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Risk Management of Mobile Commerce Using Social Networks in Jordan

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Abstract:
Mobile commerce (m-commerce) is a vital consumer component in the business marketplace. With the increasing number of users, businesses are able to expand their operations while clients make use of their smartphones through social networks to accomplish their businesses. The concept of social commerce has become common through the emergence of e-commerce. Along with such opportunities, there are also several risks that are involved for both the consumer and the enterprises. The study contributes to the knowledge on risk management by looking at the overall growth of e-commerce and other related risks both on the consumer and company perspectives while considering citizens from Jordan. The study proposes mitigating measures to finance and mitigate against the available risks. It makes use of survey research on the citizens from Jordan, and these will be those who engage with m-commerce using social networks. Risk management was measured using multiple indicators while considering a wide array of approaches to tackle the research. The research made use different parametric statistics like analysis of variance and Pearson's correlation to achieve the aim of the paper. From the findings, it was clear that technology, age, and education were pertinent in the area of risk management while culture was not.

Keywords- Risk management, m-commerce, social networks, business, social commerce

1. Introduction

Mobile commerce, commonly regarded as m-commerce is currently becoming important for individuals and companies alike. Indeed, according to Rana, Barnard, Baabdullah, Rees & Roderick (2019), 75% of smartphone users often check product and service prices, while 42% made purchases using their phones through social networks. This has led to a different move by organizations who currently desire to increase their advertising budgets using different social media networks to reach the increasing number of users. Mobile retailing coupled with other wireless business operations is providing another revolution in the world of business. This growth has been fueled by the rapid development of smart phones around the globe.

Technological advancements have led to new business markets, and this has changed the traditional way of marketing. Today, online marketing and advertising have become paramount for most business operations whether they are small or large. With the advent of social networking sites, the relationships between the customer and their business providers have changed drastically. Businesses are now forced to deal with their customers' needs and demands in a different unique way while ensuring convenience and overall satisfaction. Businesses can easily use their customer behaviors through such sites to provide suitable services and products to other potential clients. This is done by collecting individual data which is later analyzed to provide relevant information on customer demographics, needs, and requirements.

Research indicates that individuals currently take more time on different social networks when compared to other activities like e-mail. The popularity of different social networks and the increased usage of such networks by users and business owners indicate a positive correlation that leads to better business operations between the two groups. Social networks usage is estimated to be around 900 billion and 1.3 trillion dollars (Hsu & Yeh, 2018). Despite the increased use of social networks through mobile commerce by individuals and organizations the technology carries various risks, and these are often greater when compared to environments that allow physical shopping.

A median of 53% across 39 nations Jordan included argue that they use Twitter or Facebook. However, this figure is not correlated to the individual's age, education or wealth. For example, in Jordan social networks usage stands out more when compared to other nations. Social networks usage in Jordan is particularly high at 75%, while this figure is below in the US at 69%. By the year 2019 Facebook usage in Jordan was high at 88%, while YouTube stood at above the 66% mark with indications of declining. Twitter was lowest, and this was the same scenario with Pinterest which were both declining in usage (McCreary, Seekamp, Davenport & Smith, 2019). E-commerce in Jordan has improved tremendously, and this is after increased technological innovations were introduced to the masses. It is estimated that e-commerce holds 60% of business operations (Aziz, Md Husin, Hussin & Afaq, 2019), with m-commerce using social networks leading at 78% (Sharma & Sharma, 2019).

Researchers confirm that buyers are easily made to purchase products and services when they find others talking about them positively. This is different from physical shopping which involves product description, and this has made m-commerce more profitable and acceptable across the globe despite the inherent risks. Yadav, Sharma & Tarhini (2016) confirm that retailers around the globe have a strategy that deals in m-commerce or are currently planning to develop one. The society in Jordan is increasingly embracing this new technology, and it has become a common base for business operations. While e-commerce and m-commerce share a lot, it is imperative to have distinctions between them to come up with a precise understanding of the latter, its challenges, applications, and specifically the risks associated with its use among individuals, and how they can be managed.

