Exploring The Factors Influencing Customers' Intention to Adopt Online Takaful in Tunisia

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Abstract

The purpose of this paper is to identify the main factors, which influence the Tunisian customers to adopt online Islamic insurance (Takaful) characterized by infrequent interactions, inherent complexity and risk. It extends the technology acceptance model to include subjective norms and trusting attitude. A total of 350 questionnaires were randomly distributed to Tunisian Takaful customers and 102 were returned (29.2 percent response rate). Multiple linear regression analysis was used to test the framework. The research findings indicate that perceived risk has a significant and negative impact on intention to use the online Takaful services. However, perceived usefulness and subjective norms positively and significantly influence the intention to use the online service. The study provides insights for Takaful management to develop and enhance more online services with a view to expand their offerings and develop innovative products. This research represents an initial effort to examine the behavior of Tunisian citizens regarding their intention to adopt online Takaful insurance focusing on factors discussed above. The study provides valuable insights and acknowledges that further research surrounding the need for online Takaful services needs to be explored in further studies.

Keywords: Takaful, Perceived Risk Theory (PRT), TAM, online Islamic insurance, intention

1. Introduction

Information technology has evolved at a pace never seen before in the previous few decades, impacting and changing human behavior as we know it. This evolution has an impact on all industrial sectors, but particularly on the services industry. The insurance sector has experienced tremendous technical advancement and change in recent years.

The Takaful insurance market is impacted by technology, for instance in the ways that consumers and insurance companies interact and provide services (Ismail et al., 2022). To date, the insurance effect of Artificial Intelligence (AI) has been low. The adoption of AI in insurance nevertheless gains momentum and has proven to be a major catalyst to enhance insurers' competitive services (Hall et al., 2017). Movement to electronic channels not only provides a technical solution but also includes social aspects relating to both staff and clients. If clients are to change their behavior, the new service model must first be accepted (Rayport & Sviokla, 1994). To date, insurance companies have invested in call centers, but little was done to design new channels for standardization and simple assurance. The attitudes of clients towards new channels must also be made more positive. We note that insurance networks are still in their infancy, while banks and their business customers are now mature (Ahonen & Järvinen, 2004). In the latest report, though about half of consumers have been using the internet to request a contract, only 25% of them buy the policy through the insurer website, 50% close their offer directly by talking to an agent, and 22% move through an online service. The truth is that most insurance providers don't have a real value online (Murray, 2017).

Most of the research conducted on Takaful during past decade were carried out in Malaysia (Aris et al.,

2009; Amin, 2011; Ayinde & Echchabi, 2012; Arifin et al., 2013; Kamil & Nor 2014; Aziz et al., 2015; Zakaria et al., 2016). In addition to this, only a limited amount of research has been conducted in Africa, particularly in Tunisia (Echchabi et al., 2014; Gafsi & Ziadi 2018).

The Tunisian insurance market is made up of 22 resident companies and 6 offshore companies. The resident companies consist of 20 operate under the status of public limited company (which are further categorized as 3 Islamic companies and 17 conventional companies). The remaining 2 companies are incorporated as mutual companies.

The growth rate of conventional insurance companies is very low compared to Islamic Takaful insurance companies (Al-Amri & Hossain, 2017). The turnover growth rate of Islamic insurance companies in 2021 ranged between 17.2% and 30.1% whereas conventional insurance companies experienced a wider range, with rates varying from a negative rate of -0.9% and a positive rate of 26.6% which is based on General Insurance Committee Annual Report 2021.

In terms of training, Tunisia plays an appreciable role in the Maghreb and even in Africa, through the African Insurance Institute (A.I.I) founded in 1966, which has been used by more than 23 African countries. The Institute for Financing the Development of the Arab Maghreb (IFID), created by the Tuniso-Algerian Convention of September 3, 1981, specializing in the training of senior executives in the insurance and banking sectors, and the Technical Centre for Insurance Training (C.T.F.A), founded in 1999 on the initiative of the Tunisian Federation of Insurance Companies (F.TU.SA).

Although information technologies and service provider offerings have advanced, not all customers prefer making purchases online. According to Shankar et al. (2003), a variety of issues led to customers' reluctance and outright refusal to shop online. They discovered that consumers' reluctance to engage in online buying was influenced by a few factors, including perceived lack of human interaction, technological failure, privacy and financial security concerns, and unfamiliar service encounters.

The purpose of this paper is to identify the main factors, which influence the Tunisian customers to adopt online Islamic insurance (takaful) characterized by infrequent interactions, inherent complexity and risk. It extends the technology acceptance model to include Subjective norm and trusting attitude.

This paper is organized into five parts. Part 2 provides literature reviews and hypotheses of the study. Part 3 describes the methodology used, while Part 4 discusses the results of the empirical study and the final part offers the Conclusion, limitations and future research.

2. Literature Review and Hypotheses Development

The current research aimed to identify the key factors influencing customers' intention to adopt online Takaful. The literature review focuses on exploring studies specifically related to consumer behavior.

There has been growing recognition of decision-making need to identify the main factors, which influence the Tunisian customers to adopt online Takaful. The subsequent sections outline the arguments that form the basis for developing the study's hypotheses.

