World of Computer Science and Information Technology Journal (WCSIT)
ISSN: 2221-0741
Vol. 1, No. 6, 253-259, 2011

Do Indonesian Province Website Rich and Popular?

Widya Silfianti
Departement of Information System
Gunadarma University
Depok, Indonesia
wsilfi@staff.gunadarma.ac.id

Ruddy J. Suhatril
Departement of Information System
Gunadarma University
Depok, Indonesia
ruddyjs@staff.gunadarma.ac.id

Abstract— Most local governments in Indonesia are relatively left behind in terms of e-government implementation. According to Indonesian e-government road map, Indonesia has only reached the third phase of the action. This article will discuss the diversity of features, popularity, and information richness on the website of the provinces in Indonesia. The population of study is the website of 33 provinces in Indonesia. The research result show that the traffic does not depend on information richness and number of web features. There were differences in information richness and real traffic rank among the provinces outside Java with Java.

Keywords : e-Government; popularity; information richness; webmetric.

I. INTRODUCTION

In April 2001, the government enacted the Presidential Instruction No. 3 [1] providing the guideline for ICT development and empowerment in society. The Presidential Instruction covered 75 programs or action plans which are classified into four categories: the legal and policy frameworks, capacity building of human resources, infrastructure, and applications in government and private sector. Government itself has even had prepared roadmap for dealing with e-government which consists of five stages namely preparation, emergence, action stage, participation stage and the transformation stage.

The roadmap was already created ten years ago. The question is whether it has been successfully implemented by the local and central governments in Indonesia? Presently it is assumed that Indonesia has only reached the third phase of the action. Some of the action plans formulated by TKTI (Indonesian Telematics Coordinating Team) include the following issues: (1) Reform policy and legal framework to support the development of ICT, including e-government, (2) Development of human resources capacity to support ICT and e-government, (3) Efforts to accelerate the development of infrastructure to support ICT and e-Government applications through national and foreign partnership, (4) Provide development of a variety of useful applications for e-government, (5) portal of e-Government program revitalization, (6) Implementation of e-Government strategy, and (7) Prepare an action plan for e-Government offices or agencies which are interconnected.

Most local governments in Indonesia are relatively left behind in terms of e-government implementation. In general, the root of problem can be viewed from two perspectives, namely (a) low implementation rate of information technology in government, public officials or citizens, and (b) issues on availability and the carrying capacity of human resources in government agencies as relatively reliable in developing and applying information and communication technology. According to [2], other than the commitment to e-Government, the government of Indonesia still faces a number of challenges which may inflict the implementation of e-Government, among them are (1) and the insufficiency and high capacity telecommunications infrastructure, (2) Prolonged issues on funding of various e-Government initiatives, (3) Lack of coordination and integration and (4) The process of finalizing a lot of various laws and regulations regarding *e-Commerce* and *e-Government.*

Reference [3] expressed that, if noted, the performance of *e-Government* in Indonesia within the last 5 years, it can be seen that up to this date communication between the government and society remains one-way. This implies that the role of e-Government has not yet been felt by the public due to minimum public access to information. *e-Government* also faces numerous obstacles, among others: (1) Low awareness (awareness) in making telematics decisions, (2) Scarcity of qualified human resources, (3) Lack of telecommunication infrastructure, (4) Expensive rates and lack of supporting facility for internet and (4) Low penetration of PC. By reference to the results of research by [4] and [5], the local government websites in Indonesia lack of features and

information. In addition, geographically, there is also gap between the information service via the web on the island of Java, the local government with local governments outside of Java,

This article will discuss the diversity of features, popularity, and number of web page or size or information richness on the website of the provinces in Indonesia. The diversity of features is evaluated by the content standards generally available on a website, regardless the quality or depth each feature. Popularity is measured by using the traffic analysis version of the alexa.com by retrieving data concerning website rank for Indonesian regions. The information richness using search results on Google search engine, by recording the number of web pages indexed in Google, regardless of depth, originality, and relevance of information on every page of his website. The number of websites that are the object of research is the website 33 provinces in Indonesia. Analysts more focused on the development parameters of the website compared the results of previous studies conducted by [4] and [5], and the relationship between popularity with a information richness and diversity of content. In addition, comparison of geographical regions, namely Java and outside Java to identify digital gap in Indonesian regions.

