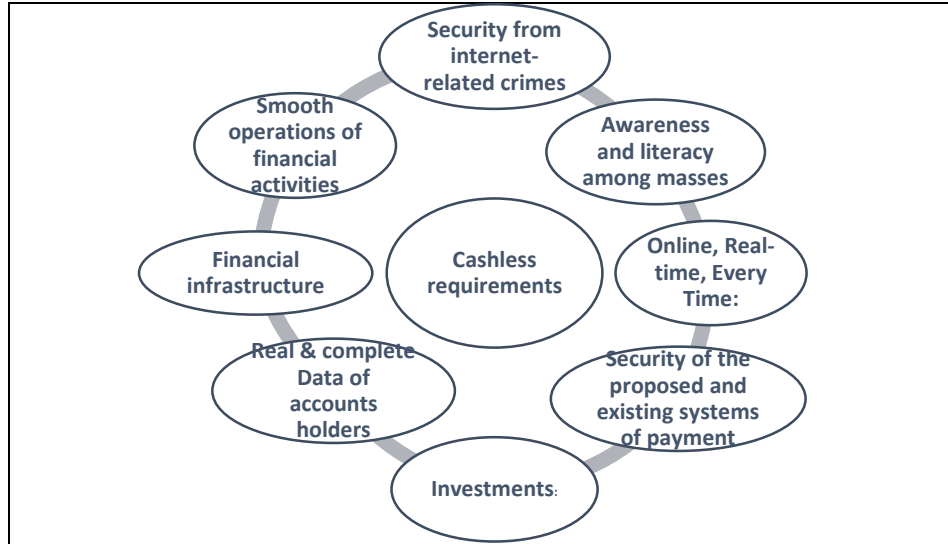
Source: David & Gantori (2018)

Figure (2) Features of Digital Maturity stages



Source: Roubini Thought Lab & Visa Inc. (2017).

Figure (4) Cashless economy requirements



Source: Kumari & Khanna (2017).

Table (2) Direct and indirect benefits of going cashless

<b>Direct benefits</b>	Consumers	Time savings in banking, Transit and retail transactions. Float savings. Avoiding late payment fees. Savings from reduced crime. Increased convenience. Enhanced budgeting and expense tracking. More personalized customer service. Enhance online commerce and bring a broader range of products and services to remote and rural areas. Better data to build credit profiles
	Business	Reduced theft and pilferage. Labor time savings. Reduced float times and costs. Potential for greater sales through digital channels. Better data to improve customer service. Leverage data for targeted promotional campaigns. Acceptable inventory and expense tracking. Utilize data to improve loyalty schemes.
	Governments	Savings from more efficient government processes. Increased tax revenues from recaptured informal economy. Increased tax revenues from greater business sales. Criminal justice costs savings from reduced crime. Toll-road and transit agency cost savings. Better data on citizen needs. Lower costs of managing cash. Smart cities to enhance quality of life for citizens
<b>Indirect Benefits</b>	GDP	A consistent boost in GDP growth as cities move up the digital payment curve.
	Employment	Moving to digital payments would stimulate employment growth across cities. The biggest impact could occur during the earlier stages of digital payment maturity. As businesses move up the digital maturity curve, employment growth moderates as productivity increases.
	Productivity and Wages	Time savings in the public and private sector resulting from a move toward digital payments could lift workforce productivity and wages.

Source: Roubini Thought Lab & Visa Inc. (2017); Wang (2019); Negreiro (2020).

2.3 Cashless Economy Requirements and Modes of Payment

A cashless economy is defined as a situation where there is very little flow of cash in the society and thus much of the purchases are done by the electronic media. Modes of cashless payment are ways of paying without

Cash, as they are more transparent as every transaction can be traced easily as it leaves its footprints (Kumari & Khanna, 2017; Negreiro, 2020).

Figure (3) Modes of cashless payment



Source: Kumari & Khanna (2017); Khattab (2019).

#### 2.4 The effect of using cashless digital payment tools on tourism industry

The global tourism industry has benefited from three waves of technological change (Pease & Rowe, 2005; Shanker, 2008) which allowed central reservation systems (CRS), global distribution systems (GDS) and use of the Internet to link business destinations and travel agencies and hotels. The first wave of technologies decreased the costs of travel and transportation, reduced hotel, travel agency and tour operators' costs. They also allowed tourists to search for information and to book online without the need to visit a travel agent. While recent technologies are providing solutions to problems related to mass tourism, and enabling tailored experiences and sustainability. Therefore, their implementation and use are benefiting both consumers and travel agencies and changing the structure of the hospitality sector (Zeqiri *et. al.*, 2020).

The Travel & Tourism sector is well-suited for a flexible digital environment and payment processes, as the total amount of digital travel sales worldwide is around 690 billion U.S. dollars in 2018 (Statista, 2018). Also, tourists have access to mobile updates at the airport, where they can check their flight details, gate changes, travel alerts, and other information. On a plane, they can use Wi-Fi to watch a movie or access emails. When they get off the plane, they can connect to local destination details, transportation services, and hotels right away. Location-based applications can connect travelers to nearby services, as well as help send up-sell messages, such as a hotel upgrade, then allow for payment directly from their mobile device using their preferred payment method (<https://oveit.com>, 2022). Companies can assess consumers by relational tier, status or preference, and they can personalize the offer while consumers are on the go. There is a great engagement, cross-sell/up-sell, and travel safety opportunity for organizations because of the geo-location and other "smart" functions of mobile devices (WTTC, 2019).

