

Synthesizing Success Factors for e-Government Initiative

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Abstract: By using Meta-Ethnography, this study attempt to synthesize some studies to get the generic list of success factors for e-Government initiative. The initiative to develop an e-Government system has been proliferated in several countries. However, a lot of e-Government initiatives are fail. Several success factors should be accommodated to avoid the failures. There have been some researchers who tried to formulate various kinds of success factors that related to e-Government initiative. However, all of those success factors are scattered in various studies in form of conference papers or journal articles. There were 46 studies were included in this study. All of them are considered to be related in reciprocal translation. There are 335 concepts of success factors that obtained from the included studies. Those concepts further be translated and synthesized. As the foremost result, 36 success factors for e-Government initiative are obtained. Those 36 success factor should be accommodated by all parties that involved in the e-Government initiative.

Keywords: E-government, meta-ethnography, success factor

INTRODUCTION

E-Government is relatively a new research area (Al-Shehry *et al.*, 2006). e-Government is still an exploratory knowledge field and is consequently difficult to define it accurately. Nowadays, there are a lot of institutions that define what e-Government is. The United Nation (UN) defined e-Government as the use of Information and Communication Technology (ICT) and its application by the government for the provision of information and public services to the people (UN, 2005). The European Union (EU) defined e-Government as about using the tools and systems made possible by ICTs to provide better public services to citizens and businesses (EU, 2012).

Some researchers also have defined what e-Government is. Heeks (2006) said that e-Government is the use of Information Technology (IT) by public sector organizations. Another definition come from Shahkooh and Abdollahi (2007), they said that e-government is a use of IT to provide better and faster online services in addition to information for citizens, businesses and employees by government.

Heeks (2006) said that e-Government is also an information system. However, e-Government is different from ordinary information system that is generally targeting the private sector. The main orientation of e-Government is the accessibility of information by the public, rather than financial income (Heeks, 2006).

Because of its relation with ICT, then most people thought that e-Government is part of computer science.

However, in addition to computer science, there are many other scientific fields in e-Government, for example public administration, management, politics, socio culture, etc. e-Government research topics can also include technical, organisational, social and economic issues (Wicander, 2001).

e-Government has become an emergent multidisciplinary field of research (Assar *et al.*, 2011). e-Government is not simply introducing web-based technologies to government, but it is also considered as a complicated social system which covers main social issues (Fasanghari and Habibipour, 2009). e-Government has become a global phenomenon that consumes the attention of, e.g., governments, politicians, policy makers, businesses, citizens, as well as researchers from different research disciplines (Lofstedt, 2008). The research field of e-Government is rather broad and several researchers have involved in a range of different research projects on different topics within the field (Lofstedt, 2008).

Although theoretical ground is still under construction, e-Government certainly qualifies as a legitimate emerging scientific discipline (Assar *et al.*, 2011). As technological innovations are continuously grow, the frontiers of the e-government discipline are moving and its multidisciplinary nature is confirmed (Assar *et al.*, 2011).

Currently, the initiative to develop an e-Government system has been proliferated in several countries, both in developing countries and developed countries. The development of e-Government system can support the government's performance in serving the public.

It is implied by Heeks (2006) that a lot of e-Government system development initiative are fail. Therefore, we propose that in order to avoid failure, developers of an e-Government system should accommodate various kinds of success factors. In accordance with the multidisciplinary nature of e-Government, the success factors are not only related to ICT. Some success factor can be derived from social science, economics, politics and so forth.

Until now, there have been several researchers who tried to formulate various kinds of success factors in e-Government initiative. However, all of the success factors are scattered in various conference papers and journal articles. Therefore, in this study, by using Meta-Ethnography, we attempt to synthesize several related conference papers and journal articles to get the generic list of success factors for e-Government initiative.

Critical success factor and key success factor: Currently, there are two terms that are often used by many researchers, i.e., Critical Success Factor (CSF) and Key Success Factor (KSF). In this section, we will try to do a review of the two terms. From the results of this review, then later we decided to use a more general term, which is "success factor". The term "success factor" is then will be used in the subsequent sections in this study.

Some researchers agree that the CSF term first appeared in the study of Daniel (1961), Geetika (2006) Horst (2007b) and Gates (2010). Furthermore, the CSF term was refined into a concept and popularized by John F. Rockart and the MIT Sloan School of Management in 1979 (Schelin, 2004; Geetika, 2006; Horst, 2007b; Gates, 2010; Azizan, 2011).

Bullen and Rockart (1981) described in more detail about the CSF concept in their report entitled "A Primer on Critical Success Factors". In that report, the definition of CSF is "the limited number of areas in which satisfactory results will ensure successful competitive performance for the individual, department or organization" Bullen and Rockart (1981). They also said that CSFs are the few key areas where "things must go right" for the business to flourish and for the manager's goals to be attained (Bullen and Rockart, 1981).

Currently, there are several other researchers that also give the definition of CSF. Generally they linked CSF with an organization. Elmeziane *et al.* (2011) said that CSF is something that the organization must do well to succeed. CSFs are a means for organizations trying to reach success by fulfilling a set of important factors that previous experiences have shown to be decisive for success (Axelsson *et al.*, 2011). CSFs are the indispensable business, technology and human factors that help to achieve the desired level of

organizational goals and highly dependent on the company's situation (Icli, 2005). CSFs are used by organisations to focus on a number of factors that help to define and ensure the success of the business (Nfuka and Rusu, 2010). CSF is a business term for an element which is necessary for an organization or project to achieve its mission (Jha and Shivani, 2007). The different definitions of CSF's due to the ambiguity of the word "critical" when translated into other languages (Al-Kaabi, 2010).

