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THE DESIGN & IMPLEMENTATION OF CRM-TAXI ONLINE IN INDONESIA

Rusdiaman Rauf[*)1], Hengky Wijaya[**)], Ezra Tari[***)]

[*)]Study Program of Management, Sekolah Tinggi Ilmu Ekonomi Tri Dharma Nusantara
Jl. Kumala II No.51, Makassar 90222, Indonesia
[**)] Study Program of Education Science, Sekolah Tinggi Filsafat Jaffray Makassar
Jl. Gunung Merapi No. 103, Makassar 90141, Indonesia
[***)] Study Program of Education Science, Institut Agama Kristen Negeri Kupang
Jl. Cak Doko No. 76, Kampung Baru, Kupang 85112, Indonesia

Abstract: Lifestyle shifting is directly proportional to advances in information technology. These developments cannot be prevented or stopped, so everyone must keep up with the changes. System changes occur including in transportation. There are three big online taxis, namely: GoJek, Grab, and Uber, Maxim. TheirIts problems exist in regulation, drivers, consumers, and human resource development. Furthermore, the main tThings that need attention are the comfort and income of the community. This paper will describe how to solve problems between government, society, and online taxi entrepreneurs. The research approach used is development. Researchers are trying to find information to implement the program created. We have a solution framework that is thought of and constitutes an innovative idea based on two directions. CRM is proposed as a system used to help online taxi users avoid inconvenience problems. All parties must follow this change because society may not survive in the face of globalization if everyone does not want changes that are more effective and efficient changes. Changes were made to improve people's lives. Furthermore, as the main person in charge, the applicator must have a sophisticated system in developing human resources, especially the drivers they have.

Keywords: online taxi, innovations, human resource, systems, aplicator

Abstrak: *Peralihan gaya hidup berbanding lurus dengan kemajuan teknologi informasi. Perkembangan ini tidak dapat dicegah serta dihentikan, sehingga semua orang harus mengikuti perubahan tersebut. Perubahan sistem terjadi pada transportasi, yaitu taxi online. Ada tiga besar taksi online yakni: GoJek, Grab dan Uber, Maxim. Permasalahan taxi online ada pada regulasi, driver, konsumen dan pengembangan sumber daya manusia. Hal yang pelu mendapat perhatian adalah kenyamanan dan penghasilan masyarakat. Dalam tulisan ini, penulis akan memaparkan mengenai cara mengatasi masalah antara pemerintah, masyarakat dan pengusaha taxi online. Pendekatan penelitian yang digunakan adalah pengembangan secara kualitatif. Peneliti berusaha mencari informasi hingga mengimplementasikan program yang dibuat. Kerangka solusi yang dipikirkan dan merupakan ide inovasi harus berbasis dua arah. CRM diusulkan sebagai sistem yang dipakai untuk membantu pengguna taxi online terhindar dari masalah ketidaknyamanan. Perubahan ini harus diikuti oleh semua pihak karena masyarakat tidak mungkin akan dapat bertahan dalam menghadapi globalisasi, jika semua orang tidak menginginkan perubahan yang lebih efektif dan efesien. Perubahan dilakukan agar dapat meningkatkan taraf hidup masyarakat. Lebih jauh lagi, aplikator sebagai penanggung jawab utama harus mempunyai sistem canggih dalam mengembangkan sumber daya manusia terutama driver yang dimilikinya.*

Kata kunci: *taxi online, inovasi, sumber daya manusia, sistem, aplikator*

[1] Corresponding author:
Email: rusdiaman@yahoo.com

INTRODUCTION

Today, technology can be used to find the nearest restaurant within seconds, take a picture, and immediately send it to a friend who lives far away. One of the tools that can be used to apply information technology is a computer. Now, computers are being entirely built to create real avatars. Computers combine two different technologies that are calculators and automation. It is much more sophisticated than just a desktop. People have used calculators for thousands of years. Finger or stone counting, counting sticks, abacus, and various objects have been used to aid calculations. Abacus was used to solve complex additions much faster than early computers.

