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ON SERVICE DELIVERY IN SARAWAK LOCAL AUTHORITIES

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Abstract

Local authority is responsible in providing service delivery to the people in their jurisdiction area. This paper discusses on Information Communication and Technology (ICT) in service delivery performed by local authorities in Sarawak. Most of the local authorities are determined to fulfil the public needs in order to achieve the maximum satisfaction from the public. Numerous awards in different categories are given by the government or private agency to the local authorities if they are excellent in carrying out their task. This acknowledgement helps to build a strong reputation of the local authority itself. In order to attain such achievement, they need to be more diligent and tolerant in delivering services to the public. Dealing with the public satisfaction is not a straightforward affair. Local authority also has been known as bureaucratic and this need to be overcome so that the organization will be able to compete in this fast-changing world. The government has use ICT to improve the public service delivery which is a new way to deliver services to communicate with people at anytime and anywhere. Sarawak Information System Sdn Bhd (SAINS) have been set up by Sarawak Government as pioneer in the ICT in Sarawak. Hence, service delivery in local authority need to be improved so that they will not be left behind compared to the state and federal government.

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1. Introduction

Nowadays, how people work, communicate, learn and live has drastically changed by the use of Information Communication and Technology (ICT). A study conducted by Niebel, Kopp, and Beerfeltz (2013) revealed that all technical equipment and facilities that convert, process, save and transfer various types of information in digital form known as ICT. For example, voice telephone, data communications and computer, radio, television and similar technologies. Moreover, revolutionize of ICT continues where all the parts of human experience such as many of the tasks can be easily handled and the people and organizations such as business, non-profit agencies, governments and criminal enterprises can interact in the digital world. Our capabilities to gather, process, and share information has dramatically increased with the arrival of new information and communication technologies (ICTS), in particular the Internet (Jaslin, Sappar, & Dahlan, 2006).

In order to deliver a better public service to the citizens, the governments nowadays are going-on line and using the internet so that they can offer twenty-four hour service, to meet the needs and demands of the citizens. According to Yildiz (2007), each of the public administrators have been provided with a personal information technology system during the diffusion of personal computers in the 1980s, and thus opened a new period of IT use in government. At this point, technology management began to be decentralized in government agencies. Then, it started to realize that IT issues should be included in the core functions of government. The introduction of Multimedia Super Corridor (MSC) and Cyber City is the initiatives done by the government to improve the delivery of the public service in Malaysia into technology country. It is important to improve the administration of public service delivery so that the effectiveness and efficiency of the government as a whole can also be develop. As a result, the public can receive the good service from the government in term of social, education, economic, health and etc.

In order to deliver better services to the public, the local authorities have to always updated and adapting with the new methods of service delivery that are better suited to today's technologies, norms and citizen needs. According to Nwabueze and Osioko (2007), the development of ICT for service delivery can be said as an aid to the socio-economic development because there is a strong link between Information Technologies and the length of socio-economic development in a country. This study aims to examine and review the use of ICT on service delivery literature in Sarawak Local Authorities. The use of ICT on service delivery is an important subject, for it reflects or implies the efficiency at which the local authorities provide the citizen with quality services to fulfil the diverse needs and expectations of the citizenry.

2. Problem Statement

Over the years, the local authorities have been soundly criticized for poor services. The performance of service delivery by local authorities need to be evaluate because, government are often categorized as being slow, bureaucratic and rarely innovative when there are lack of transparency obstructs governmental effectiveness and opportunities for corrupt are numerously created and unaccountable practices remained as some of the main issues in Malaysia (Osman, Bachok, Bakri, & Harun, 2014). This point also been supported by Abdullah (2006), where Local Authorities are apparently

bureaucratic, inefficient, wasteful, unresponsive and not citizen-friendly. Bureaucratic barrier of service delivery in local authority has been controversial because it makes organization uncompetitive in this fast changing world. This initial perception fails to take into account that the government has improve public service delivery by the use of ICT in service delivery to all public agencies, including local authorities.