Some researchers have linked the CSF with a project or initiative. For example, Schelin (2004) said that CSFs are those few items that must be handled correctly in order for a project to succeed. The similar expressions are also stated by McMillan (2009) and Akhavan *et al.* (2010).

CSFs are important in the planning stages of a project or initiative (Geetika, 2006). As also revealed by Basahel (2009), that the main strength of CSF analysis is its planning support. Managers need to realise all of the CSFs in order to successfully complete an activity (Basahel, 2009). Thus, the identification of CSFs is generally done before a project or initiative is started.

Based on the above definitions, the CSF concept looks related to the management and business science. However, CSF concept can also be used in other disciplines, one of which is in information system. Elmeziane *et al.* (2011) revealed the need for CSF in information system projects. CSFs are also considered as factors those occurrences whose presence or absence determines the success of an ICT project (Gichoya, 2005). The absence of CSFs can cause failure and their presence can cause success (Gichoya, 2005).

Since e-Government is also information system, the CSF concept can also be used in the e-Government initiative. Microsoft Corporation (2010) stated that CSF is a checklist that every government organization must manage if it is to develop and deliver an effective program for citizen service transformation.

The term other than CSF is KSF. Some definitions of KSF are likely specific to industrial field, such as that have been revealed by Ho and Wang (2009) and Patterson Jr and Tonder (2009). Ho and Wang (2009) said that KSFs are defined as the characteristics, conditions, or managerial variables that need to be maintained to achieve prosperity in a given industry. Patterson Jr and Tonder (2009) said that KSFs are defined as those that directly impact the ability of a firm to be successful in its specific industry. However, Huang *et al.* (2011) said that KSF is also can be used in other fields. They said that KSF is a strategic tool that can be applied in a number of fields to detect issues that are important for a long-term success (Huang *et al.*, 2011).

Bacsich (2009) considered KSF as subordinate or the more specific term than CSF. However, in some other literatures, the terms CSF and KSF are often used interchangeably (Lin, 2007), for example that have been revealed by Kumar *et al.* (2002), Warda and Mitchell (2004), Tokdemir (2009), Gates (2010), Amiri *et al.* (2010) and Aziz and Salleh (2011).

A lot of researches Lin (2007), Jingjing (2006) and Wu *et al.* (2010) adopted the KSF term from the work of Grunert and Ellegaard (1992) defined KSF as “a skill or resource that a business can invest in, which, on the market the business is operating on, explains a major part of the observable differences in perceived value and/or relative costs”. Interestingly, in that report, Grunert and Ellegaard (1992) refer to the research of Bullen and Rockart (1981). As explained at the beginning of this section, Bullen and Rockart use the CSF term in their study. Thus, it can be concluded that KSF is closely related to CSF.

Because KSF is closely related to the CSF, then in this study, we will not stuck to choose between one of them. We will not debating whether to use the term "key" or "critical". We will use the more general term that is "success factor". This more general term will be used in the later sections in this study.

LITERATURE REVIEW

Currently, there are already some success factors for e-Government initiative that has been formulated by other researchers. However, all of those success factors are scattered throughout the various conference papers and journal articles. Those studies differ greatly in the sets of factors identified and provide no coherent overall picture. For example, Gil-Garcia and Pardo (2005) have formulated 23 CSFs that associated with the e-Government initiative. On the other hand, Yoon and Chae (2009) formulated 15 CSFs. Both of those studies were conducted on two different years, that is on 2005 (Gil-Garcia and Pardo, 2005) and the other is on 2009 (Yoon and Chae, 2009).

If we dig a little deeper, there are some CSFs were expressed by Gil-Garcia and Pardo (2005) shared the same essence with some CSFs that are expressed by Yoon and Chae (2009), though all of them have different name. For example, in the research of Gil-Garcia and Pardo (2005), there is CSF named “Well-skilled and respected IT leader (technical and social skills)” and in the research of Yoon and Chae (2009), there is CSF named “Human Capital”. Although, both CSF has a different name, but the essence is the same, that is the need of “qualified technical staff in e-Government initiative”. In addition to the the two previous CSFs, in both these journal articles, there are still some other CSFs, whose name are different but essentially the same. Thus, we can synthesize these two journal articles to obtain the general success factor from the two of them.

The above example is only of two journal articles. In fact, there are also many other conference papers or journal articles that also formulate success factors for e-Government initiative, such as that have been written by Gunasekarana and Ngai (2008), Meneklis and Douligeris (2009) and Rorissa and Demissie (2010), etc. Therefore, this study tried to make a synthesis of some conference papers and journal articles that have formulated success factor for e-Government initiative. Conference papers and journal articles that are involved in this synthesis are drawn from ScienceDirect/Scopus database (for journal articles) and IEEE Xplorer (for conference papers).

In general, there are three methods used by researchers to obtain their success factors, i.e., literature review, interviews and questionnaire using likert-scale. Some studies may use only one method alone or the combination of the three. Examples of studies that using literature review are: Gil-Garcia and Pardo (2005), Fortune and White (2006), Luna-Reyes *et al.* (2007), Stemberger and Jaklic (2007), Ebbers and van Dijk (2007), Saebo *et al.* (2008), Yoon and Chae (2009), Meneklis and Douligeris (2009), Kim *et al.* (2009) and Hossain *et al.* (2011). Examples of studies that using interview are: Luna-Reyes *et al.* (2007), Zarei and Ghapanchi (2008), Kim *et al.* (2009) and Reinwald and Kraemmergaard (2012). Examples of studies that use a questionnaire using likert-scale are: Carter and Belanger (2004), Hung *et al.* (2009), Hossain *et al.* (2011) and Chen (2012).

