Electronic Government and Accountability: Systematic Literature Rreview, Framework, and Agenda for Future Research

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Keywords : E-Government, Accountability, Public Sector	Abstract: Electronic government (e-government) is an effective tool to enhance accountability in public organizations. However, the implementation of e-government to enhance accountability remains unclear and involves many complex processes due to multiple accountabilities disorder. The e-government elements that contribute to mitigating the disorders and dysfunctions of accountability relationships are still underdeveloped in the current literature. This paper aims to provide an understanding of how e-government can enhance organizational accountability by reviewing the relevant literature. This research employs a systematic literature review methodology using PRISMA reporting guidelines. The authors searched for scholarly articles in the online Elsevier (Scopus) database, written in English and accessible in full text. The study utilizes data from 18 articles to conduct the systematic literature review. The findings indicate that most previous studies on the impact of e-government on accountability were published in 2009 and 2010. Additionally, the findings show that developed countries dominate the research locations with a total of 16 articles, while only 2 articles pertain to developing countries. The predominant methodology used in studies on the impact of e-government on accountability is website content analysis, accounting for 9 articles.

Introduction

Accountability report finance is very important in realizing good governance towards good governance. During this bureaucracy, Still Lots lacks reporting results activities, so it is not yet accountable to the public. It cannot denied that reporting to the finance government area isvery important and makes a significant contribution to the success of accountability finance. Themain purpose of reporting finance is to facilitate control expenditures for the public and show accountability in obedience to the approved budget (Hughes, 2013). Additionally, comprehensive finance is enforced by demanding accountability for what has been carried out by the government area to finance the public (Schaeffer & Yilmaz, 2008).

Accountability finance helps control the abuse of source power public by focusing on those entrusted with public funds to facilitate the smooth provision of social services to the public. Guvaston and Sundstrom (2016) show that practicing audit quality will significantly impact the level of domestic corruption as an element important in eradicating corruption. This matter is supported by Ghaffoori (2016), who shows that the auditor must be the responsible answer For ensuring integrity, transparency, and quality report finance. Enhancement disclosure of useful information will also result in more governance, improvement accountability, reduction ofcorruption, and escalation of trust (Hood, 2006; Braithwaite & Drahos, 2000; Finel & Lord, 1999; Wehmeier & Raaz, 2012; Kasekende et al ., 2016; David-Barrett & Okamura, 2013). Most of the respondents strongly agreed that audit failures give rise to a gap in corruption. Different research conducted by Kaseem and Higson (2016) stated that the audit does not can detect or prevent corruption by detecting and preventing misstatements in the form of cheating.

There are a number of possible factors that influence the level of accountability financesto the government area. One of the factors that can influence accountability is a digital-based government system. The delivery of information finance via the Internet has become the currentintermediary . This is the easiest reachable by the public wide as well as effective for governmentareas To serve information about management finance (K, Styles, 2007). Corruption is also frequently done in a way veiled Because the public has limited access to information about corruption committed by the government, especially in authoritarian countries where information is minimal (Zhu et al., 2013; Corbacho et al., 2016). The government has emitted instructions about government strategies and policies through instructions from the President of the Republic of Indonesia No. 3 of 2003; the government must utilize technology that is available to carry out the transformation process going to E-government, Now known as Based Government System Regulated electronics (SPBE). in Presidential Decree No. 95 of 2018. SPBE aims to realize governance good governance, service public transparency, and accountability. E-government or SPBE is a maintenance government that increases quality service to an effective and efficient public.

For two decades, most recently, e-government initiatives have been considered an effective tool for increasing accountability, according to lots of experts (Chen et al., 2006). Initiative This can overcome the gap in communication between institutions, the public, and society, as well as increase interaction between government and society, including

state affairs,and increase their response to demands and needs (Bataineh & Abu-Shanab, 2016). In addition,the e-government can increase the provision of service public (Ray, 2012), strengthen obedienceto laws and regulations as well as increase supervision of officials to reduce the level of corruption (Aladwani, 2016; Elbahnasawy, 2014; Kim, 2014; Krishnan et al., 2013). E-government is also believed to increase openness and transparency (Halachmi & Greiling, 2013). Therefore , many countries have made an effort to apply government projects to reach benefit potential in reaching goals of reform and improvement level accountability in action government (Andersen,2009; Bataineh & Abu-Shanab, 2016; Cuillier & Piotrowski, 2009).

