Investigating Success of an E-Government Initiative: Validation of an Integrated IS Success Model

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Abstract. The purpose of this paper is to examine the success (by measuring intention to use and user satisfaction) of the online public grievance redressal system (OPGRS) from the perspective of the citizens of India. The success of this e-government system is examined using an integrated IS success model. The model developed includes the constructs such as *system quality*, *information quality*, *service quality*, *perceived usefulness*, *perceived ease of use*, *perceived satisfaction*, *perceived risk*, and *behavioral intention*. The proposed integrated research model of IS was validated using the response taken from 419 citizens from different cities of India. The empirical outcomes provided the positive significant connections between all 12 hypothesised relationships between eight constructs. The empirical evidence and discussion presented in the study can help the government to improve upon and fully utilise the potential of the OPGRS as a useful tool toward a transparent and corruption free country.

Keywords: Online public grievance redressal system, OPGRS, e-government, DeLone and McLean, Seddon, India.

1 Introduction

Starting from the early 1990s, the revolution of information and communication technologies (ICTs) has made major and brisk changes in the day-to-day life of citizens and governments (Floropoulos et al., 2010). Realizing this, many governments across the world are transforming into new forms of government called electronic government (hereafter, e-government) (Akman et al., 2005) to reinforce and maintain their positions in the global competition (Sharifi and Zarei, 2004). Though e-government provides obvious benefits to governments, professionals, and organizations, it is citizens who actually predicted to receive a number of benefits (Jaeger, 2003). Looking at this aspect, one of the most significant requirements of citizen's day-to-day life such as their grievances against the government systems, officials, organizations, and bureaucratic structures in a country like India is quite evident. As governments develop e-government systems to deliver services to the people, there is a need of evaluation efforts that could examine their effectiveness (Wang and Liao, 2008) and success. The online public grievance redressal system (OPGRS) is one such e-government system, which is primarily intended for addressing the grievances, issues, and problems of citizens' everyday life and gets them resolved online by the high-level government officials designated for it. It provides an enormous benefit to the people by resolving their problems without much aggravation.

Grievance redress mechanism is a part and parcel of the machinery of any administration. No administration can claim to be answerable, responsive, and user-friendly unless it has established a proficient and effectual grievance redress mechanism. In fact, the grievance redress mechanism of any organisation is an estimate to examine its efficiency and effectiveness as it provides significant feedback on the working of the administration. The grievances from public are accepted at various points in the Government of India. There are mainly two designated agencies in the central government handling these grievances namely Department of Administrative Reforms and Public Grievances (under Ministry of Personnel, Public Grievances and Pensions) and Directorate of Public Grievances (under Cabinet Secretariat). The public grievance redress mechanism in India functions on a decentralized basis. An officer of the level of Joint Secretary is designated as the Director of Grievances of the Ministry/Department/Organization.

The major reasons of grievances primarily include the socio-economic reasons such as prevalent corruption in the ministries, government organizations, and bureaucratic systems, which are ubiquitous in the current society. The people feel themselves helpless against it and are bound to endure it in their day-to-day life. But, the factors such as lack of awareness and lack of relevant information about whom to complain make this process even more monotonous. Looking at this aspect, the OPGRS has been designed and developed to take care of citizens' such problems without even stepping in offices of ministries and government organizations or even without knowing where to go to register their complaints. In majority of the cases, citizens don't even know who is accountable to listen to their problems. Therefore, the significance of such e-government systems is felt even more for smooth, transparent and impartial running of governments. The success of such system can be measured only when a large section of the society adopts it and the government responds properly to their problems leading to the citizens' satisfaction and its overall success.

Although, the OPGRS offers several advantages (as outlined above), its adoption is currently low. The key motivations behind using such system are largely due to the socio-economic reasons such as widespread corruption in the government and bureaucratic systems, which is pervasive in the current society as far as the country like India is concerned. The significance of such e-government systems is felt even more for smooth, transparent and impartial running of governments. In addition, even though the government has implemented this e-government system since 2009, its success could not be realised in a real sense. Such systems could be perceived as successful only when users consider it as an essential tool for registering their complaints. Despite its low adoption rate and less awareness, existing literature has made hardly any effort to examine the success of such an important public administration system. It is evident from the discussion presented above that it would be useful to assess success of the OPGRS by validating an integrated IS success model. Dwivedi et al. (2012) emphasised that DeLone and McLean (1992, 2003) IS success models are among few such theories and models that have helped researchers to establish some of the salient factors that influence the acceptance and use of e-government services by citizens before testing and post adoption. Hence, to measure the success of the OPGRS, this research has validated the integrated model of IS success by combining constructs from Seddon's (1997) and DeLone and McLean's (2003) IS success models accompanied with some additional constructs including *perceived ease of use* and *perceived risk*. The reason behind *perceived trust* not being included in the proposed model is because of the fact that trust is just an alternative and surrogate variable for risk and measures the reverse of the coded items and adverse influence intentions (e.g. Carter et al., 2011; Karavasilis et al., 2010) in some of the prior studies of e-government adoption.

The remaining paper is organised as follows: the next section undertakes a review of e-government literature based on IS success model, this would be followed by a brief discussion on the utilised theoretical background of DeLone and McLean's (1992, 2003) and Seddon's (1997) IS success models. Section 4 then provides an overview of the proposed research model and justification for the proposed hypotheses. This follows a brief discussion on utilised research method. Findings are presented and discussed in Section 5 and Section 6 respectively. Finally, the conclusion including limitations and future research directions and implications for theory and practice are presented in Section 7.

2 Literature Review

A number of studies (e.g. Chai et al., 2006; Chen, 2010; Floropoulos et al., 2010; Gotoh, 2009; Hsu and Chen, 2007; Hu et al., 2009; Rana et al., 2013b, 2013c, 2014b; Sambasivan et al., 2010; Scott et al., 2009; Teo et al., 2008) have used IS Success Models to analyse the *use*, *intention to use*, and *satisfaction* toward adopting an e-government system. In recent years, many citizen-centric Internet-based enriched services implemented by governments of various countries including India. As the government develops e-government systems to offer such improved services to citizens, further assessment efforts are needed to measure the effectiveness of the e-government systems. Such evaluation efforts would allow government agencies to determine whether they are capable to deliver what citizens require and provide them expected services accordingly (Gupta and Jana, 2003; Wang and Liao, 2008).