Wireless communication networks offer the backbone form of communication where data is transmitted between different mobile devices, including office computers and retail stores. Wireless networks were introduced in the year 1946, but the emergence of the advanced mobile phone system (AMPS) made it possible for cellular communications. M-commerce later became an extension of e-commerce, and this is because of the fundamental principles that they share when considering their operations and functionality. However, m-commerce makes use of a communication channel that is different, and commonly employs the use of social networks where people interact with businesses and other individuals in the course of doing business. The unique business channel where individuals and organizations use social networks exposes businesses and individuals to different risks hence the need for various risk management techniques.

Most academic works on risk management including (Meyer & Peng, 2016) have been done while considering nations that are developed. Several studies that have been conducted in the Middle East and Jordan confirm that there are only looking at the management practices of organizations while considering their clients (Adeel & Awadallah, 2012). Kalinic & Marinkovic (2016) on their part confirm that research on risk management on the part of Jordanian citizens' social network use is scarce. Unlike other research works, this study will be explanatory in nature, and with the research gap in most studies that have been conducted in the Middle East, it will offer important information on risk management of m-commerce when considering the use of social networks. The paper will solely focus on mobile users, and more so those who have conducted their business operations using various social networks. The paper is vital as it will unravel the risks available and the process of financing and mitigating them in the long-run
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1.1. Objectives of the Study

The research objectives include: to identify the factors that inhibit or enhances risk management capabilities when using social networks for m-commerce in Jordan and to establish the measures that can be taken to mitigate against those risks.

2. Literature Review

Several literary works have provided information concerning m-commerce risks while considering different environments of privacy and security. There are other risks that involve services and products that have been purchased online, and they can be categorized under financial, performance, time, psychological, social and physical (Featherman & Pavlou, 2003). Literature indicates that the risk management undertaken by different firms from Jordan is currently low (Agag, 2019). Organizations are being urged to increase their efforts in combating risk through education and pushing for new laws that govern both the consumers and firms in the region. According to Lama, Pradhan & Shrestha (2019), Political risks have intensified in the Jordan region, and this has made it almost impossible for firms to succeed in their operations because of such prevailing political problems. It is no wonder true that both risks affect individuals and organizations, and ultimately touch on the commodities and services that are bought and sold in the business arena. Institutions are however advised to come up with different methodologies that can be used to cushion customers from risky operations in the near future (Al Khattab, Anchor & Davies, 2008). According to Al-hajla, Nguyen, Melewar, Jayawardhena, Ghazali & Mutum, (2019) firms and nations like Jordan should be in the forefront in looking at other developed nations, which should act as a benchmark when dealing with different risks in their operations.

Figures provide data that 88.7% of females from Jordan purely make use of social networks for their m-commerce operations. This number is relatively low for male users who stand at 62%. However, the indication here is that the majority of Jordanians make use of social networks in the event of using their mobile devices for m-commerce (King, 2008). The figures are different for users in the United Kingdom where 95.5% of males make use of social networks for m-commerce. Facebook is popular among other social network sites with 79.9% total social networks users login into facebook on a daily basis. This number of users who stand at 31.1% use Facebook Messenger for purposes of making voice calls almost every day, while Instagram was only used by a small percentage of individuals who stood at 32.3%. In Jordan, twitter users were few at 22.2% while Google+ was being employed by 4.1% of the social network users (Koien & Oleshchuk, 2007). In essence, Facebook is commonly used in Jordan, when compared to other social network sites, and this number uses such sites not only for communication but m-commerce. According to Kemoni (2008), this number of users

has few individuals who understand the risks involved in their social network consumption, and they stood at 25%. Understanding the risks of using social networks is vital as it helps individuals to avoid problems that are associated with their use in the long-run.