Transparency of information finance on the official website Utilizing the internet is important for e-government (Ningsih, 2018). Within sectors of government, implementation technology like e-government also has a positive impact on performance improvement agencies(Baker, 2008). A number of studies have explored the influence of e-government on accountability finance. Mohammed (2023) found that strict compliance with internal audit review and enforcement penalties for violations can significantly increase the accountability of an organization's public. Gherasim (2019) highlights the potential of e-government for increased transparency in the retrieval process decision, while Griffin (2005) provides a framework For evaluating e-government accountability at the level area. Finally, Crespo (2018) stated that the use of e-government can facilitate the disclosure of information accounting in the end, can increase performance organization. Findings This, in a way, collectively underlines the potential of e-government for increasing accountability finance in the public sector.

Although the government is promising enhancement of accountability and administrativereform public, some research (Chen et al., 2010; Lourenco et al., 2017; Griffin & Halpin, 2005; Petrakaki et al., 2009) shows that it is Still Not yet clear and involving many complex processes, especially in developing countries (Hamiduzzaman, 2012). many countries around the world have identified accountability as an e-government agenda priority and have implemented it, especially developing countries that do not have sufficient understanding and experience in managing e-government projects to reach desired goals like accountability (Aladwani, 2016; Bataineh & Abu-Shanab, 2016; Heeks & Bailur, 2007; Muller & Skau, 2015; Yildiz, 2012; Zhang etal., 2014). However, no full application technology will walk with success (Wu Jie, 2015), stating that not all provinces in China have experienced efficiency after implementing an e-governmentwebsite. A number of provinces Still Not yet can apply technology in a way maximum. That matter indicated mixed results from existing government application technology. E-government has thepotency to increase government accountability. However, the impact varies depending on the context and technology specifically used. However, empirical proof can help make decisions andunderstand how e-government improves public accountability. Still not enough. Wong (2004) states that although e-government can increase accountability in a way overall, this does not yet,

of course, reduce the gap in accountability between bureaucracy. Petrakaki (2009) warns that the introduction of technology monitoring performance in e-government initiatives does No always lead to accountability that focuses on the public interest (Chen et al., 2010; Halachmi, 2011).

Research Method

An overview of the literature systematic was done with a study previously published in 2014-2021 using PRISMA reporting recommendations. PRISMA is a systematic, step-by-step, and helpful meta-analysis tool that serves to review findings systematically from all forms of published research (Moher et al., 2009). The writer carry out the PRISMA procedure presented by Moher et al. (2009). In accordance with PRISMA guidelines, there are five important steps to take when writing a systematic review.

Criteria appropriateness

The writer set guidelines for review criteria inclusion (IC) as follows:

IC1   : Research original and peer-reviewed written in Language English and can accessed in the full paper; And

IC2   : Purposeful research For investigating e-government evaluation.

The writer finishes step First by choosing articles written in Language UK (IC1); English is chosenas the ordinary language used by scientific researchers. After that, the writer finishes the step following with applying IC2 to answer the question study.

Source Power information

The writer searches online research databases education as source notes to obtain articles. The online database used in the study is Elsevier (SCOPUS). Writers delete articles from research thatdoes not can seen in a whole way. The writer read the references included in the article to find study-related information.

Election studies

The writer chooses an article with four phases following :

1. The writer applies an appropriate set of keywords with interest. Our research is in lookingfor relevant e-government evaluation. Search string related to " evaluation " (incl termssuch as " evaluation, "assessment, " assessment) and "e-government" (incl terms such as "e-government", " i -Government," "m- government," " digital devices,").

2. Criteria appropriateness guides the exploration and selection of titles, abstracts, and keywords For identified publications.

3. Reading text complete on each article that is not eliminated in the phrase previously done. For elimination, return the articles that should be entered in a review based on criteria appropriateness.

Collection process information

Information collection is done manually with the use of information extraction material content, including the following: author, title, year, name journal, topic, country, abstract, keywords, methods of research, and variables study. Every writer reads the text and extracts information to make a potential article relevant. All variations of opinion are resolved through dialogue and reading to repeat the textual complete fill.

Selection of information items

The author's information taken from every article consists of the following:

Demographics studies selected, accompanied information as Here with

   a. Year distribution e-government
   b. Countries involved in e-government evaluation
   c. Source methodology research.

Research methods explain how the study is carried out, including design research, collection ofinformation, instrument research, engineering analysis, and reliability and validity results.

