The Specific Factors Influencing The Intention Of Electronic Government Services For Libyans

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Abstract: This study aims to analyze the influences of Libya’s eGovernment services and provide a comprehensive model. The analysis classifies eGovernment adoption in three models: intentions to use eGovernment services, eGovernment readiness model, and user’s satisfaction model. A quantitative method has been used and questionnaires have been distributed to Libyan citizens online using Google Form. With its structural equation modeling methodology, 554 responses have been gathered from Libyan citizens by empirically checking the concept. Using PLS package in the R program for analyzing the data. The main challenge for Libyans is what are the critical determinants of their adoption of eGovernment? Based on an extensive review of relevant literature, five hypotheses are formulated. Some factors are identified that may affect the Libyans’ level of satisfaction towards using the Libya eGovernment services. Based on multiple linear regression and factor analyses, our empirical analysis demonstrates several key findings. These findings indicate the intention of using eGovernment services and website design as a moderator the key drivers of user’s satisfaction so as to provide feedback in a set of recommendations that will enable creating eGovernment services which are compatible with citizens’ needs, desires, and expectations. Also, we found that user satisfaction is affected by eReadiness and Intention to use variables by 64.27 percent and the remaining 35.72 percent was influenced by other variables. Finally, implications and recommendations of these findings were discussed.

Keywords: eGovernment adoption, eReadiness, intention to use, citizen satisfaction, Libya.

1. Introduction

As ICTs evolve rapidly and dramatically strengthen their digital access, governments reassess the relationship and interaction internally and externally (Machova, 2016; Al-Hujran and Al-dalahmeh, 2011). This technology has enabled government agencies and affiliates to reassess their ties and transactions, both internally and externally. Thus, administrative processes of government are moved to electronic systems to succeed and prepare for the future. Governments worldwide aim to develop an electronic (eGovernment) approach with government organizations, supply and promote an extensive range of services and substitute conventional routine approaches for individuals anywhere and in all circumstances. The United Nations (Un, 2018) has a conceptual structure for eGovernment services within the paradigm of human and social progress.

eGovernment is done in the United Nations context when a country uses ICT to enhance information access for its citizens. In the areas of a country's technical and telecommunications infrastructure and the extent of its creation of human resources (Odat, 2012); (Abied et al., 2015), the public sector's ability and readiness must be improved to achieve this (Baeuo et al., 2016); (Shouran et al., 2019). Two groups of people have Internet access to public services. One segment directly from computer devices accesses public services on its own. They are in a position to access government services electronically. There are other groups of people who do not have direct access to eGovernment services. However, they cannot have their eGovernment programs without help or guidance. In general, all who are on their behalf are intermediaries. This group has no access to public resources, so it cannot use computers for anything. New technology must be implemented to ensure that eGovernment in developing countries, like Libya (Odat, 2012), effectively implements them. The eGovernment implementation progress depends not just on the cooperation of the government and the public's readiness to embrace and adopt eGovernment services (Mapanoo and Caballero, 2018). Although government decision-makers want to provide traditional means, they should identify the reasons why their citizens use electronic services. Even if there is plenty of research on eGovernment, it will not matter much if it does not explore the factors which encourage the user to adopt eGovernment applications (Budding et al., 2018). However, the main challenge for Libyans is what are the critical determinants of their adoption of eGovernment? So this research aims to determine the factors affecting citizens' intention to take eGovernment services. The current historical development of the use of emerging technology is summarized. It is structured as
follows: The literature review then proposes the study model and explains the methods employed, next to the theoretical model, then the research methodology. The debate and results will eventually be discussed.

