Investigating E-Government Services Uptake in Mauritius: A User’s Perspective

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Abstract

Purpose: The establishment of e-government has been an important policy goal within the Mauritian government. This paper investigates the broad factors relating to e-government uptake from a users’ perspective in the Mauritian context and discusses issues and outcomes associated with developing a fully mature e-government position in Mauritius. It integrates the constructs of Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) Model to investigate user adoption of e-government services in Mauritius.

Design/Methodology: An empirical study was carried out whereby data was collected through a survey questionnaire administered face to face with a total of 146 users of e-services representing 1% of total internet subscribers who make use of a wide range of e-government services in Mauritius. The response rate was 82.2% which amounted to 120 users of e-government.

Findings: Survey findings on users’ e-government adoption showed 16.7% - weekly, 34.2% - monthly, 25.8% - quarterly, and 23.3% - annual use. The findings demonstrated that the users’ adoption of e-government services could be explained through the UTAUT and TAM constructs of performance expectancy/perceived usefulness, effort expectancy/perceived ease of use, social influence and facilitating conditions in Mauritius. Trust of the internet and previous experience of e-government service are other significant predictors.

Research Limitations: This study is limited only to users of e-government services and perceptions of non-users in regards to e-government services will have to be investigated.

Practical Implications: This study would help government policy decision makers design and implement policies and strategies to increase the adoption of e-Government services in Mauritius. Some recommendations are also discussed so as to ensure users’ adopt e-government services and enhance the government strategy of providing e-service excellence in Mauritius.

Originality/Value

Mauritius is still in the early stage of e-Government implementation and the present study would enable the government policy makers better plan its e-Government services.

Keywords: TAM, UTAUT, E-government Adoption, Mauritius
1.0 Introduction
As the penetration of electronic commerce and electronic business occurs in our daily lives, the overall stakeholders of economic growth, including private sector enterprises, governments and society as a whole are beginning to realize the true potential of information technology and the Internet (Barca and Cordella, 2004). While the private sector has always ensured that they keep in line with emerging trends, now governments in developing countries are also aiming to ensure that all public sector products and services are offered online. This is because as suggested by Schware and Deane (2003), e-government promotes greater efficiency, broader access to government services, improved levels of service, government reform, greater transparency, reduction in corruption and citizen empowerment. The improvement that is sought in citizen engagement as a result of the use of ICTs is defined in simple terms as e-government (Heeks, 2004). For this reason, the Mauritian government is keen to promote access and usage of ICTs so as to provide a better service to the citizens.

In this respect, the research is also pertinent and timely as the Mauritian government is aiming to offer electronic public services. Our research will explore the broad factors relating to e-government uptake from a user’s perspective in the Mauritian context. For academics this research offers an in-depth research on the topic of e-government in Mauritius, a topic that is still in the emerging stages in developing countries. Alternatively, for industry, the research is only limited to e-government services uptake from the user’s perspective in Mauritius and more research work is still required since e-government is not a small project, several stakeholders’ participation and involvement is required.

To explore the issues described above, this paper is divided as follows; In the next section a literature review identifying the main issues of this paper is offered. This is followed by a summary of the research methods used to obtain the findings of this research. The following section then offers an analysis of the research results and examples of the empirical evidence derived from a survey of local citizens. Finally, the paper concludes by summarizing the main research findings on e-government from the users’ perspective and discussing some strategic recommendations to promote the uptake of e-government services in Mauritius.

2.0 E-Government: An International Perspective
Since the capabilities of ICTs for the public sector became evident to governments around the globe, initiatives to offer online public sector products and services have increased. The
result is that e-government has become widely adopted and utilised in countries around the
globe (Tian and Tianfield, 2003). Subsequently, e-government applications have been
categorised into three categories: access to information, transaction services and citizen
participation (Marchioni et al., 2003). The most prevalent category that research emphasises
is access to information; whilst citizen participation is the most controversial and least
investigated form (Tian and Tianfield, 2003). There are various definitions of e-government;
however, for the purpose of this paper, the definition considered to be most appropriate is:
“E-Government is the delivery of information and services online through the internet or
other digital means” (West, 2002). Simply defined, e-Government is the use of ICTs in
general and the utilisation of Internet in particular as a tool to achieve better government
(OECD, 2003). Better government means delivering public services and processing internal
works in the government in a much more convenient, customer-oriented and cost-effective
way (Song, 2004).