2.1 Theoretical background

The theoretical framework of this research work is based on a set of theories to explain the determinants of intention to use online Takaful. In this sense, the theories used are three: the theory of TAM (technology acceptance model), the theory of Perceived Risk and the theory of Reasoned Action (TRA).

i. The theory of technology acceptance model (TAM)

TAM has its roots in the theory of reasoned action (Ajzen & Fishbein, 1980) based on social psychological principles and seeks to explain behaviour rooted in the adoption of information technology infrastructure in the workplace. TAM adopts the informal relationship between attitude, belief, intention and behavior. It assumes that actual system usage is driven by the behavioral intention to use a new technology. Likewise, individual attitude towards using a new technology determines the behavioral intention to use a new technology.

ii. The theory of perceived risk

Bauer (1960) first proposed that consumer behavior should be perceived as risk-taking. Useful empirical research has attempted to identify various types of perceived risk in the context of consumer purchasing behavior. Since the early 1960s, marketing and consumer behavior researchers have continued to be interested in Perceived Risk. Perceived Risk theory plays a role in making it easier for

the world's marketers to get started. The theory has intuitive appeal and can be applied almost universally. It is suggested that Perceived Risk is ideal in explaining consumer behavior since consumers' motivations when purchasing is more often about avoiding errors that maximize the utility of the purchase. Risk analysis can be used in branding development, targeting, positioning and segmentation.

iii. The theory of reasoned action (TRA).

According to the TRA, a person's intention is a function of two fundamental causes, one is personal and the other reflects social influence. The personal factor is the positive or negative evaluation of behavior. This factor is called attitude toward behavior (Ajzen & Fishbein, 1980). The second factor of intention is the person's perception of the social pressure exerted on them to adopt or not adopt the behavior in question. Since it deals with perceived prescriptions, this factor is called subjective norm (Ajzen & Fishbein, 1980). According to the theory, attitude is a function of beliefs; a person who believes that engaging in a given behavior will lead to generally positive outcomes will adopt a favorable attitude toward the behavior, whereas a person who believes that the behavior will lead to primarily negative outcomes will adopt an unfavorable attitude. The beliefs that underline a person's attitude towards this behavior are called behavioral beliefs (i.e. consuming or purchasing halal or non-halal products). Subjective norms are also a function of beliefs that specify individuals or groups to think whether they should perform the behavior. These beliefs that underline a person's subjective norm are called normative beliefs. A person who believes that most of the referents with whom he is motivated to conform think he should perform the behavior will receive social pressure to do so. The theory of reasoned action is a widely used model of expectancy and value that relies on the outcomes of attitude, subjective norms, and the intention to perform a specific behavior (Fishbein & Ajzen, 1975).

2.2. Hypothesis development
2.2.1. The effect of perceived usefulness on the intention to use Online Takaful Services

i. Perceived Usefulness

The significance of perceived usefulness derives from the Technology Acceptance Model (TAM) (Davis, 1989) where perceived usefulness affects attitude and behavioural intentions both directly and indirectly (Igbaria et al., 1994).

According to social psychology theories, such as the Theory of Reasoned Action (Ajzen & Fishbein, 1980); Fishbein and Ajzen, 1975) and the Theory of Planned Behavior (TPB) (Ajzen, 1985), the Technology Acceptance Model (TAM) has been validated as a powerful and parsimonious framework perceived usefulness is a fundamental variable in explaining consumers' intention to use online services (Davis, 1989). According to Davis (1993) perceived usefulness was defined as the degree to which an individual believes that using a particular technology would enhance his job performance in one organizational context. Davis (1989), think that there is strong direct relation between usefulness and intention to use. This explains why consumers intend to use technology is due to ease and benefit. Perceived usefulness has a positive effect on behavioral intention to use insurance claims (Cham et al., 2018; Gebert-Persson et al., 2019; Yet Mee et al., 2019; Pavlou, 2003; Sun et al.,2022; Jiang et al.,2019; Park et al.,2021). This discussion leads to the following hypothesis:

> *H1: Perceived Usefulness Positively affect intention to use the online* Takaful.

2.2.2. The effect of perceived risk on the intention to use Online Takaful Services

i. Perceived risk

Perceived risk according to Snyder (1986) refers to "*an expected negative utility that consumers associated with purchasing a particular product or service.*" It has always been an important content for academic research (Zhang & Yu, 2020).

Consumers' perception of network risk is associated with their sense of risk for specific apps. In addition, it represents the customer's anxiety about possible profits or losses in a particular deal (Murray, 2017). Word-of-mouth, prior experiences, and advertisements help consumers set expectations for the services they will receive. Service quality is used to compare and assess perceived versus expected services. Furthermore, customer attitudes significantly influence perceived utility,

perceived ease of use, and perceived risk—all of which are related to the intention to use online group purchasing (OGB) sites—according to a quantitative study that used the technology acceptance model (TAM).

The perceived risks will be described in respect of the perception of the consumer that the product or service is uncertain with possible adverse consequences (Bauer, 1960).