Digital payment services provide "all-in-one" business solutions for merchants to connect with individual consumers, push promotions and product information, assess individual consumers' consumption experience, create follow-up surveys and gauge business performance via customizable metrics. Moreover, the perceived ease of use of

mobile payments can even create a positive destination image in eyes of certain groups of travelers, as well the ease of access helps make the destination "friendlier", and finally it provides lower fees to business (WTTC, 2019).

Until the digital revolution, travelers booked a relatively limited range of travel options through a limited number of distribution channels. But now this model is becoming much more complex. What the traveler book is fragmenting creating new types of supplier as:

Personalized offers: Hotels, restaurants and others are bypassing corporate travel programs to target special prices or special incentives (such as free Wi-Fi) directly at travelers. Offers of this kind make it increasingly hard for travel managers to direct travelers to use a limited group of preferred suppliers.

Sharing economy: Travelers are increasingly using the assets of private individuals, whether staying in their properties or being driven in one of their vehicles (e.g. Uber, Lyft). Concerns about issues like security and insurance liability mean some companies forbid their travelers to use sharing economy providers. But some do allow it, and employees are putting pressure on those employers that don't, because they want the same suppliers they already use successfully in their private lives (Air Plus International, 2022). By transmitting to cashless economy, the travel experience will differ, as all payments will be settled through the centrally billed account (CBA) of the travel agency (Air Plus International, 2022).

Before the trip: the tourist will book his flight through any travel agency's online booking tool, and pay through a lodge card embedded with this travel agency, as the lodge card invoice is settled through the travel agency's CBA with the same issuer. Moreover, he could book his accommodation by booking an apartment through a sharing economy accommodation mobile app, and pay through the travel agency's CPA, as its' details are registered on the sharing economy provider's app on his phone, however, the supplier is paid as soon as he clicks his booking confirmation ([visisoft.co.uk](https://visisoft.co.uk) 2022).

During the trip: A tourist parks his car at airport, it is automatically recognized when he enters and leaves the car park. Payment is automatically

deducted from the travel agency's CBA. When his flight arrives to the destination, he can order a taxi ride through a mobile app and payment is made by tapping the taxi mobile app on arrival at his apartment. Also, he can order for dinner at a restaurant, as the waiter sends details of the order to a special dining payment app on his phone. When he finishes eating, he simply taps the app and leave. Moreover, he can buy an in-flight Wi-Fi access code for his return flight by ordering the access code through a phone app, when the flight is bought through the CBA, the Wi-Fi is also paid for through the CBA, and the flight and Wi-Fi access purchase data can be tied together to provide a total cost of trip (Air Plus International, 2022)..

After the trip: A tourist has no need to complete an expense claim. All payments will be accepted as policy-compliant when he makes them. He will not use a plastic corporate card at any point during his trip and payments are settled centrally (Air Plus International, 2022). Travelers who book unofficial suppliers or through unofficial channels would no longer be considered non-compliant, as they use the approved payment method, the booking is part of the official program. Price caps could be built into supplier apps, or via single-use virtual card numbers, to ensure compliance with policy rules, like not exceeding the maximum allowed for a night's accommodation (Air Plus International, 2022).

*2.5The opportunities and challenges of the transmission to use cashless payment methods in Egyptian hotels and travel agencies.*

There are an increasing number of fin-Tech start-ups, driven by the collaborative efforts of the Egyptian government, the Central Bank of Egypt (CBE) and the stakeholders to upgrade payment systems and convert the economy to be cashless. Egypt has a huge potential to flourish its business in the realm of fin-Tech. actually, the utilization of Table (3) Strengths, Weaknesses, Opportunities and

Table (4): Threats of the transmission to use cashless payment methods in Egyptian hotels and travel agencies

<b>Strengths</b>
<ul style="list-style-type: none"> <li>The software piracy rate in Egypt has dropped in 2017, to 59%, The value of unlicensed software in Egypt declined from \$157 million in 2015 to \$64 million in 2017, and Egypt's figures stand to further improve after parliament approved the nation's first-ever cybercrimes law. Under the law, offenders include those who operate any information system, such as a website, account, or email that encourages cybercrime. (American chamber of commerce in Egypt, 2018).</li> </ul>

fin-Tech in the financial sector contributes by 1.6% to the GDP (Anwar & Salama, 2020).

**6. Methodology**

*6.1Research Methods (Study Model)*

The researchers used both descriptive and inferential statistics to test the research hypothesis and determine the awareness of Egyptian hotels and travel agencies concerning the advantages and challenges of the transformation to use non-cash payment methods, and their effect on their willingness and readiness concerning the transformation process. Mean scores, standard deviations are calculated for all factors in the research. Linear regression, Person Correlation and T-test analysis at a significance level of 5% are used to find relationships and predict the value of the dependent variable (Readiness and willingness of travel agencies and hotels to transform to use cashless payment tools) based on the value of applying the independent variables (the Challenges and advantages of using cashless payment tools by Egyptian hotels and travel agencies). The collected data were analyzed using the statistical package for social science XXV (25).

*6.2Population and Sample Selection.*

The study population consists of managers and heads of departments in four and five-star hotels and travel agencies in the Greater Cairo Governorate, where the sample of respondents was selected through appropriate sampling.

The study was conducted on a total population of 54 four and five-star hotels (according to tourism in figures, 2019) and 1695 travel agencies (category A) (according to the Egyptian travel agent's association) in the Greater Cairo Governorate. Where the sample was calculated using sample size calculator and complete guide (available on [www.qualtrics.com](http://www.qualtrics.com)) with 95% confidence level and 5% error margin.