Result and Discussion

Figure 1 shows the flow diagram based on PRISMA guidelines. The writer makes a study selection and looks for articles using keyword strings on stage. The first search results are in a total of 155 documents. After the search process is done, the writer changes the arrangement to search the article language to English and can access the article (IC1). Arrangement search advanced only done in the article language English with access open full in Elsevier online database (SCOPUS). It provides 55 documents that can be accessed in the article. Eight tens Onearticle was removed because part big was not accessed in the article completely. In this third stage, the author does a selection study through exploration and selection of titles, abstracts, and keywords identified articles. Choice studies provide 34 articles. Three ten seven articles were removed because part of the article did not discuss e-government and accountability (IC2). Then,37 articles were eliminated using complete text. After that, every writer reads the text of each article, reviews based on criteria feasibility, and does table data extraction Manually. The writerdiscusses the results of his work. The different results from each author were discussed again together. Sixteen chapters were removed Because part big No meets IC2.
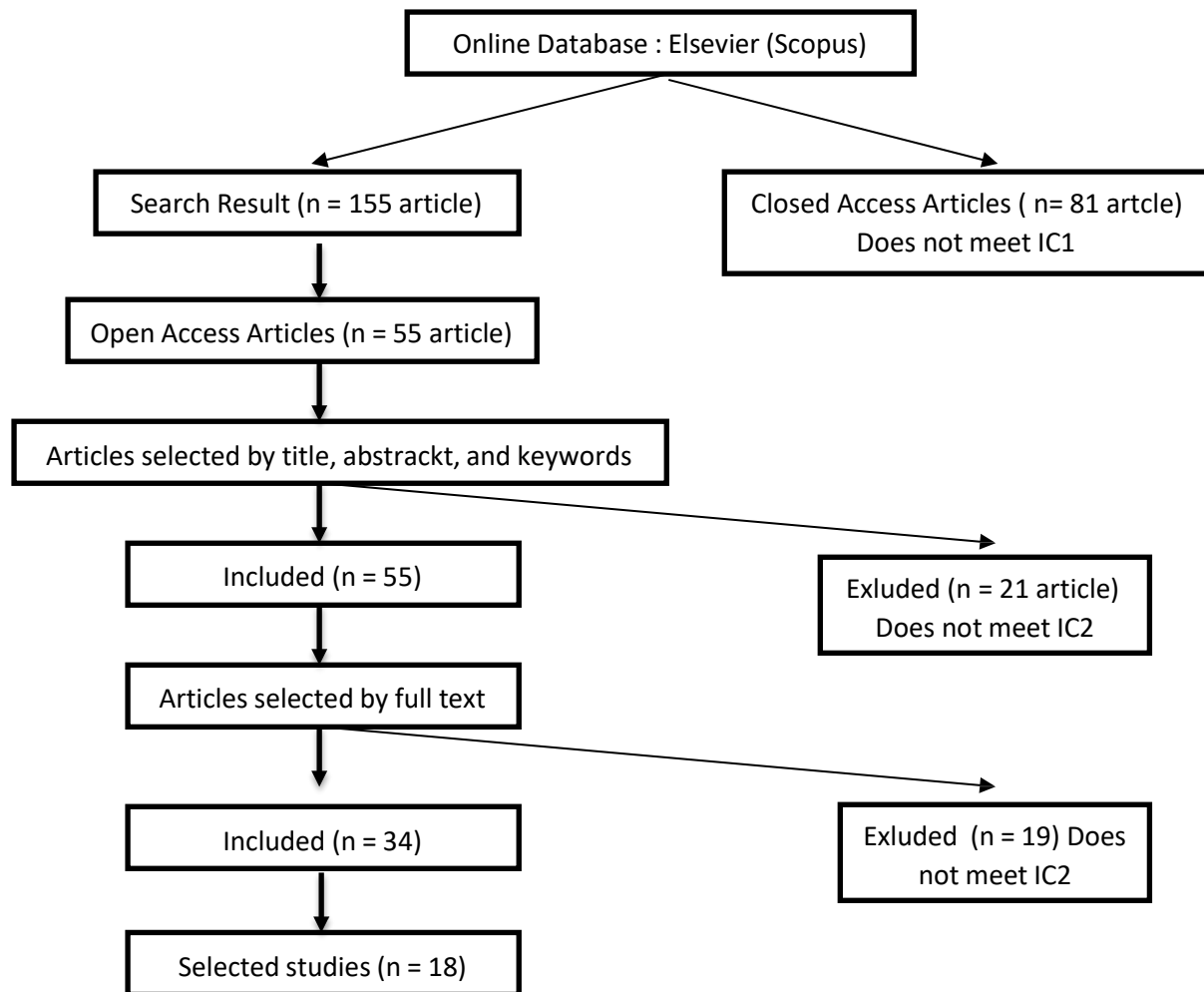
Figure 1. PRISMA flow diagram of the study selection process

Dominant Research Areas by database, country, year, methodology, and journal.