Bauer (1960) is the father of the Perceived Risk Theory (PRT) explaining that perceived risk was a cause of consumer behavior and in turn when applied to online services, it could be the main factor negatively affecting consumer intent to adopt online services.

Rational action theory predicts that if their perceived risks are small, consumers are then willing to act (Ajzen, 1985).

Also, buyers are aware of the risk if they face uncertainty and potentially unwanted effects from a purchase made (Taylor, 1974). The perceived risk has a significant negative effect on an individual's intention towards the use of certain technological products or services (Lee, 2009; Huei et al., 2018; Juniwati, 2014; Kim et al., 2008; Sun et al.,2022). Thus, the following hypothesis is proposed:

H2: perceived risk negatively affect intention to use the online Takaful

2.2.3. The effect of trust attitude on intention to use online Takaful services

i. Trusting attitudes

Many researchers have explored the concept of trust from varying perspectives based on their respective disciplines. In the field of e-commerce research, for instance, some scholars have identified contradictions and confusion (Taylor, 1995). Others have noted its complexity in its definition, whilst some have opted to avoid defining altogether.

The decision to position trust as an attitude versus a behavioral intention, however, clearly depends on its definition and operationalization. Trust scales that focus on the user's effective or evaluative predisposition toward the referent are more consistent with an attitudinal conceptualization. In contrast, questions concerning the user's willingness to do something specifically reflect the conceptualization of trust as a behavioral intention (Fuller, 2009). Suggested that trust in e-commerce has a positive impact on people's intention (Gefen et al., 2003, Gidhagen & Persson 2011; Fuller, 2009; Gennaioli et al., 2022; Liu et al.,2022; Sun et al.,2022; Pavlou, 2003). It also shows that online trust is positively correlated with consumers' intention to engage in electronic commerce. Therefore, the following hypothesis is proposed:

H3: Trusting attitudes positively affect intention to use the online Takaful

2.2.4. The effect of Subjective norms on intention to use online Takaful services

i. Subjective norms

Subjective norms are the expectations of influential individuals or groups that a specific behavior will be accepted and encouraged. Subjective norms are shaped by an individual's incentive to conform to the opinions of others and their perception of social pressure from others to behave in a particular way. The impact of arbitrary standards on the formation of Subjective norms are the expectations of influential individuals or groups that a specific behavior will be accepted and encouraged. Subjective norms are shaped by an individual's incentive to conform to the opinions of others and their perception of social pressure from others to behave in a particular way.

Subjective norm is a fundamental construct of the theory of reasoned action (Fishbein and Ajzen, 1975). It is a function of a person's belief that specific referent individuals or groups approve of the behavior, and therefore the person is motivated to conform to these referents. In other words, if a person perceives pressure from family, friends, or a spouse, they are likely to act in accordance with the expected behavior.

Subjective norm is shaped by social networks and institutions such as school, workplace and family. The construct, commonly used to evaluate social influence, has proved to be valuable in predicting behaviors (Finlay et al., 1997).

Venkatesh and Davis (2000), proposed to include additional variables and to modify their original relationships an extended model called TAM. These variables included: Subjective norms influence others on the user's decision to use or not use the technology. In the technology domain, influences

from both peer and superior are strong determinants of subjective norms (Taylor, 1995). Subjective norm through word of mouth has a significant impact on consumers purchase decision (Yet Mee et al., 2019; Jiang et al.,2019). Subjective norm influences the decision-making process because it eliminates ambiguity and gives individuals the possibility of having knowledge and social norms (Lu, Yao, & Yu, 2005). Thus, the following hypothesis is proposed:

H4: Subjective norm Positively affect intention to use the online Takaful.

Figure 1: The conceptual research model.
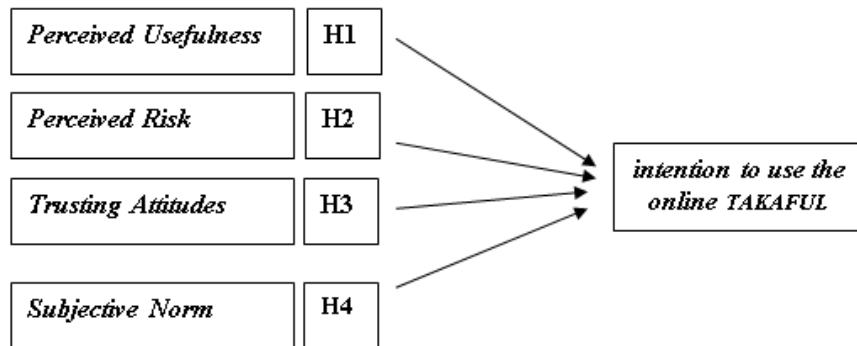
3. Research Methodology
In what follows, we will describe the sample, the tools and procedures applied for data collection, and the empirical model.

3.1 Questionnaire design
The questionnaire developed had two parts. The first part of the questionnaire had questions on demographic details of the potential respondents including gender, age group, education level, occupations level. The respondents had an Internet connection and Internet connection at home, respondents answered that they have utilized online Islamic insurance (takaful). The second part of the questionnaire had 22 statements covering the independent and dependent variables of the study. Each statement was presented as a five-point Likert scaled-response question with 1 being "strongly disagree" to 5 "strongly agree".