From the analysis of the research findings of the various literature studies, Chai et al. (2006) implied that the success of e-government depends on how governments offer high quality and user-oriented e-government services to citizens. One of the major factors of the success of the e-government was government websites. The relationship between the quality of websites and their success has been analysed in some research studies (Chai et al., 2006). Palmer (2002) discussed that quality of a website can be measured by its connection speed, navigability, interactivity, responsiveness, and quality substance. On the other hand, it was found that website quality is supposed to have positively linked toward developing trusting intention on e-commerce website (McKnight et al., 2000). Therefore, website service quality can be considered as one of the strongest interpreters of e-government success and user's intention to constantly use an e-government website (Chai et al., 2006). Similarly, Scott et al. (2009) provided a multi-faceted framework for understanding the success of e-government websites from the citizen's perspectives. They established the role of *net benefits* in the evaluation of e-government success and extended the knowledge of e-government success by determining the influence IT quality constructs. Examining adoption of the electronic procurement system, Sambasivan et al. (2010) extended the DeLone and McLean's IS success model using additional factors including *trust*, *facilitating conditions*, and *web-design quality* and found them strongly linked to *intention to use*. The findings indicated that perceived usefulness, perceived ease of use, assurance and responsiveness of service by service providers, facilitating conditions, and web design (service quality) strongly linked to intention to use electronic procurement system.

Exploring the e-government system in Taiwan, Hsu and Chen (2007) provided an alternative conceptualisation of the IS success model for examining the IS use behavior. Their analysis indicated that user's *intention to use* an IS in e-government is governed by social (i.e. *normative pressure*) and functional value (i.e. *information and service quality*) rather than conditional value (i.e. *system quality*) and satisfaction. Teo et al. (2008) have analysed the influence of trust on the specific e-government systems on the quality constructs (i.e. *information, system, and service quality)* of the IS success model. They argued that higher level of citizen's trust would be positively associated with *information quality*, *system quality*, and *service quality* of the systems (Teo et al., 2008). Similarly, backed by the IS success model, Wang et al. (2010) devised a model for citizen's sustainable trust in e-government. On the contrary of Teo et al.'s (2008) conceptualisation, Wang et al. (2010) believed that higher levels of *information quality*, *system quality*, and *service quality* would lead to citizen's improved trust on an e-government system. Such trusts have been argued to result in positive intentions to use the system. However, the study has not performed any empirical investigation of the proposed research model. Such literature indicate that trust is very highly correlated with the quality constructs either in the form of a determinant or as a dependent variable. However, risk related aspects have not been discussed in any of these studies.

Examining the success of online taxation systems has been experienced as a common phenomenon across e-government research in the recent past. For example, Gotoh (2009) undertook an analysis of the online tax declaration services for the Japanese government and empirically examined it to reveal factors that enhance user's satisfaction with such services. The paper used IS success models with two amendments where *preparation quality* and *result quality* were the constructs used apart from *system quality*, which was directly driven from the IS success model. Hu et al. (2009) examined the determinants of service quality and continuance intention on the eTax system in context of Hong Kong. The data analysis supported both service

traits (i.e. security and convenience) and one technology trait (i.e. *perceived ease of use*) as the key determinants of the *service quality*. They also observed that *perceived usefulness* was not found as the strongest predictor of continuance intention but *service quality* was. Chen (2010) discussed taxpayer's satisfaction with the online system for filing the individual income tax returns in context of Taiwan. The system under discussion covered its information quality, system quality, and service quality, which are determinants of user's satisfaction with any such system. By the use of DeLone and McLean's IS success model, the author demonstrated how the use of the system could be enhanced by the increasing software satisfaction with it. The research also found that how *information quality* and *system quality* are significant factors toward achieving this goal. Floropoulos et al. (2010) measured the success of the Greek taxation information system from the perspective of expert employees using the constructs including *information quality*, *system quality*, *service quality*, *perceived usefulness*, and *user satisfaction* and found the strong links between five success constructs. However, they found the effect of *system quality* on *perceived usefulness* extremely low and on *user satisfaction* as non-significant.

Some recent publications (e.g. Rana et al., 2013b, 2013c, 2014b) on e-government research have explored the different models of IS success on the OPGRS system. However, none of them have attempted to explain factors such as *perceived risk* and *service quality* along their proposed research models. For example, Evaluating the validity of IS success models for the OPGRS system, Rana et al. (2013b) revealed that *information quality* and *system quality* significantly influenced both *behavioral intentions* and *user satisfaction*. The study also proposed an integrated IS model and demonstrated that the construct such as *trust* in addition to the quality constructs (i.e., information quality, system quality) makes the model more robust than any of the three individual widely accepted IS success models such as DeLone and McLean's (1992, 2003) and Seddon's (1997) models. Similarly, Rana et al. (2013c) only used Seddon's (1997) model to understand factors influencing adoption of and satisfaction with using this system. Moreover, Rana et al. (2014b) used some external constructs including *social influence*, *self-efficacy*, and *trust* along the DeLone and McLean (1992) IS success model. Hence, the current research would provide understanding of system's success through risk associated with using and the overall quality of service provided by it.

The taxation related e-government systems are a type of transactional e-government system where users are expected to file their income tax returns using such systems. The research in this area has shown the intended outcome where quality related constructs have been largely found to be significant on intentions to use such systems. We also agree with one empirical outcome where Floropoulos et al. (2010) found non-significant relation of system quality on intention to use the system as respondents were expert in using it and quality of system did not influence their decision making ability. However, none of the e-government systems have incorporated perceived risk and evaluated its impact on user's behavioral intentions. Moreover, no research on e-government adoption has yet clarified the clear roles of system quality and perceived ease of use. Motivated from the definition of system quality from Seddon (1997), this research believes that this construct is just a subset of user's overall perception about ease of use of the system which is linked more to its quality such as minimal bugs, quality of user interface, and quality of documentation and program code written for the system. Some IS/IT related literature (e.g. Ahn et al., 2007; Lederer et al., 2001; Liao and Cheung, 2001) have distinctly shown these constructs and their inter-relationships. Moreover, Rai et al. (2002) empirically established the validity of an IS success model using *ease of use* rather than *system quality* as a construct while anlysing the success of an integrated student information system. The explicit relationship evaluation and previous research experimentation of *system quality* and *perceived ease of use* has made a grounding for using these two distinct constructs in our proposed research model.

3 Research Model Development and Hypotheses

3.1 Theoretical Background - IS Success Models

There are primarily three theories given in the area of IS success. The first IS success model was given by DeLone and McLean (1992) with six factors namely *system quality*, *information quality*, *use*, *user's satisfaction*, *individual impact*, and *organizational impact* (DeLone and McLean, 1992). In order to address criticism by

several studies (such as Seddon and Kiew, 1996) relating to some of its constructs such as *individual impact*, *organizational impact* and *use*, Seddon (1997) introduced a re-specified model of DeLone and McLean (1992) where *use* of the system was considered to have results of various types, *perceived usefulness* was introduced in the model as an IS measure. Latter in the year 2003, DeLone and McLean discussed many of the significant IS research efforts that have applied, validated, challenged, and offered enrichments to their original model. The updated IS success model (DeLone and McLean, 2003) incorporated a new construct 'service quality' and substituted the variables, *individual impact* and *organisational impact*, with *net benefits* with accounting for benefits at different levels of analysis.