2. eGovernment in Libya

Libya was among those countries that were not having any official website representing them internationally as the national site till 2012. After two years, which means in 2014, Libya was ranked 121 from 193 countries that do not have a subsequent web portal. As far as citizen acceptance is concerned, they were classified as 179 from 193 countries globally. In the current scenario, Libyan's ministers have online access and are in pursuit of resolving the citizens' issues about seventy percent. The minister's problem in having online interaction is that they are only offering email services to the citizens (Al-Shboul et al., 2014). Therefore, Libya comes under the first and second phase of implementing the E-government services (Ahmad et al., 2013). The rest of the ministers are not having access to the online features, which is a concern for the government. Therefore, it is suggested that Libya's government is required to adequately improve its electronic government services' current position (Alatrash et al., 2016). It will be convenient if the government offers identification services such as ID cards, passport, and other legislation services online. It will be beneficial for them. The benefits are not as per standard that will facilitate the citizen of the country. Therefore, it is necessary to improve it to the extent that it will resolve the citizens' issues and problem. There is the requirement that government should create awareness about these services so the citizens will have the capacity to utilize these services adequately in the future. In the coming era, it is evident that it will be the technological era that requires citizens and government to use the technology to interact with others. Therefore, Libya's government should focus upon the development of electronic government initiatives and develop their information technology infrastructure so; they will be able to get the desired objectives considerably.

3. Theoretical Model

As stated in the introduction, the current eGovernment literature adoption models have not produced a complete eGovernment adoption model. By understanding various theories related to political risk, technological adaptation, and social formation, we have attempted to depict our analysis's systematic analysis. The research is thus restricted. This research aims to develop a theoretical model for an eGovernment model and not test any specific theories on adopting eGovernment services. In an exploratory analysis, refining variables and approaches are widespread (Schumm and Stevens, 2012). Figure 1 depicts the current model's design at a higher level. The higher-level model includes the intention to use eGovernment services, enthusiasm for online government services and citizen satisfaction. Many factors influence an individual's decision to implement eGovernment services. eReadiness includes website design, lack of awareness, ICT skills, trust, quality services, organizational factors and technical infrastructure. In contrast, the intention to use eGovernment services provides security, privacy, TAM (Usefulness and Ease of Use), DOI (Relative Advantage, Compatibility, Image and Complexity), and culture, whereas citizen satisfaction has availability of the system, personalization, and users' expectations.

4. The Methodology of the Research

In this study, the hypothesized relationships and theoretical model were evaluated with Structural Equation Modelling SEM with the PLS package in program R. In light of the literature review, this discussion is to consider the challenges of implementation and growth in Libya by the eGovernment and, secondly, the factors affecting the intention of the people to take eGovernment services; to answer the following key questions: (i) What are the factors that affect the acceptance of citizens and the adoption of government services in Libya?, (ii) What is the impact of eReadiness on user's satisfaction?, (iii) What is the effect of intention to use eGovernment services?
on user’s satisfaction? (iv) Does website design affect intention to use eGovernment services and eReadiness as a moderator on user’s satisfaction? And (v) Do trust in the internet and trust in government affect intention to use eGovernment services and eReadiness as a moderator on user’s satisfaction?

To answer these questions and help people adopt eGovernment services, some factors should be credited to government requirements. Although the identified factors are not yet proven to meet Libyan’s needs, they will be used as bases to examine some well-known models and theories.

5. Measures

A questionnaire survey was used to test the proposed research model for this analysis. The questionnaires have been modified from previous ones with improvements taking eGovernment adoption into account in Libya. A Likert scale of five points (interval scale) was used to assess responses from 1 (strong agreement) to 5 in the Relevant Research statements (strongly disagree). The questionnaire has also been prepared in Arabic, a common mother tongue spoken in Libya, as English is not Libya’s first language, and most Libyans aren’t fluent in English. The questionnaire was translated first from English to Arabic, then from Arabic to English, using the reverse translation. The survey consisted of 56 questions, not demographic questions included.

6. Data Collection and The Findings

To collect data, online surveys were used. The self-administered questionnaire was randomly distributed to people from June 2020 to August 2020 to test the hypotheses by using a proper sample through a wide diversity of citizens in multiple communities. Data from village, town, city, academic and governmental institutions and private bodies were collected. Students of all backgrounds from every corner of the country here were targeted at academic institutions. In the same way, government and private businesses have different histories of workers. A total of 554 replies were received; the responses were complete.