It can be said that the literature review and interview method are produce qualitative data. Therefore, there are some researchers who add various qualitative mode of analysis to formulate their success factors. For example, Zarei and Ghapanchi (2008) use grounded action research (a modified form of original grounded theory) to process their interview data. Another example is by Reinwald and Kraemmergaard (2012), they use original grounded theory to process their data. On the other hand, data that resulted from questionnaire using likert scale method is quantitative data. Therefore, some researchers generally also add a variety of quantitative calculations to do the data analysis of their questionnaire results. For example, Hung *et al.* (2009) and Lin *et al.* (2011). They use Structural Equation Modeling (SEM) to process their questionnaire results. However, until now, there has been no study that uses Meta-Ethnography in formulating their success factors. Therefore, in this study, we will use Meta-Ethnography for synthesizing various success factors for e-Government initiative.

RESEARCH METHODOLOGY

The methodology that will be used in this study is Meta-Ethnography. This methodology was first introduced by Noblit and Hare (1988). Meta-

Ethnography has origins in the interpretive paradigm (Noblit and Hare, 1988; Britten *et al.*, 2002; Tuquero, 2011). This methodology is perhaps the most established and explicit form of interpretative review (Beck, 2002; Tuquero, 2011).

Meta-Ethnography included in the qualitative synthesis and is not the same as ordinary literature review (McDermott *et al.*, 2004). A literature review summarises findings to make an informed assessment about the current state of a field of knowledge (McDermott *et al.*, 2004). However, the goal of qualitative synthesis is to go beyond (Britten *et al.*, 2002). Qualitative synthesis is done to draw out and integrate findings across studies in ways that generate new insights and understandings (McDermott *et al.*, 2004).

Meta-Ethnography involves the translation of studies into one another. The translation of studies takes the form of an analogy between and/or among the studies (Noblit and Hare, 1988). In Meta-Ethnography, the studies to be synthesised are treated in a similar way to primary data (Malpass *et al.*, 2009). Meta-Ethnography has allowed us to take concepts that often appear in isolation in research papers to be linked together and put into a meaningful theoretical model (Tuquero, 2011).

Meta-Ethnography originally is used specifically for studies that are qualitative (Noblit and Hare, 1988; Dixon-Woods *et al.*, 2005). However, it now can also be used to quantitative study or mixed of them. Examples of study that using Meta-Ethnography for both qualitative studies and quantitative studies is a study that conducted by Ardal *et al.* (2011). In their study, Ardal *et al.* (2011) determined that the most relevant method to synthesize the studies was to focus on the findings or conclusions of the articles, keeping in mind the context in which the conclusions were made. Treating the findings in this way (especially for quantitative studies) allowed them to use Meta-Ethnography (Ardal *et al.*, 2011).

Meta-Ethnography is interpretive and more widely used in the social sciences. However, Meta-Ethnography now begun accepted and can be used in computer science related study, for example that have been conducted by Tuquero (2011), Ardal *et al.* (2011) and Shahkooch *et al.* (2011).

Meta-Ethnography consists of seven steps. i.e., (Noblit and Hare, 1988):

- **Getting started:** The meta-ethnographer have to identify an intellectual interest (Noblit and Hare, 1988). Its about identifying the research topic (Britten and Pope, 2012) or the main interest of his/her study (Tuquero, 2011).
- **Deciding what is relevant to the initial interest:** In this step, the meta-ethnographer decides what is

relevant to initial interests, including what studies to include (Vermeire *et al.*, 2007). Some of the searching process using a variety of electronic scientific databases can be done in this step, as illustrated by Beck (2002), Barnett-Page and Thomas (2009), Gagne and Walters (2009) and Tuquero (2011). Searching can be performed using a variety of keywords that associated with the initial interest.

- **Reading the studies:** This step is about the repeated reading of the selected literature and the noting of the interpretative metaphors (Noblit and Hare, 1988). Those interpretive metaphors are can be in the form of concepts (Campbell *et al.*, 2003). Those concepts become the raw data for the synthesis (Campbell *et al.*, 2003; McDermott *et al.*, 2004).
- **Determining how the studies are related:** In doing a synthesis, the various studies must be “put together.” This requires determining the relationships between the studies to be synthesized (Noblit and Hare, 1988). This step involve creating a list of the key metaphors, phrases, ideas and/or concepts (and their relations) used in each account and to juxtapose them (Noblit and Hare, 1988). Near the end of this phase, an initial assumption about the relationship between studies can be made (Noblit and Hare, 1988). Those asumstions are: reciprocal translation, refutational translation or line of argument (Noblit and Hare, 1988).
 - **Reciprocal translation:** This assumption applies when the accounts (concepts) of the studies are directly comparable and similar (Noblit and Hare, 1988; Edwards *et al.*, 2009).
 - **Refutational translation:** That is where accounts may conflict (Edwards *et al.*, 2009). They stand in relative opposition to each other (Noblit and Hare, 1988).
 - **Line of argument:** This assumption applies when the accounts of the studies are: not directly comparable, doesn't opposite each other and about so different topics (Noblit and Hare, 1988). A lines-of-argument synthesis is essentially about inference: “What can we say of the whole (organization, culture, etc.), based on selective studies of the parts?” Noblit and Hare (1988). Once the initial strategy yields a tentative assumption about the relationships between the studies, the next strategy is to construct translations based on this assumption (Noblit and Hare, 1988).
- **Translating the studies into one another:** In its simplest form, translation involves treating the accounts as analogies: “One program is like another except...” Noblit and Hare (1988). On the other hand, translation is more involved than an

analogy (Noblit and Hare, 1988). Translations are especially unique syntheses, because they protect the particular, respect holism and enable comparison (Noblit and Hare, 1988). It entails with discovering the relationships between two existing texts (Noblit and Hare, 1988). In Meta-Ethnography, the concern of translation is primarily with idiomatic translations (Noblit and Hare, 1988). It is not literal (Noblit and Hare, 1988) or word-for-word translation (Campbell *et al.*, 2003). It is about translating the meaning of the text (Noblit and Hare, 1988). Such idiomatic translation is what enables us to retain the holism so essential to interpretivism (Noblit and Hare, 1988).

