

Sustainable Development Through Sharing Economy: Contribution of Online Transportation to Urban Everyday Life

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Abstract— Objective of this paper are discusses the sharing economy among Indonesian urban communities, especially in the online transportation business. Some of the start-ups discussed are Go-Jek, Grab and Uber. The literature review combined with qualitative primary data of observation and few interviews of riders and passengers in various places in Jakarta and surrounding areas. The results show that sharing economy with online transportation in Indonesia has increased its economic value, inclusiveness, and social. Economic impact of sharing-economy of online transportation is found in several indicators: build a large customer base, increase profitability, enter established markets and compete with new and existing companies, and strengthen market position. Impact of economic inclusivity is gained by creating opportunity for disadvantaged to earn income and afford shared services. Social inclusiveness includes use of the sharing platform to help those with need. Impact social sharing-economy is gained by doing good well, create strong and sticky networks, and form strategic partnerships.

Keywords: *Sharing Economy, Online Transportation, Sustainable Development, Digital Communication, ICTs*

I. INTRODUCTION

Communal Indonesian society is actually very familiar with the activities of mutual help called gotong-royong (cooperation). The basic state of Pancasila also provides guidance that the people of Indonesia always live in harmony and peace. All issues are solved together. In contrast to Western society whose life is individualized so that the concept of sharing-economy sounds as something new. Botsman & Rogers (2011) states that sharing-economy is the principle of neighbors helping neighbors. The various needs in everyday life of every neighbor can help the neighbors to exchange goods, services, or even ideas.

In Western societies, there has been an attitude of social solidarity as such, but as if it were novelty due to changes since the Era of the Industrial Revolution, then when companies became dominant in people's lives. The company controls almost all the needs of people's lives so that there are exchange between consumers and business institutions as producers.

Changes drastically occur when the world is hit by the Internet is when every person in everyday life always carry mobile phone devices. Smartphone becomes the trigger of change that breaks company domination so that every person has equal opportunity to act as a producer as well as consumer.

Slee (2017) confirmed that the sharing economy is a wave of new businesses that use Internet. Online relationships are needed to bring customers with service providers to realize exchanges. The need can be developed as wide as the supply and demand of the participants. For example, some of the most well-known services such as room rentals, car rides, or household tasks.

Meeting producers and consumers via a service provider will accelerate the process of value transactions, physical movement of goods or services and the flow of economic, social, and cultural values as well. According to Tapscott and Williams (2006) customers become prosumers, which are consumers and producers at the same time. Previous research by Levine et al. (2001) also suggested that the “markets are conversations” and with the digital revolution consumers have changed their role, from passive consumers to active prosumers.

The other hand, Internet is building democracy, not only in the sociopolitical context but also in the economic field. Democracy of the economy by the Internet, according to Dahlberg & Siapera (2007), is a range of social movements while maximizing their autonomy, and therefore they must be vital component in any radical e-democracy. Ownership has melted and expanded. Assets have belonged to anyone who participates through the Internet. Walljasper (2010) stated that all of we share belongs to us. This is about how to save the economy, environment, internet, democracy, communities, and everything else. In other words, this is a wake-up call that inspiring to see the world in a new way.

Among prosumers there are as many of who are individuals have spirit to fight in the democracies. Therefore, the sharing economy promises to help previously powerless individuals take more control of their lives by becoming “micro-entrepreneurs.” Everyone can be self-directed, dipping in and out of this new flexible mode of work, setting up own businesses on sharing economy web sites (Slee, 2017).

Various previous studies did not discuss the original case of sharing-economy in online transportation in Indonesia. Similar studies include focusing on Uber case studies in contexts in America and Europe. For Indonesian context, this study occupies a lack of attention to research according to the characteristics of urban citizens in Indonesia. Two typical startups in Southeast Asia are Grab and Go-Jek that have never been studied by researchers from outside Indonesia.

This paper discusses some of the issues covered in the sharing economy, especially in online transport businesses that involve by the providers (startups). Start-up companies are growing very rapidly in various economic areas including in Southeast Asia. Indonesia is one of the country's largest populations in the ASEAN region so it has a bright prospect in building the sharing economy. Research questions include: 1) what is the position of Indonesia in the opportunity of sharing economy in Southeast Asia? 2) How business model in sharing-economy especially online transportation in urban area of Indonesia? 3) How does start-ups online transportation develop its role in society, especially the urban community? 4) How are economic role, inclusivity-role, and social-role conducted by online transportation in Indonesia?

