

Factors and Issues Affecting Adoption of E-Insurance in Jordan

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Abstract

E-business is growing magnificently in Jordan and became one of the important elements in increasing profitability for companies. This study shed light on the prospect of E-insurance in Jordan and discusses all factors and issues affecting the prosperity of this sector. The goal of this study comes in three fold, The first goal is to investigate the factors affecting the adoption of E-insurance . The second goal is to explore the customers' perception towards the use and application of E-insurance and their awareness of the concept. The third goal is to find out the potential issues and challenges associated with the usage of E-insurance. Study sample comprise of 175 respondents after filtering and is based on convenience sampling. We summarize the responses to various factors affecting the adoption of E-insurance (20 statements) through covering the three dimensions of sustainability, cost effectiveness, and operational benefit, and then summarize the various issues and challenges in E-insurance (14 statements) including security related issues, customer related issues, and insurer related issues.

Summary results shows that E-insurance (from the point of view or respondents) promotes sustainability, reduce costs and save time, and hold in beneath some operational benefits. Respondents also are aware that E-insurance may incur issues and challenges related to security and privacy, customer related issues (such lack of knowledge about repositories) , and insurers related issues (such as data shifting). Results of ANOVA between demographic profile of customers and perception towards E-insurance indicate that age does not affect customers' perceptions toward E-insurance adoption. On the other hand Gender and Income level are important factors that shape the respondent perception to E-insurance in Jordan. The effect is strong and highly significant at 1% level. Finally , the results of ANOVA between demographic variables and perceived issues/challenges in using in using E-Insurance , shows that age is only significant for customer related issues , Gender is only significant for security related issues , and income level is a decision factor when it comes to insurer related challenges . The effect is strong and highly significant at 1% level.

Key words: E-insurance, Customers Awareness, Adopting E-insurance.

1. Introduction:

The insurance sector in Jordan is one of the fastest growing sectors practicing general, life, and takaful insurance, and has gradually emerged to become an important component of the financial services sector.

Profits of insurance sector surged in 2018 compared to 2017 with a growth rate of 547.8% million JD's (Jordan Insurance Federation, Statistical bulletin, 2018). Insurance sector as one of the prominent sector realized the importance of E-business or electronic insurance to establish a stronger relationships with business partners and suppliers, as it enhances the process of selling and buying products by both the company and the consumer, which essentially affect the overall performance of insurance companies. E-business brings several opportunities for companies as well customers; companies will have more access to new, unexploited markets, overcome distance, and work together with governments and contribute in value chains (Business to Business); customers on the other hand will have access to goods and services at lower prices, better informed, and gain access to more secure technology as a result of competition (Margia, 2016). The adoption of E-insurance in Jordan is a hot topic and emerge nowadays but evolves at slower rates. How management effectively utilizes today's technology to streamline existing processes is one of the value increasing opportunities that will separate winners from losers in business in the future (Robert 2010).

The adoption of E-insurance might be affected by certain factors which determine the shape of current and future insurance industry. The adoption of direct contact technology might hold beneath it challenges and might be faced by reluctances and fear and uncertainty by customers. Therefore, this study comes to explore the factors that might affect E-insurance adoption in the Jordanian insurance companies and to shed light on the possible opportunities and challenges facing E-insurance. In what follow we shed light on the main benefits of E-insurance.

1.1. Benefits of E-insurance:

Buying insurance today is available at the click of a button. Thankfully the digital era brought with it significant changes in the insurance sector also. Majority of people soon will be part of E-insurance. Companies in the Insurance industry need to get in the e-business competition or they will be closed out of a basic part of the commercial center (Hinton & Barnes, 2015). The importance of E- businesses has been well documented in reports by the U.S. government as well as independent organizations (Hinton & Barnes, 2015).

With E-insurance customers can manage all their insurance policies under a single account just as you use a Dematerialization (Henceforth demat) account to hold all your stock certificates. Customers are no longer need to be concerned about losing the physical copy of their insurance document nor changing their the insurance repository if services are not

as per expectations ; all insurance policies are available in a single platform digitally stored in a secured electronic format. Tracking details, changing nomination, updating “Know Your Customer” details will be now possible and very convenient at the click of a button; ease of access of policy details of any policy at any time without having to worry about locating the physical policy documentation, alerts for premium deadlines and policy renewal reminders to linked accounts like email or text message reminders. This leads to better monitoring of policies helping avoid any unnecessary policy lapses, and not to forget saving time and cost. From the point of view of Insurance companies E-insurance relieve them from spending a high volume of money towards printing of physical policy documents. This leads to cost advantages as well as managing all dispatching costs for each individual policyholder (www.easypolicy.com). In what follow (Section 1.2) we review abstractly the development of insurance sector in Jordan.

