E-government adoption research: an analysis of the employee’s perspective

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Abstract: This paper works toward analysing the employee’s perspective of e-government adoption literature. The purpose of this paper is to provide a review of current literature pertaining to electronic government research in order to observe basic trends and highlight promising lines of inquiry. Of an initial search resulting in 448 articles published in between 2000–2011, 134 were found to discuss adoption of e-government services from an employee’s perspective and included in our study. Of these 134 articles, 77 reported qualitative research, 52 quantitative, and five reported activity belonging to both categories. The findings suggest that there is currently a relative lack of theoretical development and rigor in the area, and although many aspects such as job relevance, security, perceived benefits, anxiety, and perceived quality are clearly significant as far as employee’s adoption is concerned, they have not been investigated to their potential, and there remains much opportunity for researchers to shape and develop the field. Restricting our analysis to theoretical constructs and their frequency may not provide a full picture of the relevance of the constructs.

Keywords: e-government; adoption; research trends; theoretical analysis; employees.


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1 Introduction

E-government refers to the use of information technology (IT) to advance the proficiency, efficacy, transparency, and responsibility of public governments (Kraemer and King, 2003). Over the past few years, although a growing body of academic literature on e-government has been seen to emerge (Norris and Lloyd, 2006), it appears to be running the risk of not reaching expected levels of maturity (Gronlund, 2005). Despite the considerable influence of e-government systems on public administrations, organisations, individuals, and culture, to date, only a few systematic and complete reviews have been conducted on the subject (Jaeger, 2003; Kraemer and King, 2003). A number of prior studies (Andersen and Henriksen, 2005; Heeks and Bailure, 2007; Yildiz, 2007) have argued that research in this field is weak in terms of theoretical and methodological thoroughness. However, such contentions are yet to be supported by appropriate theoretical evidence.

Although some studies (e.g., Abd-El-Barr and Al-Otaibi, 2010; Akkaya et al., 2010; Alryalat et al., 2012; Andersen and Henriksen, 2005; Beldad et al., 2010; Gronlund, 2005; Mantymaki, 2008; Norris and Lloyds, 2006; Titah and Barki, 2006) have analysed the development of e-government research through literature analysis, a very few of them (Rana et al., 2011a, 2011b, 2011c, 2012a, 2012b) have yet, comprehensively analysed the theoretical developments of e-government adoption in general, and none of them have analysed the employee’s adoption of these services in particular. Hence, in order to better understand the use and progression of e-government adoption research, and to at least partially address this issue, we focus in this work on examining developments from the employee perspective, rather than the more commonly investigated citizen-view. Specifically, this study aims to provide a theoretical assessment of such research, focusing on the adoption models frequently employed in such investigations, and
resulting in a cumulative view of the independent and dependent constructs derived from the individual studies. The remainder of this paper is therefore structured as follows. In the following section, we provide a discussion of the research objectives and method employed in our analysis. We then present our findings and a discussion of our results, and finally we present our conclusions, acknowledge the limitations of our approach, and provide theoretical and managerial implications.

2 Research objectives and methodology

2.1 Research objectives

As the purpose of this research is to provide a review of current literature pertaining to theoretical developments of electronic government adoption research with regard to employee’s perspective, this study has the following research objectives:

1. to explore the technology adoption models that are used in e-government adoption research in context of employee’s perspective
2. to analyse the most frequently used independent as well as dependent variables, which are predominant as far as the professional’s views are concerned
3. to present the link of various independent and dependent variables with appropriate level of significance (i.e., significant, non-significant, and mixed-significance) using a diagrammatic representation.

2.2 Research methodology

In conducting our study, we searched for relevant papers in an integrated academic database – an approach previously effectively employed by various studies (Dwivedi and Kuljis, 2008; Jeyaraj et al., 2006; Rana et al., 2011a, 2011b, 2011c) including those profiling research on specific themes. In our study we initially searched for relevant e-government adoption articles using the ISI Web of Knowledge® citation indexing and search facilities. We augmented this activity with a comprehensive search using Google Scholar® considering various research themes, and using advanced Google Scholar® by inputting each year between 2000 and 2011. This electronic search activity was further augmented by a manual search performed on a number of journals dedicated to publishing e-government research. Out of the resulting total of 448 articles, 134 were found to be focused on employee’s adoption and hence included in our study.