- Egypt is an essential transit point for the global transmission of data and is second only to the United States, with 17 percent of the world's Internet submarine cables crossing through Egypt (Mounir, 2020).
- In February 2017 the National Council for payment was established reflecting the support of the state to the less cash transformation. Furthermore, an e-commerce law, and several economic regulatory reforms had been issued to respond to the development in digital credit lending and crowd funding (Lendit Fin-Tech, 2018).
- The E-payments law was launched in 2019, obliging government and private sector to electronically pay their subsidiaries, suppliers, and contractors. State-produced products/services also get up to 5% incentives when being paid electronically (Fetch the data, 2020).
- Digital players are well represented in Egypt's formal financial system. As of March 2018, there were 11,582 ATMs and 70,509 POS, and more than 15.9 million debit cards, 10.6 million pre-paid cards and 4.8 million credit cards were in circulation.
- Mobile payments in Egypt operate on a bank-led model and mobile network operators (MNOs) have the greatest market share.in 2018 with 10.5 million mobile accounts and 30% growth rate (Central bank of Egypt, 2018).
- In April 2018, Egypt's first **blockchain-focused** incubator opened in collaboration with Egyptian firms, this new technology will enhance instantaneous processing of transactions across multiple distributed databases efficiently and securely (Anwar & Salama, 2020).
- The Central Bank of Egypt has licensed 7 banks to provide QR code acceptance, however customers registered on mobile money will be able to do digital merchant payments. Moreover, the Central Bank of Egypt released the Contactless Payment Regulation, allowing NFC payments & Wearables to be used for the first time in the Egyptian Market. Besides the regulations for cashless payments using smartphones by introducing mobile wallets (Anwar & Salama, 2020).

#### Weaknesses

- The Egyptian population's excessive reliance on cash has increased the volume and value of unrecorded transactions in the economy (Central bank of Egypt, 2018).
- **bitcoin is banned** in transactions since it had no monetary cover by the Central Bank of Egypt (CBE). In December 2017, the Head of the Egyptian Financial Supervisory Authority (EFSA) stated that the trading of bitcoin is illegal in Egypt (Chance, 2019).
- Opening a bank account was complex because of the documents required to verify a customer's identity. Some types of money transfers/ payments were not regulated/permitted, such as IMT, P2M, M2M, one-to-many transactions/disbursements (payroll, pensions, etc.), bank account to e-wallet and vice versa.
- Small daily and monthly limits of transaction. Also, there is no account or agent level interoperability within the ecosystem.
- Despite the new financial regulations, banks had not established convenient protection measures and systems that provide customers with confidence and protect them against risks, fraud, and loss of privacy, threats and criminal activities.
- Lack of stable mobile and internet connectivity (Central bank of Egypt, 2018).
- Lack of consumers trust in formal financial system
- Insufficient funding available to implement the reforms arising from Egypt's new laws, regulations and financial and ICT infrastructure. Service providers also need additional assistance to improve product design, increase financial literacy and awareness, diversify access points and manage high-volume (low value) retail payments (Central bank of Egypt, 2018).
- The absence of an integrated digital management system within the Egyptian Ministry of Tourism, there is no complete digital communication between Top-Level management and its internal divisions or between it and its external branches, the ministry also does not take any action to ensure the work and functional structures re-engineering to suit the digital management transformation (Abd El Ghani, 2018).



- Egyptian official tourism organizations are digitally delayed than some other government organizations in Egypt, as they do not take into consideration the digital management transformation in developing plans or strategies (Abd El Ghani, 2018).

### **Opportunities**

- In terms of digital financial services, there are a variety of opportunities to increase usage in the Egyptian market: 109% mobile SIM penetration rate; More than 48% smartphone penetration rate; More than 31 million mobile internet users with a 3.35% annual growth rate; More than 37.9 million internet users with a 44.3% penetration rate; Potential spread from the explosion of online and social media; and More digital financial services to serve Egyptians (Central bank of Egypt, 2018).
- Covid-19 pandemic has caused the shift to digitalization to accelerate and therefore more Egyptian enterprises are now taking payments online and adapting their services to be more digitally friendly (Kamel, 2021).
- Egypt implemented some digital payment projects to support the management of the Egyptian tourist product by developing the digital infrastructure within Egyptian official tourist organization, as live broad- casting transmission, the project of using Mobile Application, Micro site project, the digital library project (Abd El Ghani, 2014), tourist vehicles surveillance via GPS, information network for tourism, hotel occupation average and rating and developing, digital infrastructure for hotel sector, the ordering system memory, and the human resources administration system (Radwan, 2013).
- The reliance on electronic payment methods contributes to improving job performance in Egyptian hotels and travel agencies, because it leads to save time and effort, increase their productive capacity and reduce dealing with conventional banknotes (Khatab, 2019).
- Digital payment methods also improve the marketing performance of these travel agencies and hotels because it leads to increase the channels of distribution of products and increase customer satisfaction and achieve competitive advantage, by reducing costs and increasing revenues (Khatab, 2019).
- The launch of ‘Kwentra Pay’, a new payment solution enabled by Paymob in collaboration with Sympl that will allow Egyptian hotels to provide their guests with multiple convenient payment methods, including interest-free pay later plans using any debit or credit card through Buy Now, Pay Later (BNPL), powered by Symp, offering a convenient, secure, and end-to-end encrypted payment process. Guests can opt for the payment method of their choice at any point of their stay (Kwentra, 2022).
- 54% of surveyed Egyptian consumers claimed that digital payments are their preferred payment method (MENAP Report, 2021).
- Oracle Egypt is working on developing numerous contactless and mobile integrations for hospitality sector in Egypt as “Celopay” Securely collect, store, and process payment information for clients. “CENDYN”: A complete set of software services for the hospitality industry, aligning marketing, sales, and revenue teams. and “HOTELBIRD”: Digitally manage check-in and check-out, registration forms, mobile keys, door opening, and payments (Oracle Egypt. 2022).