3.2 Sample and data collection
The questionnaire brings together scales assessing, intention to use online Islamic insurance claims, Perceived usefulness, perceived risk, online trust and Subjective norm. The intercept survey method was chosen. A total of 350 customers in Tunisia were invited to take part. Before leaving the physical office of an insurance company, customers had to be asked about their perception and opinion of E-insurance. There have been 102 responses in total. The response rate was 29.2 %, which compares to the 30.6 percent average of recent research surveys found (Goyal et al., 2013). The hypothesized relationships were examined by self-administered study.

3.3 Measurement of variables
All variables in our research were measured by instruments already validated by previous literature.

3.3.1. Measurement of the dependent variable
    i.   Intention to use online Takaful services
        To measure customers' intention to use online Islamic insurance services, adopting the scale developed by Venkatesh & Davis (2000). This selection is based on its validity and internal reliability which have been demonstrated in prior empirical research.

3.3.2. Measurement of independent variables

The independent variables of the study are attitude of trust, perceived usefulness, perceived risk and subjective norms.

i. **The trusting attitude**
    Concerning the trusting attitude, we used the measurement instrument developed by Doney & Cannon (1997). This measure was used by Koufaris & Hampton-Sosa (2002).

ii. **Perceived usefulness**
    To measure perceived usefulness, we used the instrument developed by Davis (1989). According to this author, perceived usefulness was defined as the degree to which a person believes that the use of a particular technology would improve their work performance in each organizational context. This measure was used by Pavlou (2003).

iii. **Perceived risk**
    Perceived risk is measured by the instrument developed by Stone & Gronhaug (1993), which presents a combination of uncertainty, severity of outcome and loss expectations associated with the purchase. This measure is used by Belanche et al. (2012).

iv. **Subjective norms**
    The "subjective norms" variable is measured by the instrument developed by Ajzen and Fishbein (1980). This measure is used by Bhatti & Md Husin (2019).

Table 1 summarizes all the variables used for this research, the items which measure each of the variables and the corresponding bibliographic references.

Table 1: Summary of the attributes retained for the operationalization of the variables

Research variables	Code	Items	Measure developed by	Measurement used by
Intention to use online services	IN	IN1, IN 2, IN 3, IN 4, IN 5	Venkatesh & Davis (2000)	Paul A. Pavlou (2003)
Trusting attitude	TA	TA 1, TA 2, TA 3, TA 4, TA 5, TA 6	Doney & Cannon (1997)	Marios Koufaris & William Hampton-Sosa (2002)
Perceived Risk	PR	PR1, PR2, PR3	Stone & Gronhaug (1993)	Daniel Belanche et al. (2012)
Perceived Usefulness	PU	PU1, PU2, PU3, PU4	Davis (1989)	Paul A. Pavlou (2003)
Subjective Norms	SN	SN1, SN 2, SN 3, SN 4	Ajzen & Fishbein (1980)	Tariq Bhatti & Maizaitulaidawati Md Husin (2019)

3.4 Regression model

The methodology used in our empirical analysis is the multiple linear regression method, processed by the SPSS 20 software.

The multiple regression equation is given below:

$$IN = \beta_0 + \beta_1 \, PU + \beta_2 \, PR + \beta_3 TA + \beta_4 SN + \varepsilon$$

IN: Intention to use
PU: Perceived Usefulness
PR: Perceived Risk
TA: Trusting Attitude
SN: Subjective Norms

4. Data Analysis and Results

This section deals with the presentation of survey findings, data analysis reports and discussion of the findings. The first step is to provide the respondents with a demographic profile and technical profile. It is followed by the reporting of reliability test and validity test findings of the questionnaire. Then the multiple diagnosis of regression and the findings of the regression analysis are discussed.

4.1 Profile of respondents

A total of 102 respondents completed the survey as outlined in Table 2. 42.2% are female and 57.8% are male. Most of the respondents were aged 25-44 years (67.7%). 80.4% of the respondents are highly educated possessed a university level. The most cited occupations were high-level managers (14.7%), intermediate level managers (14.7%), intellectual occupations (22.5%), independents (17.6%), worker (10.8%), and student (19.6%).

Table 2: Demographics/e- Islamic insurance use

Characteristics of respondents	%
Gender	
Female	42.2
Male	57.8
Age	
-19–24	10.8
-25–29	16.7
-30–34	11.8
-35–39	19.6
-40–44	19.6
-45–49	9.8
->50	11.8
Education level	
-Primary school	2
-High school	17.6
-Undergraduate	33
-Graduate	34.3
-Master	5.9
-PhD	6.9
Occupation	
-High-level managers	14.7
-Intermediate level managers	14.7
-Intellectual occupations Independents	22.5
-Worker	17.6
-Student	10.8
-Other	19.6

4.2 Reliability test

On all the structures, the computation Cronbach was carried out. Cronbach's a-values, as proposed by Cavana et al. (2001), were far higher for all structures than 0.7. The results are shown in Table 3. α-values show the internal coherence of the scales for the structures used for analysis to verify the reliability of the scales used.