II. BACKGROUND

A. Definition, Functions, Characteristics and Development of E-Government

There are a number of e-Government definitions in the existing literature. Most definitions of e-Government revolve around the concepts of government's employment of technology, in particular web-based application to improve the access and delivery of government services to citizens, business partners, and other government agencies. Reference [6] defines trust as "the use by government agencies of information technologies (Such as Wide Area Networks, the Internet, and mobile computing) That have ability to transform relations with citizens, businesses, and other arms of government. Reference [7] stated that the development of *e-Government* in essence is a change of interaction between communities and companies with the government. By Reference [8] states that e-government targets cover four main groups: citizens, businesses, government (government and other public institutions) and employees.

Definition of e-government presented in the UN report on [9], is "the application of ICT and its application by government to provide information and public services to the community". Hence, the purpose of e-government is to provide efficient management of government information to all citizens, the provision of services to better society and to empower community through access to information and participation in public decision-making stated by [10]. Understanding of e-government in general is the use of information and communication technologies for public administration by improving public services and democracy. Reference [11] said in more detail that the current state of e-government is an internal transformation of the public sector to external relations through supportive technologies to optimize government service delivery to all users.

Some governments across the world have embraced the digital revolution and continue to take advantage of the information and communication facilities Offered by the Internet to offer public services stated by [12]. Reference [13] stated that e-Government allows greater public participation in politics and pengabilan decisions, something not possible in the past. The participation has built mutual trust between government and society and also among the people. Reference [14] stated that in the context of rapid changes in the public and private role in the development process, e-Government is viewed as instrument to simultaneously improve the efficiency of public administration, improve public services, and strengthen the openness and transparency of political processes. Nevertheless, the ability of developing countries to Reap the ful, benefits of e-government is limited and is largely hampered by the existence of many political, social, and economic hindrances stated by [8].

There are Various stages of e-Government development. According to (Howard, 2001; Lau, 2001) in [15], there are four major stages of e-government development: Information Publishing, Two-way Communication, Transaction, and Integration. While the Stages of e-government development, according to Baum and Maio (2000) in the [16] consist of four stages namely emergence, interaction, transaction, and transformation can be seen in the figure 1.

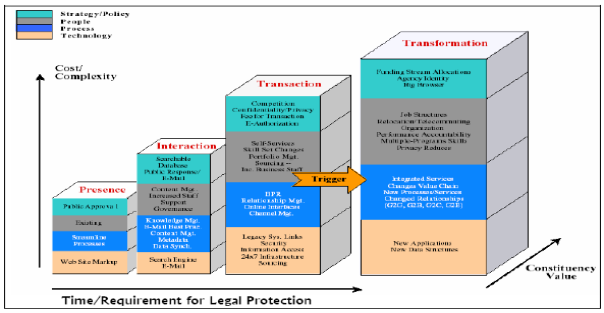

Figure 1: Stages of e-Government Development, Sources: Baum and Maio (2000) in the Saber et al (2006)

Reference [17] described that the term e-government in Indonesia was first introduced in the public service by [18] on Information Technology and Communication known as Telematics. In the said Presidential Instruction, it is defined that the government of Indonesia should use information and communication technology in supporting the implementation of good governance. The development of e-Government is an effort to build structure, system and administration as efficient, effective, transparent and accountable. These efforts need to be supported by human resources who have the ability, good management systems, processes, and control systems. Reference [3] conducted research on e-Government in

Indonesia. According to him, the utilization of ICT has not provided significant impact on improving the efficiency, effectiveness and productivities government. One possible cause is no synchronization between the dominant purposes of the activities of local government with the aim of e-Gov itself [3].

B. Website Evaluation Model

There have been many efforts to study the content of the web, either through human or automatic agents. Website is assessed in terms of four distinct features such as: the available information, service delivery, transparency, or openness and responses of citizens or the government stated by [19]. Various different methodologies have been used, a common one being the selection of web sites directly or indirectly from existing search engines by [20]. According [21], many of existing criteria for Evaluating Such methods require quality website as heuristics evaluations, or / and empirical usability tests.