### **Threats**

- Insufficient financial security procedures and systems.
- Unstable internet connection (Central bank of Egypt, 2018).
- The lack of a specific, clear policy for purchasing and using ICT in Egypt.
- Egyptian tourism sector suffers a deficit in computers, programming and communication network.
- Digital qualification for tourist human resources is weak, and they are not convinced of the importance of digital transformation (Abd El Ghani, 2018),
- The use of digital payment methods is not free of risks and obstacles that prevent the optimal application, as the policies and plans of the operating companies are not clear, and there are consecutive stops in the operation of hardware and software due to viruses where there is no control over the digital payment systems (Khatab, 2019).

Table (4): Threats of the transmission to use cashless payment methods in Egyptian hotels and travel agencies

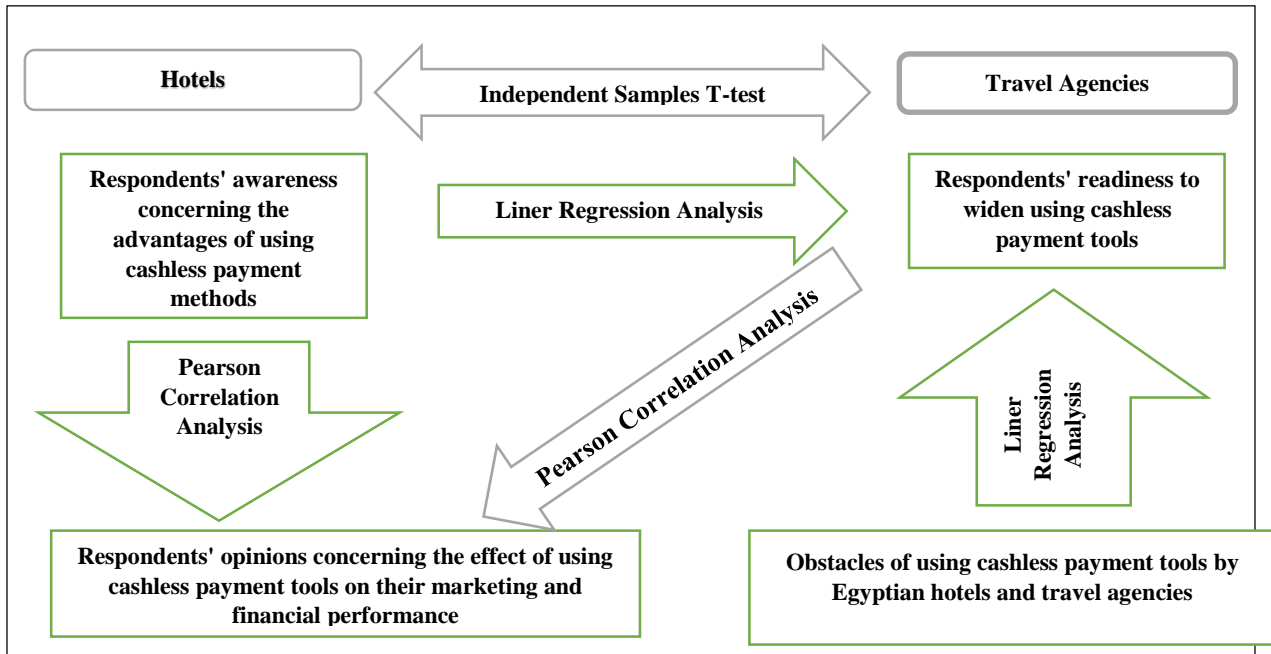


Table (4) Study Total Population and Sample

No	Type	Total population	Category	Sample
1.	Hotels	54	4 &5 stars	48
2.	Travel Agencies	1695	A	318

Source: [www.etaa.Egypt.org](http://www.etaa.Egypt.org); Egyptian ministry of tourism. 2019, [www.qualtrics.com](http://www.qualtrics.com).

### 6.3Hypotheses of the Study

The research`s main hypothesis is stated as follows:

- 1- Egyptian hotels and travel agencies awareness about the advantages of using cashless payment tools influence their readiness to use them widely, which will enhance their performance.
- 2- Egyptian hotels and travel agencies are facing some obstacles which are hindering and slowing the process of transformation to use cashless payment tools.

### 6.4Data collection methods

This study adopted a quantitative approach by using a questionnaire as a tool for data collection. Data was collected through mailed and manually distributed in the investigated hotels and travel agencies. A number of (135) questionnaire forms were distributed to managers and heads of marketing and HR departments in 48 (4 and 5-star hotels) in Cairo governorate, (110) valid questionnaire forms were retrieved, and a number

of (500) questionnaire forms were distributed to managers and heads of marketing and HR departments in 318 travel agencies in Cairo governorate, (350) valid questionnaire forms were retrieved. Thus, the percentage of valid returned forms constitutes approximately (81.48%) of the total distributed forms in hotels and the percentage of valid returned forms constitutes approximately (70%) of the total distributed forms in travel agencies. The questionnaire forms were distributed from March 2022 to October 2022.

