





SANG PENCERAH

Jurnal Ilmiah Universitas Muhammadiyah Buton



E-ISSN: 2655-2906, P-ISSN: 2460-5697

Volume 10, No 2, Year 2024

The Rationality Behind the Choice of Kupang City Residents to Become Online Motorcycle Taxi Drivers

Syaiful Muhammad Usman¹, Abidin Ahmad², Hasanah Purnamasari², Muh. Amiruddin Salem², Dwi Sulisworo^{3,*}

¹Direktorat Program Pascasarjana, Universitas Muhammadiyah Malang, Indonesia

*Corresponding email: dwi.sulisworo@uad.ac.id

Article Info

Received 18 March 2024

Approved 16 May 2024

Published 30 May 2024

Keywords: Competition; Online Taxi: Taxi Driver

© 2024 The
Author(s): This is
an open-access
article distributed
under the terms of
the Creative
Commons
Attribution
ShareAlike (CC BY-SA 4.0)

i) (a)

Abstract

This research aimed to explore the rationality behind the choice of Kupang City residents to become online motorcycle taxi drivers, investigating their management of work time and conducting interviews with relevant informants. Qualitative research methods were employed, utilizing a descriptive research design to examine natural phenomena, with the researcher serving as the primary instrument. Data collection involved observation, interviews, and documentation. The findings revealed several key points: Firstly, there was minimal competition in 2018, coinciding with the rise of Grab's popularity in Kupang City. Secondly, the flexibility of working hours was highlighted, allowing drivers to operate at their convenience, day or night. Thirdly, income emerged as a significant factor, contributing to meeting the drivers' financial needs. It was observed that online motorcycle taxi drivers come from diverse backgrounds, including lecturers and office employees, with some relying on this work as their primary source of income while others consider it a supplementary endeavor.

1. Introduction

Transportation is a crucial element that supports societal activities and national development. Cities, as central hubs of human life networks, heavily depend on efficient transportation infrastructure to sustain their functions. The transportation sector encompasses various modes such as maritime, land, river,

²Sekolah Tinggi Agama Islam Kupang, Indonesia

³Fakultas Keguruan dan Ilmu Pendidikan, Universitas Ahmad Dahlan, Indonesia

air, and rail transportation, along with transportation support services. The evolution of transportation technology, as observed in Indonesia, now includes accessing or booking vehicles through smartphone applications, showcasing advancements in the industry (Wang et al., 2022).

Transportation services are vital for the movement of goods and people, encompassing motorized means like motorcycles and cars, as well as non-motorized means and cargo transport. This classification divides transportation into private and public modes, with public transportation playing a significant role in urban areas over time (Bakar et al., 2022). Public transport, particularly buses, has been fundamental in urban transportation systems, offering essential services to diverse populations (Bakar et al., 2022). The concept of Mobility as a Service (MaaS) has gained momentum, providing a comprehensive approach to transportation by integrating various modes and services. Prospect theoretic and regret-based models have emerged as alternatives to traditional utility-maximization models, influencing research on travel behavior (Jittrapirom et al., 2017). On-demand shared mobility is increasingly advocated as a strategy to tackle urban transport challenges in rapidly expanding cities (Liyanage et al., 2019).

Transportation infrastructure significantly contributes to economic growth by integrating regional resources, promoting cooperation, and optimizing resource utilization (Wang et al., 2022). The efficiency of city networks and transportation infrastructure planning is influenced by topology characteristics and centrality within these networks (Wang et al., 2021). Collaboration, in the form of Collaboration as a Service (CaaS), is crucial for fully integrating public transportation, drawing insights from long-distance travel experiences to rethink mobility services (Merkert et al., 2020).

The sustainability of public transport is a major concern, with studies underscoring the financial strain caused by escalating subsidies (Xue et al., 2017; Xue et al., 2015). Informal public transport systems are acknowledged for meeting mobility needs by complementing existing public transport services (Kumar et al., 2016). Furthermore, the substitution effect of ride-sourcing services in commuting has been examined to comprehend its impacts on transport patterns (Maulana et al., 2022). Transportation serves as a facilitator of societal activities and economic development, evolving in response to technological advancements and changing consumer demands. Public transportation, in its diverse forms, remains a crucial component of urban infrastructure, emphasizing sustainability, integration, and service quality to meet the varied needs of users.