1.2 Insurance Sector in Jordan

The insurance industry in Jordan starts since the 1940s in the form of insurance of import credits which required marine or road transportation, late the first insurance agency affiliated with the Egyptian Orient Insurance Company was established in 1946, after which the first insurance company was created called the Jordan Insurance Company in

1950 and five years later, the Association for Jordan Insurance Companies was established to regulate the sector. In 1965, the first insurance law was passed and the number of players in the market continued to grow. In 1989 the Jordan Insurance Federation was created mainly to help regulate and coordinate insurance practices, to unify insurance policies, and to establish insurance and reinsurance pools as required by the market. In 1999, in accordance with the Insurance Supervision Act number 33 for the year 1999, the Insurance Commission was created as an independent entity responsible for regulating the insurance sector. The current structure of the insurance sector, with 24 insurance companies, of which At the end of 2017, the insurance sector in Jordan consisted of 24 operating companies; one of which specializes in life insurance, 8 others are general insurance companies, and the remaining 15 practice both types of insurance. The consolidated balance sheet of insurance companies for the year 2016 expanded by JD 27.5 million (3.3 percent), compared to its level at the end of 2014, to reach JD 869.7 million (CBJ annual report 2016 and 2017).

The collected premiums of insurance companies in 2016 increased by JD 32.5 million (5.9 percent), to reach JD 582.9 million. Collected premiums of motor insurance constituted 38.8 percent of the total premiums, followed by medical insurance at 29.4 percent. Other insurance types, namely; fire, life, maritime and general accidents, accounted for 12.8

percent, 12.0 percent, 3.5 percent and 3.5 percent of the overall collected premiums, respectively (CBJ annual report 2016 and 2017). Profits of insurance sector surged in 2018 compared to 2017 with a growth rate of 547.8% million JD's (Jordan Insurance Federation, Statistical bulletin, 2018). Later in 2017 the insurance sector starts operating under the Central Bank of Jordan (CBJ) supervision to more regulate the sector and control the level of risk.

General insurance, makes up a sizeable 88.9% of total insurance premiums written in Jordan, on the other hand, life insurance market is significantly smaller (Sector Report, The Jordanian Insurance Sector, 2016). Insurance premiums in Jordan is heavily weighted in favor of motor and medical insurance then fire insurance followed by life insurance (Sector Report, The Jordanian Insurance Sector, 2016)

The major reasons behind the growing insurance sector in Jordan can be summarized by the following 8 reasons namely; growth, growing population, large youth population, rising income, more risk awareness, regulatory reforms and takaful.

The rest of the study proceeds as follows, Section 2 reviews related literature, Section 3 discusses objectives and hypothesis of the Study, Section 4 discusses data and methodology, Section 4 presents empirical results, and Section 5 concludes.

2. Review of Literature

Technology has pervaded into every element of the insurance business. Information Technology (IT) can no longer be considered as a support function, managed as a central organization by the traditional Chief Information Officer (CIO). According to Klynveld Peat Marwick Goerdeler (KPMG), the next five years will witness IT functions dissolve fully into a re-imagined business body structure. Insurer's technology operating models will start to embrace this move from centralized 'traditional functions', to 'technology capability' oriented models and eventually on to truly 'federated' models where technology is a core part of each business function, governed as a corporate asset (KPMG ,2018) .

An increasing number of companies use the internet to offer standard insurance policies such as auto, home, life, or health at a substantial discount. Furthermore, third party aggregates offer free comparisons of available policies. Several large insurance and risk management companies offer comprehensive insurance contracts online, while many people do not trust the faceless insurance contract online, others are eager to take advantage of the reduced premiums (Turban et al, 2002).

Global insurers are all wrestling with embracing emerging technologies, adopting new ways of conducting businesses, being truly customer centric – whilst staying in business. Insurance technology functions have

to keep the business running, managing the inherent complexity and increasing imperfection of the legacy estate, whilst also meeting demands for change from the business, along with regulatory and constitutional requirements (KPMG, 2018).

The challenge is dual, for customers and for insurers at the same time and the insurance sector in Jordan must move from traditional insuring to technology oriented business. Though the rate of growth in information technology and internet infrastructure is very fast, yet the insurance sector in Jordan is still initiating in adopting E-insurance, the well is menacing.

The application of E-commerce and adoption of internet in insurance industry specifically i.e. E-insurance is still witnessing lack of literature (Pahuja and Chitkara, 2016). In what follows we list some main literature related to E-insurance.

Robert (2010) report that technology is currently shaping business practice in the insurance industry by examining a number of innovations related to traditional insurance operational areas from a set of 17 respondents that, while limiting in number, included several of the largest insurers in the United States market. Robert concludes that electronic communication of business processes such as agent and consumer portals and the paperless office have been key improvement. Insurers are embracing integration and use of customer data across their traditional practice areas, which is facilitated by technology advances associated

with the prospects for Start Of Authority (SOA) record for storing information in a Domain Name System (DNS).

