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THE EFFECT OF LEGAL FRAMEWORK AND INTEGRITY ON INTENTION TO USE INTERNET OF THINGS

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ABSTRACT

The aim of research is to specify the effect of legal framework and integrity on Intention to Use IoT. The primary data has been collected through the questionnaire. The secondary data has been collected from electronic websites, reports, books, Journals etc. The collected data has been statistically analyzed using appropriate statistical test. we used various statistical methods for reliability and hypotheses test such as cronbach's alpha, multiple linear regression test. After analyzing the data and testing the hypotheses, the study revealed that legal framework and integrity have a significant statistical impact on the Intention to Use IoT and which explains (13% and 23% respectively) of the variation in independent factor. The findings of the study revealed that a lot of respondents were females almost half of them (70.8%). In addition, 19.1% respondents are still not ready to use IoT. Some recommendations have been provided in the last section of this study.

1.0 INTRODUCTION

We are witnessing a new era of the world of the Internet era of modern communication model (the Internet of things), which is a network interconnection of daily life with very precise devices that make it able to communicate with a wide range of daily devices with each other and a good example of home appliance. Researchers are also working on developing a large number of applications to provide new services to users, such as medical assistance, cars, mobile health care and other applications in other areas. The Internet of Things has gained great interest from researchers from all over the world, where it will make the Internet more immersive and widespread through access to a wide range of devices as the researchers said that human life will become between truth and fiction The continents of the world is a small country in one place, the near future to communicate with users, companies and all departments. Therefore, the current study is going to answer the following research question what are the impacts of legal framework and integrity on intention to use IoT? Furthermore, the study aims to identify the impacts of legal framework and integrity on intention to use.

2.0 REVIEW OF LITERATURE

The study presented (Weber, 2015) challenges that may face the users of Internet of things to protect the privacy of individuals and also highlighted the growing need to protect the privacy of individuals and their rights, and as a result of the study must develop new legal approaches to protect users' data as well as use the minimum possible From personal data to its impact on users and enhance privacy transparency.

The study conducted (Hsu & Lin, 2016), an empirical examination of consumer adoption of Internet of Things services: Network externalities and concern for information privacy perspectives that the number of users of the Internet of things continues to increase for daily applications Research on the pilot survey of users was collected 508 users and the results indicated that the external factors of the network plays an important role in its impact on consumers and privacy concerns have a weak impact.

The study carried out (Fabiano, 2017) as an Internet of Things and Blockchain: Legal Issues, Privacy, and the Challenge for a Privacy Standard to consider legal issues related to data protection and privacy use and also discussed the European General Data Protection Regulation (GDPR) in increasing security measures to protect privacy data Legal privacy standards have an impact on increasing IoT usage.

The study conducted by (Park et al., 2017), focused on Comprehensive Approaches to User Acceptance of Internet of Things in a Smart Home Environment) on the user experience and acceptance in the use of IoT technologies in the context of the home environment. The study also discussed the possible factors of acceptance and intention of use. Accept the intention to use the Internet of Things through the results of the data collected by the study.

Internet-of-Things and Smart Homes for Elderly Healthcare: An End User perspective (Pal et al., 2018) explains that the use of IoT in homes, health care for users and the intention of use. The study conducted an online survey of 254 users and analysed that the intention of use has a positive impact on the behavioural environment of care Health users.

(M. Farooque et al., 2021) assess the acceptance of social commerce by collecting data through questionnaires. The variables such as "Familiarity" (F), "Trust" (T), "Perceived usefulness" (PU), "Perceived ease of use" (PEU), "Intention to Purchase" (IP) were selected. The results indicated that all hypotheses were supported. The F, T and PEU, and PU were found to be positive and significant related to intention to purchase. Amongst the four, p value of F was found to be the lowest and PU was found to be the highest. This indicate F was strong indicator of IP as compared to others.

In other and general domain, the machine learning has also been adopted in various fields by the researchers' like for finding out customer agitate in a hypermarkets (M A Khan et al., 2016), also being used in the area of digital marketing (Alraja & Malkawi, 2015; Jamil & Mohammed, 2015). (Sayyad et al., 2020) (ALraja & Aref, 2015; Alraja & Said Kashoob, 2019; Mohammed Aref & Alshahri, 2021), studied of the Use of technology and technology acceptance. (Malkawi et al., 2010) studied the academic for e-examination process (Uddin et al., 2016),(Shanga et al., 2018).