4.3 Validity test

The main component analysis has been used for building validity measurement (Cavana et al, 2001). The main parameter analysis was used. The survey data were subject to two tests prior to performing the main component analysis. The statistical test for Bartlett test of sphericity was significant (p= 0.000; Ddl = 231). The value of Kaiser-Meyer Olkin (KMO) was 0.789 and in the acceptable range of 0.5 and 1.0. Both these tests show that principal component analysis was appropriate for the data collected from the survey. Table 3 provides descriptions of the main component of the study. The performance of the SPSS shows that Eigen values are above 1.0 for all constructs, ranging from 3,974 maximum for " trusting attitude" to 2,448 minimum for "perceived risk". Factor loadings greater than 0.50 assess the convergent validity.

Table 3: Confirmatory factor analysis results for Measurement model

Factor'sname	Items	Factor loading	Eigen-value	Percentage of variance explained	Cronbach's reliability coefficients
Intention to use	ITU1	0.895	3.508	70.169	0.890
	ITU2	0.581			
	ITU3	0.910			
	ITU4	0.911			
	ITU5	0.844			
Perceived usefulness	PU1	0.879	2.640	65.999	0.816
	PU2	0.902			
	PU3	0.615			
	PU4	0.822			
Perceived risk	PR1	0.906	2.448	81.586	0.887
	PR2	0.909			
	PR3	0.894			
trusting attitude	TA1	0.797	3.974	66.240	0.896
	TA2	0.856			
	TA3	0.890			
	TA4	0.766			
	TA5	0.735			
	TR6	0.828			
Subjective norm	SN1	0.909	3.132	78.311	0.906
	SN2	0.913			
	SN3	0.804			
	SN4	0.909			

Notes: KMO measure of sampling adequacy = 0.789; p= 0.000 (p , 0.05); Ddl= 231

4.4 Regression diagnostics

Before the regression analysis is carried out, the six premises of regression analysis must be discussed accordingly. Field (2005) describes the assumptions as follows: (1) normality; (2) linearity; (3) independence of error term; (4) absence of multicollinearity; (5) absence of heteroscedasticity; and (6) absence of outlier and influential observations. The residual distribution was symmetrical and unimodal, which was the normality assumption when the histogram was drawn. No heteroscedasticity was observed and when the dispersed graph was formed, the distribution was linear in nature. The value of Durbin-Watson was 1.537 which was relatively nearer to 2, showing the independence of error term. There was no multicollinearity in the data, as the tolerance statistics were all above 0.2 and VIF values below 5.

5. Regression Results and Discussions

Multiple linear regression was conducted to determine the structure of the relationship between the independent variables namely trust, perceived usefulness, perceived risk, norm subjective on the dependent variable that is intention to use online Takaful services. The results are given in Table 4.

Table 4: Multiple linear regression results

	Coefficient	*Standard error*	t-value	p-value
(Constant)	9.541E-17	0.084	0.000	1.000
Perceived Usefulness	0.288***	0.105	2.751	0.007
Perceived Risk	-0.223*	0.085	-2.629	0.010
Trusting Attitude	0.144	0.099	1.458	0.148
Subjective Norms	0,240***	0.091	2.646	0.010

R^2 : 0.304
Adjusted R^2 : 0.272 ; F = 10, 578 ; p < 0.000>

Notes: Dependent variable –intention to use; independent variables –Perceived Usefulness, Perceived Risk, Trusting Attitude, Subjective Norms;
*, **, and ***: significant at the level of 10, 5, and 1%, respectively

i. **Perceived usefulness**

As presented in Table 4, the results showed that the coefficient b_1 9 was positive and significant (*t*-value= 2.751, *p* < 0.007), providing support for hypothesis H1, which states that *Perceived Usefulness Positively affect intention to use the online Takaful.*

This finding is consistent from the existing literature by Gebert-Persson et al. (2019) and Davis (1989) which states that "perceived usefulness**" will** positively affect the "intention to use online insurance claims". In the present research, perceived usefulness concerns whether the Tunisian customers perceive the online application as having a positive effect on task performance, which in this case is completing an insurance service. The digital transformation of the insurance industry also allows consumers to follow the process of managing consumer services through the insurance provider. Such a transition would also have straightforward claim processes and open more customer engagement. Usefulness has been perceived as a motive for making a service online rather than directly or telephonically. Typical accounts have verified that the online assertion is quicker than telephone and the request is available online 24 hours a day.

ii. **Perceived risk**

As presented in Table 4, the results showed that the coefficient b_2 was negative and significant (*t*-value=- 2.629, *p* < 0.01), providing support for hypothesis H2, which states that *Perceived Risk negatively affect intention to use the online Takaful.*

This finding is consistent from the existing literature by (Bauer, 1960; Taylor, 1974; Pavlou, 2003). Risk has been recognized as the primary barrier to online transactions. Higher perceived online risk is often caused by being unable fully to monitor the seller's behavior and/or concerns regarding the security of online services.