2.1. Security Risks

M-commerce is a technological innovation that is fruitful but currently has issues and problems pertaining to security (Li, Fu, & Yu, 2010). User protection plays a vital role in user adoption, and this enables them to use the applications available to them without problems. Security threats often affect every individual and business operation that depends on information systems and information (Hoffman, Novak & Peralta, 1998). When using the internet as a communication medium other threats are likely to have their way to m-commerce users, and this is because data is commonly exchanged through a medium that is open.

Most threats that are found in such environments include different concerns of users like data integrity, confidentiality, and the availability of the systems. Such problems usually arise as a result of making use of mobile technologies that are wireless. The other critical issue concerns the lack of technologies that are standardized in the event of making payments online. Similar problems of malicious codes that are problematic to the security of e-commerce are also relevant to e-commerce. With the increasing number of mobile devices, there is going to be increased threats that will affect the security of mobile devices, and this is because they usually depend on wireless technology.

2.2. Privacy Risks

Issues that concerning privacy often arises as a result of giving vital information to third parties, then end up losing such data, and this often happens when online transactions are done online. Different concerns that are involves the privacy of individuals include transaction, collection, use, storage and overall disclosure of vital information that pertains an individual. With the current technological advancements, it is possible to collect an individual's information including transaction history, details about their financials, time, and location, preferences, coupled with other personal data.

Commercial businesses often utilize this information to provide products and services that are in line with their clients' preferences and location. This enables the businesses to maintain increased competitiveness and ensure increased clientele base and revenues in the long-run. Despite such benefits to the business operators, there are several privacy concerns that can make the adoption of m-commerce low. This is because the technology leads to other serious risks that might hamper the development of users, whereas in other instances they can easily lose vital information to wrong individuals or organizations. Individual rights to privacy are often invaded, and this has been categorized into three different segments which include property rights and physical privacy, information privacy, and rights on one's autonomy.

Several literary works have managed to explore the issues of privacy when dealing with m-commerce and how they affect an individual adoption of the technology (Zhou, 2011; Al-Alak & Alnawas, 2010; King, 2008; Chen, 2008). From the studies, it is vital for organizations in the m-commerce industry to consider various issues of customer risks and mitigate them. There are different issues that are related to m-commerce, and they involve mobile devices that have radio frequency identification technology (RFID). There are several concerns that are raised when such a technology is employed by an organization.

2.2.1. Information Collection, Disclosure and Usage

The current technological advancements location-based systems (LBS), and mobile positioning allow organizations and marketers to have varied personal information from mobile device users, and this may include their context and time. Collection of such personal information interferes with the privacy of the users, and can easily affect the users' behavior towards adopting different mobile services (Cleff, 2007). The other problem and threat to such disclosures is the overall collection and usage of the information for purposes that have not been accepted by the users. Hoffman, Novak & Peralta (1998) confirm that using secondary data from clients without their consent is a major threat in the online environment.

2.2.2. Spamming

After the introduction of different mobile web browsers, and SMS there came a new marketing channel for organizations, but this advancement also brought about a privacy threat through spamming. Through such threats, mobile device users are prone to different viruses that are used to attack the mobile device for purposes of getting their personal information (Gurau & Ranchhod, 2009). The other threat of spamming is sending information to users without their knowledge while using collected data. This is an intrusion of the privacy of users and compromises their rights.

2.2.3. Skimming and Eavesdropping

Mobile technology for commerce is operated from a convergence of wireless technology and different mobile devices. Information is transmitted through a radio airwave kind of medium. Within this same medium there exist different issues including encryption which might give other third parties the opportunity to hack the exchanged data which can then be used to harm users (Koien & Oleshchuk, 2007).

2.2.4. Location Tracking

Different technologies like RFID, global positioning systems (GPS), and LBS which are location and positioning technologies often bring about different threats to mobile device users when in the process of transacting online. Most users are concerned about their privacy as these technologies can easily indicate their position even when they resort to

moving from one region to another. With such technologies, users can become adamant in to adopt m-commerce to ensure their privacy.