Moreover, researchers and practitioners also assert that e-government offers many
benefits to citizens. Among the greatest benefits of e-government is improving information
technology (IT) infrastructure and reducing logistical costs, based on data integration of
various government agencies (Bwoma and Huang, 2003; Schware and Deane, 2003, Al-
Khouri and Bal, 2004; UN, 2003; Ndou, 2004; Chesi et al., 2005). While developed
countries have exploited the power of the Internet to successfully e-enable public services and
entice citizens, developing countries have been comparatively slow in developing successful
e-government strategies (Stoltzfus, 2004; Karunananda and Weerakkody, 2006; Weerakkody
et al., 2007). E-Government encompasses more than just technology and it is also contingent
upon citizens’ willingness to adopt it (Carter and Bélanger, 2005). In this respect, the
potential benefits of the Internet and e-government are yet to be fully exploited in many
developing countries like Mauritius.

In order to improve access to public sector information, several initiatives have been
undertaken by countries around the world. For instance, Japan developed several initiatives
that promoted IT take-up in administrative activities and the Information Disclosure Law
(Thompson, 2002). India offered welfare programs to assist low income citizens, strengthen
families and childrens’ well being and assist the elderly and disabled citizens (Medjahed et
al., 2003). The UK is also striving to become a world leader in the electronic age. For this the
implementation of e-government is essential and the year 2005 has been established as a
target for completion. To achieve this target the complete implementation of online products
and services is pertinent. Therefore, “all tiers of government must be able to provide services
that take advantage of the improved speed and efficiency of new methods of delivery in line with heightened customer expectations” (DETR, 2001).

Moreover, a more complex definition of e-Government given by the World Bank (2008) considers it “the use by government agencies of information technologies (such as WANs, the internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management”. E-Government is broadly defined because governments themselves serve multiple roles (Gant, 2008). Though e-Government is variously defined, it essentially embraces the use of information and communication technologies to transform the ways that government works by enhancing administrative efficiency and effectiveness and increasing citizens’ participation in, and the transparency and accountability of, the policy-making process (OECD, 2003; Song, 2004). Successful e-Government encompasses more than just technology and is also contingent upon citizens’ willingness to adopt it (InfoDev, 2002; Carter and Bélanger, 2005). Verdegem and Verleye (2009) identified four main phases that users will undergo towards e-Government acceptance and satisfaction of online public services namely awareness, intention to use, access, and usage of e-Government services. Widely used technology acceptance models like the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) determining factors address these stages (Davis 1989; Davis et al. 1989; Venkatesh et al. 2003). UTAUT has been found to explain 70% of technology acceptance behaviour. Hence, the TAM and UTAUT determinants will be the basis for investigating the use of e-Government services in Mauritius.

3.1 Literature Review

3.0 TAM and UTAUT Models
The TAM indicates that users’ beliefs and attitudes toward the technology are the main determinants of technology adoption. So, two key user perceptions will influence the user’s attitude towards acceptance of the technology namely perceived ease of use and perceived usefulness. Perceived ease of use of the technology refers to the extent to which users believe that using the technology is effortless, while perceived usefulness of the technology relates to the extent to which users believe that the technology will be helping them enhance their job performance (Davis 1989; Davis et al. 1989). It was found that there is a strong direct link between perceived usefulness and intention to use the technology while a weak direct link was identified between perceived ease of use and intention to use the technology. In addition, perceived ease of use indirectly affected intention to use the technology by
influencing perceived usefulness. The direct effect of perceived ease of use is stronger at the beginning of the technological experience but with time the effect operates indirectly through perceived usefulness, suggesting that the easier a technology is to use, the more useful it is perceived to be (Venkatesh 1999; Szajna 1996). TAM also claimed that the effects of external variables, such as system characteristics, development process, and training, on intention to use the technology are mediated by the two main beliefs of perceived usefulness and perceived ease of use of the technology (Venkatesh 2000; Venkatesh and Davis 2000).