Based on the research questions, the objective of this paper are: 1) to analyze the sharing-economy growth in Indonesia; 2) to analyze the sharing-economy practices and business model; and 3) to analyze the growth of Go-Jek and Grab as players of sharing economy in online transportation.

II. LITERATURE REVIEW

A. Sustainable Development and Sharing Economy

The term sharing economy is not really a new thing. The activity has become part of the history of human civilization. According to Sundararajan (2016), sharing economy refers to the commercial exchange among peer-to-peer, but then dominated by large corporations since the Industry Revolution Era. The century has passed; the state remains dominated by large companies and then the industrial era changed the forms of exchange, of commerce, and of employment associated with the sharing of economy are not new. Now, in the millennium era, digital technology has changed back to its former that known as sharing behaviors, self-employment, and forms of community-based exchange that existed in the past. According to Sachs (2015) sustainable development is a central concept of our age, and it is both a way of understanding the world and a method for solving global problems. There are three complex systems for sustainable development such the world economy, the global society, and the Earth's physical environment. These concept is very close to the new digital economy and the sharing economy and even the democratization of economy.

Today, sharing economy has become part of large, medium and small-scale corporations to collaborate. Ramaswamy's research (2008) for example, found co-creating value through customers' experiences at Nike's company. Ramaswamy's research finds that customers are now informed, connected, networked, and empowered on a scale as never before. Then, thanks to search engines, engagement platforms, the growth of internet - based interest groups, and widespread high - bandwidth communication and social interaction. Customers have learned how to use these new tools to make their opinions and ideas heard.

Various studies on the sharing economy have been done, the latest by Kim, Woo & Nam (2018) regarding the sharing economy perspective. Their study adopts the concept of the sharing economy to investigate sharing services in the service industries by examining an integrative framework along with awareness of sharing economy for evaluating intentions to use sharing services. The study's findings reveal that, with the exception of the direct effect of awareness of the sharing

economy on the intention to use sharing services, the underlying dimensions have a significant effect on consumers' intention to use sharing services. For riders and passengers in Indonesia, awareness for sharing economy is clearly owned by each participant because of their mutual motivation.

The most important thing in sharing economy is the ability of all participants to create value, called value co-creation in a sharing economy. That is why sharing economy facilitates collaborative production and consumption, which highlights the concept of value co-creation (Zhang, Jahromi & Kizildag, 2018). Also, Mair & Reischauer (2017) propose a definition of sharing economy that brings the role of organizations as infrastructure providers to the fore and helps us to assess the culturally rooted pluralism of forms and practices in these organizations.

The previous year, Franken & Schor (2017) also conducted a study on the perspective of sharing economy by developing a conceptual framework in defining the sharing economy and its close cousins. Researchers believe that this understanding comes from its sudden rise from an economic-historic perspective. The advantage is assessing the sharing of economic platforms in terms of economic, social and environmental impacts.

The public service sector in Indonesia is a very urgent development. Therefore, the government is strongly assisted by the private sector to develop urban transportation sector. Ganapati & Reddick (2018) examine the prospects and challenges of sharing the economy for the public sector like this. The sharing economy entails peer-to-peer exchanges for renting goods and services utilizing the Internet. Innovation in capitalizing on underutilized assets using Internet platforms is very important thing; however, it has adverse impacts as well. The users, public agencies therefore can adapt internal procurement processes focused on renting, and partners with sharing platforms to complement and supplement public services. Likewise, as regulators, government agencies have a paradoxical role to maintain the economy's innovation while addressing its downsides.

B. Urban Everyday Life

Indonesia is a country in the world whose society is very fond of social media through their smartphone. The adoption of smartphone devices with Android operations has become part of the individual existential. The highly revolutionary development that began socially in the late 1990s, Indonesia experienced socio-political changes. Lim (2003) stated that this clear that Internet being emerged in Indonesia. The most important factor was not cyberspace itself but, rather, the linkages between cyberspace such as the mobile gadget and the physical spaces of cities, towns, and villages. In addition, in urban lifestyle in Indonesia, Internet cafés represent a potential means of bridging the information gap between social groups and geographical areas (Kristiansen et al., 2003).

The development of sharing economy business depends on the involvement of the citizens of the city. The lifestyle of Indonesian people is now inseparable from its appearance online and offline. According to Burgess, Foth & Klaebe (2006), the cultural dimensions of citizenship are usually limited to the right and freedom to express one's own culture and beliefs, as well as the responsibility to accept the right of

others to express their views and values. Therefore, urban people engagement is very important thing to the sharing economy. Ohler (2010) call this as digital citizenship, as a new perspective of citizenship has entered the public narrative that feels so different. Citizenship must be related to all aspects of urban life such as economy, transportation, entertainment, socio-culture, e-democracy in politics, the need to build communities and so on.