2.3. Risk Management

To help users have better and positive experiences while doing business using their mobile devices, organizations should first assess the available risks. Through the risk map created, they will then be able to respond to the different risks in different ways which might include acceptance, avoidance, sharing and reduction (company perspective) (Ashraf, Thongpapanl, Menguc &Northey, 2017). The type of risk mitigation factor that an organization or individual business person chooses should be able to bring the risks involved in m-commerce to levels that can be tolerated. In addition, users can also mitigate themselves from such risks to ensure that their data is safe, and they can transact without losing vital information to other third parties.

2.3.1. Company Perspective

An organization or individual business person can decide to take no action, and this can only apply when there are no cost benefits associated with the procedure (Hsu & Yeh, 2018). This is a dangerous move by an organization, and often taken up by small firms. Further, risk acceptance is often as a result of an overlooked problem with respect to its severity and frequency. Secondly, a firm can decide to avoid such risks, and this involves divesting in the activities of m-commerce or exiting in the operations. This can be costly because such firms might be comfortable in their brick and mortar setting and unaware of their future online presence. Thirdly, a firm can also decide to share their available risk, and this can be done through contractual agreements with other insurance agencies or partners. Lastly, the organization can decide to reduce their risk, and this can simply be done by implementing different controls. Reducing risks is often deemed as the most cost-effective method of managing risks by organizations.

2.3.2. User Perspective

M-Commerce technology has allowed individuals to gain product and service information from various firms or individual business people by using different social networks (Liébana-Cabanillas, Marinković & Kalinić, 2017). Most of these networks are often secured, but through their use of the wireless medium, they are never free from various risks that are currently in the online environment. However, with this technology users are able to get a varied number of products and services by using their different social networks, albeit the available risks and hitches. Criminals have also come up with different methods that they use to scam unsuspecting clients, hence the need for the users to be careful when providing their information to other third parties to receive various products and services.

Users can avoid such risks by simply keeping their information and not sharing it, and this involves their credit card numbers, identification numbers, plans or intention to purchase unless they are sure that they are safe. The mobile device should not respond to unexpected requests which desire personal information, but first, do only searches to know if such people or companies have been reported in the past. In addition, users should avoid paying upfront on items and services that require fees or taxes. They can, however, pay using other means that are currently available for users where a third party retains the money until the product or service is delivered as expected by the user. Further, payments made through PayPal or credit card can easily protect a user because they are protected. Using such options can help an individual to avoid being scammed, without the option of ever retrieving the money that has been taken.

It is also vital for m-commerce users first to contact people they trust, and more so those who have used a particular service before when they want to get services or products from a particular vendor. The current world of social networks has brought about different organizations that are known to provide free offers to users while others offer free trials when signing up. Such offers are not easily reversible and attract some form of payment until they are cancelled. Mobile device users who desire to buy products or services should thus be skeptical when they are informed of free offers and perform due diligence before they perform their transactions.

2.3.3. Risk Management Standards

Risk management standards allow users and organizations to mitigate risks. Management of such risks in accordance with ISO 31000 ensures that organizations are able to operate as required (Humphreys, 2008). Through the guidelines (ISO 31000:2008) there are different principles and frameworks that are provided to manage risks. ISO 31000 is vital helps firms to achieve their objectives while improving the way different threats are handled in an organizational setting. The standards are never implored for certification, but offer guidance on the issues that pertain risk management. In this respect IEC 31010:2009 has different techniques that help users and organizations to succeed in the process of tackling the risks that affect their operation (Raz & Hillson, 2005). The standards and guidelines have been considered in the process of completing this paper.