Of these 134 articles, 77 reported qualitative research, 52 quantitative, and five reported activity belonging to both categories. A detailed exploration of 448 concerned research studies and its further break-down to various categories such as employees/professionals (134 studies), citizens (129 studies), others such as literature analysis, meta-analysis, and/or conceptual/theoretical papers (127 studies), organisations (39 studies), students (16 studies), and mixed category containing individual types including citizens, professionals, and students (3 studies) were some of the categories of the studies explored. Figure 1 illustrates the details of the research methodology through a diagrammatic representation.
3 Demographic analyses

3.1 Basic statistics: sources of publications

Our analysis of journals publishing e-government adoption research (summarised in Table 1) indicates unsurprisingly that EGIJ (C = 68) is a leading source of publications. This is followed by GIQ (C=52), JIEGR (C = 44), EGOV (C = 32), TGPPP (C = 24), and PAR (C = 11) as some of the other leading publishing outlets. Further, exploration revealed that a total of 146 sources for publication were used to disseminate the overall total of 448 research papers. This analysis indicates that the papers appear across a range of diverse outlets rather than being concentrated in a small number of journals or conferences. A total of 106 outlets have published one article each, 16 have published two articles, and eight have published three articles. Interestingly, leading journals such as MIS Quarterly, Technovation, and the Journal of Information Technology have published only one article each on e-government adoption.

Table 1 Year-wise sources of publication (2001–2011)

<table>
<thead>
<tr>
<th>Journal</th>
<th>source of publication</th>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
<th>07</th>
<th>08</th>
<th>09</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGIJ</td>
<td>1</td>
<td>1</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>7</td>
<td>7</td>
<td>9</td>
<td>13</td>
<td>12</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>GIQ</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>x</td>
<td>6</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>16</td>
<td>6</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>JIEGR</td>
<td>1</td>
<td>1</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>5</td>
<td>7</td>
<td>3</td>
<td>7</td>
<td>11</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EGOV</td>
<td>1</td>
<td>x</td>
<td>1</td>
<td>x</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>12</td>
<td>8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Journal</th>
<th>Year-wise sources of publication (2001–2011) (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transforming Government: People, Process, and Policy</td>
<td>x x x x x x 5 6 4 4 4</td>
</tr>
<tr>
<td>Public Administration Review (PAR)</td>
<td>x 2 x x 2 1 1 2 x x 4</td>
</tr>
<tr>
<td>Hawaii International Conference on System Sciences</td>
<td>x x x x 1 1 2 2 1 1 1</td>
</tr>
<tr>
<td>International Journal of Information Management</td>
<td>x x x 2 x x x 1 2 2 x</td>
</tr>
<tr>
<td>Information Polity</td>
<td>x x 1 x x 2 2 x x 1 x</td>
</tr>
<tr>
<td>Computers in Human Behaviour</td>
<td>x x x x x x 2 x 1 4 x</td>
</tr>
<tr>
<td>ICEGOV</td>
<td>x x x x x x 3 1 x 1 x</td>
</tr>
<tr>
<td>IFIP-EGOV</td>
<td>x x x x x x 1 x 4 x x x</td>
</tr>
<tr>
<td>European Journal of Information Systems</td>
<td>x x x x x x 2 x x x 2</td>
</tr>
<tr>
<td>Comparative E-Government, Integrated Series in IS</td>
<td>x x x x x x x x x 4 x</td>
</tr>
</tbody>
</table>


3.2 Basic statistics: publications by year

Analysis of the articles on e-government adoption research published on a year-wise basis in between 2000–2011 (illustrated in Table 2) indicated that to date, 2010 was the most productive year for this type of research with largest 94 publications. A complete analysis of material appearing in 2011 was conducted at the time of writing, and although the number of papers published during 2011 was lower than 2010, a more complete analysis would be expected to reveal comparable or greater levels of publication.