iii. **Trusting attitude**

The regression results point out that trust attitude has no impact on intention to use as the p-value of 0.148. Hence, H3 is rejected. This is contrary to the findings from the previous studies. Theoretically, the results support research maintaining that TAM explains behavioral intention to use technologies (Davis, 1989), whereas the trusting attitude does not seem to be as important for less frequently used services, such as Islamic insurance. However, so long as the customer has a base level of trust in the insurance company, then emphasis shifts to perceived usefulness, perceived risk and the norm subjective to technology.

iv. **Subjective norms**

As presented in Table 4, the results showed that the coefficient b_4 was positive and significant (*t*-value= 2.646, *p* < 0.010), providing support for hypothesis H4, which states that *Subjective Norms Positively affect intention to use the online Takaful.*

This finding is consistent from the existing literature by (Venkatesh & Davis, 2000; Cham et al., 2018; Martin & Frank 2010; Choi & Geistfeld, 2004; Lee & Wan, 2010). These authors explain Subjective norms had a consistent effect on intention, irrespective whether travelers were familiar with online services. In the absence of new technology encounters, prospective adopters appear to evaluate the views of others who trust in their intentions of adoption (Lee, 2010).

6. Conclusion, Limitations and Future Research

The main objective of the study was to identify the main factors, which influence the Tunisian customers to adopt online Takaful services characterized by infrequent interactions, inherent complexity and risk. It extends the technology acceptance model to include Subjective norm and trusting attitude. The results showed that Perceived usefulness and subjective norm have a significant impact on the Tunisian customers' intention to adopt online Takaful services. On the other hand, the results have also shown that the Tunisian customers are strongly willing to shift to adopt online Takaful services. However, perceived Risk has been recognized as the

primary barrier to online transactions.

The research results have implications for the development of internet insurance systems and internet insurance services marketing. If online Takaful services are regarded as helpful, the customer will adopt it.

To encourage customers to perceive online Takaful services as useful, it is essential to shape their expectations regarding the utility, ease of use, and the safety and privacy of these services. As online Takaful is a relatively new concept in Tunisia, insurances companies should leverage media ads such as radio, TV, brochures and website to offer internet services to inform and reach a broader public. Additionally, awareness programs should be initiated to highlight the time saving, accessibility and availability of information at any time. The main objective of these campaigns should be to educate customers on the relative advantages of the program, including how to manage and protect their privacy (Cyril et al., 2011). Insurance company can tailor the information to meet customer needs, potentially leading to a higher level of engagement with internet-based insurance services, moving beyond just information search (Gidhagen & Persson, 2011).

While this paper provides valuable theoretical insights and deepens the understanding of consumer behavior regarding the adoption of online Islamic insurance, there are several limitations. First, the sample size in this study is relatively small, which may affect the generalization of the findings. Future research could aim to expand the sample size or include participants from additional countries to strengthen the validity of the results. Additionally, this study examines Takaful in a broad sense, encompassing all services, however, consumer behaviors may be vary depending on the specific nature of each services. Future studies could categorize different types of online Takaful services and explore consumer behavior for each service individually, allowing for meaningful comparisons. Finally, while this study focuses on online Takaful, exploring consumer behavior in other contexts, such as in Islamic banking services, presents an interesting avenue for future research. So future research could consider different settings in other industries which have various benefits, risk levels and decision-making.

References

Ajzen, I. & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behaviour*. Prentice-Hall, Englewood Cliffs, NJ.

Ahonen, A. & Järvinen, R. (2004).Current State of Electronic Insurance Services. *In M. Hannula,A.-M. Järvelin,M. Seppä (Eds.). Frontiers of e- Business Research*, pp.148-163.

Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. *Springer*, pp. 11-39.

Amin, H. (2011). Determinants of Islamic Insurance Acceptance: An Empirical Analysis. *International Journal of Business & Society, I2*(2).

Al-Amri, K. & Hossain, M. Z. (2017), A Survey of the Islamic Insurance Literature – Takaful International. *Journal of Economic Research, 14*(9) p173-185.

Arifin, J., Yazid, A. S. & Sulong, Z. (2013). A Conceptual Model of Literature Review for Family Takaful (Islamic Life Insurance) Demand in Malaysia. *International Business Research, 6*(3), 210–216.

Aris, Y. B. W., Siti, Z. S. & Shaadan, N. (2009). A Relook into Awareness, Perceptions, Barriers and Future Insurance needs: A Case Study of Takaful and the Malays. *Conference of the International Journal of Arts and Sciences, 1*(19), 10–21.

Ayinde, L. O. & Echchabi, A. (2012). Perception and Adoption of Islamic Insurance in Malaysia: An Empirical Study. *World Applied Sciences Journal, 20*(3), 407–415.

Aziz, H. A., Echchabi, A., Houssem Eddine, C. O., Ayedh, A. M., Musse, O. S. H. & Azouzi, D. (2015). Current State and Future Prospects of Islamic Banking in Morocco: An Empirical Investigation. *Journal of Emerging Economies & Islamic Research, 3*(2), 1-10.

