Perception and Problem of Infrastructure Usage in Kedah

Noraniza Yusoff[1], Azlizan Talib[2] & Yusuf Pon[3]
[1]Senior Lecturer, School of Government, UUM College of Law, Government and International Studies, Sintok, Kedah, Malaysia
[2,3]Senior Lecturer, School of Government, UUM College of Law, Government and International Studies, Sintok, Kedah, Malaysia.

Abstract: Infrastructure for instance roads, mines and hydroelectric dams, are spreading rapidly. Infrastructure arrangements are the essential of the countries' economy and welfare; infrastructure creates vital services that concern on people's living, and each sector that regards to the community. The problem of low infrastructure usage reduced the probability of poor perception towards infrastructure. Why are some social groups reporting low perceptions compared to other social groups? This study aims to provide an explanation of the relationship between perception toward infrastructure and problem of infrastructure usage. Quantitative approach has been used for data collection and analysis on 321 samples. Through correlation analysis, result shows a very weak negative association between perception toward infrastructure and problem of infrastructure usage. Increase in perception toward infrastructure expected decrease problem of infrastructure usage.

1. Introduction

Infrastructure for instance roads, mines and hydroelectric dams, are spreading rapidly [1]. Infrastructure arrangements are the essential of the countries' economy and welfare; infrastructure creates vital services that concern on people's living, and each sector that regards to the community. Even though researches of infrastructure arrangements have prolonged regarded infrastructure as networks, researches have frequently considered the fundamental networks as unchanging and rigid. The viewpoint that networks possibly produced by evolution throughout time is prolonged non-functional. Drawing in this novel viewpoint expected probably arising in transformations modifications in numerous infrastructure researches pertaining methods networks are conceptualized, something are the essential study questions and way the methodologies possibly redevelop [2].

Torrisi [3], start from the last of the 1980s numerous researches examining the connection among infrastructures funding and economic growth that accomplished. A common agreement is attained across the thought that fundamental infrastructure amenities are vital characteristics connected to economic achievement, even though magnitude and causation approach are discussed. Scarcity of standard meaning of every contrast among researches is complicated: concerning to infrastructure numerous assessments of road, electricity producing plants, water and sewerage arrangements and so forth that used, frequently lack an evident assertion of the characteristic used to specify the meaning of infrastructure. Numerous kinds of assessments for instance monetary-flow, monetary-stock, and physical have been used in publication. There is no standard meaning of facility about economic researches. This derives from the demand for concurrent actualization of three analyzing objectives including the creation of a notion for the facility; the consolidation of theoretic methods for instances the theory of public interests; and the explanation of the fact of facility provision.

Infrastructure possibly consists of capital-intensive infrastructures that are without public concern. However, the public extensively utilize most of the facility. Economists concerning to related objects as physical facility or facility capital. In the scientific publication, the function of facility is assessed by the services generated by the physical facility assets. Infrastructure services, for example power, transportation, telecommunications, provision of water, hygiene and secure disposing of sewage are basic to each types of household activities and economic output [4].

Infrastructure material probably an approach for a nation achieves aims to assist the functioning of community. This role is questioned by the present shape of facility operation that primarily unbalanced, as it prefers low-cost however feasible provide at each stage of community need. Because of facility performs an important function in fulfilling human demands and facilitating economic growth, examining facility as an important agent among socio-economic activities and consuming of environmental resources turn into an underlying

study aim. Consequently, consumers and facility operation are basis of environmental conservation questions. Balance facility operation subsequently need that the consumer, need for facility consumer services and none utility outputs, as well as interconnection between facility paths should turn into a basic part of facility operation. Assuming a service-achievement viewpoint this study exhibits an insight of consumer based facility operation, recommends alternative metrics for facility end-use services and facility interconnections at the consumer stage [5].

Consumers specify the stage and quality of facility end-use service need, as well as (at least in part) that active transition devices; inactive comparable arrangements are utilized and method they are functioned. These determinations are interconnected, rely on a manner of living selections, possession trends; financial methods, between other factors; and are produced in communication with technology distributor and utility firms. Although conventional utility provide is founded on steep amount of outputs such as water, electricity and so forth supplied, achievement-centred service contracts have the ability to comprise the important end-use technologies and operation [5].