Hebber et al. 2014, point that technology landscape in developing countries is changing rapidly and sometimes outpacing developed countries. To grow, there are some key drivers including: (i) identification of new market opportunities and the timely proper implementation to utilize them; (ii) recognition of ways to increase the value of their current customers and get better loyalty over the long-term; and (iii) finding new ways to make it easier for customers to do business with the insurer, wherever they are located.

Arora (2003), argues that business infrastructure will pave the way for enhanced consumer options and increase consumer spending in the future. Arora argues that many systems, databases and networks are incompatible and hence the insurance industry has problems with sharing data. He suggests some changes to resolve this dilemma include building links between supply chains; a system that enables an insurer to obtain underwriting data from information suppliers.

Bromideh (2012), propose some factors that might affect customer E-readiness to embrace auto E-insurance in Iran. Bromideh concludes, using a survey and utilizing structural equation model to analyze data, that age and human interaction negatively affect customer E-readiness

and suggests that ease-of-use and role clarity were some of the positively influencing factors.

Pahuja and Chitkara , 2016, explore the users' perception towards E-insurance and their awareness of the concept in India. Their main findings are that sustainability, cost efficiency and the operational synergies are the major factors influencing the adoption of E-insurance in India , and other factors such as security issues , customer orientation and issues related to insurer affect the perception of customers toward their engagement with E-insurance .

Hossinpour, Hasanzade , Feizi (2014) , find that there is a significant relationship between “E-marketing” and “life and investment insurance sales”. This relationship has been confirmed in all three dimensions of e-marketing they used including the use of internet for marketing activities related to clients, the use of internet for marketing activities related to distribution channels, and the use of internet for activities related to marketing research regarding life and investment insurance sales.

On the hand, and from the point of view of insurers themselves, Yao (2004) study the e-commerce adoption of insurance companies in New Zealand insurance industry. Yao found that the uptake of electronic commerce is relatively slow. The insurance industry is only employing the Internet to distribute information, with few companies offering the

capability of online transactions. It is evident that there remains considerable scope for further development of website features.

However, despite the emergence of E-commerce in the Jordan information technology and insurance industry literature, little empirical research has been reported in the Jordan insurance industry. Locally and up to my knowledge, there are no studies that have been conducted to examine different challenges and opportunities of adopting E-insurance in Jordan and this paper comes to fill the gap.

This present study is an attempt to explore users' perception towards E-insurance and their awareness of the concept. Using a sample size of 187 respondents from different sectors and different backgrounds and education levels, the current study investigates further all possible factors affecting the adoption of E-insurance in Jordan. Finally, this study sheds light on the potential issues and challenges associated with using e-insurance by customer.

3. Objectives and hypothesis of the Study

The main goals of the study is to investigate the factors affecting the adoption of E-insurance through exploring the customers' perception towards the use and the application of E-insurance and their awareness of the concept, and to find out the potential issues and challenges associated with the usage of e-insurance.

Also to understand the impact of demographic variables on the factors affecting the adoption of E-insurance issues and challenges, the following two hypotheses are set:

H₀₁: Demographic variables (Age, Gender and Income Level) do not affect the respondents' perception of various factors affecting adoption of E-insurance.

H₀₂: Demographic variables (Age, Gender and Income Level) do not affect the respondents' perception of various issues/challenges in using E-insurance.

Both of these hypotheses are tested against the alternative hypothesis of existing effect of demographic variable on the respondents' perception

3. Data , Sampling method, and Methodology

The primary data has been collected using a well-structured survey comprising of two sections. Section A consists of Demographic profile of the respondents (4 questions) and Section B of the survey comprises of total 34 statements on a five point scale, out of which 20 statements focus on various factors affecting the adoption E-insurance and rest 14 statements reflect various issues and challenges in E-insurance. We adopt the questioner of Pahuja and Chitkara (2016). All variables were presented through frequency and percentages.

This study is both descriptive and quantitative, and is conducted in the main cities of Jordan namely; the cities of Amman, Sult, Irbid, and Zarqa. A total 187 respondents were collected. The respondents are from different backgrounds, professions, businesses, income groups, sectors (government and private) and regions. Information is collected from respondents on characteristics such as age, gender, household monthly income, and geographical region. Data analysis is done by the use of important statistical tools which included cross tabulation, percentages and mean among others. SPSS Statistics Version 25 is used to analyze variances and significances. Questioners were distributed and disseminated electronically using **SurveyMonkey** targeting those who are familiar with using E-services. The questioners were circulated via social media, emails, and WhatsApp. The response rate was 94% percent (thanks to technology) of all who matched the criteria. Some of the questioners were rejected out of the 187 respondents who completed and answered the questioner.