### 6.5Description of the questionnaire

The questionnaire was used to determine the awareness of Egyptian hotels and travel agencies concerning the advantages and challenges of the transformation to use non-cash payment methods, and their effect on their willingness and readiness concerning the transformation process, through a set of questions that included two parts. The first part was devoted to collecting information about

the respondents and includes a set of general questions regarding switching to cashless payment methods in Egyptian hotels and travel agencies. The second part focused on criteria for evaluating the advantages and obstacles of using non-cash payment methods in Egyptian hotels and travel agencies. The first division of the second part is devoted to the institution's awareness of the advantages of using non-cash payment methods which includes 9 phrases (Roubini Thought Lab & Visa Inc. 2017; Wang 2019; Negreiro 2020). Then comes the willingness of the institution to expand the use of non-cash payment methods which consists of 9 phrases, followed by the impact of non-cash payment methods on the financial and marketing performance of the institution which included 4 phrases (Air Plus International, 2022; visisoft.co.uk 2022). Obstacles to the use of non-cash means of payment in Egyptian hotels and travel agencies comprise 6 phrases (Central bank of Egypt, 2018; Abd El Ghani, 2018; Khatab, 2019). All measurement statements were measured based on five-points Likert scale ranging from 1= strongly disagree to 5 = strongly agree. Then, the questionnaires were validated through a pilot study on 135 of investigated hotels managers, marketing and HR managers and 500 of travel agencies managers, HR and marketing managers. After collecting questionnaire electronically by using Google Forms and also face-to-face. They were examined and incomplete questionnaires were excluded. Finally, the following processes have been done: Configure the extracted spread sheets for use in the statistical analysis software SPSS and AMOS v25, Statistical analysis of data using the Statistical Package for Social Sciences program version XXV (25).

6.6The Validity and Reliability of the Questionnaire (Structural Validity)

Structural validity measures the degree to which the scores are an adequate reflection of the dimensionality of the construct to be measured. In this study, the structural validity of the questionnaire was assessed by confirmatory factor analyses (CFA). A quinary factor model of the questionnaire was tested.

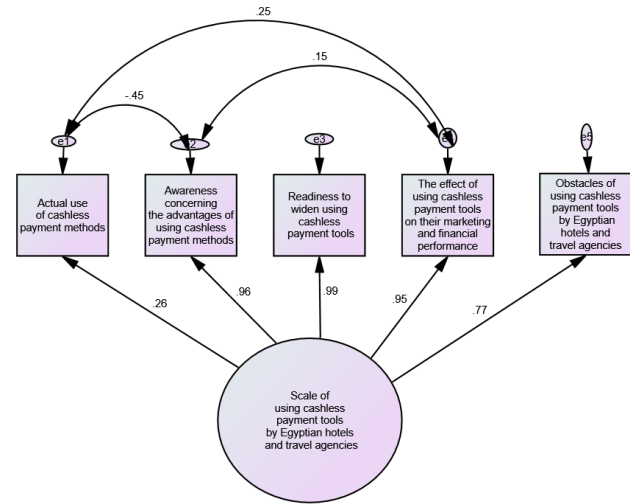
Unidimensionality was examined by CFA on the polychoric correlation matrix with Weighted Least Squares with Mean and Variance adjustment (WLSMV) estimation. The Comparative Fit Index (CFI), Tucker Lewis Index (TLI), Root Means

Square Error of Approximation (RMSEA), and Standardized Root Mean Residual (SRMR) evaluate model fit. We report scaled fit indices, which are considered more exact than unscaled indices as shown in Table (5). Figure (12) presents the model.

Table (5): The Validity (Structural Validity).

Indicators	TLI	RMSEA	SRMR
Evaluation value	> 0.9	< 0.06	< 0.08
Model Value	0.995	0.052	0.028

Figure (5): Structural validity by confirmatory factor analyses



Reliability

Reliability by Internal consistency measures the degree of the interrelatedness among the items. Internal consistency was assessed by calculating Cronbach's alpha. A Cronbach's alpha value is 0.993, >0.70 was considered sufficient evidence for reliability.

8. Results and Discussion

A - Sample Demographic Characteristics

A total of (110) samples in hotels managers and (350) samples of travel agencies managers were recruited for this research, all of whom are males (2.8) percent of the sample from 25 to 45 years old, (68.5) percent of the sample are from 46 to 55 years old, and (28.7) percent of the sample are from 56 years and over.

Figures (7) shows that the studied sample was represented through general managers 86%, HR managers 12% and marketing managers 2%.

However, 100% of the investigated institutions offer electronic services.

Figure (8) clarifies that 9% of the investigated sample provide electronic services through their own websites, while 10% use mobile applications, 15% use general booking websites and 66% use all them. Moreover, 12% offer electronic information services, 21% provide electronic inquiry and booking, 12% provide electronic payment and booking confirmation, and 55% provide all these services electronically.