It can be said that the term ‘translating’ can refer to the process of taking concepts from one study and recognising the same concepts in another study, though they may not be expressed using identical words (Thomas and Harden, 2007). The purpose is to try to derive concepts that encompass more than one of the studies being synthesised (Campbell *et al.*, 2003).

- **Synthesizing translations:** Synthesis refers to making a whole into something more than the parts alone imply (Noblit and Hare, 1988). Synthesis is the step of compiling the findings of the included studies (Ardal *et al.*, 2011). When the number of studies is large and the resultant translations numerous, the various translations can be compared with one another to determine if there are types of translations or if some metaphors and/or concepts are able to encompass those of other accounts (Noblit and Hare, 1988)
- **Expressing the synthesis:** Synthesis can be expressed in various ways, for example drama, video and text among them (Noblit and Hare, 1988). Nonetheless, most of meta-ethnographer will do this step be in the form of written texts (Noblit and Hare, 1988). As implied by Tuquero (2011), that writing a scientific paper is one of the ways to express the results of synthesis.

RESULTS AND DISCUSSION

Getting started: The purpose of this research is to obtain the generic list of success factors for e-Government initiative. Success factors will be synthesized from several related studies. There are the two groups of studies to be synthesized, i.e., journal articles or conference papers. Those studies are searched and retrieved from credible scientific databases.

Deciding what is relevant to the initial interest: Studies in the form of journal articles are searched and

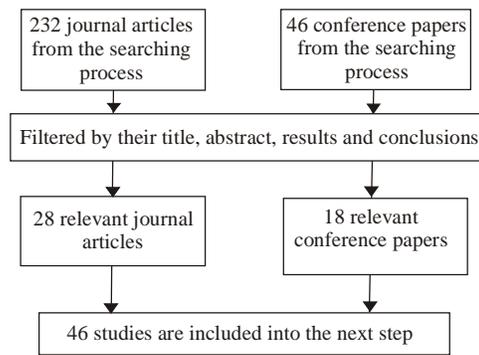


Fig. 1: Illustration of the searching and filtering results

retrieved from ScienceDirect/Scopus database, while studies in the form of conference papers are searched and retrieved from IEEE Xplorer. We only retrieve some studies that are significantly related to the success factor for e-Government initiative.

When performing the search, there are some key words/phrases are used, such as “e-Government” and “success factor”. As outlined in Section II of this study, we do not distinguish between CSF and KSF, so that the two terms (i.e., “CSF” and “KSF”), are also involved in the key words of the search.

It has outlined in Section III of this study, that researchers can use qualitative approach or quantitative approach to formulate their e-Government success factor. Therefore, in this study, both studies that using qualitative approach and/or quantitative approach will be included. This conforms with the example of Ardal *et al.* (2011) that Meta-Ethnography can be used for qualitative and quantitative research.

Based on the results of the searching process, we obtain 278 studies. Two hundred and thirty two of them are journal articles and the other 46 are conference papers. Then, we further filter the searching results by reading their title, abstract, result and conclusion. As a result of this filtering process, we obtain 28 journal articles and 18 conference paper which we think are relevant to the main interest of this study. All of the 46 studies that resulted from filtering process are then used in the next step. The illustration of the searching and filtering results can be seen in Fig. 1.

Reading the studies: In their book, Noblit and Hare (1988) pointed out that there could be some key concepts exist in a study that using Meta-Ethnography. However, in this study we only focus on one key concept, that is “success factor”.

In this step, we read all the 46 studies repeatedly and we note some concepts that related to the key concept (“success factor”). Eventually, we obtain 335 concepts from those 46 studies. In addition, we also