Reference [12] Stated that although the numbers of the different national e-Government web portals have Increased rapidly in the last three years, the success of these portals will from largely depend on Their accessibility, quality and privacy. Their paper reports the results of an evaluative study of a cross-section of e-Government portals Perspectives from these three, using a common set of performance metrics and web diagnostic engines. The Findings Revealed that the three quality aspects enhanced the Continued use of e-government Web sites, with quality systems Providing the greatest enhancement, Followed by service quality and information stated by [22].

Reference [23] described the two evaluation groups of e-government: (1) input, output, and the impact of e-government and (2) measure the efficiency, quality service, and e-government activity. Sample sizes for the first of which is the number of documents downloaded, the number of pages on the internet sites that are accessible, and public trust in government which is uncovered by the survey. Size for the second group of which is the number of meetings that can be watched online or by communities, response time to information requests, and the cost per transaction over the internet. Reference [23] also mentions the growing size of current evaluations that can be seen from the frequency of use of e-Government, such as the number of users, visitors, or site hits.

C. Search of Information and Website Popularity

Information retrieval is concerned with the processes involved the representation, storage, searching, and finding information relevant to the requirement for information desired by human users stated by [24]. According to [25], the significance of a web page can be viewed from two Perspectives-its relevance to a specific information need, Such as a user query, and its absolute quality irrespective of particular user requirements.

According to [26], users of e-Government include people who need services and information from the government, migrants or immigrants who need the information on their new place, public servants using e-Government in performing their functions, people in overseas who need information on the country. According to [27], the use of the Internet shows positive relationship with the satisfaction level of transparency, and transparency, together with the satisfaction of interactivity is positively associated with public trust in government.

III. PROPOSED WORK

This study applied webmetrics approach on local government websites which analysis on content, reputation and popularity of local government websites, and information richness. Instrument or measurement model in the form of questionnaire was also used to measure web content which includes financial data and non-financial data is adapted from [28]. Webmetrics analysis which include (1) content analysis (content analysis) by the method of benchmarking of the site or references about the ideal features of local government websites, (2) analysis of the popularity of a website which includes traffic analysis based on www.alexa.com and (3) Measuring information richness using the google search engine. The population of study is the website of 33 provinces in Indonesia.

Measurement of the completeness of service features and disclosure of financial information on a website by direct observation of the website of the respective governments. This observation was conducted by a team of researchers and a survey team has the ability in the field of website evaluation. Such measurements using a worksheet that includes stuffing kuisener Completeness of service features provided on the website of the local government that consists of 18 (eighteen) service features that may be applied to local government websites, ranging from standard features such as news and information to more advanced facility services such as e-procurement. The measurements uses dichotomous measurement scale that is Value Exists (value 1) and No Value (value 0). Based on the accumulated scores, each local government websites can be calculated for those parameters index value ranging from 0 (minimum) to 1 (maximum). Index value is calculated by dividing the score of the observation by the highest score. Retrieval of data for each variable on the entire web provinces performed on the same day that the information richness on the 7th and 8th of June 2011, while the information richness and popularity on July 5, 2011

IV. DISCUSSION

A. The development of ICT and E-Government in Indonesia

Reference [29] was first published by the World Economic Forum together with INSEAD in 2001. The report presented

information on the performance and benefits of the use and diffusion of ICT (Information and Communication Technology) on the competitiveness and social welfare. Performance measures and the usefulness of ICT is measured by Networked Readiness Index (NRI). NRI consists of three components of the assessment or sub-index, namely the environment (environment), preparedness (readiness), and use (usage). Each component consists of three pillars of measurement, so a total of nine pillars that are used in measuring how far a country terjejaring (via ICT). The three components show that the measurement framework aims to (1) the extent to which national environment conducive to the development and diffusion of ICT, namely by taking into account the business environment, regulatory aspects, and ICT infrastructure, (2) The extent to which the three main actors, ie individuals, businesses, and the government, ready to use ICT in their daily activities or operations; and (3) The intensity of ICT use in an actual third of the users of ICT.