The integration of online transportation services like Gojek, Grab, and Uber into the public transportation sector has brought about significant disruptions, reshaping the way people travel and creating new income opportunities. This transformation has been facilitated by technological advancements that streamline travel bookings and enhance efficiency (Chiam et al., 2008). The shift towards online transportation services has not only improved convenience for users but has also opened up income-generating avenues for individuals, with many opting to become online motorcycle taxi drivers, transitioning from traditional employment to these digital platforms.

The distinction between traditional taxis and online transportation services primarily lies in the interpretation of rental and payment systems. While conventional taxis involve direct payment, Uber owners often refer to their vehicles as rentals, leading to discrepancies in defining public transportation (Aghion et al., 2005). This variance in interpretation has resulted in assigning blame to various stakeholders, including the government and taxi operators, highlighting the complexities that arise from differing definitions within the industry.

The global expansion of Uber to numerous cities worldwide provides valuable insights into the impact of information and communication technology (ICT)-driven disruptive business models not only in transportation but across various industries (Ghisellini et al., 2016). The rapid growth of online transportation services has not only transformed the transportation sector but has also presented challenges and opportunities for the stakeholders involved, emphasizing the need for adaptation and collaboration in the face of technological disruptions.

In conclusion, the evolution of online transportation services has undeniably revolutionized the travel landscape, offering enhanced convenience to users and creating new avenues for income generation. However, the divergent interpretations of rental and payment systems between traditional taxis and online services have introduced complexities in defining public transportation, underscoring the importance of clarity and consensus among stakeholders to navigate the changing dynamics of the industry. Innovation-based technologies are emerging, spreading more widely and rapidly than ever before across various parts of the world. However, while technological advancement promises benefits, it also poses challenges, particularly in workforce and production supply. Based on the outlined issues, the objective of this research is to understand the rationale behind the choice of Kupang City residents to become online motorcycle taxi drivers. This study aims to enhance insights and knowledge regarding the efficiency levels and the impact of online motorcycle taxi drivers on employment opportunities. Furthermore, it seeks to contribute valuable scientific insights and serve as a foundation for further research on the phenomenon of working as an online motorcycle taxi driver. Comprehending the factors influencing individuals' decisions to opt for a profession as an online motorcycle taxi driver, can aid in understanding the socioeconomic dynamics involved in this emerging sector.

2. Methods

This research employs a qualitative research method with a descriptive research type. Qualitative research is utilized to examine natural objects where the researcher serves as the primary instrument. According to Bogdan and Taylor, qualitative research generates descriptive data in the form of texts or speeches from individuals or observable behaviors. Qualitative research is the process of discovering and understanding the meanings of individual and group behaviors, describing social issues, or human problems. The research process includes formulating research questions and procedures that are exploratory in nature, collecting data in participant settings, inductively analyzing data, constructing partial data topics, and then interpreting the meaning of the data. The final activity involves producing a report in a flexible structure.

In determining a research location, it is essential to select a location that aligns with the researcher's needs. In this case, the research activities were conducted in Kupang City, East Nusa Tenggara Province. Kupang City has a significant presence in online transportation or motorcycle taxis, including Gocar, Grab, Maxim, Gogo Taxi, and Gonceng. The research was conducted over approximately two months.

Research subjects in this study were selected using purposive sampling, where subjects are intentionally selected by the researcher based on specific criteria or considerations. The criteria for subjects in this research include: 1) Individuals who consider online motorcycle taxi driving as their primary occupation; 2) Individuals who have other occupations besides online motorcycle taxi driving; 3) Married individuals; 4) Individuals who work as online motorcycle taxi drivers for applications such as Grap, Maxim, Gojek, or Indriver. The research object is what will be examined in the research activities. The research object is the attribute, nature, or value of a person, object, or activity that undergoes certain changes determined by the researcher for study and subsequent conclusion drawing. In this study, the research object is the interest of Kupang City residents in becoming online motorcycle taxi drivers.