Human and computer interactions are widely applied in modern times, such as recognizing human actions and recognizing hand gestures. In general, cameras are equipped with computers that can capture social action. According to different people's instructions, the computer will take action, such as the human gaze, hand gestures, and body. Movement can be used as a means of communication between humans and computers. This is a significant contribution to people's lives (Yun et al. 2021; Xiao and Guo, 2020).

In the 17th century, Blaise Pascal made the first mechanical calculator, called an arithmetic machine, to help his father work on calculations, although it could only add and subtract (Goswami et al. 2019). Algorithm learning helps to detect objects and images based on examples. The algorithm engine has the capability fto integrate and synthesis (Khan and Al-Habsi, 2020). The development of computers continues to move rapidly and rapidly, starting with lifestyle changes, ways of communicating, and using transportation. Therefore, human resources development must match this rapid growth based on professionalism in character and other technical abilities.

Chaos is not impossible to manage, but it isn't easy to do in a short time. The only way to manage this significant change is to look ahead and assess the potential changes that will be made in the future. Therefore, exploring the future is a way to spot trends that can change the world and monitor them regularly. This simple act can change the way you think about the future. One example is an online taxi. Online taxis are one of the solutions to solve transportation problems cheaply. There is an online car-hailing service (OCS) which provides alternative travel for passengers. The service pattern uses Structural Equation Modeling (SEM), which implements e-CRM for customer-based service. Quality and outcomes use an approach based on customer satisfaction (Helmreich and Foushee, 2019; Wang et al. 2019; Čulík et al. 2020; Sivaraks et al. 2011).

Crew Resource Management (CRM) provides several tools to help with the job but does not reduce technician competence. CRM is a workload management program. The principles of Crew Resource Management (CRM) demonstrate team skills. The benefits of using the system in online taxis are very beneficial. There needs to be careful consideration of users and distance traveled traffic situations, design, and performance. The system was developed due to the increasing demand for online taxis (Orlady, 2019; Hamman, 2010; Nugroho et al. 2020).

Online taxi transportation must consider the distance that the driver travels to reach the passenger. Due to the lack of detail, pick-up distance scenarios were made, assuming the driver has to travel a distance of between 0 and 1 km when picking up customers. Service quality is divided into three categories, namely, people, physical, and applications. Satisfaction is assessed using a variant-based structural equation approach. The study results show that there is a relationship between constructors and consumers. The identified relationships highlight the person who determines passenger satisfaction. The online queuing approach is used to measure taxi services' performance, such as waiting times and searching for vehicles in urban areas. A study of online taxi and motorcycle taxi services in Vietnam shows that the number of motorist accidents is relatively high. So, regulations are needed to reduce the risk of accidents. The government needs to limit safe distances for motorists (Suatmadi et al. 2019;Suhartanto et al. 2020; Nguyen-Phuoc et al. 2019; Zhang et al. 2020).

This paper discusses how the applicator manages responsibility for drivers that we can improve service and security. Of course, CRM needs to be implemented comprehensively with reliable cooperation between the government, applicators, and the public who use online taxis. For now, GoJek, Grab, Uber are the most prominent online taxi companies in existence. What is needed is an online taxi company is a sophisticated management to solve problems such as passengers who are uncomfortable due to drivers, the presence of

criminal acts in small and large firms, and the absence of high-quality human driver development. This paper results from the development of David P Carter, who emphasizes opportunities, institutional analysis, and policy design (Carter et al. 2016). And Faramak Zandi and Madjid Tavana's writing about E-CRM Framework: Service to Customer Perspective. He described the relationship between the E-CRM factor and the transaction cycle (Zandi and Tavana, 2011).

The two articles provide a complete picture of regulation and service to consumers to create a level of comfort between all parties. The purpose of writing this article is to know the design and implementation of CRM-Taxi Online in Indonesia. This paper aims to provide a solution for applicators, drivers, and governments to manage online taxis effectively and efficiently. There is an optimistic synchronization between online taxis and regular taxis.

