PalArch's Journal of Archaeology of Egypt / Egyptology

THE ANALYSIS OF INNOVATION PROCESS FOR ENVIRONMENTAL GREEN PERFORMANCE: CASE STUDY ON NOTOHADINEGORO AIRPORT, JEMBER

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Hary Soegiri, Moeljadi, Sherlinda Octa Yuniarsa. The Analysis Of Innovation Process For Environmental Green Performance: Case Study On Notohadinegoro Airport, Jember-- Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(3), 1049-1055. ISSN 1567-214x

Keywords: Innovation, New Concept, Green Environment, Economic Impact, Jember Airport

ABSTRACT

This research has elaborated by a new concept of travel demand in green innovation product to analyze airport environment. For, a conceptual framework can developed that any analysis about social community, which is the process of simulation project by aviation firms toward build a green performance in Notohadinegoro Airport. Knowledge information is flows to a raise some kinds of technological and awareness level to passenger. In case, there are indicators that also developed by an innovation airport. From statistics, it had been obtained about the role of transfer knowledge and new experience to get flows on airport by descriptive analysis and concept. For a study case, an efficiency in the airport because of design prospects by architecture from aviation inspection and government. So, social and travel demand is an effective condition by a successful green environment innovation to the next project and goals to get a good economic impact.

INTRODUCTION

Notohadinegoro Airport Jember (IATA: JBB, ICAO: WARE) is located in Wirowongso Village, Ajung District, Jember Regency, East Java Province. This airport has a distance around 7 (seven) kilometers from central city in Jember. The airport is operated by the Jember District Government Transportation Department. The airport also has a runway of 1,560 meters in operation since July 16, 2014. Then, to increase passenger visits for both business and traveling

needs, the first commercial flight schedule, namely the Jember route from and / or to Surabaya, by Garuda Indonesia ATR 72-600.

This airport has an area of 120 hectares and became the first civilian public airport in Indonesia that was built by the local district government, namely the Jember Regency Government with District APBD funds. The airport is expected by the Jember Regency Government to shorten the travel time from Jember and / or to Surabaya, which only requires a schedule of around 30 minutes by air, from before about 4 to 7 hours using land transportation such as trains, buses, and private cars. In addition, the airport is also expected to facilitate investment flows into the local district area and as a means of accommodation to support the tourism sector in Jember.

According to Budi, if airport management is given to the private sector, the government will instead obtain non-tax state revenue (PNBP). However, he did not explain how much potential PNBP would be received. "We will also privatize 10 airports and 20 ports to be given to the private sector so that these 30 airports and ports do not eat the state budget," Budi said at the Red Top Hotel in Pecenongan, Central Jakarta, Tuesday (10/10/2017). (Read Ministry of Transportation will Submit Management of 20 Ports and 10 Airports to Private Sector) Globalization will indeed blur the boundaries of a country.

Globalization suppresses the policy of a country which is closed to interstate trade. Liberalization, free competition will continue to be urgent so that it can access the entire territory of Indonesia for the sake of business interests. Deregulation will force free competition between airlines, not only domestically, but also internationally.

These things will certainly increase people's interest in air transportation, economy growth, and service improvement. However, on the other hand it will reduce a role from central government and local government in Jember. To maintain the unity of the state, one of the things that can be done is to build the infrastructure of seaports and major airports in several Indonesian cities, including those that must continue to be developed, such Notohadinegoro Airport in Jember.

The classic question is which one is prepared first, infrastructure development to be followed by trade growth, or increased trade to be followed by infrastructure growth (trade follow)? In the current condition of Indonesia, in my opinion, infrastructure to the airport in Jember should be resolved immediately with new innovations with a green environment that attracts local and foreign tourists.

Even though, this airport is still quite small and only one airline is operating, there is a need for new innovations such as the construction of shops selling Jember special food at affordable prices that are not only economically viable, but also financially feasible as a gateway and become a characteristic in Indonesia. Thus, the air transportation network within Indonesia continues to be carried out at Jember airport because it can boost the economy on the local community and there is a large role between the local government, airport services, airline employees, and others.