The following Tables (1 and 2) present the questioner structure and dimensions. Table 1 shows three main factors related to various sub-factors affecting the adoption of E-insurance in Jordan, namely sustainability of E-insurance factor , with 7 statements included , cost

effective of E-insurance factor , with 8 statements included, and Operational benefit of E-insurance factor , with 5 statements included .

Table 2 , on the other hand , shows three main factors related to various issues and challenges facing E-insurance in Jordan, namely Security related issues of E-insurance factor , with 4 statements included , Customer related issues factor of E-insurance, with 4 statements included, and Insurer related issues factor of E-insurance with 6 statements included. Summary of these factors and statements are shown below in Tables 1 and 2.

Table 1. Various factors affecting the adoption of E-insurance in Jordan (20 statements and three main factors).

Factor	Statements included in the factor	Number of Statements
Sustainability	E-insurance is all about promoting environmentally friendly practices	7
	There is no need of manually completing forms	
	E-insurance helps in sustainable development	
	E-insurance is fully secured	
	E-insurance avoids paper work as much as possible	
	E-insurance requires digital signatures which are fail-safe	
	There is no risk of loss or damage of the policy certificates	
Cost Effective	E-insurance reduces the cost of internal administration.	8
	E-insurance reduces the management costs permitting real-time networking of company departments	
	E-insurance is beneficial for enhancing business of insurance providers	
	E-insurance involves Self operation	
	E-insurance reduces commission paid to intermediaries since it can be sold directly to clients	
	Ease of paying and receiving related funds	
	E-insurance helps in improving transparency in operations	
	It reduces the frequency of being physically present in the insurance offices	
Operational benefit	E-insurance helps the buyers in comparing and choosing the best policy from a wide-range of prices and policy conditions	5
	Consolidation of all the policies in a single account is of great help	
	E-insurance helps in improving management information	
	E-insurance is better as compared over traditional method in terms of buying	
	Dematerialized (Demat) of policies makes it easier to track the policy and ensure that it reaches the buyer	

Table 2. Various issues and challenges in E-insurance in Jordan (14 statements and three main factors)

Factor	Statements included in the factor	Number of statements
Security related issues	Security is an issue with customers regarding fear of loss of confidential information such as username and password	4
	Privacy is an issue in case of an e-insurance	
	Illegality of electronic signatures is a challenge sometimes	
	Sharing of database of customers by the company	
Customer related issues	Lack of knowledge about repositories is also, a constraint	4
	Lack of knowledge of using internet also becomes a constraint	
	There is a lack of awareness regarding E-insurance among customers	
	E-insurance involves reluctance/resistance on the part of customers to change from traditional methods	
Insurer related issue	E-insurance policies do not provide a discount on premium (as in agent based system)	6
	E insurance policies cannot be customized as per the needs and requirement of the customers	
	Unlike traditional methods, there is lack of support from insurers and intermediaries	
	There is difficulty in data shifting in case of movement from one repository to another	
	There is lack of proper web based mechanism for protecting claims	
	Insurers selling online directly to clients are offering a very restricted portfolio of products	

3.1 Demographic Profile of the Respondents

Table 3 shows that in the gender response rate of survey, male respondents (66.31%) are more than the female respondents (33.69%). A scrutiny of the age group shows that a majority of the respondents are less than 44 years (75.94%). Table 3 also shows that 5.34% of the respondents are more than 55 years old. Similarly, an analysis done on the basis of income groups reveals that the dominant group filling the E-insurance online survey belongs to the income group of 2000 JDs and below comprising a 68.28% of the total respondents, followed by 19.35 % respondents belong to 2001 JD to 4000 JD group (upper middle class) , and 12.37% respondents are above 4000 JDs. Moreover, Table 3 shows that 59.36% of the sample are living in Amman and 40.64 lives in other cities.

Table 3. Demographic profile of respondents*

Demographic Parameter	Description	Frequency (%)	N**
Gender	Male	66.31	124
	Female	33.69	63
Age(years)	18 to 24	43.32	81
	25 to 34	12.83	24
	35 to 44	19.76	37
	45 to 54	18.72	35
	55 to 64	4.81	9
	65 and above	0.53	1
Household Income	Less than 1000 JD	36.02	67
	1000 JD to 2000 JD	32.26	60
	2001 JD to 4000 JD	19.35	36
	>4000 JD	12.37	23
Region	Amman	59.36	111
	Outside Amman	10.64	76

* All questioners are included here. **Number of respondents

4. Empirical Results :

In what follows we first summarize the responses of various factors affecting the adoption of E-insurance (20 statements) covering the dimensions of sustainability, cost effective, and operational benefit ,

and the various issues and challenges facing E-insurance (14 statements) of security related issues, customer related issues and insurer related issue. Results are presented in tables 4 and 5. Then we extend further to test the two hypotheses explained earlier.