Table 1: The concepts across 46 studies

No	Reference no	Number of concepts	Concepts
1	Donzelli and Bresciani (2003)	2	1.1: Stakeholders' acceptance 1.2: Stakeholders' understanding
2	Gil-Garcia and Pardo (2005)	23	2.1: Overall plan 2.2: Continual feedback from partners users 2.3: Quality and compliance assurance 2.4: Training 2.5: Ease of use 2.6: Usefulness 2.7: Demonstrations and prototypes 2.8: Project team skills and expertise 2.9: Well-skilled and respected IT leader (technical and social skills) 2.10: Clear and realistic goals 2.11: Identification of relevant stakeholders 2.12: End-user involvement 2.13: Planning 2.14: Clear milestones and measurable deliverables 2.15: Good communication 2.16: Previous business process improvement 2.17: Adequate training 2.18: Adequate and innovative funding 2.19: Current or best practices review 2.20: Information technology policies and standards 2.21: Executive leadership or sponsorship 2.22: Legislative support 2.23: Strategic outsourcing and publicprivate partnerships
3	Yoon and Chae (2009)	15	3.1: ICT infrastructure 3.2: Funding 3.3: Human capital 3.4: Educating public 3.5: Culture of civil service 3.6: Literacy 3.7: ICT services 3.8: Institutional structure 3.9: International cooperation 3.10: Privacy and security 3.11: Legal framework 3.12: e-participation 3.13: Monitoring and evaluation 3.14: Political leadership 3.15: Private partnership
4	Saebo <i>et al.</i> (2011)	1	4.1: High saliency of at least one stakeholder group at various phases of the initiatives
5	Apostolou <i>et al.</i> (2011)	1	5.1: Change management
6	Rorissa and Demissie (2010)	6	6.1: The lack of infrastructure 6.2: Low literacy rates 6.3: Slow and low economic development 6.4: A variety of cultural factors 6.5: Political environment 6.6: National policies
7	Kim <i>et al.</i> (2009)	2	7.1: Regulatory 7.2: Strong leadership
8	Meneklis and Douligieris (2009)	9	8.1: The comprehensive and instructive analysis of the organization 8.2: Considerations about broader environmental dimensions 8.3: Active involvement of the stakeholders 8.4: Creative and descriptive modeling 8.5: Coordinated implementation efforts 8.6: Informative training of the end users 8.7: Acceptance levels for new technologies 8.8: Considering the technological factor 8.9: Know the role of the system
9	Luna-Reyes <i>et al.</i> (2007)	7	9.1: Political support 9.2: Better regulatory environment 9.3: Simple bureaucratic processes 9.4: Shared meanings and values created in the community working on digital government in a country 9.5: Trust 9.6: Collaboration 9.7: A network of decision makers and stakeholders
10	Joia (2004)	12	10.1: Security policy 10.2: Organizational culture/acceptance by the senators 10.3: Training 10.4: Avoid structural barrier: focus only on direct manpower and indices 10.5: Avoid failure to perceive the actual benefits

Table 1: (Contiue)

No	Reference no	Number of concepts	Concepts
			10.6: Avoid high risk for the managers 10.7: Avoid lack of coordination and cooperation 10.8: Avoid high expectation and hidden costs 10.9: Avoid human barrier: unwillingness to take risk 10.10: Avoid resistance 10.11: Avoid unplanned decisions and fear of being made redundant 10.12: Avoid technical barrier : incompatibility of systems
11	Fortune and White (2006)	27	11.1: Support from senior management 11.2: Clear realistic objectives 11.3: Strong/detailed plan kept up to date 11.4: Good communication/feedback 11.5: User/client involvement 11.6: Skilled/suitably qualified/sufficient staff/team 11.7: Effective change management 11.8: Competent project manager 11.9: Strong business case/sound basis for project 11.10: Sufficient/well allocated resources 11.11: Good leadership 11.12: Proven/familiar technology 11.13: Realistic schedule 11.14: Risks addressed/assessed/managed 11.15: Project sponsor/champion 11.16: Effective monitoring/control 11.17: Adequate budget 11.18: Organisational adaptation/culture/structure 11.19: Good performance by suppliers/contractors/consultants 11.20: Planned close down/review/acceptance of possible failure 11.21: Training provision 11.22: Political stability 11.23: Correct choice/past experience of project management methodology/tool 11.24: Environmental influences 11.25: Past experience (learning from) 11.26: Project size (large)/level of complexity (high)/number of people involved (too many)/ duration (over 3 years) 11.27: Different viewpoints (appreciating)
12	Zarei and Ghapanchi (2008)	4	12.1: Infrastructure 12.2: Security 12.3: Content and application 12.4: Management
13	Hossain <i>et al.</i> (2011)	6	13.1: Top management leadership 13.2: User support 13.3: Security 13.4: IT sophistication 13.5: User IT competence 13.6: E-government systems standards efficacy
14	Reinwald and Kraemmergaard (2012)	7	14.1: Top-management engagement 14.2: Political support 14.3: Middle manager inclusion 14.4: Employee buy-in 14.5: Citizen buy-in 14.6: Create clear governance structures 14.7: Integrate the centralized and decentralized decision levels
15	Ebbbers and van Dijk (2007)	10	15.1: Presence of gestation 15.2: Presence of the perception of urgency 15.3: Plan: approval of e-government projects or programs 15.4: Presence of top management involvement 15.5: Presence of adaptation of the innovation 15.6: Presence of adaptation of the organizational structure 15.7: Presence of adaptation of policy 15.8: Presence of clarification 15.9: Deploying financial resources: sufficient resources are available 15.10: Deploying information systems: working on the interoperability of information system
16	Chen (2012)	5	16.1: Internal organization management 16.2: Quality of product and technology of suppliers 16.3: External technical environment 16.4: The external policy environment 16.5: Coordination and supportive ability of information center
17	Luk (2009)	2	17.1: Leadership 17.2: Stakeholders
18	Saebo <i>et al.</i> (2008)	6	18.1: Information availability 18.2: Infrastructure 18.3: Underlying technologies 18.4: Accessibility 18.5: Policy and legal issues 18.6: Governmental organization

Table 1: (Continue)