Bauer, R. A. (1960). Consumer behavior as Risk Taking. *Chicago, IL*, 384-398.

Belanche, D., Casaló, L. V., & Guinalíu, M. (2012). Website Usability, Consumer Satisfaction and The Intention to Use a Website: The Moderating Effect of Perceived Risk. *Journal of Retailing and Consumer Services, 19*(1), 124-132.

Bhatti, T., & Md Husin, M. (2019). An Investigation of The Effect of Customer Beliefs on The Intention to Participate in Family Takaful Schemes. *Journal of Islamic Marketing*, 9-10

Cavana, R.Y., Delahaye, B.L. & Sekaran, U. (2001). *Applied Business Research: Qualitative and Quantitative Methods*. Wiley, Queensland.

Cham, T.H., Low, S.C., Lim, C.S., Aye, A.K., & Ling, R.L.B. (2018). The Preliminary Study on Consumer Attitude towards FinTech Products and Services in Malaysia. *International Journal of Engineering & Technology, 7*(2.29), 166-169.

Choi, J. & Geistfeld, L.V. (2004). A Cross-Cultural Investigation of Consumer E-Shopping Adoption. *Journal of Economic Psychology 25*(6), 821-838.

Cyril, E.U., J.K. Manyeki, L.H. Yaw & L.C. Har, 2011. Factors Affecting Internet Banking Adoption Among Young Adults: Evidence from Malaysia. *International Conference on Social Science and Humanity, 5*, 377-381.

Davis, F. D. (1989). *Perceived Usefulness, Perceived Ease of Use and User Acceptance of Information Technology.* MIS quarterly, 319-340.

Davis, F. D. (1993). User Acceptance of Information Technology: System Characteristics, User Perceptions and Behavioral Impacts. *International Journal of Man-Machine Studies, 38*(3), 475-487.

Doney, P.M. and Cannon, J.P. (1997) An Examination of the Nature of Trust in Buyer-Seller Relationships. *Journal of Marketing, 61*, 35-51. Retrieved from http://dx.doi.org/10.2307/1251829

Echchabi, A., Ayinde Olorogun, L. & Azouzi, D. (2014). Islamic Insurance Prospects in Tunisia in The Wake of The Jasmine Revolution: A Survey from Customers' Perspective. *Journal of Islamic Accounting and Business Research, 5*(1), 15-28. Retrieved from https://doi.org/10.1108/JIABR-06-2012-0032.

Field, A. (2005). Discovering Statistics Using SPSS. *Sage*, London.

Fishbein, M., & Ajzen, I. (1975). Belief, Attitude, Intention, And Behavior: An Introduction To Theory And Research. *Contemporary Sociology*, 6(2), 244.

Finlay, K. A., Trafimow, D., & Jones, D. (1997). Predicting Health Behaviors from Attitudes and Subjective Norms: Between-Subjects and Within-Subjects Analyses. *Journal of Applied Social Psychology, 27*(22), 2015–2031. Retrieved from https://doi.org/10.1111/j.1559-1816.1997.tb01638.x

Fuller, M. A., Serva, M. A., & Baroudi, J. (2009). Clarifying The Integration of Trust and TAM In E-Commerce Environments: Implications for Systems Design and Management. *IEEE Transactions on Engineering Management, 57*(3), 380-393.

Gafsi, N. & Ziadi, N. (2018). The Preconditions for The Successful Practice of Islamic Insurance (Takaful): The Case of Tunisia. *Conference: Summer Conference on Financial Implications of Sustainability and Corporate Social Responsibility*, GRM, Université Côte d'Azur, Nice, France.

Gebert-Persson, S., Gidhagen, M., Sallis, J. E., & Lundberg, H. (2019). Online Insurance Claims: When More Than Trust Matters. *International Journal of Bank Marketing, 37*(2), 579-594.

Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in Online Shopping: An Integrated Model. *MIS quarterly, 27*(1), 51-90.

Gidhagen, M., & Persson, S. G. (2011). Determinants of Digitally Instigated Insurance Relationships. *The International Journal of Bank Marketing, 29*(7), 517-534.

Goyal, A., Maity, M., Thamizhvanan, A., & Xavier, M. J. (2013). Determinants of Customers' Online Purchase Intention: An Empirical Study in India. *Journal of Indian Business Research*, 5(1), 17-32.

Gennaioli, N., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2022). Trust and Insurance Contracts. *The Review of Financial Studies, 35*(12), 5287-5333.

Hall, E. C., NJ. Ali, A. & Sherwani, M. (2017). Shaping Halal into A Brand? Factors Affecting Consumers Halal Brand Purchase Intention. *Journal of International Food and Agribusiness Marketing,* 29(3), 234-259.

Huei, C. T., Cheng, L. S., Seong, L. C., Khin, A. A., & Bin, R. L. L. (2018). Preliminary Study on Consumer Attitude Towards Fintech Products and Services in Malaysia. *International Journal of Engineering & Technology, 7*(2.29), 166-169.