3.2 Overview of Proposed Research Model for Examining Success Factors of OPGRS

The theoretical development is based on the above described IS success models (DeLone and McLean, 1992; 2003; Seddon, 1997). The decision for not considering certain constructs of these models for proposing research model for this study is based on certain logical facts. For example, the construct 'use' was also excluded from the proposed model as respondents of this study were potential adopters ('not actual users') of the systems. Although, they were shown the working of the system and its benefits and are expected to use this system in the future, they have not yet experienced with the system. For the purpose of this study the perceived usefulness construct from the Seddon's (1997) model was added to replace use. Seddon and Kiew (1996) and Seddon (1997) argued that non-use of a system does not necessarily indicate that it is not useful; it may simply indicate that the potential users have other tasks to perform (Seddon, 1997; Seddon and Kiew, 1996). Such logical arguments further justifies basis for the inclusion of perceived usefulness as an appropriate construct in the proposed model.

The proposed conceptual model added a new construct emerging from DeLone and McLean's (2003) model of IS success called 'service quality'. Petter et al. (2008) argued that service quality is largely concerned with measuring the quality of service obtained by the IT departments as opposed to the specific IT applications. It mainly examines user's beliefs and their insight of IT department. However, the measures for service quality have been borrowed from Pitt et al. (1995) who considered service quality centered on the services provided by the specific IS. Since this study is concerned with the services provided by OPGRS, it was deemed appropriate to include service quality in the proposed research model. Moreover, the constructs such as *perceived ease of use* and *perceived risk* were also considered appropriate to be included in the model as they reflect the users' contemplation about using the system realizing its ease of use and risk associated with using it.

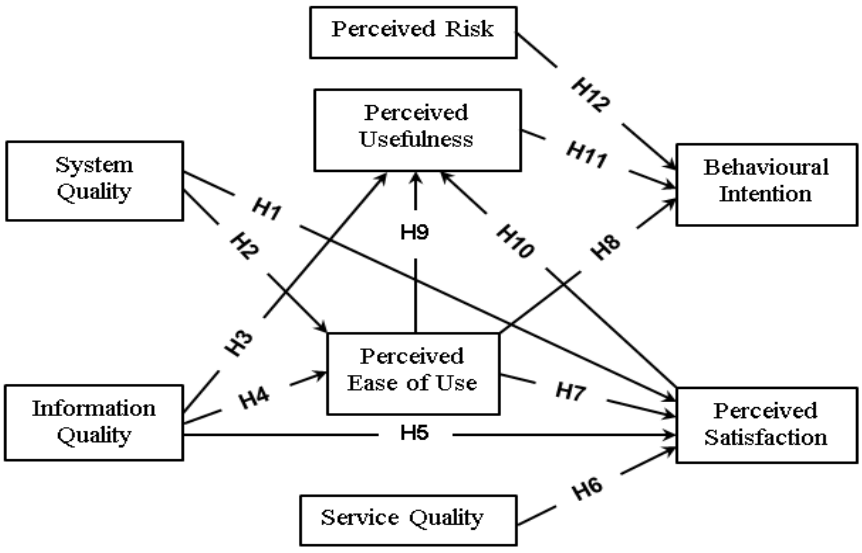

Fig. 1 Proposed Research Model

Considering above discussion, proposed research model (see Fig. 1) postulates that *system quality* and *information quality* will have a significant influence on *perceived ease of use* and *perceived satisfaction*. *Perceived ease of use* will have a significant influence on *perceived usefulness*, *behavioral intention*, and *perceived satisfaction*. *Perceived risk* and *perceived usefulness* will significantly influence *behavioral intention*. *Service quality* will significantly influence *perceived satisfaction*, which in turn has a significant influence on *perceived usefulness*. Testing the postulated relationships can help to extrapolate the behavioral intention to use and success of online public grievance redressal systems.

3.3 Hypotheses Development

As illustrated in Fig. 1, a total of 12 hypotheses are proposed based on the relationships between eight constructs. The core constructs are listed and defined in Table 1.

Table 1 Definitions of core constructs used in proposed model

Variable/Construct	Definition
System Quality	System quality is concerned with whether or not there are 'bugs' in the system, the consistency of the user interface, ease of use, quality of documentation, and sometimes, quality and maintainability of the program code (Seddon, 1997).
Information Quality	Information quality is concerned with the issues such as the relevance, timeliness, and accuracy of information generated by an information system. Not all applications of IT involve the production of information for decision-making (e.g., a word processor does not produce any information) so information quality is not a measure that can be applied to all systems (Seddon, 1997).
Service Quality	Service quality is concerned with the quality of the support that system users received from the IS department and IT support personnel. For example, responsiveness, accuracy, reliability, technical competence, and empathy of the personnel staff. SERVQUAL, adapted from the field of marketing, is a popular instrument for measuring IS service quality (Pitt et al., 1995).
Perceived Usefulness	Perceived usefulness is a degree to which an individual believes that using a specific system would enhance his or her job performance (Davis, 1989).
Perceived Ease of Use	Perceived ease of use is the degree of which an individual believes that using a specific system would be free of effort (Davis, 1989).
Perceived Risk	Perceived risk is the individual's subjective expectation of suffering a loss in pursuit of a desired outcome (Warkentin et al., 2002).
Perceived Satisfaction	Perceived satisfaction is the degree to which the user feels that the given system meets his or her information needs (Ives et al., 1983).

12 hypotheses are developed between eight constructs largely picked up from the IS success models (DeLone and McLean, 1992, 2003; Seddon, 1997) and some additional constructs (such as perceived ease of use and perceived risk) to analyse the strengths and significance of the relationships. Formulation of each hypothesis is discussed in the following sub-sections.

3.3.1 System Quality→Perceived Satisfaction

System quality is formed through the interaction with the system, when users complete a particular task (Maes and Poels, 2007). DeLone and McLean (1992, 2003) characterised *system quality* as the desired characteristics of the information system itself. More specifically, they incorporated five items into *system quality*: adaptability, availability, reliability, response time, and usability for measuring the e-commerce success. They hypothesise that higher system quality is expected to lead to higher user satisfaction (DeLone and McLean, 2003). Seddon and Kiew (1994) surveyed 104 users of a recently implemented, university accounting system and found significant relationship between *system quality* and *user satisfaction*. The prior empirical findings (Iavari, 2005; Rai et al., 2002; Seddon, 1997; Seddon and Kiew, 1996; Wang and Liao, 2008) have supported the positive and significant impact of system quality on user satisfaction as discussed in DeLone and McLean's model. That indicates that the higher levels of system quality are positively associated to higher levels of user satisfaction. Measuring the e-government system success using the validation of DeLone and McLean's (2003) model, Wang and Liao (2008) found a significant impact of *system quality* on *user satisfaction*. Therefore, we hypothesise:

H1: *System quality* has a positive and significant effect on the *user satisfaction* of the online public grievance redressal systems.