1. Year

Demographics from 18 studies selected are explained in Table 1. Results of 18 studies selected show that year distribution e-government evaluation identified related to two articles published in 2004 (Wong and Welch), two articles published in 2005 (Griffin and Halpin; Perez et al.), and an article rise in 2006 (Justice et al.), and one article rise in 2007 (Pina et al.; Rodríguez Bolívar et al.), five articles rise in 2009 (Pina et al.; Petrakaki et al.), five articles published in 2010 (Pina et al.a; Pina et al.b; Chen et al.; Papenfuß and Schaefer; Spirakis et al., K; V. Pinilla), 2 articles published in 2012 (Ray; Bertot et al.), and two articles published in 2013 (Halachmi and Greiling; Haque and Pathrannarakul).
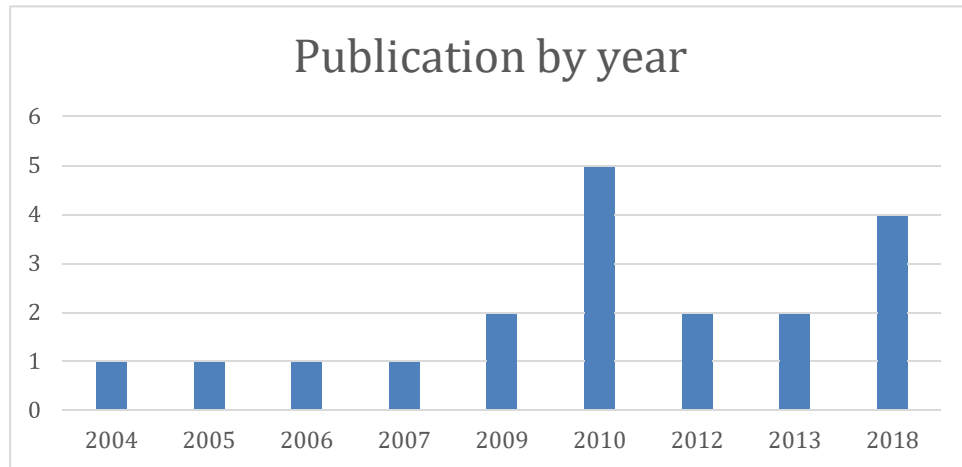
Figure 2. Publication by year

Table 2 also shows part big study previously about the evaluation e- government servicespublished in 2018 (Al-Sulami & Hashim, 2018; Idoughi & Abdelhakim, 2018; Rihandoyo, 2018; Verkijika & De Wet, 2018a, 2018b) and published in 2020 (Bournaris, 2020; Chang& Almaghalsah, 2020; Saraswati & Madyatmadja, 2020); study evaluation of e- government over the years the become interesting Because years the is the momentum by which the UN measures level e-government maturity in all UN member countries. Results data measurement level This is the maturity of e-government. The reason for thestudy of e-government evaluation was carried out even.