The techniques used in this research are observation, interviews, and documentation. Through this method, the researcher observed the natural setting and activities of online motorcycle taxis in Kupang City. In observation techniques, the researcher directly visited Kupang City to observe events or directly observe and record necessary information and take documentation from the research location related to the rationality of the choice to become an online motorcycle taxi Through interviews, researchers gathered data, information, frameworks from research subjects. The interview technique used was semistructured interviews. This means that the questions asked were not strictly adhered to interview guidelines and can be deepened or developed according to the situation and field conditions. Data to be collected through interviews included the rationale behind Kupang City residents' choice to become online motorcycle taxi drivers. Interviews were conducted by interviewing online transportation drivers (Gojek, Grab, and Uber), public transportation drivers, motorcycle taxi drivers, passengers, and community figures. In implementing the documentary method, the researcher obtained documentation data (archives) about online motorcycle taxis in Kupang City.

Data processing and analysis techniques were used to analyze the collected data and draw valid conclusions using qualitative data processing and analysis techniques. Data were analyzed in several steps according to the theory of Miles, Huberman, and Saldana, namely three-step data analysis: data condensation, data display, and drawing conclusions and verification. Data condensation refers to the process of selecting, concentrating, simplifying, abstracting, and transforming data.

3. Findings and Discussions

To facilitate understanding and reading, the research results are described first, followed by the discussion section. Result subtitles and discussion subtitles are presented separately. This section should be the largest part, at least 60% of the article's entire body.

3.1 Findings

Rationality of Becoming Online Motorcycle Taxi Drivers

In 2018, with only Grab operating in Kupang City, there was no significant competition among online motorcycle taxi services. Consequently, earnings were good due to the lack of competition. For instance, NDT, one of the subjects, experienced high earnings during this period, averaging around IDR 300,000-500,000 per day, plus bonuses. This lack of competition influenced NDT's rational choice to become an online motorcycle taxi driver.

"Kurang lebih lima tahun menjadi driver ojek online Grab masuk kupang 2018 Bulan April, saya masuk Bulan Mei. Waktu itu awal-awal Grab masuk Kupang penghasilnya luar biasa. Pendapatanya melimpa dalam satu hari Rp. 300.000 – 500.000, ditambah dengan bonus-bonus yang saya kumpul dan transver ke Bank CIMB Niaga kurang lebih Rp. 18.000.000. Saya pun tidak sadar dalam jangka waktu dua tahun bekerja. Pada waktu itu driver ojek online panen dan belum ada persaingan baru tunggal ojek online Aplikasi Grab."

[Approximately five years as an online motorcycle taxi driver, Grab entered Kupang in April 2018, and I entered in May. At that time, when Grab first entered Kupang, the production was extraordinary. His income overflowed in one day IDR 300,000 – 500,000, plus the bonuses that I collected and transferred to CIMB Niaga Bank, approximately IDR 18,000,000. I didn't even realize it for two years of work. "At that time, online motorcycle taxi drivers were harvesting and there was no new competition from the Grab Application online motorcycle taxi.]

The flexible working hours of online motorcycle taxi drivers allow them to work at any time of the day or night, unlike conventional office hours. MNY, another subject, chose to become a driver because of the flexibility it offers.

"Faktor menjadi driver ojek online karena penghasilan setiap hari mendapatkan uang/dana. Selain itu, kerjanya tidak terlalu berat, santai, fleksibel, kita yang atur waktu mau bekerja atau istirahat sesuka hati. Dan tidak ada bos dan atasan, yang menjadi bos dan atasan adalah diri sendiri."

[The factor of becoming an online motorcycle taxi driver is that you earn money/funds every day. Apart from that, the work is not too hard, it is relaxed and flexible, and we can set the time to work or rest as we wish. And there are no bosses and bosses, the one who is the boss and boss is yourself.]

Similarly, VYH joined as a driver to fill his spare time between his primary job as a satellite dish service technician.

"Alasan menjadi driver ojek online adalah sampingan, sambil mengisi waktu kekosongan. Bekerja di servis parabola ketika ada orderan servis maka aplikasi grabnya dinonaktifkan ketika selesai servis maka aplikasi pun hidup kembali."

[The reason for becoming an online motorcycle taxi driver is as a side job, to fill free time. "Working in a satellite dish service, when there is a service order, the grab application is deactivated. When the service is finished, the application turns back on.]