3. Research Methodology

The paper did investigate the risk management of mobile commerce among social networks users in Jordan. This was possible through the use of survey research which helped in ascertaining risk management issues when using social networks among the sampled individuals from the Jordan region. The cross-sectional study did make use of social network users from Jordan, and emails were sent randomly, and respondents asked how they perceived the use of their mobile devices. Specifically, the researcher wanted to ascertain the risks that the users encountered and how they thought those risks could be managed. The research also collected data on how the problems could be mitigated in the future to ensure

smooth transactions between the users and the organizations concerned. Similar studies have been done before, and the results indicated that most people use different sites to make purchases albeit the different risks that were involved.

Using the survey method was warranted in this research because it has been in use in the past with exemplary results, and known to be a common research paradigm that has been used when dealing with primary research (Creswell, 2008). In essence, surveys are vital as they are chosen over other research methods more so when data is collected directly from the respondents (White & Fortune, 2002). The area of risk management is large, and often requires an increased amount of data to be collected to find the cause and effect of a phenomenon.

The population of the research was easily acknowledged as those individuals who are using social networks for business operations, as this allows members to communicate with one another through the use of mobile devices that are connected without any physical interaction. The population is more than 10,000, hence the use of Fischer's formula to arrive at the sample size. The research was particularly focused on mobile device users and all those who took their time to fill the sent questionnaires were included in the overall research work. The research considered different metrics on the respondents, and they included age, education, technology, and culture. On the questionnaires, several questions were asked, and this required direct answers which could be used to ascertain the risks associated with social network usage for m-commerce in Jordan. The researcher first inquired of the ages of the respondents, to understand which age bracket was more involved in the use of social networks for m-commerce and communication in general. They were also asked if they were aware of the risk associated with the use of social sites, and if they were happy with the social networks as a medium for m-commerce in Jordan. The questionnaires also had a question on culture, education, and technology, and they were provided to ascertain how these variables relate to social network usage for m-commerce.

The respondents were given questionnaires which they filled, and these were specific and structured with items that had fixed responses on the issue of m-commerce and risk management. It is an effective method as it is normally not expensive and takes minimal time in collecting the needed information from the respondents. The sample was large hence needed an effective method to ensure that all the members had an equal chance of being sampled.

Sampling is drawing a portion of a target population for observation; it is a part of a target population procedurally selected to represent that population. In this study, the sampling units are the mobile devices users in Jordan, and these are those who use their devices to transact businesses online. A sample of 384 respondents was selected by simple random sampling from the target population. The sample was calculated using the Fischer's formula which states that n=Z2pqD/d2.
n = Z2pqD/d2 = 1.962 x 0.50 x 0.50 x 1/ (0.05)2 = 384.16

The sample size for the study thus stood at 384 respondents who use social networks for their online transactions. The study thus used questionnaires as the main tool for collecting data from the respondents. Bryman (2006) confirms that researchers are required to develop instruments which will aid in collecting data from the field. Questionnaires are advantageous because they can easily allow the collection of data from large samples, they save more time, ensure confidentiality, and data collection can be done from different regions without hitches. The researcher made use of close-ended questions while employing the use of Likert scale method.

The process of collecting data which is measured in a systematic manner enables researchers to evaluate the findings and while answering pertinent questions (Bryman, 2006). The study informed the respondents their role and the need to provide honest opinions and answers. The researcher also informed the respondents that their responses were to be kept in confidence and allow all the respondents enough time to collect data. The respondents were emailed the questionnaires with questions having subheadings to guide them.

Pre-testing is vital in research and ensures the measurement of the variables when considering different subjects (Kemoni, 2008). Its main purpose is to ensure that all the items in the questionnaire are clear (Bryman, 2006). During the pre-testing period, the researcher was able to assess how the instrument works before being used on the main respondents. Confusing items were eliminated. The researcher used a pre-test 10% of the total questionnaires to participants in the Jordan region.

The research purposed to ensure the validity of research instruments by using simple language free from jargon to make it easily understood by the respondents. To ensure validity testing, the questionnaire was availed to experienced research individuals for review. The researcher also located the opinions of individuals who were able to render intelligent judgment about their adequacy. The Cronbach's alpha was used to find out how the correlation of different items appeared in the instrument. P-value of 0.7 was used as the cut-off point which was acceptable. The results of the piloted questionnaires enabled the researcher to determine the consistency of the responses made and help adjust the items accordingly by revising the document.