METHODS

This research is qualitative research that develops the concept of design and implementation in this paper. The authors then followed the research cycle, namely, (1) strategies to create a social management team. Research cycle (2); emerging strategies reflect analysis and the role of emotions in conveying organizational change. Research cycle; (3) the important role of detecting emerging strategies as an introduction to agreeing on deliberate strategies (Eden and Ackermann, 2018). The problem finding procedure focuses on identifying research boundaries. The research stage is adjusted to a development study, more on collecting and analyzing data. The research results will ultimately be obtained in conjunction with the research objectives (Richey, 2014; Jilcha, 2020).

All parties must be able to sit together to design a system that unites these four things. The first system consists of two essential things, namely the applicator and the government. Here the applicator must understand that acceptance of people as drivers of online taxis must be strictly enforced. And it has a sophisticated reporting system that can help governments and consumers alike. The second part is the government, which must make regulations that can make drivers feel comfortable and have no difficulty operating their online taxis. The second system is the consumers and drivers. Here the consumer must have a level of comfort and be able to save costs. On the other hand, drivers should have competence and a good level of service to their customers. There are many stages of the validation process to find a robust, well-functioning instrument that researchers can use (Rachmatullah et al. 2020).This will be explained in the results and discussion in more detail and how to apply it. The key is to break down those systems into components, which will make the future of online taxis easier to handle and comprehend to think them.

RESULTS

Three things must be developed in running online taxis, namely; government, consumers, and drivers. These three elements are a unit that cannot stand alone in operation. So that management control is challenging to do if there is no unity. Any great technology requires professional management. Technology needs standard standards to be able to develop positively. Technology requires a framework for change that can be used as a guide for its users. Infrastructure without paying close attention to segregation can lead to instability in the process. Personal interests must be put aside in providing maximum service to society. Interests must be able to refer to the benefits received by consumers. So that innovation must be carried out by applicators who refer to human resource development. From here, we will describe the innovations that will be carried out, namely:

Online and Government Taxi Applicators

There are many complaints from the public and drivers for which no solution has yet been found. The online taxi applicator creates an application so that people can use transportation easily. The driver said that applicators do not care about them and do not get adequate service. The solution to this problem is:

Applicators can apply management, namely: first, the tendency to act. Second, study the choices and services to consumers. Third, autonomy and entrepreneurship. Fourth, productivity through humans. Fifth, oriented to real values. Sixth, be faithful and consistent. Seventh, simple organizational structure. Eighth, be flexible.

Taxis are a necessity in traveling, mostly daily workers. The market does not determine the development of the taxi industry. However, in the era of the Internet,

the service and efficiency of taxis must be improved. This needs attention in the development of online taxi companies, especially applicators. With the support of information and communication technology, it is possible to obtain information about an individual's location in real-time. So those local roads are needed for mobility for residents. Applicator technology is used to map areas that do not exist in the world of transportation. So taxi drivers can get through traffic jams on urban roads (Li, 2016; Cai et al. 2019; Cheng et al. 2020; Rajendran and Srinivas, 2020).

Applicators are required to maintain a two-way relationship with drivers. The five things include (1) Setting goals. (2) Organizing groups. (3) Provide motivation and communication. (4) Measuring performance. (5) Developing resources. There are problems from the government side, namely regulations, which are a source of commotion that must be resolved immediately. The solution to this problem is:

The government must, first of all, be able to communicate based on a two-way relationship. A regulation can be made if it is well communicated and embracing the whole. Two-way relationships have several essential requirements: the government must have clear reasons for its decision and communicate comprehensively to the applicator and driver (the applicator owner must sit together with the driver (representative) and the government a solution can occur). These requirements include: (1) What information should the government provide to applicators and drivers. The government, its regulations in implementing, can apply the principle of 4 decisions in executing: (1) What will be done. (2) How to start the regulation. (3) Where to start. (4) Determine the goals to be achieved and set the deadline. Agent simulation is a powerful tool for analyzing the complex problems described above. Agent-based models are implemented in conjunction with agent behavior rules to obtain the optimal number of vehicles. And performance indicators of taxi service providers (Grau and Romeu, 2015).