Venkatesh et al. (2003) developed the UTAUT model, which identified the determinants of user acceptance and usage behaviour. Accordingly, there are four core determinants of intention to use and usage of the technology. Three are direct determinants of intention to use the technology namely performance expectancy, effort expectancy and social influence while intention to use and facilitating conditions are two direct determinants of usage behaviour. They also identified four moderators of these key relationships namely gender, age, experience and voluntariness of use. Carter (2008) added trust of the Internet and previous experience of e-government transaction to perceived ease of use and perceived usefulness as significant determinants of e-government use.

Performance expectancy is the extent to which the users believe that e-Government services will enhance their job performance while effort expectancy refers to the degree of ease with which users address the e-Government services. There seems to be similarities among the construct of performance expectancy and the perceived usefulness of TAM, and, between effort expectancy construct and the perceived ease of use of TAM. Social influence refers to users’ perception of significant others requiring them to use e-Government services whereas facilitating conditions relate to the extent that users believe organizational and technical infrastructure exist to support the use of e-Government services.

Users will adopt a technology if they perceive it as helping them improve their performance and consequently find it relevant in performing their tasks. So the user’s judgement of job relevance based on an awareness of the technology capabilities in enhancing user’s performance contribute to enhance the perceived usefulness (Venkatesh and Davis 2000; Venkatesh et al. 2003). This idea of job-fit is also referred to as near term usefulness which implies improved job performance or job satisfaction (Chau 1996). Positively valued outcomes resulting from the use of the technology will influence users’ beliefs about its usefulness (Davis et al. 1989). Hence, extrinsic motivators associated to the use of the technology are related to perceived usefulness (Davis et al. 1992). Attainment of job related and personal outcomes as result of adopting the technology will influence perceived
usefulness (Venkatesh and Davis 2000; Venkatesh et al. 2003). In addition to near usefulness, Chau (1996) viewed perceived usefulness as long term usefulness where the user’s anticipates improvements in career prospects or gains in social status with adoption of the technology. Venkatesh and Davis (2000) identified social influence processes (subjective norm, voluntariness, and image) as influencing perceived usefulness since significant others can determine the individual’s use of the technology. They found that in mandatory contexts, due to compliance, social influences have a direct effect on intention to use the technology, while in voluntary contexts, social influences significantly influenced perceived usefulness, via mechanisms of internalisation and identification or image, towards impacting intention to use the technology (Venkatesh and Davis 2000; Venkatesh et al. 2003). External variables identified as system features, training, documentation, and user support affected perceived usefulness (Davis 1989; Chau 1996).

Perceived ease of use is also viewed as a direct determinant of perceived usefulness since, keeping everything else constant, the more effortless a technology is to use, the more using it can improve job performance (Davis et al. 1989; Venkatesh 2000; Venkatesh and Davis 2000). Therefore, the level of complexity in terms of the degree to which a technology is perceived as difficult to understand and use can impact perceived ease of use. In addition, existence of facilitating conditions will influence perceived ease of use. These facilitating conditions pertain to perceived internal and external constraints (self-efficacy, resource and technology facilitating conditions) on behavioural intention to use the technology, objective environmental factors (availability of computer support) contributing to ease of use, and compatibility with existing values, needs, and experiences of potential users (Venkatesh et al. 2003). Venkatesh (2000) identified determinants of perceived ease of use as anchors (computer self-efficacy, perceptions of external control, computer anxiety and computer playfulness) and adjustments (perceived enjoyment and objective usability). Anchors refer to the notion that prior to direct experience users refer to their general beliefs about the technology to frame their perceptions about the ease of use of the technology. Adjustments refer to users, as they gather more experience with the technology, amending their perceived ease of use of technology to be aligned with their interactions. Hence, training (increasing computer awareness, enhancing computer self-efficacy and reducing computer anxiety) and intrinsic motivation (general computer playfulness and perceived enjoyment) can help in improving users’ perceived ease of use of the technology and increase their motivation to adopt the technology (Taylor and Todd 1995; Venkatesh 1999; Venkatesh 2000).
Furthermore, Carter (2008) reinforced the importance of perceived usefulness and perceived ease of use as they are included in the four main predictors of intention to use e-government services together with trust of the internet and previous completion of an e-Government transaction. In fact, perceived usefulness was identified as the most significant factor in predicting intention to use e-Government services, followed by trust of the internet, previous completion of an e-Government transaction, and finally perceived ease of use. Trust of the government and computer self-efficacy were found to be non-significant predictors of intention to use e-Government services.