3.3.2 System Quality→Perceived Ease of Use

System quality depends on the user's needs, as defined during the systems analysis and development. The systems oriented view suggests that barriers to consumer acceptance are technology-based. High level of system quality might provide users with more convenient, secured, and faster responses (Ahn et al., 2007). Lederer et al. (2001) and Liao and Cheung (2001) showed that such system's capabilities had a positive influence on the perceived ease of use of the website. Analysing the acceptance of mobile Internet in Korea, Cheong and Park (2005) found that *system quality* significantly influenced *perceived ease of use* of the corresponding system. Analysing the user acceptance of the online retailing, Ahn et al. (2007) found that system quality had a positive influence on user's perceived ease of use. We also believe that higher system quality of the OPGRS will lead to effort free use of the system. On the basis of the above arguments, it can be hypothesised that:

H2: *System quality* has a positive and significant impact on the *perceived ease of use* of the OPGRS.

3.3.3 Information Quality→Perceived Usefulness

This relationship has been supported by Seddon (1997) IS success model, where they substituted 'IS use' of DeLone and McLean (1992) success model by perceived usefulness. Seddon (1997) pointed out that *perceived usefulness* is impacted directly by beliefs about *information quality*. Latter, Rai et al. (2002) analysed and validated Seddon's (1997) and its amended models and found the effect of *information quality* on *perceived usefulness* as positive and significant. Similarly, Franz and Robey (1986), Kraemer et al. (1993) and Seddon and Kiew (1996) have also argued that augmented information quality leads to enhanced usefulness. Moreover, Floropoulos et al. (2010) explored the effect of *information quality* on *perceived usefulness* in context of Greek TAXIS systems and confirms the Seddon's (1997) argument. Therefore, we hypothesise:

H3: *Information quality* has a positive and significant effect on *perceived usefulness* of the OPGRS.

3.3.4 Information Quality→Perceived Ease of Use

The information of the web environment is not only related to the report but also to its user's interpretation (Ahn et al., 2007). It has been argued that the most frequently used measures of web environment are its content and content quality (Ranganathan and Ganapathy, 2002). Studies have shown that high levels of *information quality* (i.e. various, detailed, complete, accurate, timely, relevant, and reliable) have a positive influence on *perceived ease of use* of a website (Ahn et al., 2007). As far as e-government system is concerned, we also believe that the relevance, timeliness, and accuracy of information generated by OPGRS will definitely allow its users to use the system in an effortless manner. Therefore, we hypothesise:

H4: *Information quality* has a positive and significant effect on *perceived ease of use* of the OPGRS.

3.3.5 Information Quality→Perceived Satisfaction

Several prior studies on IS success have demonstrated support for the argument that higher degree of information quality leads to enhanced user satisfaction (Chae and Kim, 2001; Floropoulos et al., 2010; Iavari, 2005; McGill and Hobbs, 2003; Rai et al., 2002; Seddon, 1997; Seddon and Kiew, 1996; Wang and Liao, 2008; Zhang et al., 2005). Petter and McLean's (2009) meta-analytic assessment of DeLone and McLean model has also strongly supported in effect of *information quality* on *user satisfaction*. Similarly, Rana et al. (2013d) performed a meta-analysis between these two constructs and found the cumulative outcome as significant. In context of e-government adoption research, Wang and Liao (2008) presented and validated a model of e-government system success (based on DeLone and McLean (2003) IS success model) and found the influence of *information quality* on *user satisfaction* being significantly supported. Similar results were obtained for TAXIS

systems analysed by Floropoulos et al. (2010) where the findings indicated system quality as an important and strong determinant of employee's satisfaction. The meta-analysis of *information quality* on *user satisfaction* also demonstrated a significant relationship between them in context of e-government research (Rana et al., 2012a, 2012c, 2013d). Hence, we hypothesise:

H5: *Information quality* has a positive and significant effect on user's *perceived satisfaction* of the OPGRS.

3.3.6 Service Quality→Perceived Satisfaction

Researchers have started including service quality as a measure of IS success, due to the expanded role of the IS department and the importance of IS in the recent years (Chiu et al., 2007). DeLone and McLean (2003) defined it as the overall support delivered by the service provider, and applies regardless of whether this support is delivered by the IS department, a new organisational unit, or outsourced to an internal service provider (ISP). Developing a multi-item scale for e-service quality, Cristobal et al. (2007) found that *perceived service quality* significantly influenced buyers and information searcher's influence. Measuring the success of Greek taxation information system, Floropoulos et al. (2010) found that *service quality* had a significant influence on *user satisfaction*. Wang and Liao (2008) also showed that there was a marginal support for *service quality* on *user satisfaction* while assessing the e-government systems success. Therefore, we hypothesise:

H6: *Service quality* has a positive and significant effect on user's *perceived satisfaction* of the OPGRS.

3.3.7 Perceived Ease of Use→Perceived Satisfaction

The prior research has *perceived ease of use* as a significant predictor of the *user satisfaction* in context of the acceptance of the online learning tools in a university in South Korea (Joo et al., 2011). It has been found as a significant determinant of user's satisfaction in a number of studies (e.g. Colesca and Dobrica, 2008; Liao et al., 2007; Liu and Zhou, 2010) related to e-government adoption as well. We also believe that easy to use the system might lead the user's to be more satisfied with it than its complexity. The above empirical support and argument for this relationship leads to the formulation of the following hypothesis:

H7: Perceived ease of use has a positive and significant effect on user's perceived satisfaction of the OPGRS.

3.3.8 Perceived Ease of Use→Behavioral Intention

As per the technology acceptance model (TAM), *perceived ease of use* directly influences *behavioral intentions* (Davis et al., 1989). This relationship has received a strong empirical support from studies on IS/IT (e.g. Davis et al., 1989; King and He, 2006; Venkatesh and Davis, 2000) as well as e-government adoption (e.g. Hu et al., 2011; Phang et al., 2005; Tan et al., 2008; Yao and Murphy, 2007). All else being equal, Hu et al. (2011) argued that when an individual exercises less effort and use a new technology, he or she should be more willing to experiment with and use it. In the other words, when the barrier toward using the technology is less, the people are more likely to use it (Hu et al., 2011). In the context of this study, we feel that citizens might be more inclined toward using the OPGRS system when they would find that using the system is relatively easier and free of complexities and intricacies. Therefore, we hypothesise:

H8: *Perceived ease of use* has a positive and significant effect on user's *behavioral intention* toward using the OPGRS.

3.3.9 Perceived Ease of Use→Perceived Usefulness

The positive and significant influence of *perceived ease of use* on *perceived usefulness* is one of the well established and largely justified relationships of the TAM model. The causal influence of ease of use on usefulness makes sense conceptually, too. All else being equal, the easier a system is to interact with, a less effort needed to operate it, and the more effort one can allocate to other activities (Radner and Rothschild, 1975) contributing to overall job performance (Davis, 1989). A number of studies (e.g. Colesca and Dobrica, 2008;

Phang et al., 2005; Tan et al., 2008) on e-government adoption have empirically justified this relationship. Performing the meta-analysis of the studies on e-government adoption, Rana et al. (2013a) found that the *perceived ease of use* had a positive and significant influence on *perceived usefulness*. Based on the empirical justification and logical arguments, we can hypothesise:

H9: *Perceived ease of use* has a positive and significant effect on *perceived usefulness* of the OPGRS.