7. Characteristics of Participants

The detailed descriptive statistics related to the participants’ characteristics are presented in Table 1.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>198</td>
<td>36</td>
</tr>
<tr>
<td>Male</td>
<td>356</td>
<td>64</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29</td>
<td>199</td>
<td>36</td>
</tr>
<tr>
<td>30-39</td>
<td>231</td>
<td>42</td>
</tr>
<tr>
<td>40-49</td>
<td>106</td>
<td>19</td>
</tr>
<tr>
<td>50-59</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td>60 and above</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Highest level of education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below High School</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>High School</td>
<td>89</td>
<td>16</td>
</tr>
<tr>
<td>Bachelor</td>
<td>193</td>
<td>35</td>
</tr>
<tr>
<td>Higher degree</td>
<td>272</td>
<td>49</td>
</tr>
<tr>
<td><strong>Job experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-2 years</td>
<td>76</td>
<td>14</td>
</tr>
<tr>
<td>3-5 years</td>
<td>121</td>
<td>18</td>
</tr>
<tr>
<td>6-9 years</td>
<td>249</td>
<td>45</td>
</tr>
<tr>
<td>10 and more</td>
<td>108</td>
<td>23</td>
</tr>
</tbody>
</table>

Among the 554 respondents, 64% were male and 36% female. Ages of respondents were 36% from 18 to 29, 42% of the respondents were 30 to 39, 19% ranged from 40 to 49; 3% were ages 50 to 59, 0% ranged above 60. A large portion, 49% of the respondents, had a higher degree, 35% had a bachelor’s degree, and 16% had a hig
h school, while no one has below high school. Further, a large portion of participants were employees in either the public or private sector. The highest respondents with job experience were 45% from 6 to 9 years, 23% had 10 or more years, 18% were from 3 to 5 years and 14% had 0 to 2 years.

<table>
<thead>
<tr>
<th>How do you describe your general computer knowledge?</th>
<th>Very good</th>
<th>Good</th>
<th>Moderate</th>
<th>Poor</th>
<th>Very poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>How would you describe your Internet knowledge?</td>
<td>109</td>
<td>198</td>
<td>156</td>
<td>82</td>
<td>9</td>
</tr>
<tr>
<td>How long have you been using eGovernment services?</td>
<td>Never</td>
<td>Less than a year</td>
<td>1-2 years</td>
<td>More than 2 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>54</td>
<td>107</td>
<td>373</td>
<td></td>
</tr>
</tbody>
</table>

In Table 2, it was found that respondents were familiar with using computers in general and interacting with the Internet in particular. It is noted that the demographic profile of survey participants indicated a mature group of computer and Internet users who were familiar both using computers and interacting with the eGovernment services. There were just 20 respondents in the survey who had never used eGovernment services before. Using the Internet among the participants is, to some extent, similar to their experience of using computers. More than half of the respondents had advanced knowledge of using the Internet. Less than 100 of the respondents had a poor experience.

8. The Reliability and Validity test

Besides plotting the loadings, we need to do a more careful inspection by checking the results contained in the $outer model:

<table>
<thead>
<tr>
<th>Name</th>
<th>Block</th>
<th>Loading</th>
<th>Communalinity</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOI</td>
<td>Intention to use eGovernment</td>
<td>0.77214662</td>
<td>0.596210404</td>
</tr>
<tr>
<td>TAM</td>
<td>Intention to use eGovernment</td>
<td>0.79043472</td>
<td>0.624787052</td>
</tr>
<tr>
<td>Privacy</td>
<td>Intention to use eGovernment</td>
<td>0.70871524</td>
<td>0.619405500</td>
</tr>
<tr>
<td>Security</td>
<td>Intention to use eGovernment</td>
<td>0.80434718</td>
<td>0.646974386</td>
</tr>
<tr>
<td>Culture</td>
<td>Intention to use eGovernment</td>
<td>0.80281084</td>
<td>0.644505250</td>
</tr>
<tr>
<td>Quality of Services</td>
<td>eReadiness</td>
<td>0.71242903</td>
<td>0.575069317</td>
</tr>
<tr>
<td>Awareness</td>
<td>eReadiness</td>
<td>0.73285858</td>
<td>0.537081696</td>
</tr>
<tr>
<td>ICT Infrastructure</td>
<td>eReadiness</td>
<td>0.70115067</td>
<td>0.691612255</td>
</tr>
<tr>
<td>ICT Skills</td>
<td>eReadiness</td>
<td>0.73888737</td>
<td>0.545954544</td>
</tr>
<tr>
<td>Organizational Factors</td>
<td>eReadiness</td>
<td>0.69657015</td>
<td>0.682545044</td>
</tr>
<tr>
<td>System Availability</td>
<td>User’s satisfaction</td>
<td>0.80873556</td>
<td>0.652375155</td>
</tr>
<tr>
<td>Personalization</td>
<td>User’s satisfaction</td>
<td>0.88254294</td>
<td>0.616822598</td>
</tr>
<tr>
<td>User’s Expectation</td>
<td>User’s satisfaction</td>
<td>0.82377958</td>
<td>0.623208062</td>
</tr>
</tbody>
</table>