2. Country
   Figure 2 shows that studies regarding e-government have done a lot in a country's progress and development. Location of e-government research in developed countries are in the United Kingdom (UK) (Griffin & Halpin, 2005), the European Union (Perez et al.,2005; Pina et al., 2009; Pina et al., 2010a; Pina et al., 2010b), and the United States (USA)(Justice et al., 2006; Bertot et al., 2012), Spain (Rodríguez Bolívar et al., 2007), Greece (Petrakaki et al., 2009) China (Chen et al., 2010). At the same time, location research in developing countries was carried out in India (Ray, 2012) and Pakistan (Haque & Pathrannarakul, 2013).
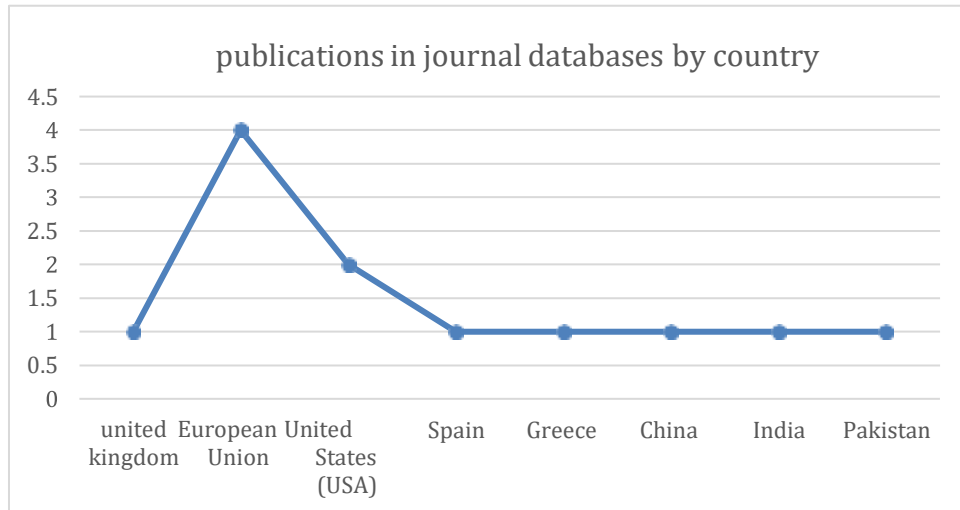
Figure 3. Publication by country

3. Methodology

The methodology used in studying the impact of e-government on accountability is predominantly website content analysis, conducted 9 times, and literature review, conducted 4 times. Qualitative case study and questionnaire methods are employed 2 and 3 times respectively in the 18 articles analyzed in this review study.
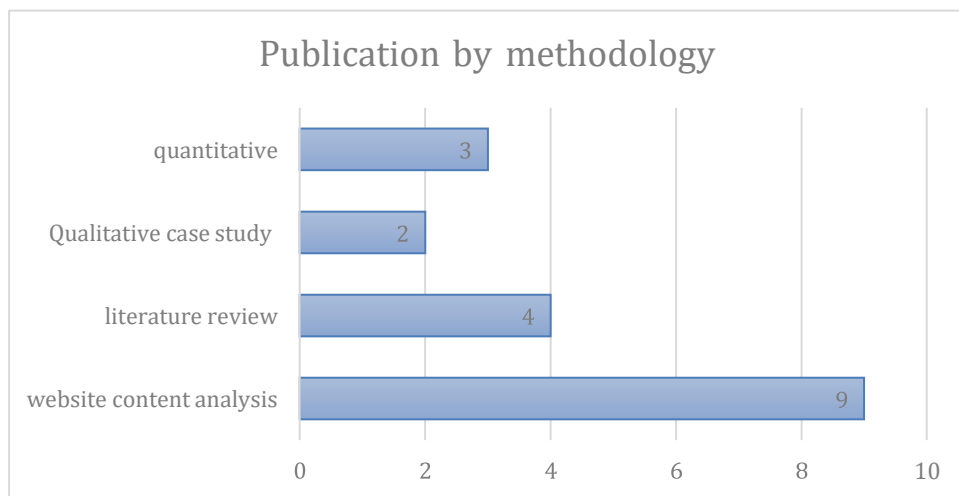

Figure 4. Publication by methodology

Conclusion

The implementation of e-Government has provided numerous benefits in the public sector. The deployment of e-Government requires various factors to support its effectiveness and accelerate the diffusion process of technology. However, most e-Government implementations are measured by only a few factors. This study reviews previous research on e-Government using PRISMA reporting guidelines. The aim of this study is to identify the factorsinfluencing the impact of e-Government on accountability. The findings of the study indicate that:

1. Previous research on the impact of e-Government on accountability was most frequentlypublished in 2009 and 2010.
2. Developed countries dominate the research locations, with 16 articles, while developingcountries account for only 2 articles.
3. The methodology used in studying the impact of e-Government on accountability ispredominantly website content analysis, used in 9 articles.

Based on these factors, this study proposes a pyramid model framework for evaluating e-Government. This model enables future research to delve deeper into each quality element of e-Government in a holistic manner. The study is limited by the number of databases used for articlesearches. It relies solely on Elsevier (Scopus) as the single database. Future systematic literaturereviews are expected to utilize more databases for article searches and employ more synonyms in keyword strings.