Thus, we would expect perceived usefulness/performance expectancy, perceived ease of use/effort expectancy, social influence, facilitating conditions, trust in the internet and previous completion of an e-Government transaction as factors that would influence users’ intention to use e-Government services in Mauritius.

4.0 Research Methodology

We collected the data for the study via a survey questionnaire that was divided into several sections. An empirical study was carried out whereby data was collected through face to face interviews through a survey questionnaire with a total of 146 users of e-services which represents 1% of total internet subscribers who make use of e-government in Mauritius and the response rate for this study was 82.2% which amounted to 120 users of e-government. The respondents have adopted a variety of e-services in Mauritius. All the data were processed using SPSS 16.0 whereby descriptive and inferential analyses have been done. The analytical results of the study and discussions of survey findings were fully explored. All of the items used in this survey were adapted from previous studies (Davis, 1989; Venkatesh and Davis, 2000) with minor changes to the context of e-Government in Mauritius. The measurement of intention to use, perceived ease of use, and perceived usefulness were adapted from the study of Davis (1989). Each item is rated on a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The accuracy of the translation was verified by using back translation (Zikmund, 2003). The questionnaire was pre-tested in a pilot survey among users of e-government to determine if there were any ambiguities in the questionnaire items. Based on their feedbacks, some of questionnaire items were rephrased to improve clarity. The reliability of the survey instrument was examined using Cronbach’s alpha (Cronbach, 1970). The items in the questionnaire were tested for reliability and the Cronbach alpha is 0.675 and a value of 0.60 or more indicates satisfactory internal
consistency reliability (Churhill, 1979). This further demonstrates that the reliability of the survey instrument for the study on e-government services in Mauritius.

5.0 Analysis and Results

5.1 Demographic Analysis

From gender perspective, there is no big difference in term of the number of male and female responding to the e-government survey. In terms of age classification of respondents, 26% were between 35 – 44, followed by 24% between 45 – 54, 21% between 18 – 25, 16% between 26 – 34 and 13% of respondents were between 18 – 25. Majority of respondents were educated, with 40% of respondents being university graduates and 22% diploma holders. 32% of respondents have attained higher school certificate and only 6% of respondents are school certificate holders. 37.5% of respondents originated from Service Workers and Clericals, the distribution were 20% for students, 19.2% for Professionals/Executives, 14.2% for Self Employed and 9.2% for Retired. Moreover, in terms of racial distribution of the respondents, 35% of the respondents were Hindu, followed by 29% General Population, 24% Muslim and Sino-Mauritian representation was 12%. The majority of respondents were from Urban, which was 62% of the total respondent and nearly 57% of the respondents were married.

5.2 Current Use of e-Government Services in Mauritius

34.2% of respondents make use of e-services on a monthly basis, whilst 25.8% adopt e-services on quarterly basis compared to 16.7% and 23.3% of respondents on a weekly and annual basis respectively. In addition, the present research also depicts that out of the 37.5% of respondents, who are Service Workers and Clericals, almost 93% adopt e-services on weekly, monthly and quarterly basis. This could indicate that imperatives of job and task performance as well as previous experience with e-Government transactions resulted in such regular adoption of e-Government services (Venkatesh et al. 2003; Carter 2008).