3.3.10 Perceived Satisfaction→Perceived Usefulness

Given the positioning of perceived usefulness in the individual impact category of the DeLone and McLean model, *perceived usefulness* is caused by *user satisfaction* (Rai et al., 2002). Assessing the validity of *user satisfaction* on *perceived usefulness*, Rai et al. (2002) found the relationship positive and significant. In the context of the OPGRS, we consider the fact that higher level of user's *perceived satisfaction* will lead him to believe that the system will enhance his efficiency and overall performance as far as lodging complaints through it is concerned. In reverse, less satisfied users might not be interested toward the re-use of the system and hence may not find it that useful. Therefore, we hypothesise,

H10: *Perceived satisfaction* has a positive and significant effect on *perceived usefulness* of the OPGRS.

3.3.11 Perceived Usefulness→Behavioral Intention

Building on the prior IS research, the TAM conceptualized usefulness as one of the significant insights leading to intention to adopt new systems (Lee et al., 2003). Research has shown that *perceived usefulness* influences intended adoption of IT (Gefen and Straub, 2000). As far as e-government adoption research is concerned, this relationship has been examined through the models such as the TAM and extended TAM (TAM2). Subsequently, out of being examined for a total of 24 times, it was found significant in 21 cases across different studies (e.g. Hu et al., 2011; Phang et al., 2005; Tan et al., 2008). The weight- and meta-analysis of studies concerning adoption of e-government services also demonstrated that the cumulative impact of *perceived usefulness* on *intention to use* as significant (Rana et al., 2012a, 2012b, 2013a, 2014a). Considering the overall performance of this relationship across IS research in general and e-government adoption research in particular, the following hypothesis can be formulated:

H11: *Perceived Usefulness* has a positive and significant influence on *behavioral intention* toward using the OPGRS.

3.3.12 Perceived Risk→Behavioral Intention

As per literature, risk perceptions have a significant influence on use intentions (Fu et al., 2006). The risks linked to information technology are those that indicate that the system is insufficiently protected from various types of damages (Straub and Welke, 1998). Perceived risk reduces user's intentions to exchange information and complete transactions (Fu et al., 2006; Pavlou, 2003; Warkentin and Gefen, 2002). Prior research on taxpayer's intention to adopt the e-filing system indicates that taxpayers might be reluctant to file electronically if they doubt the security of the process (Fu et al., 2006). *Perceived risk* has been found to negatively influence user's intention in a number of studies (e.g. Fu et al., 2006; Rana et al., 2013e, Schaup and Carter, 2010; Schaup et al., 2010) on e-government adoption. Based on the above argument and empirical evidence, we hypothesise:

H12: *Perceived risk* has a negative and significant influence on *behavioral intention* toward using the OPGRS.

4 Research Methodology

For the purpose of examining e-government system success of OPGRS, the researchers considered survey as an appropriate research method (Cornford and Smithson, 1996; Choudrie and Dwivedi, 2005). There are various

ways to capture the data, however, a self-administered questionnaire was found to be a suitable as a primary survey instrument of data collection in this research. This is due to the fact that this tackles the issue of reliability of information by reducing and eliminating the way the questions are asked and presented (Conford and Smithson, 1996). Moreover, collecting data from the majority of respondents within a short and specific period of time was a critical issue of this research (Fowler, 2002). Therefore, only closed and multiple-choice questions were included in the questionnaire. The final questionnaire consisted of total 30 questions including 10 questions from respondent's demographic characteristics and 20 questions on the five different constructs of the proposed research model. All these questions were multiple-type, closed-ended and seven-point Likert scale type questions. Likert scales (1-7) with anchors ranging from *strongly disagree* to *strongly agree* (Wang and Liao, 2008) were used for all non-demographic based questions. Appendix A lists all the items for the constructs used in this study.

The sample of the study consists of wide spectrum of respondents from different cities of India including New Delhi, Pune, Mumbai, Bangalore, Patna, Siliguri, and Gangtok. From the literature on IS success models, five factors were identified and a questionnaire for examining intention to use and satisfaction was then created and pilot tested with 34 respondents. While the results of the pilot test were found to be valid and reliable measuring instrument, the researchers agreed that further analysis could reduce the set of factors and that further validation efforts were required (Griffiths et al., 2007). Deriving from the success of the pilot test, a total of 1500 questionnaires distributed to respondents through one-to-one and group interactions. The respondents were briefed and demonstrated about the functioning of the online public grievance redressal system and in some cases they were given maximum two days of time to complete the questionnaire. This was done considering the long list of questions and with a view of providing them with a little time to interact with the system before completing the questionnaire.

However, some of the questionnaires were made to respond on spot after the respondents interacted with the systems in a very short period of time. The most of the respondents were computer and Internet literate with a fair amount of experience of interacting with other websites, none of them had a prior experience of using the OPGRS. Realising their prior background and experience of Internet, the shorter time given to them to get them acquainted with the system to respond the questionnaire was considered justifiable. A total of 485 completed survey questionnaires were received back. The further scrutiny of questionnaires revealed that 66 of them were partially completed and so rejected from the subsequent analysis. Hence, we were left with 419 usable responses, which made our basis for the empirical analysis for measuring the IS success of OPGRS. The overall response rate was found to be 32.3% with 27.9% valid questionnaires.

5 Research Findings

5.1 Respondents' Demographic Profile

This section analyses demographic data (in Table 2) obtained from the respondents. As per the questionnaire results, the computation of an average respondent's age was found to be 28 years, with males accounting for 67.8% of the sample and 32.2% were female. The majority of the population (i.e., 56.1%) belongs to student community with a fair representation from public- and private-sector employees (i.e., 29.3%). As far as the educational qualifications are concerned, 82% of the total population are having a minimum degree of graduation. The computer and Internet literacy and awareness of the respondents can be judged from their very high computer and Internet experience percentage (≈ 96%). This higher frequency is also supported by their computer and Internet access at various places and Internet use frequency, which is very high. Therefore, it is argued that the sample of respondents could be the best-fit potential users and adopters of the systems such as online public grievance redressal system.