The proposed taxi service aggregates taxi route-related information from GPS data using machine learning techniques. Because taxis can deviate from the route that can be detected in real-time, companies must develop appropriate policies to improve driver health and safety. Electronic governance is made with privacy in mind and continuous innovation. Information technology experts can explore new data—many features for detailed visualization and analysis. Elements can be divided into three parts, namely: geographic, business strategic, and mobility. The combination of different components is designed to evaluate new plans. Experiments and proposed models can better solve geographic problems but can provide simple predictions to develop well. The results showed that the decline in pedestrians, bicycles and public transport occurred due to taxi services (Dou et al. 2019; Bartel et al. 2019; Ju et al. 2019; Chen et al. 2019; Almlöf et al. 2020).

Consumer dan driver

It should be understood here, and the applicator must be strict in accepting working drivers because the community will feel comfortable traveling. Applicants must apply strict honesty principles in the acceptance of drivers. Drivers must use the original photo, e-KTP, which is uploaded on the application and can be seen by consumers. The photo and ID card when the consumer get the driver, as a sign and proof that the driver is the same person. Another solution is that if it is not a Card Identity (KTP) that can be seen by consumers, the applicator can show a photo and a brief bio of the driver, such as the full name, driver's cell phone number, and driver registration number. The first problem that arises here is: consumers, when ordering a taxi online using the application, find that the driver and the car that come are different. There is even no license plate on the application and a different vehicle number plate. This can cause negative things to users and must be addressed immediately.

The solution to this is that consumers can refuse if the driver picks up his photo at a different location; this is to maintain consumer comfort. Consumers can refuse if there is no plate number at the time of ordering via the application and cancel if there is no plate number for a different vehicle. Consumers can refuse if the car that comes is different from what is in the application. And refuse if the vehicle plate number is different from what is listed in the application. At this point, consumers must be smart in seeing and deciding. The applicator can make a special dial number such as 911 when consumers use online taxis if drivers behave beyond the ethics that have been applied by the applicator. So, consumers can call or report it to the applicator, of course, with an explanation that can be sent via the application, not only 1-5 stars consumers in providing star sign. And short comments to applicators. And this has been very well done by the applicator. In certain

conditions, consumers can report to the authorities or the transportation service if there are negative things that happen while using online taxis. Of course, this must be considered first and requires strict regulation in implementing it. But on the one hand, regulations created must be able to provide solutions for various parties and be flexible.

Car rental companies charge a car driverless fee by providing a fare payment service according to the set rate. Companies should not concentrate solely on consumer attitudes towards technology. However, it is necessary to consider the indirect effect on trends in service usage. Drivers tend to use individual defense strategies by adopting existing innovative technologies. Things that need to be considered are technological aspects and consideration of consumer acceptance. The community finds that there is potential for environmentally friendly transportation. And driver fatigue can be reduced by using automated technology (Lin et al. 2020; Cruz-Cárdenas et al. 2021; King et al. 2019; Merfeld et al. 2019 Wu et al. 2020). The interactions' consequences include cognitive, emotional, and consumer behavioral engagements that drive brand sense, identification, and civic behavior, respectively. This, in turn, triggers the consequence of the extra second-level interaction of trust and brand attitude, which contribute respectively, in the third level consequence development, based on consumer and company-based brand equity values (Hollebeek and Macky, 2019). The development that must be done is Figure 1.