<table>
<thead>
<tr>
<th>Frequency of Use E-Government</th>
<th>Occupational Group</th>
</tr>
</thead>
</table>

Le Meridien Hotel, Mauritius, 24-27 August 2010
<table>
<thead>
<tr>
<th>Professional/Executives</th>
<th>Service Workers and Clericals</th>
<th>Self-Employed</th>
<th>Retired</th>
<th>Student</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weekly</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>3</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>% of Total</td>
<td>2.5%</td>
<td>8.3%</td>
<td>4.2%</td>
<td>1.7%</td>
<td>16.7%</td>
</tr>
<tr>
<td><strong>Monthly</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>7</td>
<td>19</td>
<td>5</td>
<td>0</td>
<td>41</td>
</tr>
<tr>
<td>% of Total</td>
<td>5.8%</td>
<td>15.8%</td>
<td>4.2%</td>
<td>.0%</td>
<td>34.2%</td>
</tr>
<tr>
<td><strong>Quarterly</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>5</td>
<td>13</td>
<td>7</td>
<td>2</td>
<td>31</td>
</tr>
<tr>
<td>% of Total</td>
<td>4.2%</td>
<td>10.8%</td>
<td>5.8%</td>
<td>1.7%</td>
<td>25.8%</td>
</tr>
<tr>
<td><strong>Annually</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>% of Total</td>
<td>6.7%</td>
<td>2.5%</td>
<td>.0%</td>
<td>5.8%</td>
<td>23.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>23</td>
<td>45</td>
<td>17</td>
<td>11</td>
<td>120</td>
</tr>
<tr>
<td>% of Total</td>
<td>19.2%</td>
<td>37.5%</td>
<td>14.2%</td>
<td>9.2%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table I. Cross Tabulation: Frequency of Use for E-Government and Occupational Group

5.3 Perceived Usefulness/Performance Expectancy

<table>
<thead>
<tr>
<th>Perceived Usefulness</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-government improves the way public services are organized and delivered in Mauritius.</td>
<td>3.79</td>
<td>0.777</td>
</tr>
<tr>
<td>The website and sub-portals are updated on a regular basis in Mauritius.</td>
<td>2.42</td>
<td>1.185</td>
</tr>
<tr>
<td>Coherent and relevant information are provided on the web portal of Mauritius.</td>
<td>3.42</td>
<td>1.009</td>
</tr>
<tr>
<td>The electronic resources provided are adequate to customers' particular needs in Mauritius.</td>
<td>3.29</td>
<td>0.864</td>
</tr>
<tr>
<td>E-services allow for greater flexibility and convenience while dealing with Mauritian government.</td>
<td>3.85</td>
<td>0.603</td>
</tr>
<tr>
<td>E-services reduce the processing time in the provision of most government services in Mauritius.</td>
<td>4.14</td>
<td>0.652</td>
</tr>
<tr>
<td>E-government delivers to customers through preferred channel in Mauritius.</td>
<td>3.64</td>
<td>0.828</td>
</tr>
<tr>
<td>E-government creates a consistent level of service and customer satisfaction across channels in Mauritius.</td>
<td>3.39</td>
<td>0.882</td>
</tr>
</tbody>
</table>

Table II. Mean Score - Perceived Usefulness/Performance Expectancy

E-government improves the way public services are organised and delivered in Mauritius (Mean = 3.79), provides greater flexibility and convenience (Mean = 3.85) and enables users to reduce the processing time of most government services in Mauritius (Mean = 4.14). Thus,
users seemed to perceive e-government to be useful. However, citizens share quite negative views regarding the regular update of website and sub-portals in Mauritius (Mean = 2.42). In the long run, the relevance of information provided through e-government services could be affected and adversely impact the users’ perceive usefulness and adoption of e-government. The perceived usefulness/performance expectancy construct has an average mean of 3.49. In this respect, respondents share favourable attitudes on e-services in Mauritius, which demonstrate citizens’ willingness to adopt e-services in Mauritius.