Table 2 Demographic characteristics of respondents

Characteristics	Freq	%	Characteristics	Freq	%
Gender			1-3 Years	99	23.6
Male	284	67.8	4-6 Years	98	23.4
Female	135	32.2	7-9 Years	91	21.7
Education			>= 10 Years	114	27.2
Non-Matriculation	7	1.7	Internet Access		
Matriculation	13	3.1	Home	246	42.6
10+2/Intermediate	55	13.1	Office	104	18.0
Graduate	161	38.4	Internet café	109	18.9
Post-Graduate	169	40.3	College/University	103	17.8
Post-Graduate Research	14	3.3	Common Service Centre	10	1.7
Occupation			No Access	6	1.0
Student	235	56.1	Internet Experience (in Years)		
Unemployed	18	4.3	No Experience	16	3.8
Pensioner	7	1.7	1-3 Years	132	31.5
Employee-Public Sector	29	6.9	4-6 Years	122	29.1
Employee-Private Sector	94	22.4	7-9 Years	80	19.1
Self-Employed	36	8.6	>= 10 Years	69	16.5
Computer Access			Internet Use Frequency		
Home	273	46.4	Never	12	2.9
Office	107	18.2	Very Rarely	21	5.0
Internet café	83	14.1	Rarely	39	9.3
College/University	100	17.0	Occasionally	77	18.4
Common Service Centre	12	2.0	Very Frequently	137	32.7
No Access	13	2.2	Always	133	31.7
Computer Experience (in Years)					
No Experience	17	4.1	Total (For each characteristic)	419	100

5.2 Reliability Analysis - Cronbach's Alpha (α)

Reliability analysis was performed using Cronbach's alpha. It was used for determining the reliability of the scale, which provides an indication about the internal consistency of the items measuring the same construct (Hair et al., 1992; Zikmund, 1994). Cronbach's alpha reliability for all the constructs except system quality is in the range 0.743-0.881, which is fairly good (see Table 3). A Cronbach's (α) of greater than 0.70 is considered to be good (Nunnaly, 1978; Hair et al., 1992). Therefore, alphas imply strong reliability for all constructs, but system quality which is at satisfactory level.

Table 3 Cronbach's alpha (α) of constructs

Construct	Cronbach's Alpha (α)
System Quality	0.548
Information Quality	0.793
Service Quality	0.862
Perceived Ease of Use	0.743
Perceived Usefulness	0.800
Behavioral Intention	0.796
Perceived Satisfaction	0.881
Perceived Risk	0.835

5.3 Descriptive Statistics

Table 4 presents the mean and standard deviation (S.D.) for all the eight constructs and their individual items. The high overall as well as individual items' means for most of the constructs indicate that respondents react favorably to the all the measures related to IS success and behavioral intention. The value for overall mean for perceived risk as '4' on the Likert scale [1-7] indicates that respondents are not very sure of the risks being involved with using the OPGRS system.

Table 4 Descriptive statistics of the constructs and their items

Measure	Item (#)	Mean	S.D.
System Quality (SYQ)	3	5.19	0.97
Information Quality (IQ)	4	5.08	1.04
Service Quality (SVQ)	6	5.08	1.04
Perceived Usefulness (PU)	6	5.29	0.96
Perceived Ease of Use (PEOU)	4	5.12	1.04
Perceived Risk (PR)	4	4.00	1.44
Behavioral Intention (BI)	3	5.26	1.23
Perceived Satisfaction (PS)	4	5.19	0.95

5.4 Hypotheses Testing

Table 5, 6, 7, and 8 present output of linear regression model analysed using SPSS 20.0. The analysis presented in Table 5 supported all the hypotheses (i.e. H8, H11, and H12) on behavioral intention as significant. The constructs PEOU, PU, and PR explain 25% (adjusted R^2) of the variance in respondents' behavioral intention of the OPGRS. Since, the overall model is significant (F=47.513, p=0.000), the significance of the independent variable was further examined. The independent variables such as PEOU and PU were found significant at 0.1% significance level except PR, which was found negatively significant at 5% significance level. Therefore, all the three hypotheses H8, H11, and H12 are supported.

Table 5 Regression coefficients on behavioural intention

I.V.	β	t	Sig.	Result
PEOU	0.215***	4.035	0.000	Supported (H8)
PU	0.340***	6.392	0.000	Supported (H11)
PR	-0.097*	-2.277	0.023	Supported (H12)

[Note: *: p<0.05, **: p<0.01; ***: p<0.001][Legend: I.V. = Independent Variable, Sig. = Significance]

Table 6 presents the β-value of independent variables such as PEOU, IQ, SYQ, and SVQ on perceived satisfaction (PS). The model explains 46.3% (adjusted R^2) of the variance in users' satisfaction through the OPGRS. Again, the overall model was significant (F=92.786, p=0.000), and we further tested the significance of each independent variable. The analysis exhibits a stronger effect of PEOU (β=0.215) on PS than BI. This indicates that the higher ease of use of the system leads to stronger users' perceived satisfaction than their behavioral intention to use it. Moreover, all the quality based constructs including information quality, system quality, and service quality were found significant on perceived satisfaction at the 0.1% significance level.

Table 6 Regression coefficients on perceived satisfaction

I.V.	β	t	Sig.	Result
SYQ	0.207***	3.757	0.000	Supported (H1)
IQ	0.215***	3.840	0.000	Supported (H5)
SVQ	0.286***	5.022	0.000	Supported (H6)
PEOU	0.113*	2.283	0.023	Supported (H7)

[Note: *: p<0.05, **: p<0.01; ***: p<0.001][Legend: I.V. = Independent Variable, Sig. = Significance]

All the four hypotheses H1, H5, H6, and H7 have been found positive and significant on user's perceived satisfaction. The analysis reveals that service quality exhibits the stronger effect on user's perceived satisfaction that other variables such as information quality, system quality, and perceived ease of use. This indicates that users would tend to be more satisfied by the support received from the government services than the information and the system quality and the degree of easiness associated with the OPGRS. The service quality might be anything related to the responsiveness, accuracy, reliability, technical competence, and empathy of the government department responsible for implementing this system.

Table 7 summarizes the results of the hypotheses testing on the dependent variable perceived usefulness. This model explains 46.9% of variance on user's perceived usefulness from the OPGRS. Again, the overall model

was found significant (F=123.818, p=0.000) with the individual independent variables IQ and PEOU as significant determinants with a significance level of 0.001 and PS at the significance level of 0.05. More precisely, the hypotheses H3, H9, and H10 are supported. This time, PEOU exhibits stronger effect (β=0.413) on perceived usefulness than IQ (β=0.301) and PS (β=0.115). That indicates, higher the perceived ease of use of the system higher will be its usefulness as perceived by its users. Although, the relationship between perceived satisfactions was found significant on perceived usefulness, it is not that strong. To the best of our knowledge, no research has established the validity of this relationship in the context of e-government adoption yet.

Table 7 Regression coefficients on perceived usefulness

I.V.	β	t	Sig.	Result
IQ	0.301***	6.585	0.000	Supported (H3)
PEOU	0.413***	9.942	0.000	Supported (H9)
PS	0.115*	2.495	0.013	Supported (H10)

[Note: *: p<0.05, **: p<0.01; ***: p<0.001] [Legend: I.V. = Independent Variable, Sig. = Significance]

Finally, the findings in Table 8 outline the hypothesis testing results for the dependent variable perceived ease of use. The model explains 47.5% (adjusted R^2) of the variance on perceived ease of use. The overall model was found significant (F=189.971, p=0.000) and we further tested the significance of each independent variable. The analysis confirmed that system quality is a stronger indicator of perceived ease of use (β=0.622). Also, information quality was found significant on perceived ease of use. This indicates that the system analysts and designers should work toward ensuring the quality of the user interface, its consistency, documentation, and maintainability of the program code to ensure easy to use system.