B. Online Transportation

Urban transportation is one of the most complicated issues for the city government and its citizens. Luck has come, that is when sharing economy rolled back and grow as part of the community involvement to care about the city. Sharing economy is sharing assets, especially true in the context of transportation. Metropolitan cities such as Jakarta need a type of transportation that can reach up to every small streets to residential areas that are unattainable by private and public mass-transportation services, such as locomotives, ferries, buses, and commercial airlines, give consumers access to a portion of a vehicle for a particular period of time. Barry & Caron (2015) stated that the car—and bicycle—rental companies also fit within sharing economy: they allow consumers to share access to an entire vehicle across time.

Sharing economy covers various areas of community life such as lodging, transportation, health care, freight forwarding, personal body care services, and so on. However, online transportation in various cities in the world is a dominant field performed by Prosumers. According to Barry & Caron (2015), many car-sharing services have websites—and, importantly, smartphone apps—that address these coordination issues. In addition, car-sharing companies allow identifying and punishing noncompliance, such as when a user keeps a car beyond the agreed-upon time. A second form of car sharing involves using similar information technology to facilitate transactions between vehicle owners and people who would like to use those vehicles for short periods.

Meanwhile, many start-up companies are popping up but not all of them are successful. Failure encountered by some companies for failing to unite interests among participants. The ability to translate interests into technology is the key to success. Technological innovation has fostered bicycle-sharing programs in much the same way. Barry & Caron (2015) also confirmed that users could access bicycles from an automated, unmanned depot, where they pay by credit card or cash. The bicycles are often equipped with GPS devices that make them easy to track. Bicycle-sharing systems usually feature many bicycle depots integrated into a single system.

III. METHODS

A literature review is conducted to answer some of the research questions that mentioned above. The three startups companies were chosen judgmentally because of these providers obtained the largest market share in Indonesia, i.e. Go-Jek, Grab, and Uber. Although at the beginning of 2018 Uber was acquired by Grab, however the data retrieved by the end of 2017. Several documents of the three startups companies analyzed and discussed to formulate a model of shared economy in online transportation. Secondary data from various company documents such as Website, company profile, news, and CEO interview or speeches on YouTube and or television combined with qualitative primary data of

observation and few interviews of riders and passengers in various places in Jakarta and surrounding areas. Sampling conducted by accidental in the public locations such in front of train stations, bus terminal etc. Online riders sample bike 7, sample riders car 5 people, sample passenger online bike 5 people, sample passenger online car 5 people. The assumption is that community—the riders and the passengers—are urban people who share their opportunities and vehicles for their everyday life activities such as in working, travelling, and other social interactions.

Some open-ended questions submitted to the resource persons are: 1) How you decide to join as a member on startups as an online transportation driver; 2) Why did you choose this startup? 3) How is your income as an online transportation driver? 4) How do you compete with other transport vehicles when picking up and dropping customers? 5) How do you socialize and communicate build solidarity with fellow online drivers? 6) What is the role of startups in strengthening the network between drivers and customers? 7) Why do you believe that doing business with these startups has the certainty of future suspicion? 8) How does economic growth in your family, do you regularly save? While some questions to customers: 1) How do you decide to use online transportation? 2) Why do you feel mutual help or neighbor helping neighbor when using online transportation? 3) Why drivers and passenger networks connected through these startups can evolve as a sharing-economy force? 4) What social aspects do you feel when interacting with online transport drivers? 5) Do you often give bonuses to drivers who drive you? Will you continue to subscribe to online transportation through startups?

IV. RESEARCH RESULT

4.1. Sustainable Growth of Sharing Economy

Today, Indonesia is growing digital economy. The growth of e-commerce and community engagement to shop online and using online transport services is widespread. Global investors, especially People Republic of China are very interested in confident with the growth of e-commerce in Indonesia. The reason is the appealing fundamentals of the Indonesian market—an enormous population, stable economic growth and rising smartphone adoption—the success of Lazada, Go-Jek and a smattering of other companies have whetted the appetites of investors and focused attention on the enormous potential for Indonesia in the e-commerce industry (Chen & Wang, 2016; Lee, 2016; Moore, 2017).