4.1 Summery Statistics

Summery statistics (percentages and frequencies) are presented in Tables 4 and 5. Table 4 shows that majority of respondents believe that E-insurance promote sustainability ; more than 77 % (agree and strongly) that e-insurance promote environmentally friendly practices, 74.55% agrees that there is no need to manually complete forms , and about 57% of the respondent agrees that E-insurance is fully secured, while, 28.16 % of the respondents are not quite sure whether E-insurance is secure . The majority of the respondents (85.63%) agrees that e-insurance save paper work and 56.32% feel safe of using digital signature while 12.07% doesn't feel so, the remaining are not determined. Almost 60% know for sure that there is no risk of loss or damaged policy certificate, but still 20.12% fear the loss or damage of policy contracts.

For cost effective factor, 70.06% agree and strongly agree that E-insurance is cost effective; 82.76% believe that E-insurance reduces the management costs permitting real-time networking of company departments, and 83.14% are aware that E-insurance is beneficial for

enhancing business of insurance providers. Respondents are sure that E-insurance involves self-operation (70.69%) and that it is easy to pay and receive funds (79.77%) using websites. When transparency is involved 75.29% of respondents knows that E-insurance does not contradict transparency, at the same time 20.69 of the sample are neutral. Respondents (82.18% of the sample) are aware that E-insurance reduces the frequency of being physically present in the insurance offices.

When it comes to the operational dimension of the factors affecting the decision to adopt E-insurance, 79.24% of the respondents agrees (agree and strongly agree) that it improve operation; customers can choose form a wide variety of options and can improve the management information system.

In 86.71% of the sample respondents believe that E-insurance helps the buyers in comparing and choosing the best policy from a wide-range of prices and policy conditions. E-insurance consolidate all the policies in a single account is of great help to the customers according to 73.99% of the respondents, also E-insurance helps in improving management information (82.76%). Almost 73.99% of the respondents agree that E-insurance is better as compared over traditional method in terms of buying and 74.57% of the respondents agree that Dematerialization (the process of converting physical accounts into electronic format) of policies makes it easier to track the policy and ensure that it reaches the buyer .

The overall average (of all responses for each option) shows that 20.33% strongly agree, 55.43% agree and 17.82% neither agree nor disagree, the remaining are 5.38% disagree and only 0.55% strongly disagree. These results show that 76.25% are agreeing with different extent that all the previous dimensions are really the factors that shape their perception for E-insurance, still 17.82% of the sample are somehow undetermined. Only a small percentage disagrees with that.

Table 5 summarizes the responses to various issues and challenges in E-insurance. We used 14 statements related to security, customer and insurers related issues. Results show that overall, 70.53% of the respondents agree that security and privacy is an issue in E-insurance practices. More than two thirds of the sample (74.57%) agree that security is an issue with customers regarding fear of loss of confidential information such as username and password , and 70.53% of the respondents agree that Privacy is an issue in case of an e-insurance. Illegality of electronic signatures is a challenge sometimes in 75.72% of the respondent. Finally, respondents are aware that engaging in E-insurance incorporate sharing of database by the company; 61.27% agrees. Moreover, respondents believe that issues related to customer are a major issue. Respondents agree that lack of knowledge about

repositories and lack of knowledge of using internet are two main constraints to customers adopting E-insurance.

Respondents also believe that there is a lack of awareness regarding E-insurance among customers (76.88% of the respondents agrees). E-insurance involves reluctance /resistance on the part of customers to change from traditional methods from the point of view of the respondents (77.1%).

Insurers are major part when it comes to E-insurance. The challenge is dual, for customers and insurers at the same time and the insurance sector in Jordan must move from traditional insuring into technology oriented. Respondents agree that E-insurance policies do not provide a discount on premium (as in agent-based system) in 54.34% of the sample, although 15.03% of the respondents believe that E-insurance involve discount on premium , and interestingly 30.64% of the study sample are neutral. The overall average (of all responses for each option) shows that 13.34% strongly agree, 50.43% agree and 23.98 neither agree nor disagree, the reaming are 10.2% disagree and only 1.93% strongly disagree.