*B - Psychometric Properties of the Questionnaire*

**Figure (7) Respondents current jobs**

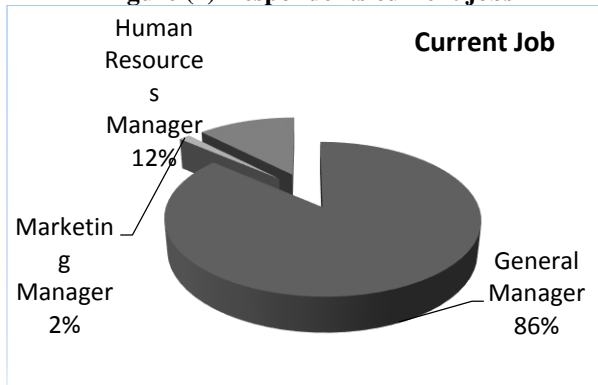
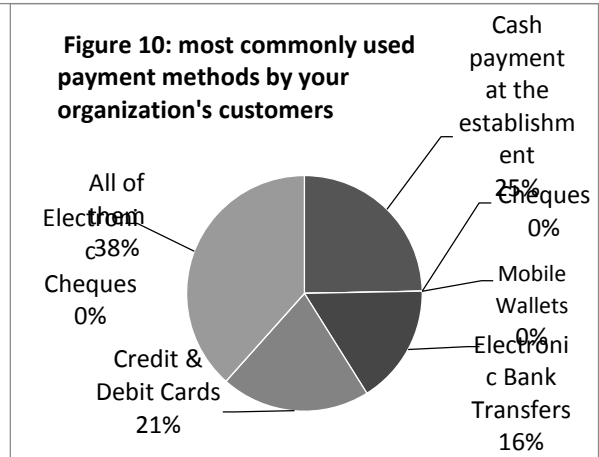
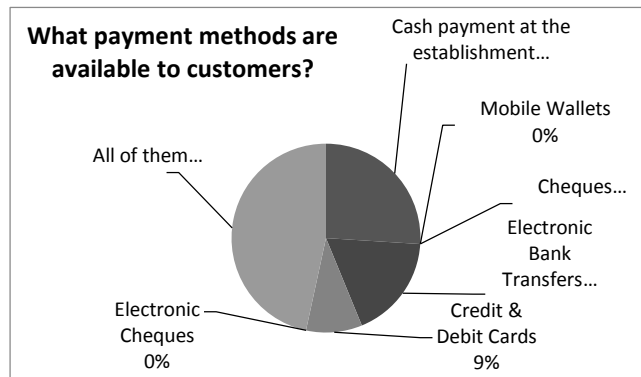
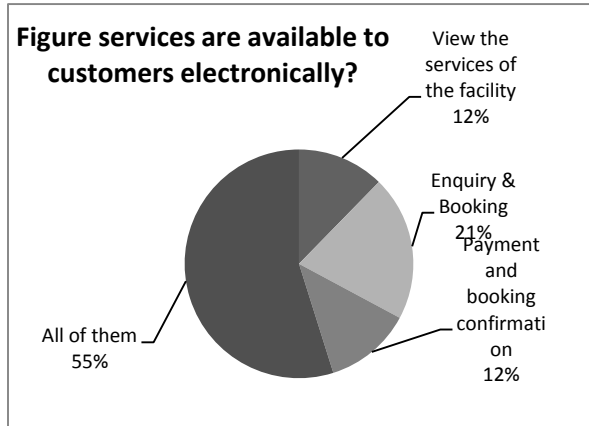
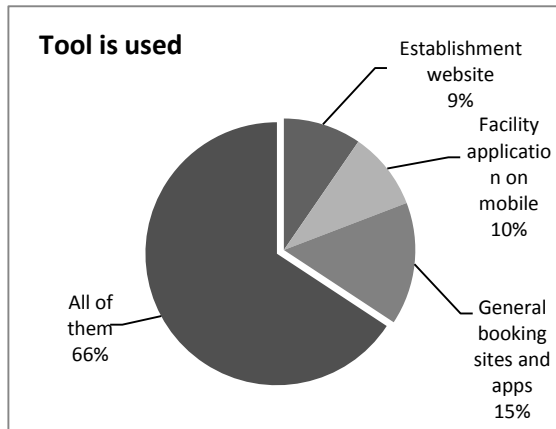


Figure (7) shows that the studied sample was represented through general managers 86%, HR managers 12% and marketing managers 2%. However, 100% of the investigated institutions offer electronic services.



Figures (9) and (10) illustrates that 26% of the investigated sample provide cash payment service, 18% electronic bank transfer, 9% allow payments through debit and credit cards, and 47% allow payments through all of them. Moreover, cash payment, credit and debit cards and electronic bank transfers are the most commonly used means of payment by customers, 25%, 21% and 16% in order. However, payment through cheques, electronic cheques and mobile wallets is not provided.

C. Descriptive Analyses

Table (6): Mean and St. Deviation of Respondents Acceptance Degree concerning the Axes of the Questionnaire

<b>First: The institution's awareness of the advantages of using non-cash payment methods.</b>										
#	Item	1	2	3	4	5	Descriptive Statistics			
		%	%	%	%	%	Mean	Std. Dev.	Sk.	Ku.
A1	The shift to non-cash payment methods improves the quality of financial and commercial transactions in the tourism sector.	12.3%	0.0%	5.5%	42.5%	39.7%	3.97	1.26	-1.50	1.32
A2	Non-cash payment methods help maximize the revenues of tourism establishments.	12.3%	0.0%	13.7%	39.7%	34.2%	3.84	1.26	-1.23	0.68
A3	The use of non-cash payment methods contributes to maximizing sales significantly.	12.3%	0.0%	12.3%	41.1%	34.2%	3.85	1.25	-1.27	0.78
A4	Non-cash payment methods reduce operating costs.	12.3%	0.0%	6.8%	46.6%	34.2%	3.90	1.24	-1.44	1.24
A5	Non-cash payment is an effective tool for controlling the accounting and financial work in the enterprise.	12.3%	0.0%	2.7%	42.5%	42.5%	4.03	1.26	-1.60	1.61
A6	Non-cash payment is an effective tool to attract more customers to deal with the organization.	12.3%	0.0%	15.1%	31.5%	41.1%	3.89	1.30	-1.20	0.50
A7	Non-cash payment methods help the organization to provide its services with the highest quality, as quickly as possible and at the lowest cost.	12.3%	0.0%	5.5%	41.1%	41.1%	3.99	1.26	-1.50	1.32
A8	Non-cash payment raises customer satisfaction and supports their loyalty to the organization.	12.3%	0.0%	13.7%	34.2%	39.7%	3.89	1.29	-1.24	0.61
A9	Most tourists prefer to deal with non-cash payment methods.	13.7%	0.0%	5.5%	41.1%	39.7%	3.93	1.31	-1.41	0.92
<b>Second: The willingness of the institution to expand the use of non-cash payment methods.</b>										
#	Item	1	2	3	4	5	Descriptive Statistics			
		%	%	%	%	%	Mean	Std. Dev.	Sk.	Ku.
B1	The institution is keen to provide all the necessary requirements to expand its use.	12.3%	0.0%	4.1%	56.2%	27.4%	3.86	1.19	-1.54	1.62
B2	The institution is keen to employ human cadres capable of dealing with non-cash payment and digital transformation requirements.	12.3%	0.0%	5.5%	56.2%	26.0%	3.84	1.19	-1.50	1.52
B3	The institution is keen to train employees to increase their ability to deal with new cash payment methods.	12.3%	1.4%	4.1%	50.7%	31.5%	3.88	1.24	-1.44	1.19
B4	The institution provides the latest devices necessary to activate cashless payment methods.	12.3%	0.0%	8.2%	39.7%	39.7%	3.95	1.27	-1.41	1.06