No	Reference no	Number of concepts	Concepts
19	Tseng <i>et al.</i> (2008)	7	19.1: The roles and visions of senior officers and executives in strategy formulation 19.2: Top management commitment and support 19.3: Deal with organizational politics, culture, and institutional arrangement 19.4: IT policy and national infrastructure development strategy 19.5: The national strategy and institutional support 19.6: Resource acquisition and allocation 19.7: Deal with culture of bureaucracy
20	Stemberger and Jaklic (2007)	4	20.1: Commitment of the top management 20.2: To make the processes as customer friendly 20.3: Changes in business processes, organizational structures, and Information System (IS) 20.4: Deal with the limitations of the current regulations, constraints of the common organizational rules and procedures at the governmental level
21	Gil-Garcia and Martinez-Moyano (2007)	2	21.1: Shared vision between public managers and their constituencies of the initiatives; 21.2: Campaign
22	Traunmüller and Wimmer (2001)	1	22.1: Portal
23	Papantoniou <i>et al.</i> (2001)	1	23.1: Change management
24	Carter and Belanger (2004)	3	24.1: Perceived usefulness 24.2: Relative advantage 24.3: Compatibility
25	Mirchandani <i>et al.</i> (2008)	26	25.1: Accessibility of the website (including accessibility to the poor, uneducated and disabled) 25.2: Reliability of the services provided 25.3: Reliability of the information provided 25.4: Ease of use of the information provided 25.5: Appropriateness of the format of the information 25.6: Appropriateness of the level of detail of the information 25.7: Security of data 25.8: Confidentiality of data 25.9: Timeliness of information 25.10: Service and functionality of the website 25.11: Quality of content (completeness, relevance and accuracy) 25.12: Visual appeal of the website 25.13: User friendliness of the website 25.14: Ease of navigation of the website 25.15: Ease of use of the website 25.16: Enjoyability in use of the website 25.17: Ability to receive personal services without interacting with human staff 25.18: Ability to exert more control over the delivery of service 25.19: Ability to receive service how and when the citizen/constituent wants 25.20: Savings in cost for the citizen/constituent and the government 25.21: Savings in time by obtaining the service electronically 25.22: Ability to tailor the delivery of the service more towards the citizen/constituent 25.23: Attractiveness of website's appearance 25.24: Sense of personalization created by the website 25.25: Sense of community created by the website 25.26: Reputation of the website
26	Hung <i>et al.</i> (2009)	8	26.1: Perceived usefulness 26.2: Perceived ease of use 26.3: Training 26.4: Compatibility 26.5: External influence 26.6: Interpersonal influence 26.7: Self-efficacy 26.8: Facilitating conditions
27	Lin <i>et al.</i> (2011)	2	27.1: Information quality 27.2: Perceived ease of use
28	Tung and Rieck (2005)	3	28.1: Perceived benefits 28.2: External pressure 28.3: Social influence
29	Ho and Pardo (2004)	6	29.1: Top management commitment 29.2: Linkage to business planning 29.3: Technical alignment 29.4: Knowledgeable personnel 29.5: User involvement 29.6: Expectation of output
30	Hung <i>et al.</i> (2006)	9	30.1: Perceived usefulness 30.2: Perceived ease of use 30.3: Reduced perceived risk 30.4: Trust 30.5: Compatibility 30.6: External influence 30.7: Interpersonal influence 30.8: Self-efficacy 30.9: Facilitating condition

Table 1: (Continue)

No	Reference no	Number of concepts	Concepts
31	Chu <i>et al.</i> (2004)	3	31.1: Perceived usefulness 31.2: Accuracy 31.3: Facilitating conditions
32	Horst <i>et al.</i> (2007a)	3	32.1: Perceived usefulness 32.2: Personal experiences 32.3: Risk perception
33	Park (2008)	8	33.1: Public trust 33.2: Information access 33.3: Public accessibility 33.4: Quality of service 33.5: Time savings 33.6: Efficiency of service 33.7: Service to citizen 33.8: Social awareness
34	Shajari and Ismail (2010)	9	34.1: Trust of internet 34.2: Trust of government 34.3: Perceived as usefulness 34.4: Perceived ease of use 34.5: Output quality 34.6: Job relevant 34.7: Image 34.8: Compatibility 34.9: Social influence
35	Altameem <i>et al.</i> (2006)	24	35.1: Vision 35.2: Strategy 35.3: Top management support 35.4: Leadership 35.5: Citizen-centric 35.6: Funding 35.7: Information Technology (IT) infrastructure 35.8: Information Technology (IT) standards 35.9: National Information Infrastructure (NII) 35.10: Collaboration 35.11: Security 35.12: Relative advantages 35.13: Citizen Relationship Management (CzRM) 35.14: Policy and legal issues 35.15: Quality 35.16: Reward system 35.17: Implementation 35.18: Training 35.19: Organization structure 35.20: Technical staff 35.21: Change management 35.22: Business Process Re-engineering (BPR) 35.23: Organizational culture 35.24: Awareness
36	Liu <i>et al.</i> (2006)	5	36.1: Perceived easy of use 36.2: Perceived usefulness 36.3: Perceived reliability 36.4: Self-efficacy 36.5: Learning capability
37	Wang <i>et al.</i> (2010)	5	37.1: Trust in government 37.2: Trust in technology/structural assurance 37.3: Information quality 37.4: System quality 37.5: Service quality
38	Riedl <i>et al.</i> (2007)	6	38.1: Full time staff member project organization 38.2: Using ARIS as a project management tool 38.3: Using Event-driven Process Chains (EPC) 38.4: Outsourcing of IS functions 38.5: Expectation management 38.6: Intangibles business process approaches (e.g., organizational culture)
39	Rehman and Esichaikul (2011)	12	39.1: Service quality 39.2: Information quality 39.3: Perceived usefulness 39.4: Perceived ease of use 39.5: Para-lingual web 39.6: Internet experience 39.7: ICT infrastructure 39.8: Avoid perceived risk 39.9: Transaction security 39.10: Information security 39.11: Trust in internet 39.12: Trust in government