Local authorities are recognized by the government as a vital entity in providing services to the citizens so, online services needs to be improved especially in the local government levels so that they will not left behind in delivering their public service to the local citizens. It is a new ways to distributes services and interact with the citizens without time and space restrictions. They pay more attention to the users of the services than before. The Sarawak Government also does not want to be left behind in the race for providing online services to their citizens. According to Syahrul and Nadianatra (2014), in 2006, 100% of all 26 local authorities have been ordered by the state authorities to provide their services online. According to Beaumaster (1999, 2002), the reality of the implementation in the public sector, is a slippery slope, especially at the local government level. This showed that the technologies of the Malaysian local governments are rapidly changing.

However, Rugayah, Rosmimah, and Adnan (2006), stated that the education and depth of expertise of the local government administrators and employees with regard to ICT have had not the same as those in the private sector or federal governments department such as the Malaysian Administrative Modernization and Planning Unit (MAMPU). Besides that, there also lack of the resources for training and development necessary to deal with current and future technologies in the district offices, local councils or municipalities (Muhammad Rais, 2003; Muhammad Rais & Nazariah Mohd, 2003). Unfortunately, as technologies constantly change and evolve around, the local authorities are unable to react proactively.

With that in mind, it can be said that the local government obviously have its problems with regard to ICT implementation. According to Minister of International Trade and e-Commerce (MITeC) and Second Minister of Finance Dato Sri Wong Soon Koh in an Interview with BizHive Weekly (2017, July 16) said, Sarawak is quite far behind and not made greater use of the digital devices where goods and services are still handling in the traditional way. Thus, it is therefore timely to examine and review the use of ICT on service delivery literature especially in Sarawak Local Authorities. Since every aspect of our daily lives is subject to technological innovations, citizens needs to know or at least to be aware of the basic knowledge related to the ICT applications used by the local authorities in their local area so that it can facilitate them in receiving the services from the local authorities. This also can help the government especially the local level to ensure that these services are delivered perfectly and efficiently in the future.

3. Research Questions

For the purpose of this study, I have come out with one research question which is “What are the ICT services used by the local authorities in Sarawak to deliver their services to the local residents?”

4. Purpose of the Study

The purpose of this study is to identify the ICT services used by the Local Authorities in Sarawak to deliver their services to the local residents.

5. Research Methods

The study was conducted in a local authorities located in Sarawak. These local authorities involved all 26 of local authorities in Sarawak which is 1 City Hall, 2 city councils, 3 municipal councils, 19 district councils and 1 special council. Related scholarly works, books and journal articles on ICT and service delivery in local authorities were analysed for additional insight.

6. Findings

6.1. ICT use in malaysia

The Malaysian government started to transform its administration from industrial base to knowledge and information technology by introducing the Malaysian Super Corridor (MSC) to achieve the objectives of Vision 2020 and to be modern state by 2020. The Prime Minister Mahathir Mohamad was officially launched Multimedia Super Corridor (MSC) on 12 February 1996 with RM2.3 billion was invested for this project. As a result, the numbers of people using internet was increased from 1.7 million in 1996 to 13.7 million in 2012 it is when the government implementing many programs to reduce ICT illiterate such as “One Home One PC” (The Economic Planning Unit Prime Minister’s Department Putrajaya, 2006). The government wish to reduce the digital gap among the people who live in the cities and the rural or remote areas in terms of ICT services. It gives great opportunity for everyone to benefit from this technology. After the launching of Multimedia Super Corridor (MSC), E-Government project was formulated in 1997 to transform public sector service delivery by using IT and multimedia.

Electronic Government means the government delivered and provide their public service through electronically Via Internet. Nywenya (2013) point out that E-Government helps to improve better public services to the people and business using ICT. Reding (2006) argue that E-Government can benefit the people where they can easily and quickly interact with the government at a lower cost. This can be supported by Ngwenya, Lubbe, and Klopper (2010), even though ICT is already used in the government, E-Government is better than just a tool. The administration and operation of the government is better with the implementation of E-Government where it is more efficient and effective because the public can easily access, transparent and accountable for the people. In placing more emphasis, Muir and Oppenheim (2002) claimed that E-Government is where the government organization delivered their services through the use of internet and digital means. This claim can also be supported by similar research done by Accenture (2004), stated that, the operations of organization can be improved when they are willing to change and transform the way they manage their information.