2. Literature Review

The economic characteristic concerning the inventive facility of the University is indicated regarding a great level in affect of the innovation process for the economic growth in the area and the state. It is crucial to examine the result gained by the University to operate the inventive facility of the University for verification of the disadvantage regions and the creation of sufficient prevailing condition on inventive program. All things obviously expected produce the effective investigation of methods to the growth and commercialization produced invention and intellectual property in the University. Currently, the process of creation and execution of the inventive facility in Universities is far from over. The effective choice process of small inventive companies that have the possibility of enlargement and integration of the regional inventive arrangement are not also rectified [6].

Mtega [7] examines method rural societies in Kilosa Dstrict of Morogoro area in Tanzania access and usage information. Primarily, the research determines the information demands of rural citizens, examines the determinants that impacting the selection of information source, and calculates the suitability of the information sources founded on utility and choice. Simple random sampling technique was applied in choosing villages to be examined and respondents to be interviewed. Results indicated that there was a great demand for information of every kind. Majority of the information demanded associated to everyday issues. Information was reachable primarily via radio, television, newspapers and magazines, and also via mobile telephones as well as face-to-face interaction. Selection of information sources was affected by the respondents' stage of education, earning, sex, age, employment and the length from the information seeker's location to the information sources. Subsequently, results indicated that although citizen accessibility and applied information generally for addressing everyday issues, they also accessed it for recreation aims. The research advocates that it is essential to have regular rural information demands measurement before supplying information services to rural regions. For increasing information utilize, providers should repackage information in proper shapes acceptable for rural societies. Radio and television should have more rural connected programming, which should be transmit in the midday if rural citizen are working on farmland. Cell phone operators should decrease charges, as majority of rural citizen is poor. The government should improve the rural road facility and enhancing the rural transport arrangement so that print information resources can be available in these regions in a punctual manner. The government should have strategies to decrease and eradicate adult illiteracy. Increasing illiteracy stages involving Tanzanians is restricting the capability of citizen to access and usage information in everyday activities.

The Shim [8] research implies that internet utilizes and internet self-efficacy has a causation association with online communication as well as society bond. Nevertheless, the Information Network Village (INVIL) occupants did not indicate a greater degree of internet utilizes and internet self-efficacy than non-INVIL occupants. It is therefore inadvisable to rise to the summary that INVIL possibly have promoting more internets utilize and thus contributed to more social networking between rural occupants. Probably, the advantages of INVIL derive from the online social networking, however at the simultaneously the INVIL project could have been advocating something else that was insignificant to the online society, for instance merely intense bonds of participant villages. Additional likelihood is that the intense bonds that promote INVIL occupants to connection online depended on the economic advantages of marketing goods and specialization online.

The demand for sufficient ICT facility in higher education entities cannot be overstressed, even as accessibility and usage of these infrastructures are at times the indices for rating universities. The advantages of ICT facility in the university are quite large and the extents to which an entity can offer and usage these ICT tools interpret the ranking of the entity. Nevertheless, there is manifestation that ICT

facility is deficient in Nigeria universities and the utilization is low. The major ICT facility and services usage in Nigeria universities were recognized to consist of the computer, the internet, e-mail services, the World Wide Web, website and telephone. In the similar approach, ICT facility and services normally used in Nigeria universities consists of utilize of computers, utilize of the internet, e-mail services for online interaction, usage of the web to gain information, usage of university website for information and online access to the university and the usage of telephone [9].