<table>
<thead>
<tr>
<th>Year</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1</td>
<td>.2</td>
</tr>
<tr>
<td>2001</td>
<td>1</td>
<td>.2</td>
</tr>
<tr>
<td>2002</td>
<td>5</td>
<td>1.1</td>
</tr>
<tr>
<td>2003</td>
<td>8</td>
<td>1.8</td>
</tr>
<tr>
<td>Total</td>
<td>448</td>
<td>100</td>
</tr>
</tbody>
</table>

4 Theoretical analyses

4.1 Theories used

Theoretical analysis of e-government adoption research from the employee’s perspective indicates that well-accepted adoption models were used in only 25 instances out of a total of 57 quantitative studies. Analysis of these adoption theories indicates that the TAM (C = 15) was been used most often, followed by the DOI/IDT (C = 5), the DeLone and
McLean IS success model (C = 5), the UTAUT (C = 4), the TPB (C = 3), and the TAM2 (C = 3) as other utilised theories or models. Our analysis revealed that although a large number of studies (e.g., Chhabra and Jaiswal, 2008; Kaliannan and Awang, 2010; Lee et al., 2008; Padhi and Mohapatra, 2010; Reddick, 2009) analysed the e-government adoption from employee’s perspective, their selection of constructs to form research models were not linked to specific theories. The TAM was considered along with the DOI in four studies (Hussein et al., 2011; Karavasilis et al., 2010; Sang et al., 2009, 2010) and the TPB in three studies (Fu et al., 2006; Kim and Holzer, 2006; Lu et al., 2010) for developing research models.

Although the UTAUT is a unified model mapped created from eight established models of IS adoption research including the TAM, the DOI, and the TPB, the UTAUT has not been widely used to analyse adoption of e-government services from an employee perspective. A series of other quantitative theories of IS adoption including the theory of reasoned action (TRA), the decomposed TPB (DTPB), and the IS success models of Myers et al. (1997) and Seddon (1997), and the social cognitive theory (SCT) were used in only one of the studies we considered and hence are not represented in Table 3.

Table 3  Theories used

<table>
<thead>
<tr>
<th>Theory-originating article</th>
<th>Example studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPB – Ajzen (1991)</td>
<td>Fu et al. (2006), Kim and Holzer (2006), and Lu et al. (2010)</td>
</tr>
</tbody>
</table>


Source: Approach adapted from Jeyaraj et al. (2006)

As far as International Journal of Business Information Systems outlet is concerned, it has only few studies (Dominic et al., 2010; Dwivedi et al., 2010; McLeod and Pippin, 2012; Mouakket, 2010) on e-government and related issues. However, only one (McLeod and Pippin, 2012) of them is related to the employee’s concerns of e-government adoption. Therefore, this paper is going to be one of the first papers on the theoretical advancements of e-government adoption research in this journal. Moreover, although many recent studies (Al-Busaidy and Weerakkody, 2011; Arduini et al., 2012; Ayyash et al., 2012; Fidler et al., 2011; Li and Feeney, 2012; Musau et al., 2011; Shin, 2012) have published on employee’s perspective of e-government adoption, they could not be made as a part of the theoretical analysis of this research due to their recent appearances.
4.2 Constructs and cumulative impact

Figure 2 presents a diagrammatic representation of the cumulative impact of the various independent variables on dependent variables along with their significance as derived from the studies considered in our work. Given the large amount of information presented in Figure 2, space limitations clearly preclude detailed discussion of the results. However, we can highlight that our results revealed that behavioural intention or intention to use was the most widely used dependent variable for this category. In addition, dependent variables such as perceived usefulness, satisfaction, attitude, perceived ease of use, perceived behavioural control, and actual use were also found to be among the more frequently utilised variables across the studies considered. Constructs such as perceived ease of use, perceived usefulness, and perceived behavioural control were found to be both regularly used and performed well in use. Constructs including perceived risk, trust, compatibility, relative advantage, job relevance, subjective norm, performance expectancy, effort expectancy, social influence, and facilitating conditions were among the most widely used independent constructs.