We get a data frame with the outer weights, the loadings (correlations), the commonalities and the redundancies. Acceptable values for the loadings are values greater than 0.7. Equivalently, communalities value greater than 0.7² = 0.49 are considered as acceptable. Because communalities represent the amount of variability explained by a latent variable, a communality greater than 0.5 means that its latent construct captures more than
50% of the variability in an indicator. We can conclude that each construct's measurement scales have high reliability and consistency with related items. As shown in Table 3, for the measurement model of intention to use eGovernment services, factor loadings of the corresponding potential variables are between 0.70 and 0.80. For the measurement instrument of eReadiness, factor loadings are between 0.70 and 0.73. Factor loadings of items measuring user's satisfaction are between 0.80 and 0.88. The composite reliability (CR) of each latent variable is greater than 0.7, and the communalities value is higher than 0.5. The results show that all measurement items are of high quality and have high reliability and convergent validity. And we can say that the model who more reliable as the user's satisfaction.

9. The Full Model Without Moderator Variable

Both variables have a positive loading in Figure 2. There is only one direction between three indicators in each block. This indicates that the distribution is accurate. If we see the outer model's quality, we can transform it into the inner model to verify its quality. We will look at the path coefficients using a "plotting" statement, as shown in Figure 3.

![Figure 2. The loadings](image)

![Figure 3. The inner model with path coefficients](image)

Eigenvectors make linear transformations simple to grasp. The more directions you have to consider the behavior of the linear transformation, the simpler the transformation is to understand; hence you want the maximum number of linearly independent vectors associated with a single linear transformation to be possible. We may examine the eigenvectors directly in the path coefficients matrix.

<table>
<thead>
<tr>
<th># matrix of path coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>citizen_pls$path_coefs</td>
</tr>
<tr>
<td>Intention_to_Use_eGov</td>
</tr>
<tr>
<td>Intention_to_Use_eGov</td>
</tr>
<tr>
<td>eReadiness</td>
</tr>
<tr>
<td>User_Satisfaction</td>
</tr>
</tbody>
</table>

From the table above, it can be concluded that:

1. If the Intention_to_Use_eGovernment value increases by 1 level, then the User_Satisfaction value will increase by 0.2831862.
2. If the eReadiness value increases by 1 level, then the User_Satisfaction value will increase by 0.1966493 levels.

We must also inspect the path coefficients of each endogenous build and check the regression results. In other words, we have to measure user satisfaction. To test the internal consistency, we test the performance of the $inner model:

<table>
<thead>
<tr>
<th># inner model</th>
</tr>
</thead>
<tbody>
<tr>
<td>citizen_pls$inner_model</td>
</tr>
<tr>
<td>$User_Satisfaction</td>
</tr>
<tr>
<td>Estimate</td>
</tr>
<tr>
<td>Intercept</td>
</tr>
</tbody>
</table>
At the 5% significance level, it can be concluded that there is an effect of Intention to Use eGovernment and eReadiness on User Satisfaction. This is because the p-value of both variables is less than 0.05.

The model obtained is as follows: \[ \text{USE} = -1.416955 \times 10^{-1} + (2.831862 \times 10^{-1}) \text{Intention} + (1.966493 \times 10^{-1}) \text{eReadiness}. \]

Looking at the dangers of effects, this time is interesting. The table above illustrates the different effects on the rest of the other models from each model. Direct impact on dependent variables. The following collection of findings to analyze are overview indexes you need to evaluate. The table that you see here show you the model as a whole.