Table 1. Most attractive markets for startups investment in the Asia-Pacific

Rank	Country	Score	Health of Economy	Cost of Business & Investment	Business Climate	Quality of Human Resources
1	Singapore	4.1	5.2	6.5	3.2	1.7
2	Hong Kong	4.7	5.6	6.8	2.8	3.7
2	Japan	4.7	4.6	7.8	3.7	2.7
4	Taiwan	5.1	7.5	3.7	4.4	5.0

5	Malaysia	5.7	6.4	6.0	5.2	5.3
6	South Korea	6.0	5.6	7.5	6.7	4.3
7	China	6.6	4.0	6.8	6.7	9.0
8	India	7.1	7.2	4.7	7.5	9.0
9	Indonesia	7.3	8.0	5.0	8.0	8.3
9	Thailand	7.3	6.0	6.3	8.0	9.0
11	Philippines	7.8	8.6	7.0	10.7	5.0
12	Vietnam	8.5	8.0	5.8	10.0	10.3

Source: ValuePenguin, Investment Board (2017)

The three largest countries in the world, namely, China, India and Indonesia are in Asia. Sharing economy has taken place globally following the most attractive markets for investment startups in Asia-Pacific. The impact of the sharing economy has been enormous, affecting most dramatically, industries such as transportation, accommodation, retail, logistics, e-commerce and tourism. The Southeast Asian countries that are most ready to engage with this include Singapore, Malaysia, Thailand and Indonesia. Key drivers of the sharing economy include ICT infrastructure and usage, demographics, tourist arrivals and consumer preferences (Lee, 2016).

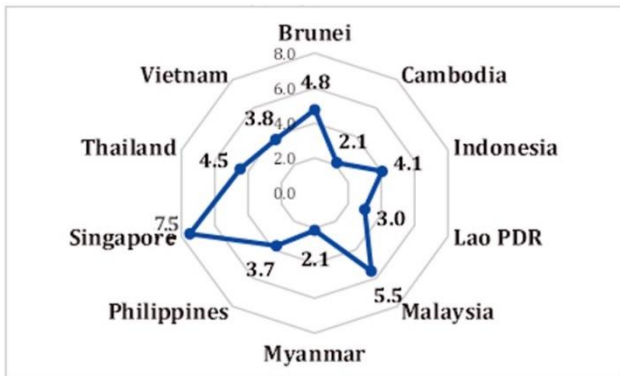


Fig. 1 Country index for sharing economy market potential

Source: Lee (2016)

Indonesia obtained index 4.1 under Thailand (4.5), Brunei (4.8), Malaysia (5.5), and Singapore (7.5). Nevertheless, the highest chance because the largest population of Indonesia in Southeast Asia. The investment climate is also supportive such as the quality of human resources is included. Singapore is in the top position because Singapore has become the gateway for investment in the Southeast Asian region as well as the region's dominant startup hub due to its government's pro-business policies, ease of doing business and efficient tax regime including tax incentives for startups. Therefore, sharing economy grew up to grassroots because the most felt benefit is the rider or driver and passenger. By the end of 2017, the three largest institutions of sharing economy in Indonesia are Go-Jek, Grab, and Uber.



Fig. 2 Indonesia investment value (\$ bn)

Source: Crunch base, A.T. Kearney

The chances of its development soon become full given the small population of Singapore. Indonesia's investment in 2017 is 95% of total investment value in Indonesian startups that came from China and only 6% coming from other investors. Go-Jek takes advantage of investment flows for the global going when China's Tencent invested in US \$ 1.2 billion in this original domestic company. Similarly, Tokopedia purchased by Alibaba Group with an investment value of US \$ 1.1 billion in and JD.com invested US \$ 500 million in Traveloka (www.digitalnewsasia.com). These investments consider Indonesia as the country's growing economy, emerging middle class and massive population of the digitally savvy young people.



Fig. 3 Indonesia Consumer Trends, 2016 vs. 2021

Source: BPS, Bappenas, EIU, Nielsen, World Bank, UN, Statista, A.T. Kearney

E-commerce and online transportation dominate multinational corporation investment in Indonesia. Thus, the financial ability to develop has been wide open. Sharing economy is expected to grow continuously among the people. Fifty-eight percent of total investments from 2012 to August 2017 was in e-commerce, followed by 38% in transportation. The Digital News Asia report also highlighted four key focus areas to accelerate the growth of Indonesian startup ecosystem such as talent development, fiscal incentives, funding or exit options and startup facilitation.