References

Aladwani, A.M. (2016). "Corruption as a source of e-government projects failure in developing countries: a theoretical exposition," International Journal of Information Management,Vol. 36 No. 1, pp. 105-112.

Andersen, T.B. (2009). "E-government as an anti-corruption strategy", Information Economics and Policy, Vol. 21 No. 3, pp. 201–210.

Bataineh, L. and Abu-Shanab, E. (2016). "How perceptions of E-participation levels influence theintention to use e-government websites," Transforming Government: People, Process and Policy, Vol. 10 No. 2, pp. 315-334.

Braithwaite, J., & Drahos, P. (2000). Global business regulation. Cambridge: Cambridge UniversityPress.

Baker, N. R. (2008). Chlorophyll fluorescence: a probe of photosynthesis in vivo. *Annu. Rev. PlantBiol.*, *59*, 89-113.

Bertot, J.C., Jaeger, P.T. and Grimes, J.M. (2012), "Promoting transparency and accountability through ICTs, social media, and collaborative e-government", Transforming Government: People, Process and Policy, Vol. 6 No. 1, pp. 78-91.

Cuillier, D. and Piotrowski, S.J. (2009). "Internet information-seeking and its relation to support for access to government records," Government Information Quarterly, Vol. 26 No. 3, pp. 441-449.

Chen, T.-Y., Xiao-Zhang, L. and Jing-Tao, F. (2010). "Probable Influence of e-government on financial accountability in China," International Conference on E-Business and E-government (ICEE), 7-9 May 2010, pp. 501–503.

Corbacho, A., Gingerich, D. W., Oliveros, V., & Ruiz-Vega, M. (2016). Corruption as a self-fulfillingprophecy: Evidence from a survey experiment in Costa Rica. American Journal of PoliticalScience, 60(4), 1077-1092.

Crespo, C., Ripoll, V., Tamarit, C., & Valverde, R. (2018). Institutional characteristics and managers' perceptions of accounting information: impact on e-government use and organisational performance. *Spanish Journal of Finance and Accounting/Revista Española de Financiación y Contabilidad*, *47*(3), 352-365.

David-Barrett, L., & Okamura, K. (2013). The Transparency Paradox: Why do Corrupt Countries Join EITI? European Research Centre for Anti-Corruption and State-Building Working Paper No. 38.

Elbahnasawy, N.G. (2014). "E-government, internet adoption, and corruption: an empirical investigation," World Development, Vol. 57, pp. 114–126.

Finel, B. I., & Lord, K. M. (1999). The surprising logic of transparency. International Studies Quarterly, 43(2), 315–339.

Gustavson, M., & Sundström, A. (2016). Organizing the Audit Society: Does Good Auditing Generate Less Public Sector Corruption? Administration & Society, 0095399716674306.

Ghaffoori, A. (2016). The Role of Accounting Reform in Deterring Corruption Practices in the Public Sector: A Case Study in Kurdistan Region. Journal of Business & Financial Affairs, 5(4), 1–15.

Gherasim, A. (2019). The Economic-Political Environment in International Marketing. *Economy Transdisciplinarity Cognition*, *22*(2), 117-123.

Griffin, D. & Halpin, E. (2005). "An exploratory evaluation of UK local e-government from an accountability perspective," The Electronic Journal of e-government, Vol. 3, pp. 13–28.

Hood, C. (2006). Transparency from a historical perspective. In C. Hood & D. Heald (Eds.), Transparency: The key to better governance? (pp. 3–23). Oxford: Oxford University Press.

Heeks, R. (1998a). "Public sector accountability: can IT deliver," Information Systems for Public Sector Management Working Paper Series.

Halachmi, A. and Greiling, D. (2013). "Transparency, e-government, and accountability: some issues and considerations," Public Performance & Management Review, Vol. 36 No. 4, pp. 562-584.

Hamiduzzaman, M. (2012). "Does e-governance bring accountability in rural local administrationin Bangladesh?" Journal of E-Governance, Vol. 35, pp. 133-142.

Haque, S. and Pathrannarakul, P. (2013), "The role of technology in enhancing transparency andaccountability in public sector organizations of Pakistan", International Journal of Economics Business and Management Studies, Vol. 2, pp. 20-24.