- The coefficient of determination is equal to R². For each intercept shift in the regression model, we have an R² interpretation that is consistent. R² is the proportion of the variance described by a collection of variables. User satisfaction is affected by eReadiness and Intention to use variables by 64.27713 percent and the remaining 35.72287 percent was influenced by other variables.

- In the next column. The redundancy of Av.Redun reflects the capacity of the independent latent variables to justify the average variance of the observable latent variable. For instance, the average Intention to Use eGovernment predicts 39.192114 percent of users’ satisfaction indicators’ variability.

- The average population This means the amount of observable contamination. If this assumption is right, we will expect our block to have more than 50% commonality.

- The last column, please. AVE expresses the variance captured by a latent variable by its indicators concerning the variance due to measurement error. In this case, AVE is more significant than 0.50, which means that 50 percent or more of the variances are accounted for.

We need to use $GOF as a rating for evaluating movie accuracy. This calculation tests the goodness of fit of the measurement and structural model. It measures efficiency by taking into account the predictive abilities of the model. It can also be used for multiple discourse functions, in which case, more priority will be given to the score of R².

We can think of GOC as the average prediction of the entire model. Not perfectly exact, but it helps understand the GoF principles. Based on the GoF value of 0.6484962, this can approximately be interpreted as if the model has a 64.8 percent prediction capacity. The naive rule of thumb is that the longer or taller is stronger. GoF values larger than 0.7 are considered “very good” by people inside the PLS-PM network. So we can say that the model was good because the GoF values 0.648.

### 10. The Full Model with Moderator Variable

To determine whether there is an effect of the moderator variable, the independent variables' indicators are multiplied by the moderator variable indicators. Then the three variables will be independent in the model. Last, it will be compared to how R Square and Bootstrap Validation's results resulted from the previous model. With the same steps as before, the following path coefficients were obtained as in Figure 4 full model with the moderator variable (website design), Figure 5 The full model with the moderator variable (Trust in Internet) and Figure 6 The full model with the moderator variable (Trust in Government).
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The following collection of findings to analyze are overview indexes you need to evaluate. The figures you see here show you the model as a whole.

```
> citizen_pls$inner_summary
    Type        R2   Block_Communality Mean_Redundancy  AVE
Intention_to_Use_eGov Exogenous 0.000000 0.5863862 0.00000000 0.5863862
eReadiness     Exogenous 0.000000 0.6204603 0.00000000 0.6204603
Web_Design     Exogenous 0.000000 0.6203866 0.00000000 0.6203866
Trust_in_Internet Exogenous 0.0000000 0.5753168 0.00000000 0.5753168
Trust_in_Gov Exogenous 0.0000000 0.6950787 0.00000000 0.6950787
User_Satisfaction Endogenous 0.661022 0.7131916 0.60336995 0.7131916
```

- The R2 values are the coefficients of the determination of the endogenous latent variables. R2 indicates the amount of variance in the endogenous latent variable explained by its independent latent variables. From the table, it can be concluded that Intention to Use eGovernment, eReadiness and Website Design variables affect User Satisfaction by 66.1022% and the remaining 33.8978% was influenced by other factors.
- Because the R Square model with moderator variables is higher than the R Square model without moderator variables, it can be denied that the moderator variable (Website Design, Trust in the Internet and Trust in Government) strengthen the effect of Intention to Use eGovernment and eReadiness on User Satisfaction.

Now that we are pleased with the experimental study result, we can continue with the bootstrap validation. We use to `boot.val = TRUE` to signal that we want to conduct bootstrap validation. `plspm()` also accepts parameters using which you can define the number of resamples you want. As an example, let's validate with 100 resamples:

```
> spaths
  Original  Mean.Boot  Std.Error perc.025  perc.975
Intention_to_Use_eGov -> User_Satisfaction 0.24211663 0.24384848 0.05556729 0.14167875 0.3387253
eReadiness -> User_Satisfaction        0.15469510 0.16201160 0.05558097 0.05364837 0.2684923
Web_Design -> User_Satisfaction        0.09656016 0.09492335 0.05895230 -0.01674557 0.2081318
Trust_in_Internet -> User_Satisfaction -0.03167016 -0.09057093 0.04124416 -0.07891239 0.0675973
Trust_in_Gov -> User_Satisfaction       -0.01673588 -0.04032423 0.03805844 -0.06903145 0.0692809
```
From the previous table, bootstrap intervals for the path coefficients of Intention to Use eGovernment on User Satisfaction and eReadiness on User Satisfaction do not contain the zero. Hence we may say that these coefficients are significant at a 5% confidence level. But for Website Design, Trust in the Internet and Trust in Government, they contain zero, so that the coefficients are not significant as a variable independent.