Juniwati, J. (2014). Influence Of Perceived Usefulness, Ease of Use, Risk on Attitude and Intention to Shop Online. *European Journal of Business and Management, 6*(27), 218-229

Jiang, S. J., Liu, X., Liu, N., & Xiang, F. (2019). Online Life Insurance Purchasing Intention: Applying the Unified Theory of Acceptance and Use of Technology. *Social Behavior and Personality: An International Journal, 47*(7), 1-13.

Igbaria, M., Schiffman, S. J., & Wieckowski, T. J. (1994). The Respective Roles of Perceived Usefulness and Perceived Fun in The Acceptance of Microcomputer Technology. *Behaviour & Information Technology, 13*(6), 349–361.

Ismail, M. K., Roslan, S. N. M., Aziz, A. D. C., Rose, N. A. M., & Embong, M. I. (2022). Factors Influencing Consumers' Purchase Intention of Takaful in Terengganu. *Resmilitaris*, *12*(4), 345-355.

Kamil, N. M. & Nor, N. B. M. (2014). Factors Influencing the Choice of Takaful Over Conventional Insurance: The Case of Malaysia. *Journal of Islamic Finance, 3*(2), 001–014.

Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A Trust-Based Consumer Decision-Making Model in Electronic Commerce: The Role of Trust, Perceived Risk, And Their Antecedents. *Decision support systems, 44*(2), 544-564.

Koufaris, M., & Hampton-Sosa, W. (2002). Customer Trust Online: Examining The Role of The Experience With The Web-Site. *Department of Statistics and Computer Information Systems Working Paper Series, Zicklin School of Business*, Baruch College, New York, pp.6-7.

Lee, C., & Wan, G. (2010). Including Subjective Norm and Technology Trust in The Technology Acceptance Model: A Case Of E-Ticketing in China. *ACM SIGMIS Database: the DATABASE for Advances in Information Systems, 41*(4), 40-51.

Lee, M. C. (2009). Factors Influencing the Adoption of Internet Banking: An Integration of TAM and TPB With Perceived Risk and Perceived Benefit. *Electronic Commerce Research and Applications, 8*(3), 130-141.

Liu, Z., Li, W., & Zhang, T. (2022). Internet and Private Insurance Participation. *International Journal of Finance & Economics, 27*(1), 1495-1509.

Martin, O., & Frank, J. (2010). Empowered Involvement and Word of Mouth: Conceptual Model and First Empirical Evidence. *Journal of Marketing Trends, 1*, 25–33

Murray, M. (2017). Why More Car Insurance Shoppers Are Shopping Online. *Elephant*. Retrieved from http ://www.elephant.com/blog/car-insurance/why-more-car-insurance-shoppers-are-shopping-online.

Pavlou, P. A. (2003). Consumer Acceptance of Electronic Commerce: Integrating Trust and Risk with The Technology Acceptance Model. *International Journal of Electronic Commerce, 7*(3), 101-134.

Park, W. Y., Lee, S. J., Park, C., Jung, S., & Kim, H. K. (2021). The Effect of Service Quality of Internet Insurance on Intention to Purchase Online. International Journal of Smart Business and Technology, 9(1), 63-70.

Rayport, J.F. & Sviokla, J.J. (1994). Managing In the Marketspace. *Harvard Business Review, 72* (November/December), pp. 141-50.

Stone, R.N. and Gronhaug, K. (1993) Perceived Risk: Further Considerations for the Marketing Discipline. *European Journal of Marketing, 27*, 39-50. Retrieved from http://dx.doi.org/10.1108/ 03090569310026637

Sun, J., Li, H., Xu, N., Qiao, Z., & He, C. (2022). A Decision Model for the Control and Dissemination of the Online Public Opinions: An Empirical Study of Public Opinion Dissemination on Fraudulent Insurance Claims in Taihe, China. *Computational and Mathematical Methods in Medicine 2022*.

Shankar, V., Smith, K., & Rangaswansy, A. (2003). Consumer Satisfaction and Loyalty in Online and Offline Environments. *International Journal in Marketing, 20*, 153-175.

Taylor, J., 1974. The Role of Risk in Consumer Behavior. *Journal of Marketing, 38*, 54–60.

Taylor, R. G. (1995). The Role of Trust in Labor-Management Relations. *Organization Development Journal*, 85–89.

Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of The Technology Acceptance Model: Four Longitudinal Field Studies. *Management science, 46*(2), 186-204.

Yet Mee, L., Boon Liat, C., Cham, T. H., Ng, C., & Tan, J. X. (2019). Gender Differences in Perceptions and Attitudes Toward Online Shopping: A Study of Malaysian Consumers. *Journal of Marketing Advances and Practices, 1*(2), 11-24.

Zakaria, Z., Azmi, N. M., Hassan, N. F. H. N., Salleh, W. A., Tajuddin, M. T. H. M., Sallem, N. R. M., & Noor, J. M. M. (2016). The Intention to Purchase Life Insurance: A Case Study of Staff in Public Universities. *Procedia Economics and Finance, 37*, 358-365.

Zhang, X. & Yu, X. (2020) The Impact of Perceived Risk on Consumers' Cross-Platform Buying Behavior. *Front. Psychol*.