From the information provided by different research experts in regard to units of study that are appropriate, the questionnaires were directly sent to the respondents. This is a strategy that was found to be useful in the premise of risk management even when dealing with human participants in a research context. Therefore, 384 questionnaires were emailed to the respondents, and only 250 were able to respond in a timely manner to the questions. The filled questionnaires were later returned to the researcher for purposes of analysis. The response rate was high and able to answer the research questions that the researcher was investigating. The chi-square output (X2) clearly indicated irrelevant statistical difference between those who responded to the questionnaires and those who did not with respect to (P = 0.185), and this meant that the sample was representative of the population. The information could, therefore, be generalized to the entire population without problems.

3.1. Data Analysis

The data analysis procedure undertook a multidimensional approach where the questionnaire had a set of questions which were to be used to understand social network consumption among the respondents. The four vital aspects that were of importance in this area included their age, education, technology consumption, and culture. The items used were vital as they corresponded to the way risk management was perceived and handled by the mobile device users in the process of making various purchases or while interacting with other third parties online. The respondents used a five-point Likert scale to indicate how technology and culture affected their online operations, and the researcher considered how their age and education was vital in making decisions to purchase online and how the risks involved were perceived and mitigated in the long-run.

To ascertain internal consistency, the research used Cronbach's alpha which was found to be above the cut-off point of 0.7. With a P-value of 0.783, the researcher was aware that the items were indeed related. This particular P-value which was found to be highly informed a high construct in the research as a whole. Through descriptive statistics, the researcher was able to find the characteristics of the respondents and their correlation to risk management. The use of ANOVA (one-way analysis of variance) measured the dependent variable at 95% confidence while considering the different metric factors that were employed in the research. This method is vital as it can easily compare the mean values of different groups at a given time, while the F-test checks at the existing differences among the different groups. The items used were therefore significant and could easily provide information about risk management and how it is perceived, consumed and mitigated by the respondents from Jordan.

3.2. Limitations and Applications

The study contributes to the increased knowledge and literature on risk management and how it is perceived and mitigated by individual m-commerce users. It, however, delves into more analysis to ascertain the conditions of risk management in the Middle East and offers knowledge on how risk is understood and mitigated by mobile device users when transacting online. It is, however, subject to limitations as it does not consider the supply side of risk management where organizations are included. It only offers detailed information on the demand side which involves individual mobile device users hence limits vital data and information from organizations.

The data collected only offer a snapshot of the inherent risks and how they can be mitigated without providing information about the implications of such risks to individuals and organizations at large. These are thus critical reviews that require further research to come up with concrete evidence and information about the risks and their implications not only to individual mobile device users but the organizations at large. In essence, the nation should be considered, and research was done to ascertain how the information affects the adoption of m-commerce in the region as a whole. This data is pressing because research indicates that the political environment of the Middle East is going to in turmoil over the next few years (Rogmans, 2012). Further, with such information and literature, researchers can base their arguments and come up with clear constructs of how the region's socio-economic environment will be affected in the future, more so when considering the risk involved in m-commerce.

4. Discussion of the Findings

The current study is vital and largely contributes to the theory of risk management with an extension to user benefits and problems when using social networks.

4.1. Response Rate

The response rate was high at 68%, and this included 250 participants who were able to fill the questionnaires to the satisfaction of the researcher. This rate was satisfactory and was used to generalize the findings of the study to the population.

