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Utilization of the internet in the development of online transportation in Indonesia

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Abstract. The purpose of research on Internet Utilization in the Development of Online Transportation in Indonesia is to know the development of online-based transportation by utilizing the internet as the main focus of modalities that must be needed, and identify problems arising in the development of online transportation facilities in Indonesia. The method used in this research was qualitative research method, where the data already exists and use existing theory as support. Then using descriptive research by explaining various phenomena in the community and taking the type of research through case studies. The results of the research can be used as a reference for the younger generation who want to do the entrepreneurship by looking at the great opportunities through the internet by looking at the phenomenon around the community to make a breakthrough or innovation for ease of consumer or consumer and provide the representation for the public will the development of advanced transportation facilities.

1. Introduction

Transportation becomes a much-needed means of today. Due to the existence of public transportation, facilities become easy to travel. People's dependence on transportation can also be considered high because by traveling by public transportation so can shorten the time. Transportation progress in India literally very rapidly, especially based transportation online. The beginning of transportation online in Indonesia in 2015, where the application Gojek launched on the cellphone android and iOS. Within a few months, application stormy Gojek direct community, because in application Gojek the society should not find it difficult to order vehicles. As a function of time, another online transport appeared online.

Besides Gojek, now based transport them online applications as Uber and Grab But appear also the pros and cons of the online based transportation system. Especially for community members working as base motorcycle taxi operators base feel aggrieved and felt their income the government feel the safety of passengers so consideration. But now transportation online has already got permission by the government and made ojek drivers base do not accept and gather because do not accept the online driver take passengers in the region. Even to be happened violence against the online driver conducted by the taxi base. Since they do not accept, the drivers of ojek online also result of a protest because do not accept intimidation conducted by the ojek base. But people feel satisfied with the online transportation because the community will be easier to order vehicles. The development of information technology in Indonesia can be spelled out very quickly. Because

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information technology now plays a very important role in human life. Currently, all aspects of life using information technology, starting from the field of education, health, government, trade and many others. It is necessary to have simulation model to examine how megatrends in information and communication technology and transportation directly and indirectly affect the level of physical activity across countries of low, middle, and high income. The model suggested that the direct and potential effects of information and communication technology, especially mobile phones, are nearly equal in magnitude to the mean effects of planned physical activity interventions [1]. Furthermore, there is no limit in using information technology, especially the internet. The development of internet users in Indonesia is also very rapid. Currently not only adults who use the internet, but all the people are able to use the internet with ease. Especially now many devices are sold cheap can already connect to the internet. Ricald et al explained that the Internet is evolving as a powerful force in the new marketplace where the nexus of competition has changed from individual firms to efficient supply chain networks both between firms and within industries [2]. The challenge in metropolitan areas have come under intense pressure to respond to federal mandates to link planning of land use, transportation, and environmental quality; and from citizen concerns about managing the side effects of growth such as sprawl, congestion, housing affordability, and loss of open space [3]. Alexander et al elaborated that the transportation industry has been revolutionized by the World Wide Web with the Internet rapidly emerging as the optimal medium for the exchange of information between shippers and carriers throughout the supply chain. Despite this, many motor carrier firms may still not be placing enough emphasis on the Internet [4]. The online transportation problem under the assumption that the adversary has only half as many servers at each site [5].

Due to these problems arising, the idea to establish a company engaged in services, which is managed professionally with an office and call centers are ready to help. Therefore, online transportation business can be one of the strategies in business competition. Given the number of existing transportation and tight competition, online transportation can be one solution, taking into account aspects of marketing, services or services provided and customer satisfaction. Bala dan Kirk explained their study the online transportation problem under the assumption that the adversary has only half as many servers at each site [6]. It is inevitable that growing congestion problems and environmental and safety considerations, freight transportation becomes more and more a key issue in logistics in particular and in the industrial process in general. The transportation mode choice is still often made in a rather irrational way [7]. It needs an attractive carbon neutral transportation fuel, directly usable in the present transport sector quality improvement strategies are partly as the result of indirect effects of changing climate [8,9,10].

The purpose of research is Internet Utilization in the Development of Online Transportation in Indonesia is to know the development of online-based transportation by utilizing the internet as the main focus of modalities that must be needed, and identify problems arising in the development of online transportation facilities in Indonesia.

2. Method

The method used in this research was qualitative research method, where the data already exists and use existing theory as support. In this case the authors get the existing data about the number of internet users in Indonesia based on data already taken by the site wearesocial.com. And data on online transport is obtained based on interviews with online motorcycle taxi drivers about the business processes that exist in the online transportation company. This research was also descriptive where the data that have been collected will be given in-depth explanation and also inductive. This research begins based on the phenomenon that appears in the field so that this research focuses on the phenomenon. In this case the phenomenon is the trend of online-based transport. The type of research used is a case study, where the authors use Go-jek case, a phenomenon that already exists in the community to be studied and made material for this writing. Where the authors want to know whether after the existence of this online transportation can be useful for the community. The phenomenon that will be thorough writer is one of the companies engaged in online transportation services. The type of

analysis used in this study is by using SWOT analysis (Strength, Weakness, Opportunity, Threats) in the Go-Jek Online transport.