The administration of the government can be re-invented in terms of its quality services, system and their connection between all parties by the implementation of multimedia technologies in Electronic Government. According to Maniam, Murali, and Magiswary (2009), E-Government also can improve the internal operation and it delivery service. This can be supported by Abdullah, Mansor, and Hamzah

(2013) and Siddiquee (2008) where indicate that since the implementation of E-Government, online services have also improved. However, these claims can be contended by Ramli (2017) who indicated that the implementation of E-Government is still not enough and limited. As a result, Malaysian government is still left behind compared to other developed countries in Asia such as Singapore, Japan and South Korea.

E-Government Steering Committee (EGSC) is an organization that responsible in policy direction, programme and activities of E-Government with MAMPU acts as the Secretariat to the EGSC. MAMPU was set up to reforms and upgrade the quality, efficiency and effectiveness of the administrative in the public sector (Maniam et al., 2009). MAMPU also acts as advisor and consultant for management and ICT development of the government organization.

6.2. ICT use in sarawak state government

Sarawak government has long recognized and implement ICT when ICT Unit was established under the Chief Minister's Department to implement ICT in the State Public Service. The utilization of ICT in the State Public Service managed by the State Secretary to setting ICT policies and directions plan for ICT programs. The ICT Unit is responsible to assist the State Secretary to manage public service web pages, the development of ICT and digital content and ICT programs in the State Public Service.

The ICT Unit is divided into three sections which are Planning Section to plan and implement on the development of ICT plans, projects and budget, while State Geo-Spatial Centre section to implement of geographical information system (GIS) and remote sensing programs for the State Public Service, and lastly, Electronic Government (EG) Section is to administer Sarawak GovNet, State Government Internet user accounts and Sarawak Government web sites. The operations of ICT in Sarawak were manage by Sarawak Information Systems Sdn. Bhd. (SAINS) which is a private company fully owned by the Sarawak State Government. It is responsible to organizing events and exhibitions on ICT and conduct ICT training programs for the people to aware on the use of ICT in Sarawak. SAINS also provide technological solutions, software development, systems engineering and multimedia content development, and act as consultant to other government agencies.

6.3. Local authorities in malaysia

Local government is the third level of Malaysian Government after the state and federal government level governed under the Local Government Act 1976 while, the local authorities in Sabah and Sarawak were respectively established under the Local Government Ordinance 1961 and Local Authority Ordinance 1996. The Ministry of Housing and Local Government is responsible to coordinate and standardized the administration of local government. Local government can be divided into four types which are City Council, Municipal Council, District Council and Special and modified local council which total of 154 consists of 15 city councils, 39 municipal councils, 94 district councils, and 5 modified local councils. This study will only limited to Sarawak local authorities where consists of 1 city hall, 2 city councils, 3 Municipal Councils, 19 district councils and 1 special council.

Local authority is important and closest platform for the people to interact with the government. According to Ahmad, Mansor, and Ahmad (2003), the use of ICT in service delivery is one of the

alternatives done by the government to transform the administration and system of the government. Local government is responsible of the needs and demands of the people that live in their jurisdiction area. This can be supported by Yaakup, Johar, and Dahlan (1994), state that the major functions of local authorities can be seen in four aspects which are environmental, public, social and developmental. However, these claims can be contended by Cathy (2008), who indicated that issues on efficient allocation of resources by local governments is still been criticized and need to be address. This is why it is important to evaluate and measure the performance of local government because the people will only concerned on the quality of service and the people satisfaction level will be used to measure the performance of local authority. The local government have to always able to fulfil all the customer needs and demands to maintain the customer satisfaction towards their service so that high performance of local authority can be achieved.