The potential for quick earnings motivates many individuals to become online motorcycle taxi drivers. FDL transitioned from being a fisherman to a driver due to the rapid income opportunity.

"Faktor pendorong menjadi driver ojek online adalah faktor ekonomi. Selain ekonomi, saya awalnya melaut mata pencarian. Akan tetapi, saya melihat peluang yang cepat mendapatkan dana adalah menjadi driver ojek online, yakni Grab. Oleh karena itu, kita bisa bantu orang/sesama dengan kata lain bermanfaat untuk sesama ketika mereka membutuhkan jasa pengantaran kita siap mengikuti arah hendak kemana kita siap mengantarnya sampai pada tujuan di samping kita juga mendapatkan uang atau dana tersebut."

[The driving factor to become an online motorcycle taxi driver is economic factors. Apart from economics, I initially started fishing for my livelihood. However, I saw an opportunity to quickly get funds by becoming an online motorcycle taxi driver, namely Grab. "Therefore, we can help people/neighbors, in other words, be useful to others when they need delivery services. We are ready to follow directions where we are going. We are ready to take them to their destination, and we also get the money or funds.]

Similarly, CDE, a primary online motorcycle taxi driver, cited financial needs, including household expenses and children's education, as reasons for his choice.

"Alasan menjadi driver online adalah karna biaya hidup, terus untuk keperluan anak sekolah, biaya kendaraan kredit perbulan dan keperluan rumah tangga. Selain itu, solidaritas sosial cukup tingggi di antaranya uang duka sesama driver membantu meringankan beban ketika ada keluarga yang meningga seperti bapak/mama saudara/l isti anak yang sekandung maka teman-teman driver mulai menghimpun dana guna menyalurkan kepada teman atau saudara yang mengalami kedukaan."

[The reason for becoming an online driver is because of the cost of living, including school needs, monthly vehicle credit costs, and household needs. Apart from that, social solidarity is quite high, including condolence money from fellow drivers to help ease the burden when a family member dies, such as the father/mother, or brother/wife of a child who is a child, so fellow drivers start collecting funds to distribute to friends or relatives who are experiencing grief.]

These subjects' rational decisions to become online motorcycle taxi drivers stem from various factors, including economic considerations, the flexibility of the job, and the potential for additional income to support themselves and their families.

Effects of Online Motorcycle Taxi Drivers' Income on Family Needs

Rational actions are those driven by logical thinking rather than emotions, aiming to achieve specific goals. When it comes to economic needs, rational actions prioritize logical thinking. Many individuals choose to work as online motorcycle taxi drivers to fulfill their daily needs for various reasons.

MNY cites the daily income as a significant factor in choosing to work as an online motorcycle taxi driver. Unlike monthly salaries in traditional jobs, daily earnings from this job can immediately meet daily expenses.

"Kalau bekerja sebagai driver ojek online penghasilan yang kita dapat setiap hari dan ini untuk bekal atau pengeluaran setiap hari. Beda kalau kita kerja di perusahaan, penghasilan atau gajinya per bulan dan itu ditentukan oleh perusahaannya."

[If we work as an online motorcycle taxi driver, we get income every day and this is for provisions or daily expenses. "It's different if we work for a company, the income or salary is per month and that is determined by the company.]

Similarly, CPT emphasizes that besides the flexibility of working hours, the additional income from being a driver helps fulfill his family's needs. As a university lecturer, he finds working as a driver during his free time a practical solution to supplement his income and meet daily expenses.

"Dengan penghasilan satu bulan kurang lebih 9.000.000, akhirnya saya berpikir bahwa kalau mobil saja penghasilan sampai 9.000.000 apa lagi motor kurang lebih 4.000.000 maka saya bergabung bersama Grab meskipun profesi saya dosen di Universitas Muhammadiyah Kupang. Jadi, kalau ada waktu luang ketika belum ada jam mengajar, saya bisa memanfaatkan waktu luang untuk bekerja. Ya, buat apa lagi ini untuk kebutuhan setiap hari, kalau nunggu gaji lama. Kita butuh uang bensin setiap hari, belum lagi kebutuhan anak, dan istri."