At the 5% significance level, it can be concluded that

1. There is an effect of Intention to Use eGovernment on User Satisfaction
2. There is an effect of eReadiness on User Satisfaction
3. Trust in Government strengthens the impact of Intention to Use eGovernment and eReadiness on User Satisfaction.
4. Trust in the Internet strengthens the impact of Intention to Use eGovernment and eReadiness on User Satisfaction.
5. Website Design strengthens the impact of Intention to Use eGovernment and eReadiness on User Satisfaction.

11. Discussion and Implications

To explore the interrelationship between intention to use eGovernment service, eReadiness, and the influences of both on citizens' satisfaction, this study used two theories and some factors to integrate the eGovernment services model. Using data collected from a survey of 554 citizen users living in one direct-controlled municipality and four high-population cities in Libya, this study verifies eGovernment services' formative structure through PLS analysis using the R program. It then tests the proposed concept model using structural equation modelling. The following observations are of note.

First, this research creates a formative construct of eGovernment service with thirteen factors: DOI, TAM, privacy, security, culture, quality of services, awareness, ICT infrastructure, ICT skills, organizational factors, system availability, personalization and user's expectation. In the first five factors that described the intention to use the eGovernment model, we found that security was the most critical indicator of privacy and culture, as in Figure 7. These findings consist of (Alalwan et al., 2018) has found that security had a negative effect on the intention to use online banking. In the same direction, (Kamalul Ariffin et al., 2018) argued a negative correlation between security and intention to use web applications. These results are in line with (Khan and Krishnan, 2019; Kumar et al., 2020), who made a strong case for culture's role as a determinant of citizens' adoption of eGovernment services. They hypothesized that of the five cultural dimensions, both power distance and uncertainty avoidance are likely to influence the adoption of eGovernment services. In line with this line of argument, we assume that eGovernment as innovation is more likely to be embraced in Libya with low power distance. The cultural dimension of uncertainty avoidance has been closely examined in the context of technology diffusion (Dwyer et al., 2005; Erumban and de Jong, 2016; Srite and Karahanna, 2011; Zhang and Maruping, 2018). This finding was also consistent with earlier findings (Susanto et al., 2013; Mohajerani et al., 2015; Ayyash et al., 2013), who found perceived privacy as an antecedent to influence intention to use eGovernment services. Privacy concerns as compared to other matured electronic services such as eCommerce and eGovernment websites (Tan et al., 2012).

In the second five factors that described the eReadiness model, we found that the ICT skills factor was the highest factor that affects eReadiness model, after that quality of services and ICT infrastructure, as shown in Figure 8. (Alomari et al., 2014) show the importance of the internet and computer skills to citizens not only with eGovernment but also with the government in general. Furthermore, previous studies illustrated the significant role that the internet and computer skill confidence plays in predicting eGovernment adoption (Belanger and Carter, 2005; Robert and Kwesigabo, 2020; Shareef et al., 2011). This result is similar to the findings highlighted by (Rehman et al., 2012; Brown and Thompson, 2011; Das et al., 2017; Sabani et al., 2019) and does not consist with (Napitupulu et al., 2018; Glyptis et al., 2020). Besides, eGovernment implementation requirements are challenging to be met in these countries. Therefore, eGovernment in many developing countries has not delivered the promise of more efficient and effective public services, and governments still struggle with ineffective business processes because of insufficient use of ICT (Rehman et al., 2012; Alcaide and Rodriguez, 2017). Service quality is the individual features and characteristics that fulfill users' needs and determine the overall standard of the website. Besides, it refers to the quality of the site's services, design, content, ease of use. So in Libya, the information was essential to be up to date. eGovernment websites do not always meet citizen's expectations and, therefore, fail to fulfill their needs. Citizens will be discouraged from adopting an eGovernment system if they experience poor service quality and find that it is not providing value.