THEORITICAL

Environmental Design

This discuss about environment process to know how about innovation surrounding airport such as good plans, systematically program, government policies, build any buildings, and might be a design products. It seems can create many spaces that enhanced by nature, social effect, culture in location, and green environment, indeed. A design for airport can also refer to apply any arts and sciences education with create a human-designed resources. These fields thinking also discuss for architecture, geography, landscape, exterior and interior design artistic. An environment system must be a homework for team to know about areas such as history for a land construct and design architecture. In terms condition, it has some implications for the airport design products industry such as innovation, any equipments and good served by aviation team in airport.

Diffusion of Innovations

Diffusion innovations are a theory about how, why, and what discuss for any rate new innovation idea and technology to growth a green building. According to Everett Rogers (2003), said that diffusion is an innovation process by good communication on the over time between any participants in a social environment system.

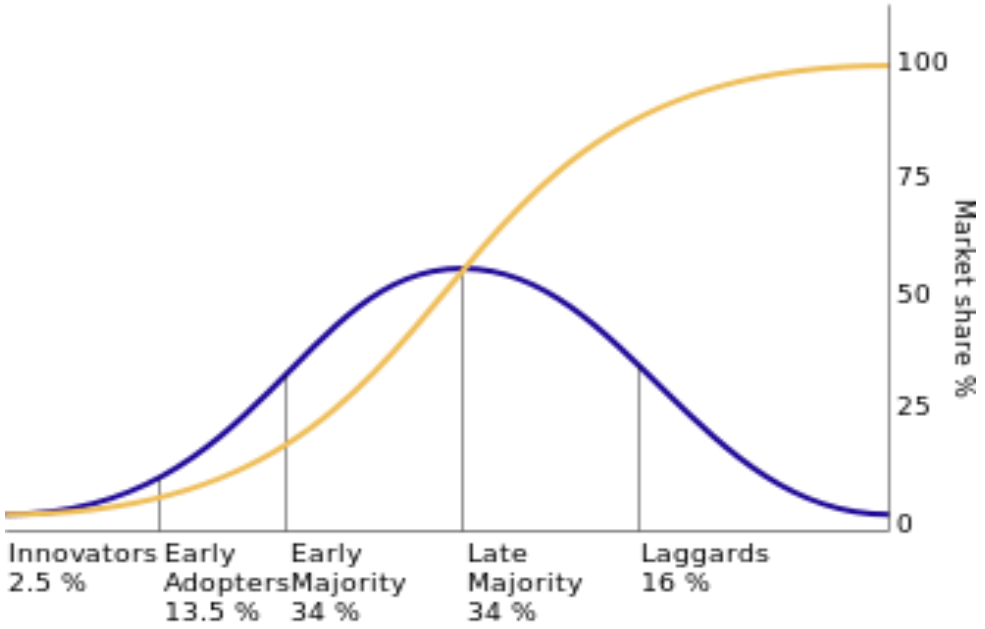

Figure 1. About Diffusion Innovation by Roger

Rogers has proposed by four main elements that influence to the spread of a new ideas such as innovation, link to create communication, and also social research and project system. An innovation might be adopted by self and also sustain condition for other environment.

Innovation Characteristics for Design

Many research **s**tudies are explored by some kinds of innovation and design characteristics. Met analysis can reviews and identified by several characteristics among most studies. There are potential innovator that adopted by evaluation an innovation to increase effectively of product. These qualities of design are might be immediately complex, so it will can reduce capacity.

Eventually, some innovations are easier to adopt a potential strategies about design from failed integration system. Innovations are disruptive to routine tasks with a large relative advantage. For the other side, innovations are make tasks easier are likely to be adopted by design thinking characteristics. It was related to relative complexity, knowledge requirements are any ability to use presented by use of innovation platform.