Fig. 4 Southeast Asia Investment Value

Source: Crunch base, A.T. Kearney

Estimated growth from 2018 to 2021 of Indonesia's consumer trends reflected the attract investment. Per capita GDP rises from 3.6k to 5.7 k, which has an effect on increasing the number of Indonesian middle class, from 63 million to 128 million. The population with savings accounts in the bank also grew from 88 million to 150 million. Smartphone penetration also increased twice, from 85 million to 148 million. The habit of online shopping has grown by almost four times from 11 million to 42 million, and the highly educated people have twice doubled from 13 million to 23 million. Digital News Asia states that although the United States remains the world's start-up hub, these are China, India and Southeast Asia(www.digitalnewsasia.com).

After Singapore, Indonesia becomes the largest country on startups investment in Southeast Asia. By the end of year 2012, investment only \$ 0.3 billion grew drastically to \$ 6.8 billion in 2016. Meanwhile e-commerce such as Traveloka, Tokopedia, and online transportation multi-service that provided by Go-Jek were growing.

1.1. Sharing-Economy Business Model

The latest developments in early 2018 Grab acquired Uber in Indonesia to make two big companies compete Grab and Go-Jek. Both are now multinational companies (MNCs). However, in terms of business model is the same both though Go-Jek has advantages with variations of service types. Grab's business model aimed to solve the supply-demand disparity by building a platform that efficiently matched underutilized, distributed capacity to demand. Such platforms, which were part of the newly emerging 'sharing economy', also included mechanisms to ensure payment and delivery of services, along with the verification of identity and reputation rankings, in order to better establish trust between unknown parties.

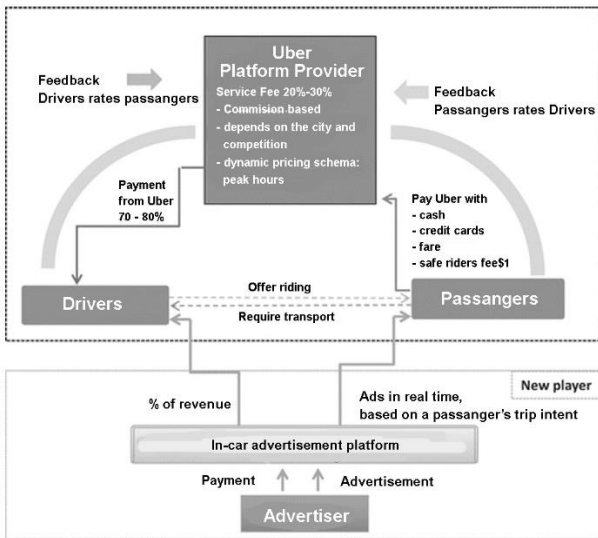


Fig. 5 Uber Platform Provider
Source: uber.com

Uber represents a platform business and provides more opportunities for growth of a sharing economy. The core value that Uber delivers is a reduction of search and transaction costs for both drivers and passengers. The Uber platform can be classified as an exchange platform

because Uber creates value primarily by enabling direct exchange between actors. The Uber platform manages a network of drivers and passengers through apps and provides real-time ridesharing options.

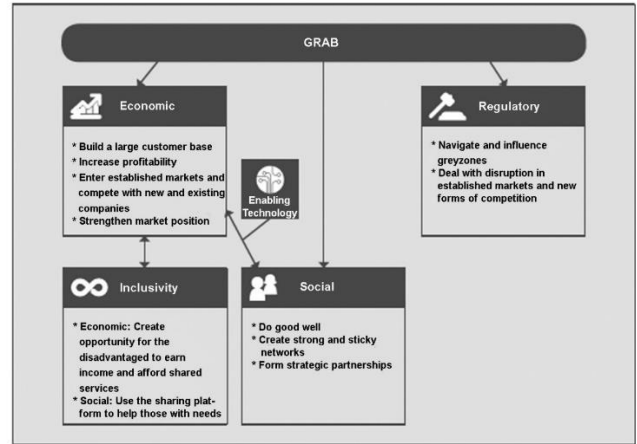


Fig. 6 Grab Sharing Economy Model
Source: Mei & Dula (2016)

In big cities like the Greater Jakarta consisting of several satellite cities of Bekasi, Depok, Bogor, Tangerang, and Bekasi, Grab bike drivers cross the boundaries of the city area to serve passengers. A Grab bike driver, Saprudin (37 years old) usually move from Bekasi to Jakarta to take passengers and when he arrived in Jakarta he continued to pick up passengers around Jakarta. Saprudin said,

“I prefer to travel around Jakarta after leaving from Bekasi because in Jakarta more passengers and the distance is a short average. In the afternoon, I just returned to Bekasi.” (Private interview, May 1, 2018)