5.4 Perceived Ease Of Use/Effort Expectancy

<table>
<thead>
<tr>
<th>Perceived Ease Of Use</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate help is provided on the web portal of Mauritius.</td>
<td>2.64</td>
<td>1.035</td>
</tr>
<tr>
<td>Information concerning the e-services is widely provided on the web portal of Mauritius</td>
<td>2.96</td>
<td>0.965</td>
</tr>
<tr>
<td>The government portal is user friendly in Mauritius.</td>
<td>3.61</td>
<td>0.792</td>
</tr>
<tr>
<td>Citizens are informed of new services launched online in Mauritius.</td>
<td>2.13</td>
<td>0.836</td>
</tr>
<tr>
<td>E-government provides better access to service in a single interaction in Mauritius.</td>
<td>3.78</td>
<td>0.948</td>
</tr>
</tbody>
</table>

Table III. Mean Score - Perceived Ease Of Use/Effort Expectancy

Empirical results show that citizens share unfavourable views concerning adequacy of help provided on the web portal of Mauritius (Mean = 2.64), as well as respondents share negative views concerning provision of information about new services being launched online (Mean = 2.13). In addition, the survey findings depicted that the government portal of Mauritius is user friendly (Mean = 3.61) and that e-government can provide better access to service in a single interaction, thus allowing more flexibility and convenience through e-services (Mean = 3.78). Perceived ease of use/effort expectancy seemed relevant to adoption of e-government services but with an average mean of 3.02, this construct have less of an impact than perceived usefulness/performance expectancy which confirm previous research findings that perceived ease of use has a weak direct link with intention to use the technology (Davis 1989; Davis et al. 1989; Carter 2008).

5.5 Social Influence and Facilitating Conditions
Empirical results also show that e-government increases the interaction between government and citizen through personal computers, kiosks and telephones (Mean = 3.70). Moreover, e-government enables the citizens to access various services without having to travel (Mean = 4.26). Indeed, the survey findings also depict that e-government will enable citizens to connect 24/7 in Mauritius (Mean = 3.97). In addition, survey findings depict that e-services further encourage citizens to play a proactive role in decision making (Mean = 3.42) and promotes greater personalization (Mean = 3.86). These results indicate that the social influence construct impact on e-government services adoption since status and image enhancement resulting from users proactively participating in the governmental process of decision making as well as being recognise for such interactions by receiving a personalize response reinforce the perception that significant others condone the adoption of e-government transactions. Hence, encouraging citizens to use of e-government services. Furthermore the existence of facilitating conditions such as access to technological equipments, improved connectivity at any time and place, and a choice of self-service options, can only increase the users’ intention to use the e-government services, (Venkatesh et al. 2003; Lean et al. 2009).

5.6 Behavioural Intentions and e-Government Adoption in Mauritius

Empirical findings demonstrate that 75 % of respondents will effect payments through an online system. Likewise, 64 % of respondents state that they are satisfied with the services.
provided by e-government in Mauritius. Moreover, survey findings depict that 62% of respondents will recommend e-government services to their friends, relatives and colleagues. Moreover, there is a positive correlation between the overall level of customer satisfaction and the likeliness to recommend e-government to friends and relatives \((r = 0.516, p < 0.01)\). Survey findings also depict a positive correlation between the overall level of online customer satisfaction and the likeliness to make transaction payments online in Mauritius \((r = 0.474, p < 0.01)\). Likewise, empirical findings demonstrate a low correlation between the likeliness to effect electronic payments and recommending the adoption of e-government in Mauritius \((r = 0.432, p < 0.01)\). This may be due to security and trust of e-services and the Internet.