6.4. ICT services performed by local authorities in Sarawak

Table 01. Comparison of ICT services in Local Authorities’ websites in Sarawak

No	Local Authorities	Website Address	ICT Services							
			Application form	E-submission	E-services	E-booking	Talikhidmat	Contact us	Paybills	Mobile SMS
1	Kuching North City Hall	https://dbku.sarawak.gov.my/modules/web/index.php	/	/	/	/	/	/	/	/
2	Council of the City of Kuching South	https://mbks.sarawak.gov.my/modules/web/index.php	/			/	/	/		/
3	Miri City Council	https://miricouncil.gov.my/	/			/	/	/		/
4	Sibu Municipal Council	https://smc.gov.my/	/			/	/	/	/	/
5	Padawan Municipal Council	https://mpp.sarawak.gov.my/	/			/	/	/	/	/
6	Samarahan Municipal Council	https://mpks.sarawak.gov.my/	/			/	/	/	/	/
7	Lawas District Council	https://lawasdc.sarawak.gov.my/	/			/	/	/		/
8	Limbang District Council	https://limbangdc.sarawak.gov.my/	/			/	/	/		/
9	Marudi District Council	https://marudidc.sarawak.gov.my/	/			/	/	/		/
10	Subis District Council	https://mdsubis.sarawak.gov.my/	/			/	/	/		/
11	Kanowit District Council	https://kanowitdc.sarawak.gov.my/	/			/	/	/		/

12	Kapit District Council	https://kapitdc.sarawak.gov.my/	/			/	/	/	/		/
13	Maradong and Julau District Council	https://maradong-julaudc.sarawak.gov.my/	/			/	/	/			/
14	Matu-Daro District Council	https://matu-darodc.sarawak.gov.my/	/			/	/	/			/
15	Mukah and Dalat District Council	https://mukah-dalatdc.sarawak.gov.my/	/			/	/	/			/
16	Saratok District Council	https://saratokdc.sarawak.gov.my/	/			/	/	/			/
17	Sarikei District Council	https://sarikeidc.sarawak.gov.my/	/			/	/	/			/
18	Sibu Rural District Council	http://www.srdc.gov.my/	/			/	/	/	/	/	/
19	Bau District Council	https://baudc.sarawak.gov.my/	/			/	/	/			/
20	Betong District Council	https://betongdc.sarawak.gov.my/	/			/	/				/
21	Lubok Antu District Council	https://lubokantudc.sarawak.gov.my/	/			/	/	/	/		/
22	Lundu District Council	https://lundudc.sarawak.gov.my/	/			/	/	/	/		/
23	Serian District Council	https://seriandc.sarawak.gov.my/	/			/	/	/			/
24	Simunjan District Council	https://simunjandc.sarawak.gov.my/	/			/	/	/	/		/
25	Sri Aman District Council	https://sriamandc.sarawak.gov.my/	/			/	/	/	/		/
26	Bintulu Development Authority	https://bda.gov.my/	/			/	/	/	/	/	/

Table 1 presents the ICT services in local authorities' website in Sarawak in terms of application form, e-submission, e-serviceku, e-booking, *talikhidmat*, contact us, paybills Malaysia, Mobile SMS and online transaction statistics. Application form can be downloaded by the local residents in the local authorities' website such as application form for sign board, entertainment application form and customer complaint form. From the table 1 above, all 26 local authorities in Sarawak have application forms in their website. Service applications related to local council authority can be submitted online through e-submission portal. It is provided by local council authority to public via internet and designed as the single gateway or one-stop online service and capable to all registered users to track status of the online e-submissions where it can save their money and time. However, based in the table above, only Kuching North City Hall is available with e-submission in their websites.

Meanwhile, only E-serviceku in Kuching North City Hall is available with the portal out of other 26 local authorities in Sarawak. This is where the local residents in the Kuching North City Hall area can

pay for their bill payment, pay parking summons and book any of Kuching North City Hall's public facilities and services. While, E-booking is Sarawak State Government online facilities booking system developed under the Electronic Government initiative and it is made available to the public. It helps the public to search, view the calendar of facilities availability such as auditorium, field, and public hall, makes booking and payment online through e-booking. As we can see in the table, not all local authorities in Sarawak is available with e-booking and only 9 out of 26 local authorities are available with this e-booking in their websites.