Unlike Saprudin, a Go-Jek driver Asep Sujana (42 years old) prefers to serve passengers in Bogor alone. He serves many passengers and it is widespread. Puja Mutiarudin (35 years old) also only serves passengers in Bogor on the morning before he works in a company. Online biker for him only sideline but profitable. Anyone can do it. Evening or evening Puja returns to work as a Go-Jek driver. This widespread and widespread customer is one form of sharing-economy that is growing dynamically in the field of public transportation today. (Private interview, April 26, 2018)

Driver transportation online income increased after they became a Grab or Go-Jek member. Whereas before is difficult to get passenger. This online transportation application provides a relatively better income alternative for his family. They got that the more passengers the higher revenue. Even online drivers can compete with other modes of transportation.

Nabila (21 years old) a student in Jakarta felt much helped by the existence of online transportation. The travel time is shorter and can break through the congestion in the Greater Jakarta. Nabila said,

I always use Go-Jek for subscribing to almost all types of products for personal and family needs. My family also loved the shuttle service, food, courier,

massages, house cleaning and others. I also invite my peers to use Go-Jek and we all really enjoy. In my opinion, online transportation is increasingly in demand by the public and therefore the market is growing and growing steadily. (Private interview, April 23, 2018)

The above driver and passenger opinions indicate that they have experience in the field of transportation prior to the start-ups. Unresolved urban problems are now at least there is a solution brought by fellow citizens. Transportation problems in cities in developing countries find solutions to the emergence of Go-Jek and Grab. Motorcycle taxis, especially the context of developing Asian countries in Southeast Asian, as an informal public transport service. It could provide a fast, flexible, and cheap transport service to the public. At the same time, it may also be main sources of income for the urban poor (Tuan & Mateo-Babiano, 2013).

Economic impact is interrelated with inclusivity and economic interrelated with social impact that is possible with technology. Economic-side of sharing economy is the goal of increasing the value expected participants to become a member at the start-ups company. Some significant impacts are: 1) build a large customer base as the main base of business development especially for e-CRM program, digital marketing communication; 2) increase profitability by increasing frequency of use; 3) enter established markets and compete with new and existing companies; and 4) strengthen market position.

Inclusivity impact of sharing economy is the development of personal and community including riders, passengers, start-up companies, government, and all society empowered, in terms of: 1) economic i.e. create opportunity for the disadvantages to earn income and afford shared services; 2) social inclusivity i.e. use the sharing platform to help those with needs.

Social-side of sharing economy model in essence also must increase social value. Startups companies are empowering people to achieve: 1) do good well; 2) create strong and sticky networks; and 3) form strategic partnerships.

1.2. The Sustainable Growth of Go-Jek and Grab

The total number of online transportation users in Indonesia—generally located in big cities—is 15,730,000 by the end of 2017 or 29.6 per cent of 53,076,000 of mobile apps unique visitors in Indonesia, or 23.4 per cent of total digital population in Indonesia. Of course, the uniqueness of apps in Indonesia is in terms of age of users ranging from 6+ (let’s say elementary school students grade 1) and the users of smartphones and or tablets which are aged at 18+. The growth opportunity is big enough because users are more familiar with online transportation services.

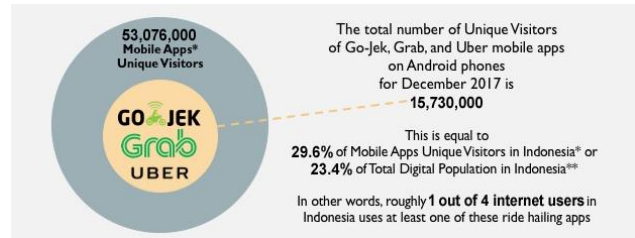


Fig. 7 The total users of online-transportation apps in Indonesia.

(Source: comScore Mobile Matrix, December 2017, Indonesia; IDN Times).

*The number above cover only mobile apps in Android phones.

**Total Digital Population consists of home and work desktop users aged 6+ and Android smartphones and tablet users aged 18+.

In mid-2016, Anthony Tan, the CEO of Grab, an on-demand transportation-app company serving Southeast Asia, was locked in a high stakes struggle to win the hearts and minds of drivers, passengers and regulators alike. Today, the app has over 13 million downloads and serves 30 cities across six countries (Mei & Dula, 2016).