Indonesia ranks the 67th with NRI score of 3.72, an increase of (better) than the ratings in 2008-2009 that was ranked 83rd with a score of 3.62 NRI. In the environment of ASEAN, Indonesia is only superior to the Philippines, Cambodia, and Timor Leste, but must be willing to exist under Singapore, Malaysia, Thailand, Vietnam, and Brunei. The government of Indonesia is relatively ready in utilizing ICT, but is actually not adequate on the level of implementation. These conditions can be seen from the pillar government readiness is ranked 64th, but the pillars of government usage still occupies the 86th position. Perhaps these conditions illustrate that the application or implementation of ICT in support of the function and role of government in providing public services was still alarming. This can be seen from, for example, indicators of Government Online Service Index which ranks 94th of 133 countries.

According to the UN, e-Government is the use of ICT and its application by government to provide information and public services to the community. The goal of e-Government is to provide an efficient management of government information to all citizens, the provision of services to better society, and empower people through access to information and participation in public decision-making stated by [10]. One measure of the successful application of information technology in government sector is the e-Government Readiness Index (EGRI) which is periodically published by the United Nations. EGRI using three groups of parameters which are Web Measure Index, Telecommunication Infrastructure Index and Human Capital Index. The first component based on the results of the assessment by experts appointed by the agency must survey of a number of the official website of the government of a country, including the official website of the government, the president, ministries, etc. The second component uses six indicators, namely PCs/1000 persons; Internet users/1000 persons; Telephone lines/1000 persons; On-line population; Mobile phones/1000 persons; and TVs/1000 persons. Several indicators of data sources can be accessed on the website "International Telecommunication Union". The last component using the Adult Literacy Index and the Gross Enrolment Index.

Indonesia ranks the 109th position out of 192 countries or a drop if compared with the rank in 2008 at position 106. In the ASEAN environment, Indonesia dropped to the seventh position after Singapore, Malaysia, Brunei, Thailand, the Philippines, and Vietnam. EGRI index values and world rankings in 2008 and 2010 for ASEAN members can be seen in the table 1.

TABLE 1: 2008 AND 2010 FOR ASEAN MEMBERS

Num	Country	Index Value		World Rank	
		2010	2008	2010	2008
1.	Singapore	0.7476	0.7009	11	23
2.	Malaysia	0.6101	0.6063	32	34
3.	Brunei	0.4796	0.4667	68	87
4.	Thailand	0.4653	0.5031	76	64
5.	Philippines	0.4637	0.5001	78	66
6.	Vietnam	0.4454	0.4558	90	91
7.	Indonesia	0.4026	0.4107	109	106
8.	Cambodia	0.2678	0.2989	140	139
9.	Myanmar	0.2818	0.2922	141	144
10	Laos	0.2637	0.2383	151	156
11.	Timor Leste	0.2273	0.2462	162	155
Rata-rata Indeks ASEAN		0.4250	0.4290		

B. Province Website Evaluation

All provinces in Indonesia already have websites. Most provinces have complied with standard domain or URL name in accordance with the provisions of the Minister of Communications and Information Technology Government of Indonesia is Ministerial Decree number 18 year 2005 on Code and Data Administration Area stated ini [30]. There were seven of 33 provinces which follow the standard naming of these domains, one of which is Colorado. Especially for this Jajarta DKI, the website also overshadows the local government level down to a sub domain of the provincial website. One is set in the decision letter is systematic naming the provincial website, which must end with "prov" behind the abbreviation of the province.

Features most widely available service in local government websites are News, Profile and Promotion, while the fewest features is the Discussion Forum, Site Map and FAQ. These conditions showed that the website provinces in Indonesia are still in the direction to the delivery of information or not providing opportunities for interaction between visitors with the government. The results of evaluation on service features with 18 attributes of service can be seen in Figure 2.