### 5.6.1 Trust of E-Government and Internet

<table>
<thead>
<tr>
<th>Trust of E-Government and Internet</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-government provides a secure environment for citizens to conduct transactions online.</td>
<td>3.03</td>
<td>1.100</td>
</tr>
<tr>
<td>Secure environment for using e-services is provided through web-portal of Mauritius.</td>
<td>3.52</td>
<td>0.978</td>
</tr>
<tr>
<td>I prefer the human interaction in the government offices of Mauritius.</td>
<td>3.06</td>
<td>1.279</td>
</tr>
<tr>
<td>I deem it more secure to transact with human personnel than online service through the web portal in Mauritius.</td>
<td>3.21</td>
<td>1.159</td>
</tr>
<tr>
<td>E-government provides a secure environment for citizens to conduct transactions online in Mauritius.</td>
<td>3.03</td>
<td>1.100</td>
</tr>
<tr>
<td>E-government enables customers to remember their details when they log onto the website again.</td>
<td>3.02</td>
<td>0.970</td>
</tr>
<tr>
<td>E-government provides a unique login to enable rapid transactions online in Mauritius.</td>
<td>3.80</td>
<td>0.784</td>
</tr>
</tbody>
</table>

**Table V. Mean Score - Trust of E-Government and Internet**

Indeed, respondents share quite favourable views concerning online secure environment with e-government. In fact, survey findings show the willingness of customers to adopt e-services as they do not associate security issues with human personnel \((Mean = 3.21)\). Moreover, empirical findings depict that citizens have low level of preference for human interaction in the government offices of Mauritius \((Mean = 3.06)\). Indeed, survey findings clearly outline the importance of security concerning the adoption of e-services in Mauritius. The present research also demonstrates that it is equally important to provide a unique login to enable rapid transactions online in Mauritius \((Mean = 3.80)\). Furthermore, empirical results depicts that respondents have quite unfavorable views regarding the identification of customer details when they logs in the website again \((Mean = 3.02)\). So with an average mean of 3.24, users lay much importance on security of e-government transactions and internet reinforcing the need to pay attention to users’ trust of the internet to increase e-government services adoption. In
addition, trust of the internet is the next significant construct following perceived usefulness concurring with Carter (2008).

5.6.2 Citizen Trust in E-Services

<table>
<thead>
<tr>
<th>Citizen Trust in E-Services</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Examination</td>
<td>4.00</td>
<td>.898</td>
</tr>
<tr>
<td>Specific Registration Mark</td>
<td>3.38</td>
<td>.769</td>
</tr>
<tr>
<td>Scholarships</td>
<td>3.26</td>
<td>.620</td>
</tr>
<tr>
<td>Vacancies at PSC</td>
<td>3.87</td>
<td>.822</td>
</tr>
<tr>
<td>Learner's Licence</td>
<td>3.76</td>
<td>1.060</td>
</tr>
<tr>
<td>Online Submission of Income Tax</td>
<td>4.33</td>
<td>.707</td>
</tr>
<tr>
<td>Basic Pension</td>
<td>3.49</td>
<td>.735</td>
</tr>
<tr>
<td>Training Courses</td>
<td>3.25</td>
<td>.607</td>
</tr>
<tr>
<td>SME Certificate</td>
<td>3.18</td>
<td>.506</td>
</tr>
<tr>
<td>Job Contractor’s Permit</td>
<td>3.15</td>
<td>.488</td>
</tr>
</tbody>
</table>

Table VI. Mean Score - Citizen Trust in E-Services

With mean values ranging from 3.15 to 4.33 and it can be inferred that the majority of respondents derived greater customer trust with the various e-services provided on the web portal of Mauritius. It can be further stated that Online Submission of Income Tax (Mean = 4.33) and Vehicle Examination (Mean = 4.00) are the mostly adopted e-services by citizens in Mauritius and citizens have a higher level of trust for these e-services in Mauritius. This reinforces the finding above that trust of the internet is an important construct in the adoption of government e-services.