Table 4 Most frequently used independent constructs

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Example studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived usefulness*</td>
<td>Dorasamy et al. (2010), Fu et al. (2006), Hu et al. (2011), Hussein et al. (2010, 2011), Lu et al. (2010), Sambasivan et al. (2010), Sang et al. (2009, 2010), Seyal and Pijpers (2004), and Vathanophas et al. (2008)</td>
</tr>
<tr>
<td>Perceived ease of use*</td>
<td>Fu et al. (2006), Hu et al. (2011), Kim and Holzer (2006), Lu et al. (2010), Sambasivan et al. (2010), Sang et al. (2009, 2010), Seyal and Pijpers (2004), and Vathanophas et al. (2008)</td>
</tr>
<tr>
<td>Trust*</td>
<td>Fu et al. (2006), Hussein et al. (2010, 2011), Kim and Lee (2006), Sambasivan et al. (2010), Sang et al. (2009, 2010), Schaupp et al. (2010), and Vathanophas et al. (2008)</td>
</tr>
<tr>
<td>Compatibility</td>
<td>Fu et al. (2006), Hussein et al. (2011), and Sang et al. (2009)</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>Carter et al. (2011), Fu et al. (2006), Hussein et al. (2010), Sahu and Gupta (2007), and Seyal and Pijpers (2004)</td>
</tr>
<tr>
<td>Subjective norm*</td>
<td>Fu et al. (2006), Lu et al. (2010), Sang et al. (2010), and Vathanophas et al. (2008)</td>
</tr>
<tr>
<td>Facilitating conditions</td>
<td>Fu et al. (2006), Hu et al. (2011), Sahu and Gupta (2007), Sambasivan et al. (2010), and Schaupp et al. (2010)</td>
</tr>
</tbody>
</table>

Table 4 presents the most frequently used independent variables across the studies of e-government adoption research from the employee’s perspective that was considered in our investigation. Our findings indicated that perceived usefulness (C = 15) was the most frequently used independent variable followed by perceived ease of use (C = 13), trust (C = 10), compatibility (C = 6), self-efficacy (C = 6), subjective norm (C = 6), facilitating conditions (C = 5), and behavioural intention, relative advantage, social influence, and image each with four occurrences as further examples of more frequently used variables. Moreover, seven constructs (performance expectancy, perceived behavioural control, service quality, information quality, system quality, perceived quality, and output quality) appeared in three studies each. Use of an asterisk (*) in Table 4 indicates that the construct concerned was made use of as both an independent and a dependent variable in various studies.
Figure 2  Independent and dependent variables – cumulative results

Notes: AC: accuracy; AD: adequacy of description; AI: adequacy of the amount of information; ANX: anxiety; ASS: assurance; AT: autonomy; ATT: attitude; AU: actual use; BEH: behaviour; BI: behavioural intention; CL: clarity of job sequence; CM: commitment; CN: convenience to life; COM: compatibility; COMP: complexity; CSE: computer self-efficacy; CU: continued use; CUS: customer; DS: display speed; EE: effort expectancy; EG: efficiency gain; EPS: external political self-efficacy; EW: ease of work; FC: facilitating conditions; GOV: government; HC: helpline competency; HS: help service; IDS: IS department support; IMG: image; IPS: internal political self-efficacy; IQ: information quality; JP: job productivity; JR: job relevance; KDD: knowledge about digital democracy; LI: local industries; LP: layout of pages; MN: moral norms; OB: optimism bias; OQ: output quality; PBC: perceived behavioural control; PC: perceived credibility; PCT: PC training; PD: performance dimension; PE: performance expectancy; PEOU: perceived ease of use; PI: personal innovativeness; PR: perceived risk; PRD: perceived readiness; PRE: prior experience; PS: perceived strength of control; PSC: perceived security control; PI: perceived usefulness; RA: relative advantage; RES: responsiveness; RFC: resource facilitating conditions; SEQ: service quality; SI: social influence; SN: subjective norms; SON: social norms; SS: supervisor support; SYQ: system quality; TA: timely assistance; TE: tax equity; TEGW: trust to e-government website; TG: trust of the government; TFC: technology facilitating conditions; TMS: top management support; TOE: trust of the e-file system; TOI: trust of the internet; TRST: trust; TV: task variety; US: user satisfaction; VU: voluntariness of use; WDQI: web design quality (information); WDQSE: web design quality (service); WDQSY: web design quality (system); WSE: web-specific self-efficacy (Types of relationship indicator: +: significant; x: non-significant relationship; and *: mixed relationships).
Table 5 presents the most frequently used dependent variables across the range of studies of e-government adoption research from the employee’s perspective that was considered in our investigation. Our findings indicated that intention to use or behavioural intention (C = 18) was the most frequently used dependent variable, followed by other frequently used variables such as perceived usefulness (C = 11), perceived ease of use (C = 5), attitude (C = 5), satisfaction (C = 5), actual use (C = 4), and perceived risk (C = 3). In addition, a series of additional variables including perceived behavioural control, service quality, subjective norm, trust, and adoption behaviour, were examined in two or less studies and for reasons of space conservation have not been included in Table 5. Surprisingly, our investigation reveals that trust has been little investigated as a dependent variable, whereas it is one of the most explored independent variables. As in Table 4, use of an asterisk (*) in Table 5 indicates that the construct concerned was made use of as both an independent and a dependent variable in various studies.