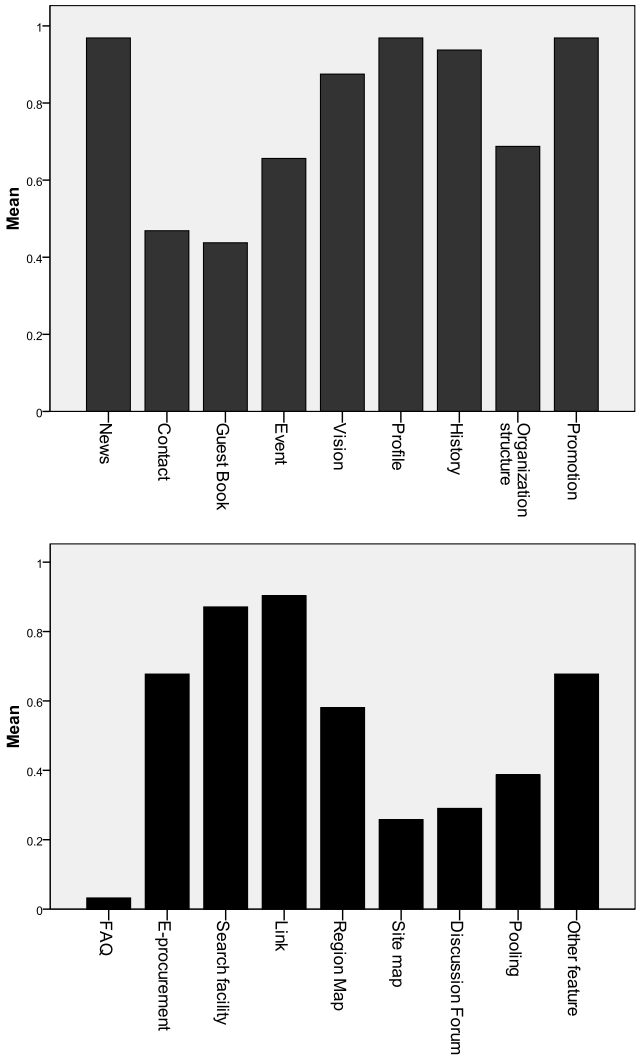

Figure 2: results of evaluation on service features with 18 attributes

Overview of the provincial distribution based on traffic index, size index, and index features can be seen in figure 3 scatter diagram below.

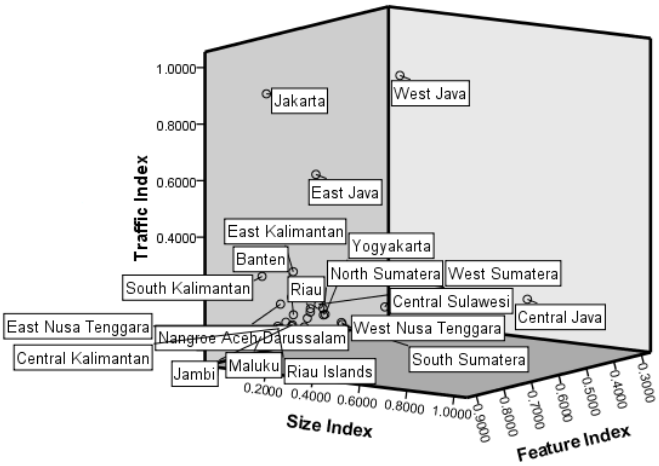

Figure 3: scatter diagram

The province with the greatest information content, or the index value 1 is the Central Java Province, while the lowest is Bengkulu Province. As for the traffic index, west java province shows the highest traffic of the website is ranked in 1201 in Indonesia. Five provinces are not recorded in the Alexa ranking of Bengkulu, Southeast Sulawesi, West Sulawesi, North Maluku and West Papua. Provinces that show features the most complete website is Jakarta and Southeast Sulawesi. Both the province has 15 of the 16 standard features. While the Web site features the lowest province is Central Sulawesi, which has only 6 of 16 features that were evaluated. Gorontalo province, could not be evaluated because at the time of data collection, the website was inaccessible. Based on simple linear regression analysis, there was no apparent relationship between the traffic with a information richness and number of features. This indicates that the traffic does not depend on information richness and number of web features. These findings there are a relationship between web usability and popularity of the widely studied among others by [31]. So it can be concluded that the amount of information and the number of service features that many have not been able to increase the popularity of the website provinces in Indonesia. Provinces other than Java are always better seen from the information richness, traffic rank, and number of features as can be seen in Figure 4, 5 and 6.