Talikhidmat is a communication channel for the public to reach government agencies or non-government organisations in the state of Sarawak concerning public services and connect them with an accurate service provider section to handle the reports. The table shows that all the local authorities in Sarawak are using this *talikhidmat* to help them in delivering their services to their local residents. Contact Us is the information provided by the local authorities in their website which include their addresses, telephone number, fax number, their office hour operation, and their email to aid their local residents to keep in touch with them. All the local authorities in Sarawak provided Contact Us in their websites.

Another ICT services in the local authorities website is PayBills Malaysia. At PayBills Malaysia, the people can pay for their monthly bills in the comfort and convenience of their own home, or anywhere else where the payment can be done 24 hours 7 days a week and the bills also can be pay through their bank account. The local authorities in Sarawak are available with PayBills Malaysia in their websites except for Betong District Council. Mobile SMS is an initiative done by the Malaysian Government to enable public to an easy, concise and instant interaction with various government agencies via a unique short code of 15888. The use of mobile SMS in Sarawak local authority is not fully implemented where only 5 out of 26 local authorities are using this mobile SMS. Lastly, online transactions statistics is a statistics of online transactions such as number of facilities booked, number of cases logged, and number of payment by month and year which is available in all local authorities website.

7. Conclusion

The role of ICT in delivery the service to the people is to enhance the efficiency, effectiveness, accessibility and democratic accountability of public administration. This new and more efficient channel can enhance interconnectivity and coordination across government departments to delivered service and consultation to the public. The internet is becoming increasingly important in the communication between local governments and citizens. It is also an important instrument in order to reduce poverty, driving social and economic development and supporting democracy and good governance, education and health care (Niebel, Kopp, & Beerfeltz, 2013). In order to deliver better services to the public, the local authorities have to always updated and adapting with the new methods of service delivery that are better suited to today's technologies, norms and citizen needs. Therefore, it is easier for the government to fulfil the needs of the citizens and make them satisfied and when the government has the ability to understand their diverse needs and requirements.

References

- Abdullah, H. S. (2006). Service Delivery By Local Authorities: Issues and Challenges, From Customer Satisfaction to Citizen Satisfaction. In *Rethinking Local Government Service Delivery* (pp. 113-119). Selangor, Malaysia: Universiti Teknologi Mara.
- Abdullah, N. R. W., Mansor, N. B., & Hamzah, A. (2013). Keeping Ahead of the Game: Innovations and Challenges in E-government in Malaysia. *The Economic and Labour Relations Review*, 24(4), 549-567.
- Accenture (2004). The government executive series - E-government leadership: High performance, maximum value. Retrieved from http://www.accenture.com/Global/Research_and_Insights/By_Industry/Government/HighValue.htm
- Ahmad, A. S., Mansor, N., & Ahmad, A. K. (2003). The Malaysian Bureaucracy. Selangor: Prentice Hall
- Beaumaster, S. (1999). *IT implementation issues in local government: An analysis* (Unpublished doctoral dissertation). Blacksburg, VA.
- Beaumaster, S. (2002). Local government IT implementation issues: A challenge for public administration. In *Proceedings of the 35th Hawaii International Conference on System Sciences (HICSS-35'02)*. Hawaii.
- Cathy, G. (2008). *Transforming Government Service Delivery: New service policies for citizen-centered government*. IBM Social Segment. US: IBM Corporation. Retrieved from <http://170.225.15.112/common/ssi/sa/wh/n/gvw03002usen/GVW03002USEN.PDF>
- Jaslin, M. D., Sappar, F., & Dahlan, N. (2006). Service Delivery By Local Authorities: Issues and Challenges. In *Are Our "Majlis Daerah" E-Enabled? Comparison of Web Sites* (pp. 39-50). Selangor, Malaysia: Universiti Teknologi Mara.
- Maniam, K., Murali, R., & Magiswary, D. (2009). E-procurement Adoption in the Malaysian Public Sector: Organizational Perspectives. Retrieved September, 2009, from https://www.researchgate.net/profile/Maniam_Kaliannan/publication/221142093_E-Procurement_Adoption_in_the_Malaysian_Public_Sector_Organizational_Perspectives/links/0fcfd51144f3b876c6000000/E-Procurement-Adoption-in-the-Malaysian-Public-Sector-Organizational-Perspectives.pdf?origin=publication_detail
- Muhammad Rais, A. K., & Nazariah Mohd, K. (2003). *E-Government in Malaysia: Improving Responsiveness and Capacity to Serve*. Selangor, Malaysia: MAMPU and Pelanduk Publications.
- Muhammad Rais, A. K. (2003). Technology and Improved Service Delivery: Learning Points from the Malaysian Experience. In *International Review of Administrative Sciences: Creating Self-Confident Government*. London: Sage.
- Muir, A., & Oppenheim, C. (2002) "National Information Policy developments worldwide in electronic government". *Journal of Information Science*, 28(3), 173-186.
- Ngwenya, B., Lubbe, S., & Klopper, R. (2010, October). Institutionalization, framing and diffusion: The logic of openness in e-government and implementation decisions (a lesson for developing countries). In *the 6th International Conference on e-Government*. Cape Peninsula University of Technology, South Africa.
- Niebel, D., Kopp, G., & Beerfeltz, H.-J. (2013). *Information and Communications Technology*. Berlin: Federal Ministry of Economic Cooperation and Development.
- Nwabueze, S., & Osioko, R. E. (2007). *Information and communication technology (ICT) for sustainable development in Nigeria*. Awka: Heritage Publications.
- Nywenya, B. (2013). Decision Support Systems: An E-Government Strategy to Enhance Human Resources Output in Public Sector Organisations. Retrieved from https://www.academia.edu/20270633/Decision_Support_Systems_An_E-Government_Strategy_to_Enhance_Human_Resources_Output_in_Public_Sector_Organisation
- Osman, M. M., Bachok, S., Bakri, N. I. M., & Harun, N. Z. (2014). Government Delivery System: Effectiveness of local authorities in Perak, Malaysia. Retrieved January 4-5, 2014, from https://www.researchgate.net/publication/272420225_