### Table 5  Most frequently used dependent constructs

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Example studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention to use/BI*</td>
<td>Carter et al. (2011), Dorasamy et al. (2010), Fu et al. (2006), Hu et al. (2011), Hussein et al. (2010, 2011), Kim and Holzer (2006), Lu et al. (2010), Sahu and Gupta (2007), Sambasivan et al. (2010), Sang et al. (2010), Schaupp et al. (2010), and Vathanophas et al. (2008)</td>
</tr>
<tr>
<td>Perceived usefulness*</td>
<td>Floropoulos et al. (2010), Fu et al. (2006), Hu et al. (2011), Kim and Holzer (2006), Sang et al. (2009, 2010), Seyal and Pijpers (2004), and Vathanophas et al. (2008)</td>
</tr>
<tr>
<td>Perceived ease of use*</td>
<td>Fu et al. (2006), Seyal and Pijpers (2004), and Vathanophas et al. (2008)</td>
</tr>
<tr>
<td>Attitude*</td>
<td>Lu et al. (2010), Sahu and Gupta (2007), and Seyal and Pijpers (2004)</td>
</tr>
<tr>
<td>Satisfaction*</td>
<td>Floropoulos et al. (2010), and Sun et al. (2006)</td>
</tr>
<tr>
<td>Actual use</td>
<td>Hu et al. (2011), and Lu et al. (2010)</td>
</tr>
<tr>
<td>Perceived risk*</td>
<td>Fu et al. (2006), and Schaupp et al. (2010)</td>
</tr>
</tbody>
</table>

### 5 Discussions

Our intention in this paper was to present the results of an analysis of research relating to e-government adoption, specifically that which focuses upon the issue from the employee perspective rather than the commonly investigated citizen-view. Based on a review of 134 suitable papers identified as a result of our ISI Web of Knowledge® and Google Scholar® search activities, results were presented in terms of three aspects: basic publication statistics, research theories used, and constructs and cumulative impact.

Our analysis in terms of publication statistics demonstrates that the number of publications has continued to rise since 2000 when only one paper appeared in our search results, and this trend is apparently set to continue. In terms of outlets publishing such research studies, it is unsurprising to find that specialised journals such as EGIJ, GIQ, IJEGR, EGOV, and TGPPP appear prominent. However, the less number of articles...
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published by non-specialised leading journals such as MIS Quarterly and Journal of Information Technology was not expected.

In terms of research theories used, our results indicate that the TAM has been the most widely used model. Given that the TAM is known to be useful for comparing user groups or applications and assessing technologies or applications within and across organisations (Adams et al., 1992; Subramanian, 1994), and that the TAM is useful both to investigate IT acceptance intention behaviour and to assist with explaining online users’ behavioural issues (Gefen et al., 2003; Horst et al., 2007; Liu and Arnett, 2000; Pavlou, 2003), this again was of no great surprise. However, given the acknowledged limitations of the use of the TAM (Paul and John, 2003), there is a clear scope for additional original work in attempting to address these limitations within the scope of e-government adoption research. Venkatesh et al. (2003) formulated the UTAUT through the mapping of eight well-known acceptance models, including the TAM, the DOI, and the TPB, and the performance of the resulting UTAUT was found to be better than that of any individual contributing model.

It is interesting to note that studies which used the TPB (Fu et al., 2010; Kim and Holzer, 2006; Lu et al., 2010), the DOI (Hussein et al., 2011; Karavasilis et al., 2010; Sang et al., 2009, 2010), or even the UTAUT (Hu et al., 2011) along with the TAM were researched after the emergence of the UTAUT in 2003, and yet none of these works used the UTAUT as a core model along with additional integrated constructs. This is perhaps as much a reflection on the UTAUT use in general as opposed to the UTAUT use within e-government adoption research specifically, however further investigative work is required in order to examine the selection and justification procedures of the UTAUT contributing models and indeed the extent to which they address the situation under investigation.