The other hand, Uber provides also various options associated with transportation or logistics, including the transportation brands Uber, uberX, uberXL, UberBLACK, UberSUV and UberLUX and the logistics brands UberRUSH, UberFRESH and UberEATS (Hansen Henten & Maria Windekilde, 2016). Uber is a US-based online transportation network company founded in 2009. On December 4, 2014, Bloomberg announced that Uber was worth more than \$40 billion. Uber claims to be a marketplace where Uber’s drivers as independent agents meet Uber’s customers (Uber, 2015a, 2015b; Henten & Windekilde, 2016).

Like an Uber for motorbikes, Indonesian start-up Go-Jek zoomed onto the scene in 2010. The on-demand delivery service—offering rides, food, beauticians and more—has jolted the economies of even famously gridlocked cities like Jakarta, where small businesses have seen their sales soar once they’ve registered on the company’s platform.



Fig. 8 Comparison of number of users during August-December 2017.

(Source: comScore Mobile Matrix, December 2017, Indonesia; IDN Times).

*The number above cover only mobile apps in Android phones for users aged 18+.

Go-Jek provides a more complete range of services compared to Grab-Uber. The type of service Go-Jek provides are Go-Ride, Go-Car, Go-Bluebird, Go-Food, Go-Send, Go-Points, Go-Mart, Go-Shop, Go-Med, Go-Pulsa, Go-Pay, Go-Box, Go-Massage, Go-Clean, Go-Glan, Go-Tix, and Go-Auto. The company’s 300,000-plus drivers are doing well—

they all get health benefits, insurance, safety training and access to microfinance loans.

Until the end of December 2017 Go-Jek acquired visitors (unique visitors) 9.7 million, followed by Grab 9.6 million and Uber get 2 million users. Especially Go-Jek's range of services affects its ever-increasing revenue while Uber users are down from 2.3 million to 2 million. Users of these three start-up services are based on Android smart phone devices.

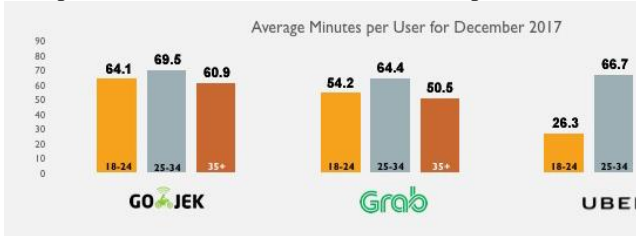


Fig. 9 Duration of Online Transport Usage in Age.
(Source: comScore Mobile Matrix, December 2017, Indonesia; IDN Times).

*The number above cover only mobile apps in Android phones for users aged 18+.

The development of information technology, followed by the advancement of digital communication tools, has encouraged businesses to change the way of communicating the product. Digital marketing communications strategy is a strategy of using digital communication media such as for example a smartphone (Wirawan & Oktivera, 2015) and by the use of digital applications, GO-JEK maximizes the marketing function and its relationship with consumers.

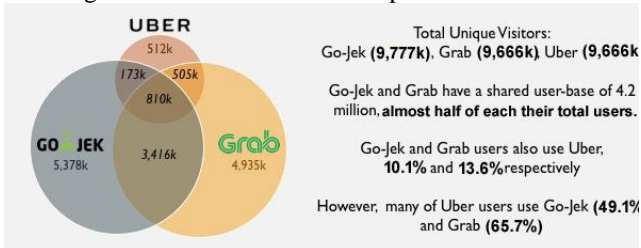


Fig. 10 The Average Person Installs More Than One App.

(Source: ComScore Mobile Matrix, December 2017, Indonesia; IDN Times).

*The number above cover only mobile apps in Android phones for users aged 18+.

**The denomination (m) stands for million; while (k) stands for kilo.

V. CONCLUSION

Among the countries in Southeast Asia region, Indonesia is one of the countries with the highest chance to develop market-sharing economy through integrated online transportation with various services.

Business models in sharing economy change the business perspective that is based on products to service. Sharing economy in online transportation start-ups has been increased its economic value, inclusiveness, and social. Economic impact of sharing-economy of online transportation is found

in several indicators: build a large customer base, increase profitability, enter established markets and compete with new and existing companies, and strengthen market position. Impact of economic inclusivity is gained by creating opportunity for disadvantaged to earn income and afford shared services. Social inclusiveness includes use of the sharing platform to help those with need. Impact social sharing-economy is gained by doing good well, create strong and sticky networks, and form strategic partnerships.

Online transportation in Indonesia has brought changes to the community regarding the involvement to serve each other among the citizens of the city and foster the spirit of entrepreneurship. There has been a shift in assets from centralized ownership by large corporations that are then distributed to ordinary people.

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Fig. 11 Grab, Go-Jek and Their Customers in Greater Jakarta

(Source: Field-observation, 2018).