Similarly, in healthcare domain (Junaid Farooque et al., 2016) (Chicha et al., 2021; Rasheed et al., 2021) the technology been used. The automobile industry is also much relient on use of technology and usage of advent techniques (M Aref, 2016)(Mohammed Ahmar Khan et al., 2016) (Abdul Rasheed, 2014; Abdul Rasheed & Alraja, 2015; M Aref, 2016; Mohammed et al., 2020). (Sable, G., Farooque, M. M. J., & Rajput, 2020) used semantic analysis for age prediction of opinions in social media. The technology acceptance is moderately high in the social media domain as studied by (Murtaza M Junaid Farooque & Aref, 2019) (Alraja et al., 2020) (Alkhaldi et al., 2017) (Murtaza Mohiuddin Junaid Farooque et al., 2020) (Alraja et al., 2019) (Junaid Farooque et al., 2016). The interesting studied have been conducted such as information system audition (Alraja & Alomian, 2013a), empowerment and analysing environment impact (Alraja & Alomian, 2013b; De et al., 2021). The use of technology for sustainable development is utmost important (Alraja, Hussein, et al., 2021; M Aref, 2016; Sayed et al., 2008). The various examples represented by (Khan, Sarfaraz; Saayad, Samee; Aref, 2015) and supported by technology play the significant role in usage of technology (Mohammed Ahmar Khan et al., 2016)(M A Khan et al., 2016). The study of SMEs via technological support have been studied (Alraja et al., 2020). The Use of IoT and other technologies can be adopted for betterment of mankind. (Alkhariji et al., 2021; Alraja, Barhamgi, et al., 2021; Bou-ChaayaKaram et al., 2021)(Mohammad Ahmar Khan et al., 2019).

3.0 METHODOLOGY

The study conducted a survey on the intention to use the Internet of Things and concerns. The results of the analysis reached answers in the privacy and security issues and have an impact on the management of personal information and protection of Internet. In this case, the legal variables and integrity of the use of the Internet of Things, which studied in the research the Effect of legal framework and integrity on Intention to Use IoT that the availability of the variable (legal) with the variable. Hence, the study suggested the following hypotheses:

H1: legal framework will have a direct positive influence on intention to use.

H2: integrity will have a direct positive influence on intention to use. The following methodology was adopted to evaluate and compare the different Translation software in comparison with human translators.

3.1 Population and sample

The sample of this study is the population of different cities at Dhofar Region to investigate the Omani people attitudes forward using. Data collected from 65 persons randomly. The primary data was collected through questionnaire.

3.2 Data Analysis

The collected was statistically analyzed using appropriate statistical test. The study used various statistical methods for reliability and hypotheses test such as cronbach's alpha, multiple linear regression test (Alraja et al., 2016; Alraja & Chikhi, 2015; Hussein et al., 2017) shown in table 1.

4.0 RESULTS

To make sure of the reliability of study tool and Cronbach's alpha was conducted (Alkhaldi et al., 2017; Alraja, 2015, 2016). The figure 1 shows the model used in the study. The descriptive analysis results have been shown in following tables.

Table 1: Reliability Statistics

	Cronbach's Alpha	N of Items
Intention to use IOT	.897	2
Legal	.627	2
Integrity	.733	2