3. Methodology

The problem of low infrastructure usage reduced the probability of poor perception towards infrastructure. Why are some social groups reporting low perceptions compared to other social groups? This study aims to provide an explanation of the relationship between perception toward infrastructure and problem of infrastructure usage. Quantitative approach has been used for data collection and analysis. A survey through questionnaires was conducted on residents of all strata that live in Pendang and Kubang Pasu, Kedah. The population is composed of all residents living in the study area and the sample consists of individuals or residents agree to be respondents selected by stratified sampling method according to councillor and finally village level namely *Gerakan Desa Wawasan* involved eight villages. Research objective is to determine the relationship between perception towards infrastructure and problem of infrastructure usage. Perception toward infrastructure encompasses questions on water supply, electricity supply, transportation, communication and intercommunication as well as sewerage using Likert scale. The problem of infrastructure usage includes water supply, electricity supply, transportation, communication and intercommunication as well as sewerage using nominal measurement. The nominal scale had recoded into interval scale to do correlation analysis. Cronbach alpha values show that reliability level is 0.69 for perception on infrastructure and 0.65 for problem of infrastructure usage. Both values are rounded to 0.7 and the interpretation for alpha value is internal consistency at an acceptable level. The face-to-face validity conducted through commentary from experts in the field of social science. Correlation analysis conducted on data involving 321 respondents. Null hypothesis is there is no relationship between perception toward infrastructure and problem of infrastructure usage. Figure 1 show the theoretical framework of the study namely the independent variable is perception toward infrastructure and the dependent variable is problem of infrastructure usage.
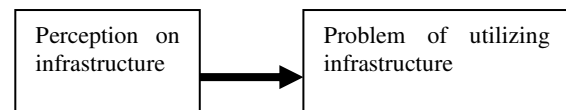
Independent variable   Dependent variable

Figure 1: Relationship between perception on infrastructure and problem of infrastructure usage

4. Finding and Discussion

Scatter plot diagram (Figure 2) shows that the two variables have a negative association, as perception on infrastructure decrease, problem of infrastructure usage increase. The diagram indicates a linear association the points on the scatter plot closely shaped a straight line. An association is linear if one variable rises by approximately the similar rate as the other variables changes by one unit. The strength of the association among the two variables is weak association [10].
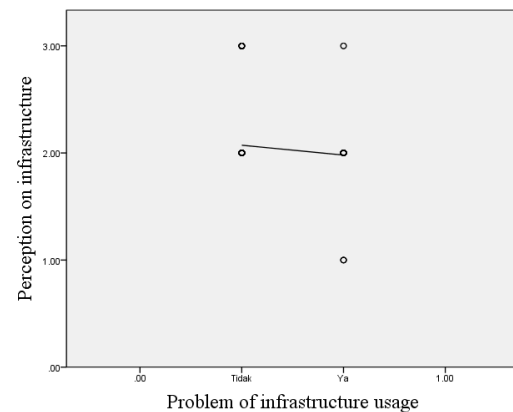

Figure 2: Scatter plot diagram between perception on infrastructure and problem of infrastructure usage

Table 1: Correlation of perception toward infrastructure and problem of infrastructure usage

		Perception	Problem
Perception	r	1	-0.166**
	p		0.003
	N	321	321
Problem	r	-0.166**	1
	p	0.003	
	N	321	321

Note:
** - significant on 0.01 level (2-tailed)
r – Pearson correlation coefficient
p – Significant
N – Number of sample
Perception – perception toward infrastructure
Problem – problem of infrastructure usage
Table 1 show that Pearson correlation coefficient (r) is -0.166 and significant value is 0.003 ($p < 0.01$)

means that there is very weak negative association between perception toward infrastructure and problem of infrastructure usage. The Null hypothesis rejected. For Pendang and Kubang Pasu, Kedah residents, it found that if perceptions of infrastructure increase, problem of infrastructure usage decrease [10](Mindrila and Balentyne, 2017).

This finding differs with Khumalo and Mji [11] that found educators indicated an amount of problems that perceived performs a function in the education aspect. The educators represented a hopeless image concerning insufficient facility provisioning and the correct operating of schools. There is an important demand to resolve the participants' attention. Government should generate appropriate and sufficient school facility concerning classroom, laboratories and libraries are prepared to contribute to good learning experiences.

This finding also differs with Oyesola [12] that found majority of the respondents had a negative view on impact of basic facilities on living activities. Results indicates a significant association among year of residency (r= 0.252, p.0.005), present condition of facilities (r = 0.260, p = 0.004) and rural residents view. Provision of basic infrastructures in the research area had no positive impact on the living of dwellers and proposes that basic infrastructures in rural region should be reconstructed and beneficiary societies to engage in the reconstruction process for sustainability of the facility.