Table 1: Continue

No	Reference no	Number of concepts	Concepts
40	Sun (2009)	7	40.1: User-user interaction 40.2: Service needs 40.3: Online experiences 40.4: Trust 40.5: Interactivity 40.6: Perceived usefulness 40.7: Perceived ease of use
41	Khayun and Ractham (2011)	4	41.1: Trust in the e-government website 41.2: Information quality 41.3: System quality 41.4: Service quality
42	AlAwadhi and Morris (2008)	4	42.1: Performance expectancy 42.2: Effort expectancy 42.3: Peer influence 42.4: Facilitating conditions
43	Sang and Lee (2009)	12	43.1: Image 43.2: Subjective norm 43.3: Job relevant 43.4: Perceived usefulness 43.5: Perceived ease of use 43.6: Trust 43.7: Perceived risk 43.8: Information quality 43.9: System quality 43.10: Service quality 43.11: Relative advantage 43.12: Compatibility
44	Nishanbaev and Usmanova (2010)	2	44.1: (ICT) infrastructure 44.2: Good marketing
45	Sarantis <i>et al.</i> (2009)	10	45.1: Human resources 45.2: Work milieu 45.3: Relation within and across organizational boundaries 45.4: Project failure impact 45.5: Goals definition 45.6: Project dimensions 45.7: Planning horizon 45.8: Best practices 45.9: Legal and regulatory issues 45.10: Politics driven nature
46	Jiang (2011)	4	46.1: Quality of the information 46.2: Design and function 46.3: Reliability 46.4: Security and privacy

mark the reasons or explanations of each authors about why their concept can be considered as success factor for e-Government initiative. Those reasons or explanations will be very useful in subsequent steps.

Determining how the studies are related: At this stage, we follow what has suggested by Noblit and Hare (1988), that is to create a table that contains the key concept and concepts from 46 studies. The list of concepts from those 46 studies can be seen in Table 1.

Noblit and Hare (1988) imply that the metaphoric reductions can be done as long as it has ability to portray the essence of the texts. Therefore, some of the words used in the concepts in Table 1 is the result of the modification and adoption of their original words. Nevertheless, some of the other concepts are still using their original words.

In this step, we also do some comparations among the emerging concepts accross the studies. In this case, we also use the reasons or the explanations that given by each author to understand the relationship among

their studies. In can be conclude that a lot of their concepts are relatively similiar, so that we determine that all of the studies are related in reciprocal translation.

Translating the studies into one another and synthesizing translations: As suggested by Noblit and Hare (1988) that in practice, some of the Meta-Ethnography steps are overlapping and may be parallel. Therefore, in this study, we will perform the fifth step (translating) and the sixth step (synthesizing) simultaneously. In this step, we also still consider all the reasons or the explanations of each author on their success factors.

It was stated by Britten *et al.* (2002) that the stage of synthesis is difficult to reduce to a set of mechanistic tasks. However, we will try to give a little picture about our translation and synthesization process through an example. For example, Yoon and Chae (2009) said that one of the success factors for e-Government initiative is "Human Capital". They said that this concept is about

Table 2: The result of translation and synthesis

Code of the success factor																		
No	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	1.10 1.20																	
2	2.20 2.11 2.12	2.10 2.10 2.13 2.14		2.40 2.17	2.50	2.60 2.70	2.70	2.80 2.90	2.21	2.15	2.19	2.18	2.16	2.20	2.21 2.22	2.23		
3				3.40		3.50 3.12		3.30	3.14			3.20			3.14		3.10 3.70	3.60
4									4.10									
5																		
6												6.30		6.60	6.50		6.10	6.20
7									7.20									
8	8.30	8.10 8.20 8.90		8.60						8.50							8.80	8.70
9										9.40 9.60 9.70					9.10			
10	10.90	10.40 10.80 10.11 10.12		10.30		10.50				10.70 10.90							10.12	
11	11.50 11.27	11.20 11.30 11.13 11.14 11.20 11.23 11.26		11.21				11.60 11.80	11.80 11.11 11.15	11.40 11.27	11.25	11.10 11.17			11.22		11.12	
12	12.40					12.40		12.40	12.40						12.40		12.10	
13	13.20	13.60				13.50											13.40	13.50
14	14.30 14.40 14.50									14.30 14.40 14.70					14.20			
15	15.50	15.10 15.20 15.30		15.80		15.80						15.90		15.70				
16	16.10									16.50					16.40		16.30	
17	17.20								17.10									
18															18.50		18.10 18.20 18.30	
19									19.10			19.60		19.40 19.50	19.40	19.60		
20						20.20									20.30			
21	21.10					21.20												
22			22.10															
23																		
24						24.10 24.20 24.30												
25						25.40 25.12 25.13 25.14 25.15 25.16 25.17 25.18 25.19 25.22 25.23												
26				26.30		26.20 26.40 26.50 26.60 26.70 27.20	26.10										26.80	
27																		
28						28.10 28.30								28.20				
29	29.50	29.20				29.00		29.40									29.30	
30				30.30	30.20 30.30 30.80	30.10 30.50 30.60 30.70											30.90	
31						31.10											31.30	
32				32.20		32.10 32.30												32.20

Table 2: (Continue)

Code of the success factor																		
No	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
33						33.70												
						33.80												
34					34.40	34.30												
						34.60												
						34.70												
						34.80												
						34.90												
35		35.10				35.12		35.50	35.40			35.60	35.22	35.14			35.70	
		35.20				35.24		35.20									35.90	
36				36.40	36.10	36.20											36.50	
						36.40												
37																		
38		38.50														38.40		
39					39.40	39.30											39.70	39.60
						39.80												
40	40.20			40.10	40.70	40.10												40.30
	40.50					40.60												
41																		
42					42.20	42.10												42.40
						42.30												
43					43.50	43.10												
						43.20												
						43.30												
						43.40												
						43.70												
						43.11												
						43.12												
44						44.20												44.10
45		45.50						45.10		45.60	45.80		45.20	45.90	45.10			
		45.70																
46					46.20													