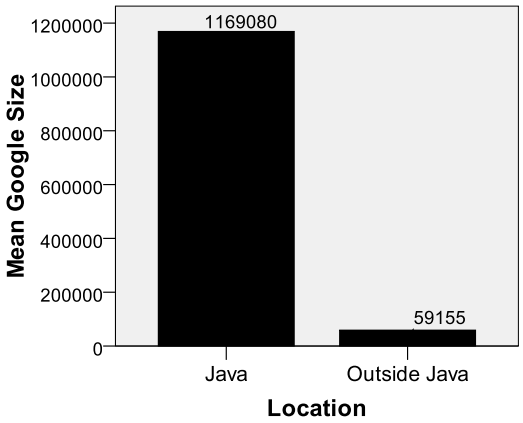

Figure 4: Size Differences Java and Outside Java

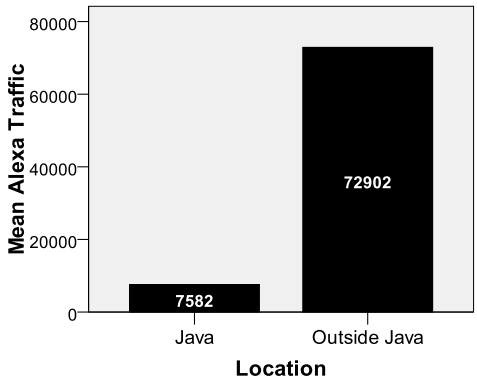

Figure 5: Traffic Differences Java and Outside Java

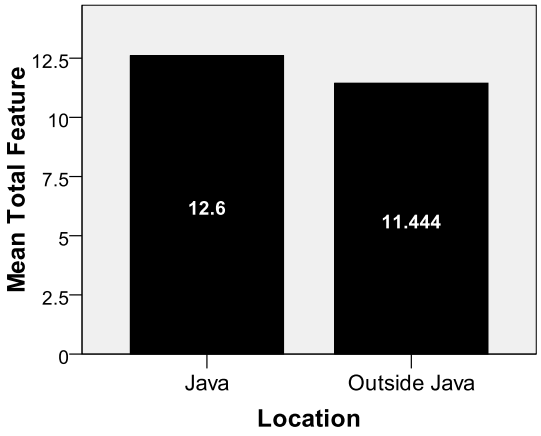

Figure 6. Feature Differences Java and Outside Java

The results of statistical analysis showed that there were differences in the information richness and real traffic rank among the provinces outside Java with Java. According to [4], the more the number of webpage, the higher the amount of information is uploaded to the website of the local government. Viewed from the local government level, the number of web pages (document richness) which is the province with the highest average of 1195.78, Followed by the city of 1044.23, the last district is 139.97. When compared to the results of previous studies, these results suggest that in general there is an increasing amount of information, diversity of features, and popularity compared to the position a year earlier. However, the digital gap between Java and outside Java is still significant relative to the information richness and popularity of the web. The development of information richness and diversity of features between the data in 2011 and 2010 data analyzed by [5] (2010) demonstrated that the province of West Java, the highest for the size and Nort Sulawesi province to the diversity of features. Ranking the top five for the size growth of information and diversity of features can be seen in the tables 2 and 3.

TABLE 2. TOP FIVE FOR SIZE GROWTH

No.	Province	Size Growth (%)
1	West Nusa Tenggara	0.0085
2	Lampung	0.0027
3	Riau Islands	0.0003
4	West Java	0.0001
5	Nangroe Aceh Darussalam	0.0001

TABLE 3. TOP FIVE FOR FEATURE GROWTH

No	Province	Feature Growth (%)
1	Southeast Sulawesi	114.29
2	South Sulawesi	175
3	West Papua	57.14
4	Bangka Belitung	33.33
5	Nangroe Aceh Darussalam	30

This indicates digital gap among the provinces in and outside Java. The gap can be caused by differences in the quality and availability of telecommunications infrastructure and Human Resources. According [2], beyond the commitment to e-Government, the government of Indonesia still faces a number of challenges that could hamper the implementation of e-Government, among them are (1) and the insufficiency and high capacity telecommunications infrastructure, (2) Problems continued funding of various initiatives on e-government, (3) Lack of coordination and integration, and (4) The process of finalizing a lot of various laws and regulations regarding e-Commerce and e-government.