[With a month's income of approximately 9,000,000, in the end, I thought that if a car alone earns up to IDR 9,000,000, let alone a motorbike of around IDR 4,000,000, then I joined Grab even though my profession is a lecturer at Muhammadiyah University, Kupang. So, if I have free time when I don't have teaching hours, I can use my free time to work. Yes, what else is there to do for your daily needs, if you have to wait a long time for your salary. We need money for petrol every day, not to mention the needs of children and wives.]

In summary, the income derived from working as an online motorcycle taxi driver significantly influences their decision-making process. Their choice to work in this field is driven by the rational goal of meeting their daily living expenses.

3.2 Discussions

In rational choice theory, individuals, acting as actors, utilize resources to achieve specific goals (Simon, 1955). These resources, such as motorcycles or cars for drivers, are essential for supporting actions towards goal attainment (Simon, 1955). Coleman's rational choice theory highlights that individuals act purposefully using available resources to achieve objectives (Markus, 1994). Online motorcycle taxi drivers, for instance, work for reasons like livelihood needs, lack of competition, and flexible hours that suit their preferences (Markus, 1994). While they provide various justifications, the primary motive behind their choice seems to be meeting their livelihood needs (Markus, 1994). This underscores the rationality of their actions, demonstrating successful goal achievement (Markus, 1994).

The theory of rational choice posits that individuals make decisions based on maximizing benefits and minimizing costs (Bezar et al., 2021). This economic theory emphasizes the rational behavior of actors in selecting actions that serve their interests (Bezar et al., 2021). Rational choice theory is foundational in economics, focusing on individual behavior to optimize outcomes (Bezar et al., 2021). It suggests that actors, like online motorcycle taxi drivers, make rational

decisions to fulfill their needs efficiently (Bezar et al., 2021). The rationality of their choices aligns with the principles of rational choice theory (Bezar et al., 2021).

Moreover, the rational actor model, a core concept in rational choice theory, assumes that individuals possess knowledge of their environment to make informed decisions (Gordji & Askari, 2018). This model underpins various social science theories, emphasizing the rationality of actors in decision-making processes (Gordji & Askari, 2018). The rationality of online motorcycle taxi drivers in choosing this occupation to meet their livelihood needs reflects the rational actor assumption (Gordji & Askari, 2018). Their actions align with the goal-oriented nature of rational choice theory, where individuals aim to achieve specific objectives using available resources (Gordji & Askari, 2018). Rational choice theory provides a framework for understanding how individuals, like online motorcycle taxi drivers, make purposeful decisions to achieve their goals using available resources. The theory underscores the rationality of actors in selecting actions that serve their interests efficiently, reflecting a goal-oriented approach to decision-making.

In understanding the motivations of individuals choosing to work as online motorcycle taxi drivers, Maslow's Hierarchy of Needs provides a valuable framework. At the core of Maslow's hierarchy are physiological needs, which are essential for human survival. Many drivers opt for this occupation primarily due to the immediate requirement to sustain their livelihoods, ensuring access to food, and shelter, and meeting basic expenses. The necessity to secure their physiological well-being drives individuals to work as motorcycle taxi drivers, especially when faced with unstable income sources (Zalenski & Raspa, 2006).

Online motorcycle taxi drivers face unique challenges, such as the risk of accidents due to job demands that involve extensive time on the road (Pramesti, 2021). Additionally, these drivers are exposed to high concentrations of hazardous air pollutants, leading to respiratory symptoms and potential lung function issues (Damayanti et al., 2019). The environmental health risks associated with air pollutants further highlight the occupational hazards faced by these drivers (Simatupang et al., 2022). Moreover, the relationship between body mass index and complaints of low back pain among online motorcycle taxi drivers underscores the physical toll of this occupation (Sitorus et al., 2022). The impact of long working hours, type of vehicle, age, and education on income for both formal and informal workers, including online motorcycle taxi drivers, also sheds light on the economic aspects influencing individuals in this profession (Cholily, 2022).