Code of the success factor																		
No	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AH	AI	AK	AL	AM	AP
1									1.10									
									1.20									
2						2.23									2.30			
3	3.80	3.90	3.10	3.11	3.13	3.15												
4																		
5							5.10											
6								6.40										
7				7.10														
8								8.20	8.40									
9				9.20						9.30								9.50
10			10.10	10.60				10.20				10.10						
11					11.16	11.19	11.70	11.18				11.10		11.90				
								11.24						11.23				
12			12.20		12.30							12.40		12.30			12.30	
														12.40				
13				13.30								13.10						
14	14.60											14.10						
15				15.70			15.60					15.40	15.10					
16				16.40		16.20								16.10				
17																		
18	18.60			18.50													18.40	
19										19.30		19.20						
20							20.30			20.40		20.10						
21																		
22																		
23							23.10											
24																		
25			25.70												25.50	25.10	25.10	
															25.60	25.20	25.26	
															25.80	25.30		
															25.90	25.20		
															25.11	25.21		
															25.24			
															25.25			
26																		
27																27.10		
28																		
29												29.10			29.26			
30	30.70		30.30															
31															31.20			
32			32.30															
33															33.20	33.30	33.40	33.10
															33.60	33.50		
34															34.50			34.10
																		34.20
35			35.11	35.14		35.10	35.19	35.23			35.13	35.3	35.8		35.5	35.5	35.5	
				35.16			35.21								35.15	35.15	35.15	

Table 2: (Continue)

Code of the success factor																		
No	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AH	AI	AK	AL	AM	AP
36															35.17	35.17	35.17	
37															36.30	36.30		
															37.30	37.40	37.50	37.10
38								38.60							38.10			37.20
															38.20			
															38.30			
39			39.80												39.20		39.10	39.11
			39.90														39.50	39.12
			39.10															
40																		40.40
41															41.20	41.30	41.40	41.10
42																		
43			43.70												43.80	43.90	43.10	43.60
44																		
45				45.90		45.30									45.40			
46			46.40												46.10	46.30		

Table 3: Success factors for e-government initiative

Code	Success factor
B	User and stakeholder involvement
C	Good planning
D	Using portal
E	Training
F	Good system usability
G	System campaign
H	Prototype
I	Good team skills and expertise
J	Strong leadership
K	Good coordination between all project participants
L	Best practice consideration
M	Enough funding
N	Make better business process
O	Supportive government policy
P	Political support and stability
Q	Good outsourcing strategy
R	Supportive ICT infrastructure/service availability
S	User/citizen computer/internet literacy
T	Good dan clear organizational structure
U	International support
V	System security
W	Legal framework
X	Monitoring and evaluation
Y	Good partnership with other institution
Z	Good change management
AA	Supportive cultural environment
AB	Good system modeling
AC	Deal with bureaucratic
AD	Citizen relationship management
AE	Top management support
AH	Support interoperability
AI	Good project management
AK	Good information quality
AL	Good system quality
AM	Good service quality
AP	Trust

the availability of trained IT professionals (Yoon and Chae, 2009). On the other hand, Fortune and White (2006) are talking about “Skilled/suitably qualified/sufficient staff/team”. They implied that the use of staffs who had worked on earlier projects can make the e-Government initiative success. In this example, we easily can see that the two concepts that come up from that two studies are describing the same idea. Both of them are talking about the need of good team skills and expertise. Some other studies are also

have similar concept and describing the same idea (Ho and Pardo, 2004; Gil-Garcia and Pardo, 2005; Altameem *et al.*, 2006; Zarei and Ghapanchi, 2008; Sarantis *et al.*, 2009). By taking into account of all the concepts from those studies, including their reasons or their explanations, then we synthesize all of them to one common concept, that is “Good team skills and expertise”. We consider this new synthesized concept as one of success factor for e-Government initiative.

By using the similar way with the above example, then we do the translation and the synthesization process to all of the other concepts. As the result, we get 36 new synthesized concepts. These 36 new synthesized concepts are the success factors for e-Government initiatives. The result of this translation and synthesization process can be seen in Table 2.

Expressing the synthesis: This study is an expression of the synthesis, including what have been resulted in Table 2. In that table, the rows indicate the studies, while the columns indicate the synthesized success factor. In order for the Table 2 is not too wide, then we represent every study by a number. That number is associated with the number in Table 1. We also represent each success factor by a code. List of the codes of success factors and their meanings can be seen in Table 3.

Every success factors in Table 2 are supported by some of the concepts within and across the studies. The numbers listed in each cell in Table 2, shows concepts of a study that support a particular success factor. We can figure out the literal word of those concepts by referring back to Table 1. All of the success factor that depicted in Table 3, have the same degree. No one is more important and less important, all of them are equal.

CONCLUSION

By using Meta-Ethnography, a lot of relevant previous studies has been synthesized to get a generic list of 36 success factor for e-Government initiative.

This is the foremost contribution of this study. In practice, the synthesized success factors of this study can assist all parties that involved in the e-Government initiative.

This study has successfully demonstrated that Meta-Ethnography can be used in e-Government research. It advances the body of knowledge in e-Government research. The way we use to implement the each step of Meta-Ethnography, can be considered by other researchers to conduct similar research.

This study can lead to a lot of further research. For example, as empirical study, a case study research can be conducted to test whether all success factors in this study occur in an e-Government initiative. On the other hand, a pilot project of e-Government initiative can also be conducted by considering all of the success factors of this study, the results of the pilot project are analyzed.

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