One of the demands or needs of the community or the citizens is the need for information and quality public services from local government. The need of information and services can be provided by local governments through the facilities of the website. Requirements to be met within the website include speed, accuracy, and the value or benefit from the information available on the website. One measure of a website or parameter to be studied more in depth is the relevancy of the content of government Web pages. According to [32], e-Government initially began as process where government entities developed websites and began populating these sites with information. Political support is a key and fairly robust determinant of municipal e-Government adoption as well.

V. CONCLUSION

The need of information and services can be provided by local governments through the facilities of the website. But the website popularity does not depend on information richness and number of web features. The amount of information and the number of service features have not been able to increase the popularity of the provinces website in Indonesia. The digital divide between Java and outside Java is still significant relative to the information richness and popularity of the web. The findings are consistent with previous research that has been done by [4] and [5].

REFERENCES

[1]. President of the Republic of Indonesia, 2001, "Development and Utilization of Telematic in Indonesia", Presidential Instruction Number 6, http://prokum.esdm.go.id/inpres/2001/Inpres_6_2001.pdf

[2]. Harijadi and Satriya, 2000,"Indonesia's Roadmap to e-Government: Opportunities and Challenges"

Paper presented at APEC High-Level Symposium on e-Government, Seoul, Korea, July 2-5, 2000,

http://www.unapcict.org/ecohub/resources/indonesias-road-map-to-e-goverment-opportunities-and-challenges

[3] Hasibuan, Zainal A., 2007, "Strategic and Tactical Steps of E-Government Development for Local Government", Information System Journal of Post-Graduate Program of Information Technology of University of Indonesia, Vol. 3, NO. 1, hal 66-70. Depok.

[4] Hermana, Budi and W. Silfianti, 2011, "Evaluating E-government Implementation by Local Government:

Digital Divide in Internet Based Public Services in Indonesia", International Journal of Business and Social Science, Vol. 2 No. 3 [Special Issue - January 2011]

[5] Silfianti, W., A. Suhendra, and S. Harmanto., 2010, "Performance Evaluation of Indonesian Local Government Website : Analysis of Web Content, Traffic and Webmetric", Second Annual Conference on GMConference 2010, Globalization, Sustainability and Development

[6] World Bank Group, 2007, "e-Government".

[7] Cook, M, 2004, "What Citizens Want From e-Government"., CTG E-Government Publications. "http://www.ctg.albany.edu/publications/what_citizens_want.htm" (accessed March, 27, 2010)

[8] Ndou, Valentine, 2004, "E-Government for Developing Countries: Opportunities and Challenges", The Electronic Journal of Information Systems in Developing Countries, Vol 18 (2004)The Electronic Journal of Information Systems in Developing Countries. ISSN: 1681-4835 www.ejisdc.org

[9] UN-EGovernment Survey, 2008, "From E-government to connected E Governance", http://unpan1.un.org/intradoc/groups/public/documents/UN/UNPAN028607.pdf , ISBN 978-92-1-123174-8

[10] Curtin G. Gregory, 2006, "E-Government", http://www.usc.edu/schools/sppd/bedrosian/private/docs/encyclopedia_of_political_communications.pdf

[11] Efthimios Tambouris, Konstantinos A. Tarabanis, 2004," An Overview of DC-Based e-Government Metadata Standards and Initiatives", Third International Conference, EGOV 2004, Zaragoza, Spain, August 30 - September 3, 2004, Proceedings, page 40-47

[12] Choudrie, Ghinea and Weerakkody, 2004, "Evaluating Global e-Government Sites: A View using Web Diagnostic Tools" , Electronic Journal of e-Governement, ISSN 1479-439X.

[13] Kumar, A., 2003, "E-government and Efficiency, Acountability and Transparency". The Electronic Journal on

Information System in Developing Countries Vol.12, No. 2, pp. 1-5.