Our analysis of the use of independent constructs in employee adoption of e-government services revealed that the majority of the constructs being used are constituent components of regularly used models such as the TAM, the TPB, the DOI, the DeLone and McLean IS success model and the UTAUT. However, constructs such as job relevance, privacy, security, perceived benefits, perceived knowledge, assurance, anxiety, perceived quality, income, and output quality – even though they hold a great significance in contributing to analyse employee adoption behaviour for e-government services, they are still largely under-represented and provide a clear opportunity for further research contributions.

It is noticeable from our results that few studies (e.g., Hu et al., 2011; Lu et al., 2010) discussed the actual use behaviour after assessing the intention of using e-government services under investigation. This might be due to the fact that measuring actual use of e-government services can be complication, and it is acknowledged that intention to use is often presented as a proxy for actual use behaviour, nevertheless, there remains much scope for research to examine the actual use of services. Similar to the results for independent constructs, although dependent constructs including behavioural intention, perceived ease of use, and perceived usefulness are among the most frequently examined variables, the legitimacy of the variables such as trust, self-efficacy, subjective norm, service quality, perceived behavioural control, and prior experience has yet to be properly investigated. The cumulative e-government diagram with respect to employee’s context indicates an overall non-significant impact of system quality on user satisfaction. This may be due to the fact that when system quality is measured in employee’s context, the
system quality is not a critical factor in determining satisfaction (Floropoulos et al., 2010).

However, not included due to their recent appearances, the recent publications (Al-Busaidy and Weerakkody, 2011; Arduini et al., 2012; Ayyash et al., 2012; Fidler et al., 2011; Li and Feeney, 2012; Musau et al., 2011; Shin, 2012) in the area of e-government research in context of employee’s perspective would help highlighting some more facts about the theoretical developments in terms of evaluating independent and dependent variables, and consolidating the cumulative diagram.

6 Conclusions

Our intention in this paper was to present the results of an analysis of research relating to e-government adoption based on a review of 134 suitable papers published between 2000 and 2011. We presented the results of our investigation in terms of three aspects: basic publication statistics, research theories used, and constructs and cumulative impact. Our intent in conducting our investigation was both to provide a cross-sectional view of work published to date, and a resource for future researchers by providing information on the areas previously addressed in e-government adoption research, how such research tends to be carried out (in terms of theories and models applied), and to an extent, what areas could be usefully approached to conduct further original work. In terms of opportunities for publishing such work, favoured outlets appear to be a clear group of specialised journals, there being little presence to date in high-quality general journals – publishing such material in these journals therefore appears to be something for e-government researchers to aspire to. In terms of theories and models, the expected approaches appeared in our dataset, we also identify well known theories that have been little used – for instance, the DeLone and McLean IS success model. Our findings also revealed the need for exploring some under-represented independent and dependent variables whose relevance cannot be ignored in the organisational context.

6.1 Limitations and future research directions

We acknowledge some limitations of our study. Restricting our analysis to theoretical constructs and their frequency may not provide a full picture of the relevance of the constructs, and their significance has not been measured, nor has any weight analysis been conducted. Further research should address these aspects. The limited number of articles examined in the study is also fully acknowledged. The researchers should consider some more relevant and recent articles as indicated in this study toward a more comprehensive analysis further.

6.2 Theoretical and managerial implications

This study is one of the first few studies to explore and review the theoretical foundations of e-government adoption research in context of employees. This paper presents a comprehensive literature review of IS/IT adoption theories and concerned theoretical constructs used specifically in context of professionals. Such analysis would help researchers in picking up the most appropriate models and/or their constructs as far as the professional’s intention toward adoption of e-government services is concerned. The
cumulative diagram can further guide the researchers about the possible set of independent as well as dependent constructs to be considered for research model development with their overall impacts. The cumulative diagram of the employee’s perspective also guides the practitioners to think about selecting appropriate factors that are performing significantly. The managers can use this research as the reference to judge the adoption of an e-government system in their organisations.

Acknowledgements

We would like to acknowledge the valuable contributions of the reviewers and editor who have provided critical suggestions to improve the quality of the paper.

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