Table 4 .Summary of the responses of various factors affecting the adoption of E-insurance in Jordan (20 statements) covering the dimensions of sustainability, cost effective, and operational benefit. (S.A =Strongly Agree, A=Agree, N= Neither Agree nor Disagree, S.D=Strongly Disagree)

Factor	Statements included in the factor	S.A	A	N	D	S.D
Sustainability	E-insurance is all about promoting environmentally friendly practices	17.24%	60.34%	17.24%	4.60%	0.57%
	There is no need of manually completing forms	26.01%	48.55%	14.45%	10.98%	0.00%
	E-insurance helps in sustainable development	28.16%	56.90%	12.07%	2.87%	0.00%
	E-insurance is fully secured	9.77%	47.70%	28.16%	13.22%	1.15%
	E-insurance avoids paper work as much as possible	35.06%	50.57%	9.77%	4.60%	0.00%
	E-insurance requires digital signatures which are fail-safe	12.64%	43.68%	31.61%	10.92%	1.15%
	There is no risk of loss or damage of the policy certificates	13.22%	46.55%	20.11%	18.97%	1.15%
	Average	20.30%	50.61%	19.06%	9.45%	0.57%
Cost Effective	E-insurance reduces the cost of internal administration.	23.56%	59.77%	11.49%	4.60%	0.57%
	E-insurance reduces the management costs permitting real-time networking of company departments	21.84%	60.92%	14.94%	2.30%	0.00%
	E-insurance is beneficial for enhancing business of insurance providers	20.93%	62.21%	14.53%	2.33%	0.00%
	E-insurance involves Self operation	12.07%	58.62%	25.29%	4.02%	0.00%
	E-insurance reduces commission paid to intermediaries since it can be sold directly to clients	22.99%	52.30%	17.82%	4.02%	2.87%
	Ease of paying and receiving related funds	19.65%	60.12%	15.03%	4.05%	1.16%
	E-insurance helps in improving transparency in operations	18.39%	56.90%	20.69%	4.02%	0.00%
	It reduces the frequency of being physically present in the insurance offices	28.16%	54.02%	16.09%	1.72%	0.00%
	Average	20.95%	58.11%	16.99%	3.38%	0.58%
Operational benefit	E-insurance helps the buyers in comparing and choosing the best policy from a wide-range of prices and policy conditions	24.86%	61.85%	12.72%	0.58%	0.00%
	Consolidation of all the policies in a single account is of great help	16.76%	57.23%	21.39%	3.47%	1.16%
	E-insurance helps in improving management information	27.59%	55.17%	13.22%	3.45%	0.57%
	E-insurance is better as compared over traditional method in terms of buying	20.11%	58.05%	16.67%	4.60%	0.57%
	Demat of policies makes it easier to track the policy and ensure that it reaches the buyer	17.34%	57.23%	23.12%	2.31%	0.00%
	Average	21.33%	57.91%	17.42%	2.88%	0.46%
	Overall average	20.82%	55.43%	17.82%	5.38%	0.55%

Table 5. Summary of the responses of various issues and challenges in E-insurance in Jordan (14 statements) covering the dimensions of security related issues, customer related issues and insurer related issue. (S.A =Strongly Agree, A=Agree, N= neither Agree nor Disagree, S.D=Strongly Disagree)

Factor	Statements included in the factor	S.A	A	N	D	S.D
Security related issues	Security is an issue with customers regarding fear of loss of confidential information such as username and password	15.03%	59.54%	17.34%	8.09%	0.00%
	Privacy is an issue in case of an e-insurance	19.08%	51.45%	21.97%	6.94%	0.58%
	Illegality of electronic signatures is a challenge sometimes	16.76%	58.96%	17.92%	5.78%	0.58%
	Sharing of database of customers by the company	11.56%	49.71%	22.54%	10.40%	5.78%
	Average	15.61%	54.92%	19.94%	7.80%	1.74%
Customer related issues	Lack of knowledge about repositories is also, a constraint	8.67%	57.23%	28.90%	4.62%	0.58%
	Lack of knowledge of using internet also becomes a constraint	16.18%	51.45%	19.08%	10.40%	2.89%
	There is a lack of awareness regarding E-insurance among customers	21.39%	55.49%	16.76%	6.36%	0.00%
	E-insurance involves reluctance /resistance on the part of customers to change from traditional methods	14.37%	62.64%	17.82%	4.60%	0.57%
	Average	15.15%	56.70%	20.64%	6.50%	1.01%
Insurer related issue	E-insurance policies do not provide a discount on premium (as in agent-based system)	12.14%	42.20%	30.64%	11.56%	3.47%
	E insurance policies cannot be customized as per the needs and requirement of the customers	7.51%	42.20%	28.90%	19.08%	2.31%
	Unlike traditional methods, there is lack of support from insurers and intermediaries	10.86%	41.14%	27.43%	18.29%	2.29%
	There is difficulty in data shifting in case of movement from one repository to another	8.62%	41.95%	31.03%	15.52%	2.87%
	There is lack of proper web based mechanism for protecting claims	10.86%	44.57%	30.29%	11.43%	2.86%
	Insurers selling online directly to clients are offering a very restricted portfolio of products	13.71%	49.14%	25.14%	9.71%	2.29%
	Average	10.62%	43.53%	28.91%	14.27%	2.68%
	Overall Average	13.34%	50.55%	23.98%	10.20%	1.93%

4.2. Hypothesis testing results:

H₀₁: Demographic variables (Age, Gender, Income Level, and location) do not affect the respondents' perception of various factors affecting adoption of E-insurance.