[14] Haldenwang, C. v. (2004), "Electronic Government (EGovernment) and Development", The European Journal of Development Research, 16 (2), pp. 417-432.

[15] Alsaghier, H, Ford, M, Nguyen, A, and Hexel, R., 2009, "Conceptualising Citizen's Trust in e-Government: Application of Q Methodology", ISSN 1479-439X 295, Academic Conferences Ltd Electronic Journal of e-Government Volume 7 Issue 4, (pp295 310)

[16] As_Saber, Srivastava & Hossain, 2006, "Information technology law and e-government: A developing country perspective", JOAAG, Vol. 1. No. 1

[17] Salahuddin, M., and A. Rusli. 2005. "Information Systems Planning For E-government In Indonesia". The Second International Conference on Innovations in Information Technology (IIT'05)

[18] President of the Republic of Indonesia, 2003, National Policy and Strategy for Development of e-Government, Presidential Instruction No.3 Year 2003, http://www.deptan.go.id/bdd/admin/i_presiden/Inpres-03-03.pdf.

[19] Lollar, X. L., 2006,"Assessing China's e-government:information, service, transparency and citizen outreach of government websites", Journal of Contemporary China 15(46), 31–41

[20] Thelwall, M, 2002, "Research dissemination and invocation on the Web", Online Information Review, 26(6), 413-420.

[21] Signore, Oreste, 2005, "Towards a quality model for web sites", CMG Poland Annual Conference – Warsaw 9-10 May, 2005

[22] Wangpipatwong, S., Chutimaskul, W. and Papasraton, B., 2008,"Understanding citizen's continuance intention to use e-government website: a composite view of technology acceptance model and computer self-efficacy", The electronic journal of e-government, Vol.6, No.1, 2008, pp55-64

[23] Stowers, G.N.L., 2004. "Measuring the Performance of E-Government", IBM Center for The Business Government

[24] Ingwersen, P, 2002, "Information Retrieval Interaction", Royal School of Library Information School, Departement of Information Studies, Denmark

[25] Dhyani, Devanshu, NG., Keong, Wee, dan Bhowmick Sourav, W., 2002, "A Survey of Web Metrics", ACM Computing Surveys, Vol., 34, No. 4 pp 469-503.

[26] Bertot, J.C, P.T Jaeger, and C.R McClure, 2008, "Citizen-centered E-government Services: Benefits, Costs, and Research Needs", The Proceedings of the 9th Annual International Digital Government Research conference: 137-142. Montreal,Canada, May 18-21.

[27] Welch, E.W., C.C Hinnant, 2003, " Internet use, Transparency and Interactivity Effects on Trust in Government", Proceeding of the 36th International Conference on Systems Sciences.

[28] Hanafi, S.R., M.A Kasim, and M.K. Ibrahim, 2009, "Business Reporting on the Internet: Development of the Disclosure Quality Index". International Journal of Business and Economics, Vol. 8,No. 1 pp. 55-79.

[29] Dutta, Sumita and Irene Mia, 2010, "Global InformationTechnology Report ICT for sustainability", http://www3.weforum.org/docs/WEF_GITR_Report_2010.pdf

[30] Minister of Home Affairs, 2005, Government Administration Code and Data, Ministerial Regulation of Home Affairs No. 18, http://www.depdagri.go.id.

[31] Withrow, J., Brinck, T., and Speredelozzi, 2000, A. Comparative Usability Evaluation for an e-Government Portal, Diamond Bullet Design Report #U1-00-2, Ann Arbor, MI.

[32] Schwester, Richard, 2009, "Examining the Barriers to e-government Adoption", Electronic Journal of egovernment Volume 7 Issue 1 (113-122).

AUTHORS PROFILE

Widya Silfianti is a lecturer from departement information System faculty of computer science in Gunadarma Universtiy. She received his DR of Information Technology from Gunadarma University. Application of information systems in government is one of her interest research.

Ruddy J. Suhatril is a researcher in Gunadarma University. Information System is one of his interest, expecially about internet penetration in government organization. He received his MSc in Computer Vision from Erasmus Mundus Master.