In the last three factors that described the user's satisfaction model, we found that the user expectation factor was the highest factor that affects the user's satisfaction model, after that system availability as shown in Figure 9.
These findings were in line with (Hsu et al., 2004; Venkatesh et al., 2013; Bhattacharjee, 2011; Alruwaie et al., 2012; Chan et al., 2010), who argue that citizens with positive expectation are more likely to be involved in using eGovernment services and that this could lead to an improvement in eGovernment practice and the relationship between citizen and government in both the short and long term, almost all governments in developed and developing countries have established official eGovernment portals offering online services (West, 2014). Nonetheless, if eGovernment services do not match the citizens’ expectations, it is unlikely that they will continue to utilize them, and this was proved by (Zavareh et al., 2012) as well, who stated that higher System Availability will contribute to higher computer usage. Availability the users need to use online services whenever they want. Therefore, system availability is an influential factor for the citizens’ adoption of eGovernment services. The low availability of network coverage in developing countries restricts people from accessing eGovernment (West, 2014).

Intention to Use eGovernment was proven to have the strongest positive effect on user satisfaction than any other determinants within the model. Intention to Use eGovernment services factors contributes significantly to the achievement of User Satisfaction level. This means that the higher attention and interest to the Intention to Use eGovernment services features of the Libya Government services, the more satisfaction will be accrued to Libyans due to conducting governmental transactions via a user-friendly and aesthetic platform. In this sense, the Intention to Use eGovernment services will allure citizens to fully transform to eGovernment services and perform their governmental transactions online. These findings are consistent with the results (Eid, 2011) because of a similarity in culture despite a difference in application.

Further, they are consistent with the findings of (Zavareh et al., 2012; Lee et al., 2009; Nasri and Charfeddine, 2012) despite a difference in culture and application. Moreover, these findings are consistent with the results (Suki and Ramayah, 2010; Karunasena and Deng, 2016) because of a similarity in the application despite a difference in culture. Finally, these findings are consistent with the results (Al-Jaghoub et al., 2017) because of a similarity in application and culture. It's helpful to measure user satisfaction with a given IS to understand IS success; especially, when the system is necessary or mandatory for users to perform their duties.
By proving solid empirical support for the influence of Intention to Use eGovernment services on user satisfaction with eGovernment services, our study indicates that the estimated model is a valid measurement since there are comparable results in prior eGovernment related research (Floropoulos et al., 2010; Udo et al., 2012; Mohamed et al., 2009). Hence, results are transferable to the public sector and, thus, significant for eGovernment practitioners. On the other hand, this study provides scientific insights. We identified the factors that may affect eServices based on current eGovernment trends to determine citizens' user satisfaction with eGovernment services in an integrated model.

12. Conclusion

This research is one of Libya's first attempts, a developing country, based on citizen adoption eGovernment. The finding implies that while organizations may provide substantial user support related to internet usage, it is not sufficient to shape the user's belief and affect their satisfaction with internet usage. Hence, it can be concluded that the more the users have to deal with business problems and interdependence, the more they will be satisfied with the adoption of eGovernment because those working in organizations need the internet to deal with challenging tasks. Thus, eGovernment adoption requires that citizens show higher satisfaction levels with the government's online service. From the findings, it can be concluded that the Intention to use eGovernment factors and eReadiness factors affect user satisfaction by 64.27713% and the remaining 35.72287% is influenced by other factors. The research shows that a lack of trust impedes the adoption of eGovernment by citizens. As government agencies collect expenditure in implementing and sustaining such initiatives, they also need to identify and resolve trust concerns related to eGovernment. Government agencies should budget trust-building measures in their financial plan as well as technical and software personnel. With innovations still embedded in culture, people can develop an increasingly valuable understanding of the precision and efficiency of eServices. Government agencies must understand and strengthen citizens' attitudes about eGovernment systems' credibility if they want citizens to provide confidential information and complete personal transactions online.

References