Results of testing the first hypothesis is shown on tables from 6 to 8, analysis of variance (ANOVA) is used.

Table 6. Analysis of Variance (ANOVA) between Age variable and customer's perception towards E-Insurance.

		Sum of Squares	df	Mean Square	F	Sig.
Sustainability	Between Groups	.036	1	.036	.143	.705
	Within Groups	42.843	171	.251		
	Total	42.879	172			
Cost Effective	Between Groups	.218	1	.218	.833	.363
	Within Groups	44.770	171	.262		
	Total	44.989	172			
Operational benefit	Between Groups	.490	1	.490	1.884	.172
	Within Groups	44.448	171	.260		
	Total	44.938	172			

Table 7. Analysis of variance (ANOVA) between Gender variable and customer's perception towards E-Insurance.

		Sum of Squares	df	Mean Square	F	Sig.
Sustainability	Between Groups	3.897	4	.974	4.198	.003
	Within Groups	38.982	168	.232		
	Total	42.879	172			
Cost Effective	Between Groups	5.188	4	1.297	5.475	.000
	Within Groups	39.801	168	.237		
	Total	44.989	172			
Operational benefit	Between Groups	5.364	4	1.341	5.693	.000
	Within Groups	39.574	168	.236		
	Total	44.938	172			

Table 8. Analysis of Variance (ANOVA) between Income level variable and customer's perception towards E-Insurance.

		Sum of Squares	df	Mean Square	F	Sig.
Sustainability	Between Groups	2.863	3	.954	4.031	.008
	Within Groups	40.015	169	.237		
	Total	42.879	172			
Cost Effective	Between Groups	2.559	3	.853	3.397	.019
	Within Groups	42.430	169	.251		
	Total	44.989	172			
Operational benefit	Between Groups	5.399	3	1.800	7.693	.000
	Within Groups	39.539	169	.234		
	Total	44.938	172			

Tables 6-8 presents the results of ANOVA between demographic profile of investors and perception towards E-insurance indicate that the null hypothesis has been accepted for age which means age do not affect respondents' perception of various factors affecting adoption. On the other hand Gender and Income level are important factors that shape the respondent perception to E-insurance in Jordan. The effect is strong and highly significant at 1% level.

The next step involves testing the second null hypothesis H_{02} presented below:

H_{02} : Various demographic variables (Age, Gender and Income Level) do not affect the respondents' perception of various issues/challenges in using E-insurance.

Results of testing the first hypothesis is shown on tables from 9 to 11, analysis of variance (ANOVA) is used

Table 9: Analysis of Variance (ANOVA) between Age variable and perceived issues in using in using E-Insurance

		Sum of Squares	df	Mean Square	F	Sig.
Security related issues	Between Groups	.050	1	.050	.170	.681
	Within Groups	50.129	171	.293		
	Total	50.178	172			
Customer related issues	Between Groups	1.267	1	1.267	4.301	.040
	Within Groups	50.386	171	.295		
	Total	51.653	172			
Insurer related issue	Between Groups	.426	1	.426	1.072	.302
	Within Groups	67.884	171	.397		
	Total	68.310	172			

Table 10. Analysis of Variance (ANOVA) between Gender variable and perceived issues in using in using E-Insurance

		Sum of Squares	df	Mean Square	F	Sig.
Security related issues	Between Groups	2.990	4	.747	2.661	.034
	Within Groups	47.188	168	.281		
	Total	50.178	172			
Customer related issues	Between Groups	1.462	4	.366	1.224	.303
	Within Groups	50.191	168	.299		
	Total	51.653	172			
Insurer related issue	Between Groups	.869	4	.217	.541	.706
	Within Groups	67.441	168	.401		
	Total	68.310	172			

Table 11: Analysis of Variance (ANOVA) between Income level variable and perceived issues in using in using E-Insurance

		Sum of Squares	df	Mean Square	F	Sig.
Security related issues	Between Groups	1.312	3	.437	1.513	.213
	Within Groups	48.866	169	.289		
	Total	50.178	172			
Customer related issues	Between Groups	1.758	3	.586	1.985	.118
	Within Groups	49.895	169	.295		
	Total	51.653	172			
Insurer related issue	Between Groups	5.589	3	1.863	5.020	.002
	Within Groups	62.721	169	.371		
	Total	68.310	172			

Tables 9-11 presents the results of ANOVA between demographic variables and perceived issues in using in using E-Insurance. Results shows that age is only significant fore customer related issues (Significant at 5% level). Gender is only significant for security related issues (Significant at 5% level. Income level is an issue when it comes to insurer related issues. The effect is strong and highly significant at 1% level.