B5	The institution has a complete plan to gradually expand the use of cashless payment methods.	12.3%	1.4%	8.2%	49.3%	28.8%	3.81	1.23	-1.32	0.90
B6	A large part of the transactions of the institution are carried out using multiple cashless payment methods.	12.3%	0.0%	15.1%	34.2%	38.4%	3.86	1.28	-1.20	0.53
B7	The institution always encourages its customers to pay using one of the cashless payment methods.	12.3%	0.0%	13.7%	28.8%	45.2%	3.95	1.31	-1.26	0.58
B8	The institution provides a premium website that offers electronic payment services.	12.3%	0.0%	13.7%	38.4%	35.6%	3.85	1.27	-1.23	0.66
B9	The institution the latest software and internal and external networks to secure electronic transactions with customers.	12.3%	0.0%	11.0%	37.0%	39.7%	3.92	1.28	-1.32	0.83

**Third: The impact of non-cash payment methods on the financial and marketing performance of the institution.**

#	Item	1	2	3	4	5	Descriptive Statistics			
		%	%	%	%	%	Mean	Std. Dev.	Sk.	Ku.
C1	The use of non-cash payment methods helps the organization to keep abreast of market developments, introduce its products and offer them at reasonable prices, and diversify and increase distribution channels.	12.3%	0.0%	12.3%	37.0%	38.4%	3.89	1.28	-1.28	0.73
C2	Non-cash payment methods improve the competitive position and increase the market share of the enterprise.	12.3%	6.8%	20.5%	43.8%	16.4%	3.75	1.30	-1.13	0.15
C3	The use of non-cash payment methods ensures that costs are reduced and revenues are increased, thus increasing the degree of satisfaction of the owners and managers of the enterprise.	12.3%	6.8%	20.5%	43.8%	16.4%	3.90	1.38	-1.17	0.05
C4	The use of non-cash payment methods avoids financial crises.	12.3%	19.2%	24.7%	26.0%	17.8%	3.85	1.25	-1.27	0.78

**Fourth: Obstacles of using cashless payment tools by Egyptian hotels and travel agencies.**

#	Item	1	2	3	4	5	Descriptive Statistics			
		%	%	%	%	%	Mean	Std. Dev.	Sk.	Ku.
D1	Lack of clear policies or criteria for the use of cashless payment methods	13.7%	6.8%	37.0%	26.0%	16.4%	3.45	1.21	-0.80	-0.21
D2	Constant malfunctions of devices and equipment and inefficient maintenance operations are one of the most important obstacles to the use of cash payment methods.	12.3%	6.8%	4.1%	46.6%	30.1%	3.45	1.21	-0.80	-0.21
D3	Lack of sufficient security rates for the software used due to cyber robberies, viruses, and weak security programs.	12.3%	16.4%	23.3%	30.1%	17.8%	3.25	1.22	-0.40	-0.52
D4	Lack of qualified human resources to deal with this modern technology	12.3%	0.0%	12.3%	41.1%	34.2%	3.18	1.28	-0.18	-1.01

D5	Weakness and lack of interest in training on the use of digital transformation technology in the field of Egyptian tourism institutions.	12.3%	6.8%	4.1%	31.5%	45.2%	3.29	1.30	-0.48	-0.91
D6	The state's lack of interest in expanding in this area, which hinders the ability of business enterprises to expand the activation of non-cash payment methods.	13.7%	15.1%	16.4%	38.4%	16.4%	3.25	1.28	-0.32	-0.93

The results in table (6) indicated that the responses level of the sample members on the four dimensions of criteria for evaluating the advantages and obstacles of using non-cash payment methods in 4 and 5-star hotels and travel agencies in the Greater Cairo Governorate. Where the first axis, which refers to the institution's awareness of the advantages of using non-cash payment methods at the mean (3.92) and a relative weight (78.4%), which is considered an average percentage. The second dimension, which is the willingness of the institution to expand the use of non-cash payment methods, has also obtained a mean (3.88) and a relative weight (77.6%), which is considered an average

percentage. The third dimension, which is the impact of non-cash payment methods on the financial and marketing performance of the institution, got a mean (3.85) and a relative weight (77%), which is considered an average percentage. The fourth dimension, obstacles to the use of non-cash means of payment in hotels and Egyptian travel agencies, also obtained a mean (3.31) and a relative weight (66.2%), which is an average percentage. This indicates that Egyptian hotels and travel agencies are aware and ready to widen their use of cashless tools, but there still some challenges that are hindering and slowing the transformation process.