5. Conclusion

The result shows a very weak negative association between perception toward infrastructure and problem of infrastructure usage. Increase in perception toward infrastructure expected decrease problem of infrastructure usage. The approach to improve infrastructure usage is through adapted the strong industry and government partnership by State of Victoria, Australia [13]. Industry involvement and collaboration with government stimulates capability to efficiently solve the obstacles to, and generate recent chances for important infrastructure resilience. Proprietor or operators of important facility have powerful business stability increase processes. This entity also execute constant advance via quality and security recognition initiatives and contractual demands. Via active sector involvement, industry brings technical expertise and knowledge regarding important reliance, within-sector reliance and the effects of emergencies. An important interface among industry and government is via the Sector Resilience Work for every of the eight important facility sectors. Sector Resilience Networks are organized by government agencies and generate meetings for industry and government to consider on

sector obstacles, reliance, chances and improve practices.

6. Acknowledgement

7. References

1. Laurance, W. F., Peletier-Jellema, A., Greenen, B., Koster, H., Verweij, P., Dijck, P. V., Lovejoy, T. E., Schleicher, J. and Kuijk, M. V., "Reducing the global environmental impacts of rapid infrastructure expansion" *Current Biology*, 25(7), 2015, pp. 259 – 262.

2. Guan, X., Chen, C., and Work, D., "Tracking the Evolution of Infrastructure Systems and Mass Responses Using Publically Available Data," *PLoS ONE* 11(12), 2016, DOI:e0167267.https://doi.org/10.1371/journal. pone.0167267

3. Torrisi, G., *Public infrastructure: definition, classification and measurement issues*, 2009, retrieved from https://mpra.ub.uni-muenchen.de/12990/1/ MPRA_paper_12990.pdf

4. Palei, T., "Assessing the impact of infrastructure on economic growth and global competitiveness," *Procedia Economics and Finance*. 23, 2015, pp. 168-175.

5. Knoeri, C., Steinberger, J. K. and Roelich, K., "End-user centred infrastructure operation: towards integrated end-use service delivery," *Journal of Cleaner Production*, 132, 2016, pp. 229-239.

6. Doroshenko, Y. A. and Malychina, I. O., "The usage of opportunities of the university innovative infrastructure like a tool of stimulation of innovative activity of small business," *Journal of Fundamental and Applied Sciences*, 8(3S), 2016, pp. 1958-1968. DOI: http://dx.doi.org/10.4314/jfas.v8i3s.328

7. Mtega, W. P., "Access to and usage of information among rural communities: a case study of Kilosa District Morogoro region in Tanzania," *The Canadian Journal of Library and Information Practice and Research*, 7(1), 2016.

8. Shim, K., "After broadband infrastructure saturation: the impact of public investment on rural social capital," *International Journal of Communication*, 7, 2013, pp. 26-47.

9. Egoeze, F., Sanjay Misra, I. A. and Colomo-Palacios, R., "An evaluation of ICT infrastructure and application in Nigeria universities," *Acta Polytechnica Hungarica*, 11(9), 2014, pp. 115-129.

10. Mindrila, D. and Balentyne, P, "*Scatterplots and correlation.*," 2017, retrieved from http://www.westga.edu/assetsCOE/virtualresearch/scatterpl ots_and_correlation_notes.pdf

11. Khumalo, B. and Mji, A., "Exploring educators' perceptions of the impact of poor infrastructure on learning and teaching in Rural South African schools," *Mediterranean Journal of Social Science*, 2(20), 2014, pp. 1521-1532.

12. Oyesola, O. B., "Rural dwellers perception on effect of infrastructural facilities on livelihood activities in Akinyele Local Government Area of Oyo State, Nigeria," *Journal of

Economics and Rural Development, 16(1), 2004, pp. 83-92.

13. State of Victoria, Australia, "*Critical infrastructure resilience*," 2017, retrieved from https://www.emv.vic.gov.au/our-work/critical-infrastructure-resilience