Furthermore, factors such as work stress, coworker support, autonomy, affective occupational commitment, and education level play crucial roles in influencing the performance and well-being of online motorcycle taxi drivers (Wulani et al., 2022; Abdul & Hertina, 2022). The effect of flexible working arrangements on work engagement among these drivers emphasizes the importance of considering organizational structures and policies in enhancing driver engagement and satisfaction (Farida, 2020). Maslow's Hierarchy of Needs serves as a robust theoretical framework to understand the motivations of individuals working as online motorcycle taxi drivers, with physiological needs playing a central role in driving their choice of occupation. The occupational hazards, physical health implications, economic factors, and organizational

influences collectively shape the experiences and decisions of individuals in this profession.

4. Conclusion

The decision of individuals to work as online motorcycle taxi drivers is a multifaceted phenomenon influenced by various factors. Through the lens of Maslow's Hierarchy of Needs, we have gained a deeper understanding of the underlying motivations driving these individuals' choices. For many drivers, the primary impetus stems from the need to secure a livelihood and meet basic physiological needs. Working in this capacity provides a practical means to address immediate financial concerns and ensure survival. As drivers stabilize their income and financial situation, their focus expands to encompass safety needs, social connections, and a sense of belongingness within their community. Moreover, the pursuit of esteem and self-actualization emerges as drivers gain experience and recognition in their profession. By delivering reliable service, they earn respect from peers and customers, enhancing their self-esteem. Furthermore, working as drivers may provide opportunities for personal growth and fulfillment beyond mere economic considerations.

5. Acknowledgement

This section contains gratitude to sponsors, fund donors, resource persons, or parties who played an important role in conducting the research.

References

- Abdul, S. and Hertina, D. (2022). The influence of work motivation and education level on employee performance at online ojek drivers pt.application karya anak bangsa/pt.go-jek bandung. *Kontigensi Jurnal Ilmiah Manajemen, 10*(1), 59-66. https://doi.org/10.56457/jimk.v10i1.244
- Aghion, P., Bloom, N., Blundell, R., Griffith, R., & Howitt, P. (2005). Competition and innovation: an inverted-u relationship*. *The Quarterly Journal of Economics*, 120(2), 701-728. https://doi.org/10.1162/0033553053970214
- Bakar, M., Norhisham, S., Katman, H., Fai, C., Azlan, N., & Samsudin, N. (2022). Service quality of bus performance in Asia: a systematic literature review and conceptual framework. *Sustainability,* 14(13), 7998. https://doi.org/10.3390/su14137998
- Bezar, S., Noreen, M., & Ali, R. (2021). Rational choice theory: an economic analysis of hardy's the return of the native. *Global Economics Review, VI*(IV), 94-104. https://doi.org/10.31703/ger.2021(vi-iv).08
- Chiam, M., Soutar, G., & Yeo, A. (2008). Online and off-line travel packages preferences: a conjoint analysis. *International Journal of Tourism Research*, 11(1), 31-40. https://doi.org/10.1002/jtr.679
- Cholily, V. (2022). Analysis of the effect of working hours, type of vehicle, age, and education on income for formal and informal workers. *Jurnal Indonesia Sosial Sains*, *3*(3), 507-526. https://doi.org/10.36418/jiss.v3i3.563
- Damayanti, T., Pradipta, J., & Susanto, A. (2019). Respiratory symptoms and lung function among online motorcycle taxi drivers. *Chest Journal*, *156*(4), A863. https://doi.org/10.1016/j.chest.2019.08.821