Organizations Characteristics

Organizations are a face more complex adopted by individuals rules between procedures, norms, and culture. Three organization characteristics are also match with individual characteristics such as motivation, ability, and capacity to get an innovation system. Innovations on the organization can match with system that required by fewer creative thinking changes. Where, an innovation is diffusions through the organization's environment for any reason condition.

METHODOLOGY

This research is used by qualitative analysis and descriptive about a new green design concepts for environment in Jember Airport. In the field, the Airport was purposively selected by provide system to access required by a data collection on an effort to create a creative innovation such a green digitalization system.

This research was used by observation data for a real-time strategic about decision making, participating in International workshops related to the airport management and innovation for transportation in Indonesia to growth up with new green design.

RESULTS

open new innovation strategy in airport

An airport innovation ecosystem was reflects to the different stages and rhythms on environment project. It was used by promotion of cost and saving to make innovation design system with any architecture and engineer, then collaboration with local governments about airport budget. Eventually, how to create a green environment efficiently between construction and innovative techniques system.

Local Government Policy For Airport

Innovation diffusion was applied by design focuses on how institutional innovations are adopted by other institutions about aviation platform industry. An alternative is about policy transfer, where also focus about transfer knowledge,

such as in the work of local government and local community. Specifically, local government policy can transfer knowledge to develop, create with many researcher in institutions to improve ideas in local airport.

First interests are regard to policy an innovation diffusion that focused by various airport design adoption, but more interest to make good and creative mechanisms that researchers can found creation ideas by each areas.

For a local level that examination about a popular city-level policies to make it easy and to find innovation different patterns through measurement for a public awareness and a green views around airport areas, needed.

For an international level, economic policy had been transfer a learning system between local government that ever failure on global financial organizations.

Technology in airport industry

According To Peres, Muller and Mahajan suggested that diffusion is about a penetration market process between new design products and good services, which is driven by social community impact. Technology is about information that innovation exist that people can practice and achieve of values such as find many ways to access through the digital airport platform industry, so that the needs related to services and the green environment that is the hallmark of Jember airport can be achieved it.

Many technologies are include radio, television, flush toilet, refrigerator, air conditioning, dishwasher, telephone, cellular phone, prayer room, airline miles, personal computer, internet inside airport, and tenant that can sell local foods from Jember. The data can react as a predictor for future green innovations in the airport development. Innovation diffusion curves for infrastructure is contrasts with technologies versus infrastructures updated by Jember airport areas.

CONCLUSION

This research has a conclusion that an airport in Jember is located quite far from the city center, moreover the surroundings are still in the form of gardens and rice fields owned by residents. Road access is still inadequate for passengers who want to enter and exit the airport to fly and also to entire many areas in local city. Offers, a great prospects condition in starting green innovation in the airport with several tenants such as shops that sell souvenirs and traditional foods from Jember. The local government and several parties by aviation officer with an interest in it will be very enthusiastic to create many new concepts with adequate technology for short and long term goals. Local people will also be moved to provide a best in service to the passengers.

REFERENCES

A. Geyer and A. Davies. 2000. Managing project-system interfaces: case studies of railway projects in restructured UK and German markets. *Res. Policy*, pages 991-1013.

A. Langley, C. Abdallah. 2011. Templates and turns in qualitative studies of strategy and management. *Res. Metho. Strateg. Manage,* volume 6, pages 201-235.

Armitt, J., 2012. The Armitt Review: Independent Review of Long Term Infrastructure Planning Comissioned by Labour's Policy Review. Labour Party, London. Retrieved from <http://www.armittreview.org>.

Dahlander and Gann. 2010. How open is innovation. *Res. Policy,* volume 39, issue 6, pages 699-709.

Davies et al. 2009. Innovation in mega projects: systems integration at Heathrow Terminal 5 Calif. Manage. *Rev*., volume 51, issue 2, pages 101-125.