Table (7): Liner Regression Analysis Showing the Effect of Respondents Awareness Concerning the Advantages of Using Cashless Payment Methods on their Readiness to Widen Using Cashless Payment Tools.

	B	T	P.value	R	R <sup>2</sup>	F	P.value
(Constant)	2.037	1.509	0.136	0.950	0.902	650.226**	0.000
Awareness concerning the advantages of using cashless payment methods	0.931	25.500**	0.000				

\*\* Significant at  $\alpha < 0.01$

The result revealed a significant effect of respondents' awareness concerning the advantages of using cashless payment methods on their readiness to widen using cashless payment tools ( $R^2 = 0.902$ ,  $F = 650.226$ ,  $P <$

0.01). This indicates that awareness concerning the advantages of using cashless payment methods contributed significantly (90%) to readiness to widen using cashless payment tools.

Table (8): Pearson Correlation Analysis between Awareness Concerning the Advantages of Using Cashless Payment Methods and Respondents' Opinions Concerning the Effect of Using Cashless Payment Tools on their Marketing and Financial Performance.

		Respondents' opinions concerning the effect of using cashless payment tools on their marketing and financial performance
Respondents' awareness concerning the advantages of using cashless payment methods	Pearson Correlation	0.924**

	Sig. (2-tailed)	0.00
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\*\* Significant at  $\alpha < 0.01$ .

Table (9): Pearson Correlation Analysis between Readiness to Widen Using Cashless Payment Tools and Respondents’ Opinions Concerning the Effect of Using Cashless Payment Tools on their Marketing and Financial Performance.

		Respondents’ opinions concerning the effect of using cashless payment tools on their marketing and financial performance
Readiness to widen using cashless payment tools	Pearson Correlation	0.943**
	Sig. (2-tailed)	0.00

\*\* Significant at  $\alpha < 0.01$ .

Table (9): Liner Regression Analysis Showing the Effect of the Obstacles of Using Cashless Payment Tools and Respondents Readiness to widen Using Cashless Payment Tools.

	B	T		P.value	R	R <sup>2</sup>	F	P.value
(Constant)	11.909	4.796**		0.000	0.759	0.577	96.654**	0.000
obstacles of using cashless payment tools	1.158	9.831**		0.000				

\*\* Significant at  $\alpha < 0.01$

Table (10): The Independent Samples T-test between Travel Agencies and Hotels in the Study Variables.

Variables	Travel Agencies		Hotels		t-test	
	Mean	Std. Dev.	Mean	Std. Dev.	t	Sig.
Respondents’ actual use of cashless payment methods	6.8	1.1	6.2	1.5	1.82	0.07
Respondents’ awareness concerning the advantages of using cashless payment methods	32.2	14.7	38.2	4.9	-2.30*	0.03
Respondents’ readiness to widen using cashless payment tools	31.6	14.3	38.0	4.6	-2.52*	0.02
Respondents’ opinions concerning the effect of using cashless payment tools on their marketing and financial performance	14.3	6.5	16.4	3.1	-1.82	0.07
Obstacles of using cashless payment tools by Egyptian hotels and travel agencies	20.1	9.2	19.7	4.6	0.22	0.83

\* Significant at  $\alpha < 0.05$ .

The result revealed a significant correlation between awareness concerning the advantages of using cashless payment methods and respondents’ opinions concerning the effect of using cashless payment tools on their marketing and financial performance. (R= 0.924, P. < 0.01), this indicates that it is a very strong positive correlation, which indicates that respondents are aware about the positive effect of cashless tools on their marketing and financial performance.

The result revealed a significant correlation between readiness to widen using cashless payment tools and respondents’ opinions concerning the

effect of using cashless payment tools on their marketing and financial performance. (R= 0.943, P. < 0.01), this indicates that it is a very strong positive correlation between the respondents readiness to widen their use to cashless tools and the positive effect of these tools on the respondents performance. *Hypothesis (2)*: Egyptian hotels and travel agencies are facing some obstacles which are hindering and slowing the process of transformation to use cashless payment tools. The second hypothesis was tested using the liner regression analysis. Results are presented on table (9).



The result revealed a significant effect between obstacles of using cashless payment tools and readiness to widen using cashless payment tools ( $R^2 = 0.577$ ,  $F = 96.654$ ,  $P < 0.01$ ). This indicates that obstacles of using cashless payment tools are hindering and slowing the process of cashless transformation.

Table (10) indicates that the variables mean are higher for hotels than travel agencies, but the result revealed a significant differences between travel agencies and hotels in tow variables only; the first is "awareness concerning the advantages of using cashless payment methods" (mean for com.= 32.2 < mean for hotels= 38.2,  $T = -2.30$ ,  $P < 0.05$ ), the second is "respondents' readiness to widen using cashless payment tools" (mean for com.= 31.6 < mean for hotels= 38.0,  $T = -2.52$ ,  $P < 0.05$ ), This is due to the higher variables mean for hotels than travel agencies, which means that hotels are more ready and aware about the importance and advantages of cashless transformation process than travel agencies.

### Recommendations

- 1- The Egyptian government must work together with hotels and travel agencies to demolish all challenges and maximize the advantages and benefits of digital transformation.
- 2- Egyptian hotels and travel agencies must work on improving their staffs' digital skills as soon as possible to be capable to deal with this new technology efficiently.
- 3- Egyptian hotels and travel agencies should work rapidly on using cashless payment tools widely to benefit from their numerous financial and marketing advantages.
- 4- Egyptian tourism industry officials must develop a clear and practical strategy for digitalizing the industry processes in general, and transforming to cashless payment tools in particular.

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