3. Results and Discussion

In this case study the authors took a company engaged in online transportation services, namely Go-Jek. Go-Jek is one of the companies engaged in public transportation services. The company was founded in 2010 in Jakarta by Nadiem Makarim. At the beginning of its presence Go-Jek only provides online transportation services such as Go-Jek and Go-Car. But as time goes by, Go-Jek opens another service in its application. Like Go-Food, Go-Clean, Go-Tix and more. Currently, it has been operating in 50 cities in Indonesia, such as Jakarta, Bandung, Surabaya, Makassar and many others (Figure 1).



Figure 1. Logo and Slogan of Go-Jek

The development of Go-Jek in Indonesia brings its own benefits to the community. Where many people want to become Go-Jek drivers, every day many people sign up to be Go-Jek drivers. In addition, many people who use this service, because it is easy to use. Only by silence at home we can order transportation if you want to travel outside.

The increasing number of Go-Jek service users in Indonesia also caused social jealousy between Go-Jek drivers and motorcycle taxi drivers. This problem occurs because of the logical difference between the driver of Go-Jek and the Base Ojek. Where the motorcycle taxi stands firmly in the logic of manners. Where in motorbike bases there are many social norms that must be obeyed, such as having to queue up if want to take passengers, should not take passengers in an area that is not the area. While Go-Jek's logic is the corporate logic, where everything must be completely and orderly, both in terms of price, service and insurance. This happens because the Go-Jek driver is under a clear company and has its own rules.

SWOT Analysis (Strength, Weakness, Opportunity, Threats) in Go-Jek Online Transport:

- Strength: In the end time, shown as t = tend and T = Tend, the result of ΔTend will be ΔTend = 0. Strength: As a Pioneer, Go-Jek has a wider network driver advantage compared to services other online transportation. Go-Jek also has a high brand recognition and is more easily understood by the local market. In addition, Go-Jek also has many choices of services that can be selected by customers Such as Go-Food, Go-Clean and others.
- Weakness: Although the power of Go-Jek can create a wall that is difficult to pass, but the wall causes considerable capital expenditure. Another example is the Grab Bike, Grab Bike being one of the strongest competitors because they are able to manage the spending of money for incentive and promotional purposes. Currently Grab Bike only serve the online transportation services, but they can also change in the future.

- Opportunity: The more people who need public transportation services, because the Government is encouraging the community to use mass transportation and the presence of online-based transportation makes it easier for people to use transportation
- Threats: The main threat for Go-Jek is coming from government regulations. Because Go-Jek still does not have government permission. And other threats are like the existence of similar applications.

4. Conclusion

Based on the results of the above analysis can be concluded that with the internet we can open business opportunities easily if we can see the opportunities that exist around us. Gojek Nadiem Makarim, he sees opportunities from the phenomenon that occurred in Indonesia. He sees the streets increasingly crowded, causing congestion everywhere, and one way to break through traffic jams by using a motorcycle.

References

[1] Lancioni R A, Smith M F and Oliva T A 2000 The role of the Internet in supply chain management *Industrial Marketing Management* **29** 1 p 45-56
[2] Waddell P 2002 UrbanSim: Modeling urban development for land use, transportation, and environmental planning *Journal of the American planning association* **68** 3 p 297-314
[3] Ellinger A E, Lynch D F and Hansen J D 2003 Firm size, web site content, and financial performance in the transportation industry *Industrial Marketing Management* **32** 3 p 177-185
[4] Kalyanasundaram B and Pruhs K R 2000 The online transportation problem *SIAM Journal on Discrete Mathematics* **13** 3 p 370-383
[5] Vannieuwenhuyse B, Gelders L and Pintelon L 2003 An online decision support system for transportation mode choice *Logistics Information Management* **16** 2 p 125-133
[6] Pratt M, Sarmiento O L, Montes F, Ogilvie D, Marcus B H, Perez L G and Lancet Physical Activity Series Working Group 2012 The implications of megatrends in information and communication technology and transportation for changes in global physical activity *The Lancet* **380** 9838 p 282-293
[7] Arshad, N H, Ahmad F, Janom N and Mohamed A Z L I N A H 2008 Online transportation services guideline for service quality *WSEAS Transactions on Business and Economics* **5** 5 p 201-209
[8] Hamelinck C N, Faaij A P, den Uil H and Boerrigter H 2004 Production of FT transportation fuels from biomass; technical options, process analysis and optimisation, and development potential. Energy *International Jurnals Sciences* **29** 11 p 1743-1771
[9] Ahire S L, Golhar D Y and Waller M A 1996 Development and validation of TQM implementation constructs *Decision sciences* **27** 1 p 23-56
[10] Prowse T D, Furgal C, Chouinard R, Melling H, Milburn D and Smith S L 2009 Implications of climate change for economic development in northern Canada: Energy, resource, and transportation sectors *AMBIO: A Journal of the Human Environment* **38** 5 p 272-281