Davies et al. 2014. Making innovation happen in a megaproject: London's Crossrail suburban railway system Project Manage. J., volume 45, issue 6, pages 25-37.

Dodgson et al. 2008. The Management of Technological Innovation: Strategy and Practice Oxford University Press, Oxford.

Dodgson et al. 2014. The Oxford Handbook of Innovation Management Oxford University Press.

E.W. Merrow. 2011. Industrial Megaprojects: Concepts, Strategies, and Practices for Success John Wiley & Sons, Hoboken, New Jersey.

Flyvbjerg et al. 2003. B. Flyvbjerg, N. Bruzelius, W. Rothengatter Megaprojects and Risk: An Anatomy of Ambition Cambridge University Press, Cambridge.

Flyvbjerg et al. 2009. Delusion and deception in large infrastructure projects: two models for explaining and preventing disaster. *Rev*., volume 51, issue 2, pages 170-193.

H. Chesbrough. 2006. Open Innovation: The New Imperative for Creating and Profiting from Technology. Harvard Business School Press.

Helfat et al.. 2007. Dynamic Capabilities: Understanding Strategic Change in Organizations. Blackwell, Malden, MA.

Loudon, David L.; Bitta, Albert J. Della. 1993. *Consumer behavior: concepts and applications.* McGraw-Hill Series in Marketing (4th ed.). New York: McGraw-Hill. ISBN 9780070387584.

M. Dodgson, D. Gann, N. Phillips (Eds.), 2014. The Oxford Handbook of Innovation Management, Oxford University Press, Oxford.

N. Gil and S. Beckman. 2009. Infrastructure meets business: building new bridges, mending old ones. *Rev.*, volume 51, issue 2, pages 6-29.

Noel, Hayden. 2009. *Consumer behaviour*. Lausanne, Switzerland La Vergne, TN: AVA Academia Distributed in the USA by Ingram Publisher Services. ISBN 9782940439249.

Oliver, A. 2008. Doug on the dig. Douglas Oakervee interview. Building Crossrail: Major Project Report. *New Civil Engineer*, volume 11, pages 4–6.

Oliver, A. 2012a. Applied experience: lessons from the past. Andrew Wolstenholme interview. Crossrail Tunnelling Starts: Major Project Report. *New Civil Engineer*, volume 06, pages 6–8.

Rogers, Everett M. 1962. *Diffusion of innovations* (1st ed.). New York: Free Press of Glencoe. OCLC 254636.

Rogers, Everett M. 1983. *Diffusion of innovations* (3rd ed.). New York: Free Press of Glencoe. ISBN 9780029266502.

Stone, Diane. 2004. "Transfer agents and global networks in the 'transnationalization' of policy" (PDF). *Journal of European Public Policy* (Submitted manuscript), volume 11, issue 3, pages 545–566. doi:10.1080/1350176041000169429 1.

Stone, Diane. 2000. "Non-governmental policy transfer: the strategies of independent policy institutes". *Governance*, volume 13, issue 1, pages 45–70. doi:10.1111/0952-1895.00123.

Stone, Diane. 1999. "Learning lessons and transferring policy across time, space and disciplines". *Politics*, volume 19, issue 1, pages 51–59. doi:10.1111/1467-9256.00086.

"Sustainability Toolkit: Environmental Models". asla.org. Retrieved 2017-06-08.

Van Marrewijk et al. 2008. Managing public-private megaprojects: paradoxes, complexity and project design. *Int. J. Project Manage.*, volume 26, pages 591-600.

Wejnert, Barbara. 2002. "Integrating models of diffusion of innovations: a conceptual framework". *Annual Review of Sociology*, volume 28, pages 297–326. doi:10.1146/annurev.soc.28.110601.141051. JSTOR 3069244.

Wolstenholme, A. 2009. Never Waste a Good Crisis. Constructing Excellence in the Built Environment, London. Retrieved from <http://www.constructingexcellence.org.uk/pdf/Wolstenholme_Report_Oct_2009.pdf>.