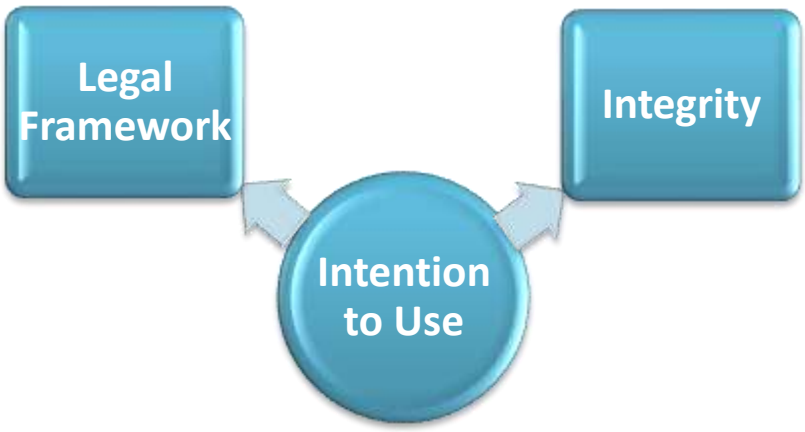

Figure 1. Research Model

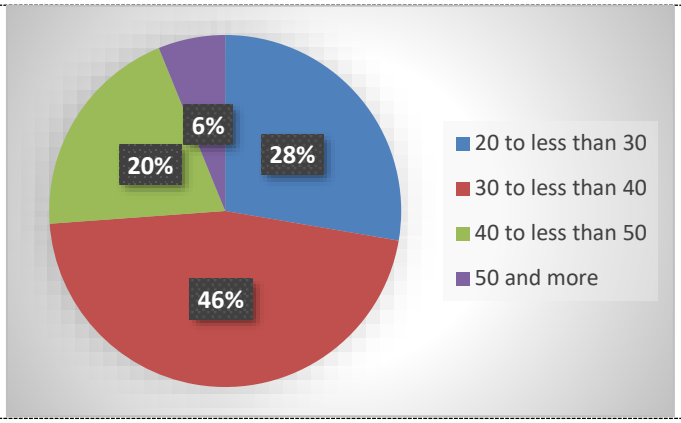

Figure 2A. Category: Age

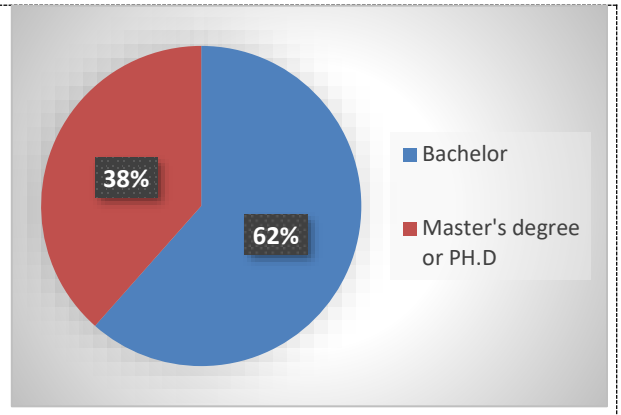

Figure 2B. Category: Education

Table 2: Descriptive Statistics

Variable	Mean	Standard Deviation
Legal	3.7308	0.89738
Integrity	4.1385	0.79798
Intention to use IOT	4.0154	0.78546

Table 3A: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.361a	0.130	0.116	0.73839

Predictors: (Constant), Legal

Table 3B: ANOVA [a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.136	1	5.136	9.420	0.003
	Residual	34.349	63	0.545		
	Total	39.485	64			

a. Dependent Variable: Intention to use IOT
Predictors: (Constant), Legal

Table 3C: Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.838	.395		7.193	.000
	Legal	.316	.103	.361	3.069	.003

a. Dependent Variable: Intention to use IOT

Table 4A: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.483a	0.233	0.221	0.69335

a. Predictors: (Constant), Integrity

Table 4B: ANOVA [a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.198	1	9.198	19.134	0.000b
	Residual	30.286	63	0.481		
	Total	39.485	64			

a. Dependent Variable: Intention to use IOT
Predictors: (Constant), Integrity

Table 4C: Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.049	0.458		4.478	0.000
	Integrity	0.475	0.109	0.483	4.374	0.000

a. Dependent Variable: Intention to use IOT

4.1 Hypothesis Testing

To test the hypotheses Simple Linear Regression and Multiple Regression Test was conducted.
First hypothesis: Simple Linear Regression used to test the first hypothesis, the results have been shown in tables 3a, 3b & 3c.
Depending on the results of regression analysis, Legal as it seen in table (14) affect directly (β = 0.361) on Intention to use IOT, as it shown from table (12) (R2 = 0.130) This means that Legal have been interpreted (13%) of the variance in Intention to use IOT , and also we noted from table (13) that the value of the statistical test (F = 9.420) is statistically significant at (P < 0.003).
Second hypothesis: Simple Linear Regression used to test the second hypothesis; the results have been shown in tables 4a, 4b & 4c. Depending on the results of regression analysis, Legal as it seen in table (17) affect directly (β = 0.483) on Intention to use IOT , as it shown from table (15) (R2 = 0.233) This means that Integrity have been interpreted (23.3%) of the variance in Intention to use IOT , and also we noted from table (16) that the value of the statistical test (F = 19.134) is statistically significant at (P < 0.000).

5.0 FINDINGS

After analysing the data, it was found that legal and integrity have a significant statistical impact on the intention to use IOT, through the results of the analysis that we reached and the results of the hypotheses, and the study explains the difference in the independent variable. The study found that many respondents are almost ready to use IOT. In addition, there are individuals from the sample who are still unwilling to use IOT. Many people still prefer the traditional method. Therefore, we still need to focus on people's awareness about using the Internet of things and how they can benefit from using it.

5.1 Recommendations & Limitations

At the end of this research, there are few recommendations or some suggestions as follows:
- Promote people's background on IOT
- Encourage people to use IOT by facilitating the instructions they need to use the system and making the tools easy to use.

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