- Farida, U. (2020). The effect of flexible working arrangements on work engagement of online motorcycle taxi drivers. *Psychological Research and Intervention*, 3(2), 92-99. https://doi.org/10.21831/pri.v3i2.42196
- Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). A review on circular economy: the expected transition to a balanced interplay of environmental and economic systems. *Journal of Cleaner Production, 114*, 11-32. https://doi.org/10.1016/j.jclepro.2015.09.007
- Gordji, M. and Askari, G. (2018). *Hyper-rational choice theory.*. https://doi.org/10.48550/arxiv.1801.10520
- Jittrapirom, P., Caiati, V., Feneri, A., Ebrahimigharehbaghi, S., González, M., & Narayan, J. (2017). Mobility as a service: a critical review of definitions, assessments of schemes, and key challenges. *Urban Planning, 2*(2), 13-25. https://doi.org/10.17645/up.v2i2.931
- Kumar, M., Singh, S., Ghate, A., Pal, S., & Wilson, S. (2016). Informal public transport modes in India: a case study of five city regions. *IATSS Research*, 39(2), 102-109. https://doi.org/10.1016/j.iatssr.2016.01.001
- Liyanage, S., Dia, H., Abduljabbar, R., & Bagloee, S. (2019). Flexible mobility ondemand: an environmental scan. *Sustainability*, 11(5), 1262. https://doi.org/10.3390/su11051262
- Markus, M. (1994). Electronic mail as the medium of managerial choice. *Organization Science*, *5*(4), 502-527. https://doi.org/10.1287/orsc.5.4.502
- Maulana, A., Rizki, M., Purwanti, O., & Farda, M. (2022). Exploring the substitution effect of ride-sourcing in commuting and transport station trips: learning from evidence in Bandung city, Indonesia. *International Journal on Advanced Science Engineering and Information Technology*, 12(5), 1997. https://doi.org/10.18517/ijaseit.12.5.15976
- Merkert, R., Bushell, J., & Beck, M. (2020). Collaboration as a service (caas) to fully integrate public transportation lessons from long distance travel to reimagine mobility as a service. *Transportation Research Part a Policy and Practice*, 131, 267-282. https://doi.org/10.1016/j.tra.2019.09.025
- Pramesti, N. (2021). The correlation of subjective fatigue, negligence, knowledge of safety riding, and length of work on traffic accidents of online motorcycle taxis in Sidoarjo. *Indian Journal of Forensic Medicine & Toxicology, 15*(3), 3689-3697. https://doi.org/10.37506/ijfmt.v15i3.15871
- Simatupang, M., Veronika, E., Irfandi, A., & Garmini, R. (2022). Environmental health risk assessment of air pollutants in online motorcycle taxi drivers in the special capital region of Jakarta. *Jurnal Kesehatan Lingkungan*, *14*(2), 114-121. https://doi.org/10.20473/jkl.v14i2.2022.114-121
- Simon, H. (1955). A behavioral model of rational choice. *The Quarterly Journal of Economics*, 69(1), 99. https://doi.org/10.2307/1884852
- Sitorus, T., Lubis, E., & Alexander, R. (2022). Relationship between body mass index and complaints of low back pain (LBP) on online motorcycle taxi drivers in Medan, Indonesia. *Eureka Herba Indonesia*, *4*(2), 186-189. https://doi.org/10.37275/ehi.v4i2.63

- Wang, J., Yang, X., & Deng, Y. (2022). Spatial spillover effect and spatial distribution characteristics of transportation infrastructure on economic growth: a case of the Yangtze river delta. *Frontiers in Environmental Science*, 10. https://doi.org/10.3389/fenvs.2022.900209
- Wang, L., Xue, X., Zhou, X., Wang, Z., & Li, R. (2021). Analyzing the topology characteristics and effectiveness of the China city network. *Environment and Planning B Urban Analytics and City Science, 48*(9), 2554-2573. https://doi.org/10.1177/2399808320983011
- Wulani, F., Lindawati, T., & Iswanto, Y. (2022). Work stress of online motorcycle taxi drivers: the role of coworker support, autonomy, and affective occupational commitment. *Jurnal Organisasi Dan Manajemen*, *18*(2), 26-42. https://doi.org/10.33830/jom.v18i2.3409.2022
- Xue, Y., Guan, H., Corey, J., Qin, H., & Han, Y. (2015). Bilevel programming model of private capital investment in urban public transportation: case study of Jinan city. *Mathematical Problems in Engineering*, 2015, 1-12. https://doi.org/10.1155/2015/498121
- Xue, Y., Guan, H., Corey, J., Wei, H., & Yan, H. (2017). Quantifying a financially sustainable strategy of public transport: private capital investment considering passenger value. *Sustainability*, *9*(2), 269. https://doi.org/10.3390/su9020269
- Zalenski, R. and Raspa, R. (2006). Maslow's hierarchy of needs: a framework for achieving human potential in hospice. *Journal of Palliative Medicine*, *9*(5), 1120-1127. https://doi.org/10.1089/jpm.2006.9.1120