REFERENCES

- [1] Botsman, R., & Rogers, R. (2011). *What's mine is yours: how collaborative consumption is changing the way we live*. Harper Collins Publishers.
- [2] Slee, T. (2017). *What's yours is mine: Against the Sharing Economy*. Scribe Publications.
- [3] Tapscott, D., & Williams, A. D. (2006). *Wikinomics: How mass collaboration changes everything*. Penguin.
- [4] Levine, R., Locke, C., Searls, D., & Weinberger, D. (2001). The cluetrain manifesto: The end of business as usual. *New York times book review*, 105(13), 17-18.
- [5] Dahlberg, L., & Siapera, E. (Eds.). (2007). *Radical democracy and the Internet: Interrogating theory and practice*. Springer.
- [6] Walljasper, J. (2010). *All that we share: How to save the economy, the environment, the internet, democracy, our communities, and everything else that belongs to us*. New Press.
- [7] Sundararajan, A. (2016). *The sharing economy: The end of employment and the rise of crowd-based capitalism*. Mit Press.
- [8] Sachs, J. D. (2015). *The age of sustainable development*. Columbia University Press.
- [9] Ramaswamy, V. (2008). Co-creating value through customers' experiences: the Nike case. *Strategy & leadership*, 36(5), 9-14.
- [10] Kim, Y. G., Woo, E., & Nam, J. (2018). Sharing economy perspective on an integrative framework of the NAM and TPB. *International Journal of Hospitality Management*, 72, 109-117.
- [11] Zhang, T. C., Gu, H., & Jahromi, M. F. (2018). What makes the sharing economy successful? An empirical examination of competitive customer value propositions. *Computers in Human Behavior*.
- [12] Mair, J., & Reischauer, G. (2017). Capturing the dynamics of the sharing economy: Institutional research on the plural forms and practices of sharing economy organizations. *Technological Forecasting and Social Change*, 125, 11-20.
- [13] Frenken, K., & Schor, J. (2017). Putting the sharing economy into perspective. *Environmental Innovation and Societal Transitions*, 23, 3-10.
- [14] Ganapati, S., & Reddick, C. G. (2018). Prospects and challenges of sharing economy for the public sector. *Government Information Quarterly*.
- [15] Lim, M. (2003). The Internet, social networks, and reform in Indonesia. *Contesting media power: Alternative media in a networked world*, 273-288.
- [16] Kristiansen, S., Furuholt, B., & Wahid, F. (2003). Internet cafe entrepreneurs: pioneers in information dissemination in Indonesia. *The International Journal of Entrepreneurship and Innovation*, 4(4), 251-263.
- [17] Burgess, J. E., Foth, M., & Klæbe, H. G. (2006). Everyday creativity as civic engagement: A cultural citizenship view of new media.
- [18] Ohler, J. B. (2010). *Digital community, digital citizen*. Corwin Press.
- [19] Barry, J. M., & Caron, P. L. (2015). Tax regulation, transportation innovation, and the sharing economy. *U. Chi. L. Rev. Dialogue*, 82, 69.
- [20] Chen, L. Y. and Wang, S. (April 12, 2016). Alibaba expands in Southeast Asia with \$1 billion Lazada deal," in www.bloomberg.com, retrieved on December 17 2016.
- [21] Lee, C. (2016). To Uberize or Not to Uberize?. Opportunities and Challenges in Southeast Asia's Sharing Economy, *ISEAS Perspectives*, 33, 1-16.
- [22] Moore, B. (2017). 14 A recent history of the Indonesian e-commerce industry: an insider's account. *Digital Indonesia: Connectivity and Divergence*, 256.
- [23] Investment Board/BKPM (2018), "Indonesia among least attractive market for startups & venture capital," in www.indonesia-investments.com, March 21, 2018, retrieved on April 8, 2018.
- [24] Investment Board/BKPM (2017), "Google & AT Kearney Positive about Indonesia's startup market," in www.indonesia-investments.com, retrieved on November 20, 2017.
- [25] Mei, L. I. N., & Dula, C. W. (2016). Grab Taxi: Navigating new frontiers.
- [26] Tuan, V. A., & Mateo-Babiano, I. B. (2013). Motorcycle taxi service in Vietnam—Its socioeconomic impacts and policy considerations. *Journal of the Eastern Asia Society for Transportation Studies*, 10, 13-28.
- [27] Henten, A. H., & Windekilde, I. M. (2016). Transaction costs and the sharing economy. *info*, 18(1), 1-15.