Type of Survey	Target Number of Respondents (N)	Actual Number Of Respondents	Response Rate (%)
Questionnaire	384	250	65
Total	384	250	65

Table 1: Response Rate

4.2. Demographic of the Respondents

4.2.1. AGE

The researcher had an interest in understanding the age bracket of the users, and it was clear that those who were between the ages of 18 to 32 were the majority at 60%. Age is an important factor as it allows users to make informed decisions when making different transactions online. Those that were above 40 years were only 8% of those who responded to the questionnaires. This information corresponds to data from Liébana-Cabanillas, Marinković & Kalinić (2017), who in their work confirms that age is an important factor that allows social network users to avoid the various inherent risks.

	Frequency	Percent	Cumulative Percent
18-28	150	60%	60%
29-39	80	32%	92%
40 and above	20	8%	100%
Total	250	100%	

Table 2: Age

4.2.2. Education of the Respondents

On education, those who had diplomas and undergraduate certificates were the majority at 52%, while those that had masters' degrees were 28%. Few respondents had PhDs, and they stood at a small percentage of 20%. Education is vital and always informs individuals on what is right and wrong, and this also helps them understand the risks associated with the use of social networks on m-commerce and the risks involved (Rogmans, 2012). From the research, it was clear that the respondents had the needed information on social networks use because they all had gone to school and had certificates

	Frequency	Percent	Cumulative Percent
Diploma/Undergrad	130	52%	52%
Masters	70	28%	80%
Ph.D.	50	20%	100%
Total	250	100%	

Table 3: Education

4.2.3. Sex of the Respondents

There were more female social network users on m-commerce when compared to their male counterparts. The females were 80% while their male counterparts were only 20%. This corresponds with earlier studies that indicate that more females in Jordan make use of social networks at 88.7% (King, 2008).

	Frequency	Percent	Cumulative Percent
Male	50	20%	20%
Female	200	80%	100%
Total	250	100%	

Table 4: Sex of the Respondents

4.3. Risk Determinants

The individual-specific metric of age, education, culture, and technology was implored to understand how m-commerce was perceived and how risk was managed among the users.

4.3.1. Education

Pearson's r indicated a significant correlation between risk management and education on the issue of social network usage for m-commerce. The education of the individuals is far more important as it allows users to have the needed knowledge to detect and mitigate against different risks that affect them. The results from the respondents from Jordan (r=0.958) indicate that the level of education is high and most of the respondents are able to understand how using mobile devices can affect their privacy in the long-run. With this information, they were able to eliminate such risks by keeping their data secretive and only sharing such when they were sure their information was secure. Education is vital and helps individuals to make informed decisions when dealing with other people more so in the m-commerce segment (Huang, Chai, Liu & Shen, 2019).

	Education	Risk Management
Education Pearson Correlation	1	.958
Sig. (2-tailed)	.	.000
N	250	250
Risk Management Pearson Correlation	.958	1
Sig. (2-tailed)	.000	.
N	250	250

Table 5: Education

4.3.2. Age

The age of individuals when calculated using Pearson's r indicated a significant relationship of 0.995, and this meant that individuals' age was a major factor when dealing with various risks. The younger the individuals, the higher the risks that were associated with their online involvements as those who were young were able to give vital information to third parties without any due diligence. Even though members who were above 40 years were few, those who were represented in the research indicated that they willingly provided their information to other third parties without making

considerations that affected their personal data and information. This led to increased risks in the long-run with higher chances of losing vital data to fraudsters and other people who were not meant to receive the data provided.

	Age	Risk Management
Age Pearson Correlation	1	.995
Sig. (2-tailed)	.	.000
N	250	250
Risk Management Pearson Correlation	.995	1
Sig. (2-tailed)	.000	.
N	250	250

Table 6; Age

4.3.3. Culture

The culture of individuals indicated no significant relationship to the risk associated with the use of mobile devices, as it did not change an individual's perception of adopting m-commerce at a P-value of .050. The findings from the Jordan experience retaliate the fact that cultural upbringing does not hamper the use of different mobile devices as individuals are able to use them within the laid down standards and code of conducts from the organizations in question. In overall, culture is not an aspect that changes the perceived adoption of such devices but gives minimal directions as to how they should be consumed while in the domain of the users. However, culture plays an important part in an individual's operations as it teaches them to do things in a way that is acceptable (Du, Yu & Yang, 2019).