- Ramli, R. M. (2017). *E-Government Implementation Challenges in Malaysia and South Korea: A Comparative Study*. Retrieved from <https://onlinelibrary.wiley.com/doi/pdf/10.1002/j.1681-4835.2017.tb00591.x>
- Reding (2006). eGovernment in Europe 2006, eGovernment Action Plan. Retrieved on 07 April 2010 from ec.europa.eu/information-society/activities/egovernment/index_en.htm
- Rugayah, H. H., Rosmimah, M. R., & Adnan, J. (2006). Service Delivery by Local Authorities: Issues and Challenges. In *ICT Implementation Issues at Local Government: An Emergent Conceptual Framework* (pp. 127-137). Selangor, Malaysia: Universiti Teknologi Mara.
- Siddiquee, N. A. (2008). E-Government and Innovations in Service Delivery: The Malaysian Experience. *International Journal of Public Administration*, 31(7), 797-815.
- Syahrul, N. J., & Nadianatra, M. (2014). Success of E-Government Initiative in Sarawak. Retrieved May 30, 2014, from https://www.researchgate.net/profile/Nadianatra_Musa/publication/242492442_SUCCESS_OF_E-GOVERNMENT_INITIA_T_IVE_IN_SARAWA_K/links/02e7e5388b25ab3ed3000000/SUCCESS-OF-E-GOVERNMENT-INITIA-T-IVE-IN-SARAWA-K.pdf?origin=publication_detail
- The Economic Planning Unit Prime Minister's Department Putrajaya (2006). *Ninth Malaysia Plan 2006-2010*. Retrieved from https://www.pmo.gov.my/dokumenattached/RMK/RM9_E.pdf
- Yaakup, A. B., Johar, F., & Dahlan, N. A (1994). GIS and decision support system for local authorities in Malaysia. In H. Timmermans (Ed.), *Decision Support Systems in Urban Planning*. E & F SPON, London.
- Yildiz, M. (2007). E-government research: Reviewing the literature, limitations, and ways forward. Retrieved March 23, 2007, from <https://www.sciencedirect.com/science/article/pii/S0740624X07000056>