5. Conclusion

E-business is growing magnificently in Jordan and became one of the important elements in increasing profitability for companies. This study shed light on the prospect of E-insurance in Jordan and discusses all factors and issues affecting the prosperity of this sector. The goal of this study comes in three fold, The first goal is to investigate the factors affecting the adoption of E-insurance . The second goal is to explore the customers' perception towards the use and application of E-insurance and their awareness of the concept. The third goal is to find out the potential issues and challenges associated with the usage of e-insurance. Study sample comprise of 175 respondents after filtering and based on convenience sampling. We summarize the responses of various factors affecting the adoption of E-insurance (20 statements) covering the dimensions of sustainability, cost effective, and operational benefit , and various issues and challenges in E-insurance (14 statements) of security related issues, customer related issues and insurer related issue. The responses of various factors affecting the adoption of E-insurance (20 statements) covering the dimensions of sustainability, cost effectiveness, and operational benefit , and the various issues and challenges in E-insurance (14 statements) including security related issues, customer related issues and insurer related issue , showed that the majority of respondents believe that E-insurance promote sustainability

and is fully secured, respondents agree that E-insurance save paper work and feel safe of using digital signature

Moreover respondents agree and strongly agree that E-insurance is cost effective and reduces the management costs permitting real-time networking of company departments and , the majority are aware that E-insurance is beneficial for enhancing business of insurance providers. When it comes to effective payment systems, Respondents are sure that E-insurance involves self-operation and it is easy to pay and receive funds.

Majority of the respondents are aware that E-insurance reduces the frequency of being physically present in the insurance offices and customers can choose form a wide variety of options and can improve the management information system.

E-insurance helps the buyers in comparing and choosing the best policy from a wide-range of prices and policy conditions. E-insurance also consolidate all the policies in a single account is of great help according to 73.99 of the respondents , almost 73.99% of the respondents agree that E-insurance is better as compared over traditional method in terms of buying and 74.57% of the respondents agree that Dematerialization (the process of converting physical accounts into electronic format) of policies makes it easier to track the policy and ensure that it reaches the buyer .

On the hand when the responses to various issues and challenges in E-insurance are considered (We used 14 statements related to security, customer and insurers related issues), Results shows that overall, the respondents agree that security and privacy is an issue in E-insurance practices. More than two third of the sample (74.57%) agree that security is an issue with customers regarding fear of loss of confidential information such as username and password , and 70.53% of the respondents agree that Privacy is an issue in case of an e-insurance. Illegality of electronic signatures is a challenge sometimes in 75.72% of the respondent. Finally, respondents are aware that engaging in E-insurance incorporate sharing of database by the company; 61.27% agrees.

Moreover, respondents believe that issues related to customer are a major issue. Respondents agree that lack of knowledge about repositories and lack of knowledge of using internet are two main constraints to customers adopting E-insurance.

Respondents also believe that there is a lack of awareness regarding E-insurance among customers. E-insurance involves reluctance /resistance on the part of customers to change from traditional methods from the point of view of the respondents.

Insurers are major part when it comes to E-insurance. The challenge is dual, for customers and insurers at the same time and the insurance sector in Jordan must move from traditional insuring into technology oriented. Respondents agree that E-insurance policies do not provide a discount on premium in 54.34% of the sample, although 15.03% of the respondents believe that E-insurance involve discount on premium , and interestingly 30.64% of the study sample are neutral.

Respondents believe that E-insurance policies can be customized as per the needs and requirement of the customers (21.39%), on the other hand 49.71% believe not. Still respondents are not sure of the efficiency of data shifting in case of movement from one repository to another (50.57%) and 18.39% believed that it is an easy and efficient process.

Respondents believe that there is lack of proper web based mechanism for protecting claims (55.43%) , and a very restricted portfolio of products sold online by the insurers (62.85%) , on the other hand 14.29% and 12% disagree (respectively)

Testing the study hypothesis shows that demographic factors such as age , gender and income are important factors in shaping the attitudes and perceptions of customers toward E-insurance in Jordan. Results between demographic profile of customers and perception towards E-insurance indicate shows that age has no effect on respondents' perception of

various factors affecting adoption. On the other hand Gender and Income level are important factors that shape the respondent perception to E-insurance in Jordan. They affect sustainability, cost effectiveness and operational benefits of E-insurance.

Results also show that age is only significant for customer related issues and affect the respondents' perception of various issues/challenges in using E-insurance, while Gender is only significant for security related issues. Finally income level is an issue when it comes to insurer related issues such as the agreement of respondents on the idea that E-insurance policies might/might not provide a discount on premium , and that E-insurance policies might/might not customized as per the needs and requirement of the customers.

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