5.7 IT Skills and Previous Experience
Empirical results show that the users have proper IT skills and experience, and they have positive attitudes concerning adequate training provided to promote the IT culture in Mauritius (Mean = 4.00). It should be also noted that gender and age were not significant mediators for the present study on e-government uptake in Mauritius whilst IT skills and experience do contribute positively for the current adoption and future uptake of e-services in Mauritius. Such a high average mean of 4.32, previous experience with internet and IT as well as a rather proficient IT skills level due to training and self-efficacy, contribute effectively to e-government adoption by reinforcing the perceived usefulness of the technology (Davis 1989; Chau 1996). The importance of previous IT experience concur with Carter (2008) and Venkatesh et al. (2003) findings about the significance of this moderating factor towards the adoption of e-government services.

5.8 General comments
The findings demonstrated that in Mauritius the users’ adoption of e-government services could be explained through the UTAUT and TAM constructs of performance expectancy/perceived usefulness, effort expectancy/perceived ease of use, social influence and facilitating conditions. Trust of the internet and previous experience of e-government service are other significant predictors of e-government services use.

6.0 Recommendations
The present research findings clearly demonstrate that the adoption of e-government remains a critical component for creating and delivering electronic services in Mauritius. Empirical results have indicated that respondents share unfavourable views concerning the regular update of website and sub-portals and the adequate provision of electronic resources in Mauritius. In this respect, the government sub-portals and website should be updated regularly and the website should also integrate online capabilities such as online chats where citizens can chat with e-government experts to have instant information about all e-services in
Mauritius. Survey results have also shown that citizens are not well informed of new online services launched in Mauritius. Therefore, government portals and website should include regular updates of new online services whereby the citizens are informed of new electronic services launched in Mauritius. Likewise, e-government should be encouraged to share their views on new online services through blogs on the government portals. Similarly, adequate help should be provided to e-government users, for instance, there should be FAQs and Easy E-Services Search Options whereby users should be fully informed of all the e-services provided in Mauritius. Moreover, Online Help Options and other interactive online capabilities should also be incorporated on the websites which will further empower the users to adopt electronic services in Mauritius. The research has also highlighted that respondents share quite favorable views concerning online secure environment with e-government. It should also be noted that heightened fears about inadequate security and privacy safeguards in electronic networks and a general distrust of government can undermine confidence in e-government. As outlined in the survey, there is a low correlation between the likeliness to effect electronic payments and recommend the adoption of e-government in Mauritius. Therefore, the government should cater for greater online security for more citizens to conduct transactions online. Similarly, greater authentication and identification procedures are necessary for citizens to develop high levels of trust since the present research have depicted that respondents share unfavorable views regarding the identification of customer details when the latter logs in the website. In this respect, we can suggest that there should be greater personalization whereby the users of electronic services feel valued and privileged when they log in the website again.

7.0 Conclusion
The purpose of this study is to investigate the broad factors relating to e-government uptake from a users perspective in the Mauritian context. The contributions of this study have both theoretical and practical implications. For theoretical implications, the study has identified determinants of user adoption of e-Government services in Mauritius. At the same time, the study not only introduces new additions to existing technology acceptance research, but also provides empirical supports and validates the findings of previous research. In addition to this, the technology acceptance and adoption theory has been widely studied in developed countries. However, few studies have been done in Mauritius and this study is unique to the Mauritian context. Further, the study can be served as a starting point for other e-Government adoption researches in Mauritius. For practical implications, the study would help government policy decision makers design and implement policies and strategies to increase the adoption of e-Government services in Mauritius as well as in other developing countries.
For instance, they should implement policies and strategies that emphasize the usefulness, the efficiency, and user trust of e-Government services. More specifically, Mauritius is still in the early stage of e-Government implementation. Therefore, understanding of these factors would help the government policy makers better plan its e-Government services. Even though the results can be considered statistically significant in most parts, the study has some limitations. This study is limited only to users’ adoption of e-government services. Therefore, identifying the perceptions of non-users in regards to e-government services is important suggestion for future research. Additional variables may include determinants such as information quality, service quality, user satisfaction, risk, culture and other socio economic constraints. Hence, future study is needed in order to overcome these limitations. Moreover, other arena of research is to investigate e-government adoption from both users’ and non-users’ perspective in urban and rural region in Mauritius.

References