Table 8 Regression coefficients on perceived ease of use

I.V.	β	t	Sig.	Result
SYQ	0.622***	14.744	0.000	Supported (H2)
IQ	0.114**	2.706	0.007	Supported (H4)

[Note: *: p<0.05, **: p<0.01; ***: p<0.001] [Legend: I.V. = Independent Variable, Sig. = Significance]

The hypothesis testing results of linear regression analysis with the coefficient values (i.e. β-value), p-value, and R^2-value are presented along the research model in Fig. 2.

6 Discussion

The purpose of this study was to assess the success of the OPGRS by building on an e-government specific IS success model. Therefore, we integrated constructs from DeLone and McLean's (2003) and Seddon's (1997) IS success models, to form a model that could explain the success of the OPGRS, as perceived by the potential users of this system. The model developed combined eight variables: *information quality, system quality, service quality, perceived ease of use, perceived usefulness, perceived risk, behavioral intention*, and *perceived satisfaction*.

The hypothesis testing results indicated that there are significant links between the eight constructs supporting the hypotheses. The regression coefficient outcomes indicated that *information quality, system quality, service quality*, and *perceived ease of use* are significant positive determinants of *perceived satisfaction*. *Perceived ease of use* and *perceived usefulness* positively influence *behavioral intention*, whereas *perceived risk* influences *behavioral intention* negatively. Similarly, the variables including *information quality, perceived ease of use*, and perceived satisfaction were found to be the significant predictors of perceived usefulness. Finally, the findings also revealed that *system quality* as the stronger predictor of *perceived ease of use* than *information quality*.

It is evident from the above analysis that *perceived ease of use* of the system leads the respondents more toward their behavioral intentions rather being satisfied. This is due to the fact that although *perceived ease of use* is found as an effective determinant to measure both *behavioral intentions* as well as *user satisfaction*, it is more significant toward behavioral intentions than satisfaction. This may be due to the fact that users would tend to

use the system more than being satisfied to a level based on the effort-free use of the system. The argument of behavioral intentions to use a system is based on its *perceived ease of use*, has already been well established by Davis (1989) through the TAM model and supported by a number of studies using this model.

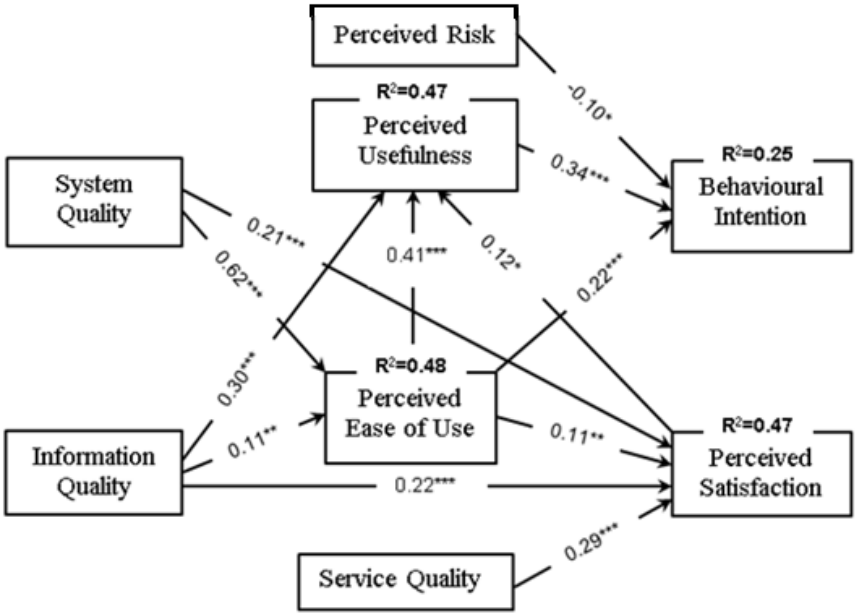

Fig. 2 Validated research model

The significant but negative influence of *perceived risk* on *behavioral intentions* indicates that the government should provide adequate security for using the OPGRS to ensure that there is a minimal risk associated with handling the system. The e-government websites should have a third party security seals to communicate their commitment to security in line with the e-commerce systems as argued by a number of researchers (e.g. Belanger et al., 2002; Ho and Oh, 2009). Moreover, a significant impact of *perceived ease of use* on *user satisfaction* has been supported by a range of studies (e.g. Colesca and Dobrica, 2008; Liao et al., 2007; Liu and Zhou, 2010) linked to the e-government adoption research.

The further analysis of the quality based determinants and *perceived ease of use* indicate that the model accounted for 47.3% of the variance in *perceived satisfaction*. 86% of the variance in user's *perceived satisfaction* was explained by *system quality, information quality*, and *service quality* while only 14% variance was explained by *perceived ease of use*. This indicates that quality related constructs are very significant factors for managing higher user's perceived satisfaction than merely the effort free use of the system. Prior studies (e.g. Floropoulos et al., 2010; Wang and Liao, 2008) on the e-government adoption have also advocated the significance of quality related constructs on user's satisfaction.

As the OPGRS is relatively a new system and not being used by the sample population for lodging their complaints and grievances, the stronger significant relationship between *perceived ease of use* and *perceived satisfaction* can be expected only when the system is used to a certain extent. Similarly, it can be also argued that the system with higher *information quality*, that is, with more accurate, reliable, relevant, complete, precise, concise, and current information (e.g. Bailey and Pearson, 1983; Rai et al., 2002) will provide the users with easy to use interface. Moreover, the higher overall regression weight and significant relationship between *system quality* and *perceived ease of use* indicate that higher *system quality* of the OPGRS will provide the user with easier to handle application.

Finally, the constructs such as *information quality*, *perceived ease of use*, and *perceived satisfaction* strongly determines *perceived usefulness* of the system. The strong empirical evidence for the significant relationship between *information quality* and *perceived usefulness* is supported by Seddon's (1997) view of IS success model whereas a significant impact of *perceived ease of use* on *perceived usefulness* is motivated from the TAM

model by Davis (1989). These significant relationships between constructs indicate that ease of using the OPGRS, higher information quality, and perceived satisfaction associated with the OPGRS system will lead to greater citizens' perceived usefulness. While assessing the validity of the IS success model, Rai et al. (2002) also found a significant support for *user satisfaction* on *perceived usefulness*. We argue that higher *perceived satisfaction* toward the OPGRS system would make it more useful for the users of the system.

The OPGRS has been persistently in service to the country right from its evolution. Public grievances pertaining to identified issues in respect of 20 central government organisations are being handled by Directorate of Public Grievances and Cabinet Secretariat. This department has taken a total of 28,577 cases of grievances from April, 1999 till March, 2013 from some of the leading sectors such as provident fund, telecommunication, railways, insurance, banking, posts, and passport authority. However, people have rarely registered complaints with regard to some other sectors such as tourism, road transport and highways, employee's state insurance corporation, civil aviation, and education to name a few. The outcomes of the cases taken up indicated that 74% of the overall cases were settled in favor of complaints whereas other 34% were partly settled in their favor or not found sustainable (DPG, 2014). This figure is not very encouraging as the proportion of grievances received through the online government service would be even lesser. The outcomes and recommendations of this research will be a step forward to help Government of India toward expediting the diffusion of such an important public administration system and attract citizens' attention toward adopting it in the time to come.