Justice, J. B., Melitski, J., & Smith, D. L. (2006). E-government as an Instrument of Fiscal Accountability and Responsiveness. The American Review of Public Administration, 36(3), 301–322. doi:10.1177/0275074005283797

Kasekende, E., Abuka, C., & Sarr, M. (2016). Extractive industries and corruption: Investigating the effectiveness of EITI as a scrutiny mechanism. Resources Policy, 48, 117– 128.

Kassem, R. and Higson, A. (2012), "The new fraud triangle model", Journal of Emerging Trends inEconomics andManagement Sciences (JETEMS), Vol. 3 No. 3, pp. 191-195.

Kim, C.-K. (2014). "Anti-corruption initiatives and e-government: a cross-national study," Public Organization Review, Vol. 14 No. 3, pp. 385–396.

Krishnan, S., Teo, T.S. & Lim, V.K. (2013). "Examining the relationships among e-government maturity, corruption, economic prosperity, and environmental degradation: a cross-country analysis," Information & Management, Vol. 50 No. 8, pp. 638–649.

Lourenco, R.P., Piotrowski, S. and Ingrams, A. (2017). "Open data-driven public accountability," Transforming Government: People, Process and Policy, Vol. 11 No. 1, pp. 42–57.

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & PRISMA Group*, T. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of internal medicine*, *151*(4), 264-269.

Ningsih, R. F. (2018). Analisis Faktor Yang Mempengaruhi Transparansi Informasi Keuangan

Daerah Via Website (Studi Empiris pada Pemerintah Daerah di Pulau Sumatera Tahun 2015). E-Journal S1 Ak Universitas Pendidikan Ganesha Jurusan Akuntansi Program S1.

Petrakaki, D., Hayes, N. & Introna, L. (2009). "Narrowing down accountability through performance monitoring technology: e-government in Greece," Qualitative Research inAccounting & Management, Vol. 6 No. 3, pp. 160–179.

Papenfuß, U., & Schaefer, C. (2010). Improving public accountability by aligning reporting to organizational changes in public service provision-an empirical Internet study of all Austrian, German and Swiss towns and states from an agency-theory perspective. *International Review of Administrative Sciences*, *76*(3), 555-576.

Pina, V., Torres, L. and Royo, S. (2010b), "Is e-Government promoting convergence towards more accountable local governments?", International Public Management Journal, Vol. 13 No.4, pp. 350-380.

Pina, V., Torres, L., & Royo, S. (2007). Are Icts Improving Transparency And Accountability In TheEu Regional And Local Governments? An Empirical Study. Public Administration, 85(2), 449–472. doi:10.1111/j.1467-9299.2007.00654.x

Ray, S. (2012). "Reinforcing accountability in public services: an ICT enabled framework," Transforming Government: People, Process and Policy, Vol. 6 No. 2, pp. 135–148.

Rodriguez Bolivar, M. P., Caba Perez, C., & Lopez Hernandez, A. M. (2007). E-Government and public financial reporting: the case of Spanish regional governments. *The American review of public administration*, *37*(2), 142-177.

Schaeffer, Michael and Yilmaz, Serdar, Strengthening Local Government Budgeting and Accountability (November 1, 2008). World Bank Policy Research Working Paper No. 4767, Available at SSRN: https://ssrn.com/abstract=1297806

Styles, A. K., & Tennyson, M. (2007). The Accessibility of Financial Reporting of U.S. Municipalities on the Internet. Journal of Public Budgeting, Accounting & Financial Management; Spring, 19(1), 56–92

Spirakis, G., Spiraki, C., & Nikolopoulos, K. (2010). The impact of electronic government on democracy: e-democracy through e-participation. *Electronic Government, an International Journal*, *7*(1), 75-88.

Wu, J., & Guo, D. (2015). Measuring E-government performance of provincial government website in China with slacks-based efficiency measurement. *Technological forecasting and social change*, *96*, 25-31.

Wehmeier, Stefan, and Oliver Raaz. 2012. Transparency Matters: The Concept of Organizational Transparency in the Academic Discourse. Public Relations Inquiry 1(3): 337–66.

Wong, W., & Welch, E. (2004). Does e-government promote accountability? A comparative analysis of website openness and government accountability. *Governance*, *17*(2), 275-297.

Zhu Q, Sarkis J, Lai K-H (2013) Institutional-based antecedents and performance outcomes of internal andexternal green supply chain management practices. J Purch Supply Manag 19(2):106–117