	Culture	Risk Management
Culture Pearson Correlation	1	.288
Sig. (2-tailed)	.	.050
N	250	250
Risk Management Pearson Correlation	.288	1
Sig. (2-tailed)	.050	.
N	250	250

Table 7: Culture

4.3.4. Technology

Results from ANOVA provide a clue that there is a statistical difference between culture, education, and age where P = 0.038. Technology, on the other hand, had a P value of 0.000 this indicates that technology is improving in the region, and with such an upsurge, individuals can acquire gadgets that they use when interacting with others in the process of purchasing goods and services. Online purchases can only become possible if the available technology allows individuals to communicate with one another. Such interactions can be successful or dangerous to the users in the long-run.

4.4. Mitigating Measures

Several measures were outlined for the individuals, and it was apparent that privacy risks were significant. On this note, the respondents confirmed that organizations should be at the forefront in ensuring minimal risk issues in the online business. Through such entities, individuals confirmed that they could provide ways of dealing with different risks as opposed to leaving such vital data to the users who mostly are vulnerable. Also, the respondents confirmed that children should first be informed of the dangers of giving critical information to strangers and always communicate with the elderly or search for scams before making purchases. Further, the respondents claimed that the issues of risk could only be managed if stricter laws are put in place to deal with those who are found stealing data for their personal use.

5. Conclusions and Recommendations

The world of m-commerce is changeable, and this is the same thing that happens with the risks that affect online transactions daily (Welch, Marschan-Piekkari, Penttinen & Tahvanainen, 2002). The situation has forced different service providers and users to get abreast with the latest trends to ensure minimal hitches when dealing with others online. The m-commerce users are now forced to have their risk awareness updated, while companies should educate their customers and employees in different ways they can manage the situation. However, users are required to take corrective and proactive measures to mitigate themselves from the risks that are brought about by m-commerce.

From the research, it is clear that consumers are affected through different ways which include technology, physical securities, and laws that govern the use of the mobile device when doing business. The respondents contend that the risks are not easily avoidable, but there is a need for organizations through government institutions to address the situation so that innocent consumers are not affected. The new open wireless connections also pose a significant danger to consumers, as people are now coming up with new ways of targeting those that are vulnerable in society. M-commerce is currently enjoying increasing popularity in the business sector. However, the increased number of opportunities have not been fully explored and tapped. The risk-sharing approach can be beneficial to organizations and individuals, and this can apply when insurance companies step in to assist in mitigating the possible risks (Voinea & Anton, 2009). Security is vital if mobile device business operations are to be fully tapped and enjoyed by the majority. With minimal trust and increasing risks in the industry, m-commerce will not thrive as required, and this will deny people the opportunity to transact online with convenience.

Similar to past studies (Kemoni, 2008; King, 2008), social networks have become relevant tools for m-commerce, and people are now aware of the risks associated with the consumption of social networks for m-commerce. The risk stem from mobile devices use as more than 88.7% (females), and 62% of males are currently using social networks for m-commerce, and communication in general. Females in Jordan use more social network sites than their male counterparts, but only a few understand the risks associated with such operations. M-commerce has therefore been made accessible through the use of social networks as more mobile device owners are using them to do business with other individuals in their region.

More relevant research works should be initiated in this area to ascertain those risks that can be eliminated quickly, while more people should be educated on how to avoid being victims. The risks available are not as a result of the entities that create the devices, and this makes it hard for organizations to mitigate such problems. Individuals on their part are required to understand how they can protect themselves, and this can only become successful through increased learning. Understanding how technologies work will help users to avoid problems in the future regarding the use of their mobile devices (Ward, 2003). The research recommends more educative information to users by mobile device companies to alleviate the current risk problem that has become rampant in the industry as a whole.

6. References

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