7 Conclusion

This research is a response to a call for the continuous challenge and validation of IS success models in different contexts (DeLone and McLean, 2003; Rai et al., 2002). The purpose of this study is to examine the success of OPGRS using an integrated IS success model, which is developed using DeLone and McLean's and Seddon's IS success models. Therefore, we combined the constructs of these two models and some additional constructs such as perceived risk and perceived ease of use to form a model that could explain the success of OPGRS as perceived by considering responses from the diversified levels of prospective users of this system from different cities of India.

All the 12 hypotheses performed significantly as per the proposed hypotheses of the integrated IS success model. Therefore, it is evident from the empirical findings that the implementation of the OPGRS seems to be fairly successful given that it is not a very old system. However, it was sensed that the government should take more initiatives to enhance all quality constructs of the system to fascinate more positive responses from the citizens toward their further predisposition to use the system. Moreover, there should be an emphasis to highlight the ease of use and usefulness of the system as a whole to make the citizens aware, prompted, and satisfied. Moreover, the government should ensure that the risks associated with using the system should be minimal.

7.1 Limitations and Future Research Directions

Even though the systematic process has allowed us to develop and validate the e-government based system success model, this study has some limitations that can be taken care of in the future research. Firstly, the exploration of an integrated IS system success model has been validated with regard to the citizens' perspectives (i.e. through Government-to-Citizen (G2C) oriented e-government system). Hence, the caution needs to be taken while generalising its findings to the other categories of users (i.e. in Government-to-Business (i.e. G2B) and Government-to-Government (G2G) contexts) as well as applying this model in other developing country even in G2C context. Secondly, this model does not measure the concerns of net benefits as defined in the IS success model (DeLone and McLean, 2003; Seddon, 1997). Hence, measuring net benefits from the citizen's points of view can reveal some more facts about the system. However, future researchers need to clearly and carefully define the stakeholders and situations under which the net benefits are to be examined (DeLone and McLean, 2003). Thirdly, the study has not validated this system for specific cultural and geographical contexts. Future research can dig out more on these aspects. Finally, this study has performed empirical investigation of the

proposed research model only using the prospective users of this system. Therefore, the future research can look to validate the proposed research model using the data from the existing users of this system. Finally, unlike other constructs, Cronbach's alpha value for system quality is not that strong. The future research might ensure the acceptable level of internal consistency among the items of this construct.

7.2 Implications for Theory and Practice

The first theoretical implication of this research is that this system is tested for the first time using an integrated model of IS systems success using the models of DeLone and McLean (2003) and Seddon's (1997) model. Secondly, we have integrated the major constructs from DeLone and McLean's (2003) and Seddon's (1997) IS success models along with the additional constructs such as *perceived ease of use* and *perceived risk* to provide a better understanding of OPGRS's success. The proposed integrated model of IS success presented here can be tested further based on longitudinal data gathered particularly from the employees with whom it was collected before to see the way how it performs later. The empirical testing outcomes of the hypotheses linked to the model can help researchers toward a better understanding of citizen's behavioral intention and satisfaction with the system at large.

The results will also allow the e-government practitioners to realise the factors to give more attention for increasing the citizen's satisfaction and behavioral intentions of the system. The significant though weak relationship between *information quality* and *perceived ease of use* indicates that the designer of the e-government system should take more proper care about the relevance, timeliness, and accuracy of information generated by the corresponding e-government system. The effort should be made to keep the system updated to avoid any further confusion regarding the use of the system. The designated official responsible for resolving issues should make sure that the problems raised by citizens are sorted out well before the maximum 20 days of time specified on the website. If there is any delay in reaching out to the intended solution, proper information should be updated giving the next possible day by which the solution is likely to come out. The significant impact of *perceived usefulness* on *behavioral intentions* indicates that in order to enhance the adoption of the system, the government should make all its effort to make this system useful and beneficial to its citizens.

The current link of *information quality, system quality*, and *service quality* with user's *perceived satisfaction* are although significant, they are not strong. This indicates that designers, practitioners, policy-makers, and the government at large need to give proper attention to improve the quality criteria of this e-government system to enhance the overall perception of satisfaction toward such system. The system designers and developers of the OPGRS should specifically be asked to reinforce ease of using the system in a way that they can ensure user's satisfaction to a larger extent.

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Appendix A. Survey items used in this study

Information Quality

IQ1 The public grievance redressal system would provide sufficient information

IQ2 Through public grievance redressal system, I would get the information I need in time

IQ3 Information provided by public grievance redressal system would be up-to-date

IQ4 Information provided by public grievance redressal system would be reliable

System Quality

SYQ1 The public grievance redressal system would be user friendly

SYQ2 I would find the public grievance redressal system easy to use

SYQ3 I would find it easy to get the public grievance redressal system to do what I would like it to do

Service Quality

SVQ1 The public grievance redressal system would provide dependable services

SVQ2 The public grievance redressal system would provide services at the time it promises

SVQ3 The public grievance redressal system would give prompt service to citizens

SVQ4 The public grievance redressal system would be responsive to citizen's request

SVQ5 The public grievance redressal system would be designed with citizen's best interests at heart

SVQ6 The public grievance redressal system would be designed to satisfy the needs of citizens

Perceived Ease of Use

PEOU1 Learning to operate the public grievance redressal system would be easy for me

PEOU2 My interaction with the public grievance redressal system would be clear and understandable
PEOU3 I would find the public grievance redressal system to be flexible to interact with
PEOU4 It would be easy for me to become skilful at using the public grievance redressal system

Perceived Usefulness
PU1 Using the public grievance redressal system would enable me to accomplish lodging complaint more quickly
PU2 Using the public grievance redressal system would improve my overall performance
PU3 Using the public grievance redressal system would increase my productivity
PU4 Using the public grievance redressal system would enhance my effectiveness
PU5 Using the public grievance redressal system would make it easier to lodge my complaint
PU6 I would find the public grievance redressal system useful in lodging and monitoring complaint

Perceived Risk
PR1 Use of public grievance redressal system may cause my personal information to be stolen
PR2 I will feel uneasy psychologically if I use the public grievance redressal system
PR3 I think it would be unsafe to use public grievance redressal system because of the privacy and security concerns
PR4 I believe that there could be negative consequences by using this public grievance redressal system

Perceived Satisfaction
PS1 I feel that public grievance redressal system would adequately meet my needs of interacting with government agency
PS2 Public grievance redressal system would efficiently fulfill my needs of interacting with government agency
PS3 Overall, I would be satisfied with the public grievance redressal system

Behavioral Intention
BI1 I intend to use the public grievance redressal system
BI2 I predict that I would use the public grievance redressal system
BI3 I plan to use the public grievance redressal system in the near future

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