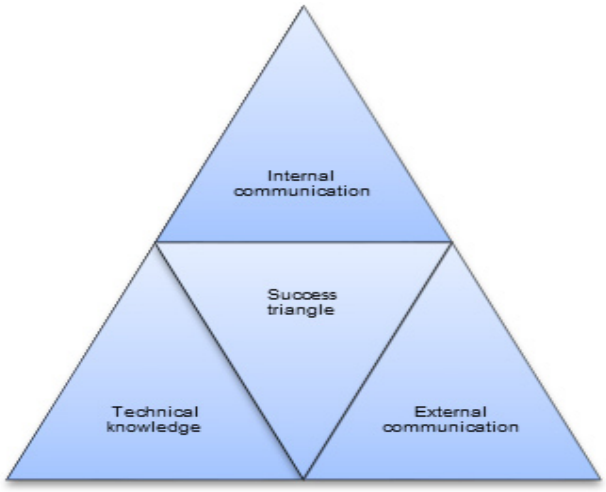

Figure 2. Success triangle in communication

It takes a lot of time, possibly 1-2 years, to learn professionally. Drivers should develop their goals to be higher than drivers in general because advances in information technology are about the cost of being cheap and how to provide professional service so that consumers can be satisfied and provide positive feedback for drivers and applicators.

Drivers tend to be oriented towards the adopted usage. The situation factors and the availability of information regarding costs and methods need to be clarified. Managers and academics need to develop a framework that includes the driving and inhibiting factors of the service system (D'Agostin et al. 2020; Shaikh et al. 2020). The driver finds two dimensions of performance, namely, performance and traceability. The focus on performance is the driver's most prominent. Full-time drivers who are permanently registered with the company are less likely to leave the business, while private car drivers are more likely to leave the business (Skippon, 2014; Du et al. 2020: Arts et al. 2011). Consumers were found to adopt innovations with less complexity and relatively higher returns. Social and relational elements drive adoption, unravel the effects of crossovers between them and reveal the moderating role of experiences and the needs of human interaction (Fernandes and Oliveira, 2021).

Furthermore, applicators must care, especially in training drivers to have a professional attitude, so that consumers can comfortably and easily use online taxis; things like this must be considered to develop the company to a global level and better service CRM systems.

Managerial Implications

Online taxis as public transportation with a CRM system well regulated by the government. This CRM system is implemented by prioritizing good communication between customers, drivers, and stakeholders, reducing customer problems and complaints. Crew Resource Management (CRM) supports serving systems running well, and many complaints from consumers and drivers can be adequately addressed. Communication between consumers and drivers is transparent and easily accessible.

Research results from Hayati and Usman (2019), show that customer management and the introduction of new systems are expected to increase sales and communication in the company, and there is room for development in the ageing process. With a CRM (Customer Relationship Management) system, employees feel that work efficiency will build growth and better utilize existing customers. Ventoniemi's research (2018) implements CRM (Customer Relationship Management) in relationships with customers to impact employee performance for the better in the future. Likewise, Crew Resource Management (CRM) in this paper has a clear goal: to provide convenience and security to customers and drivers not to violate the rules passed by the government regarding online taxis.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Online taxis are a solution to improve people's lives. Because jobs can be opened, and people can save money on transportation. HR development is carried out by applicators so that a professional company is created. The focus of the applicator is not only application development and information technology but HR drivers. The government made it based on a two-way relationship and was accepted by all parties. So, a level of fairness is evenly distributed between parties, regulators, drivers, and entrepreneurs. And the government's job is to explain the regulations made in more detail.

Recommendations

CRM design that emphasizes two-way communication both internally and externally aims to reduce inconvenience in driving using online transportation. The emphasis on good communication allows the government to create CRM applications supported by active communication regulations between drivers and customers so that misunderstandings and customer complaints are low. Drivers also continue to develop themselves in communicating well to get excellent customer appreciation.

REFERENCES

Almlöf E, Nybacka, M, Pernestål, A. 2020. Will public transport be relevant in a self-driving future? A demand model simulation of four scenarios for Stockholm, Sweden. *Transportation Research Procedia* 49: 60–69. https://doi.org/10.1016/j.trpro.2020.09.006

Arts JWC, Frambach RT, Bijmolt THA. 2011. Generalizations on consumer innovation adoption: A meta-analysis on drivers of intention and behavior. *International Journal of Research in Marketing* 28(2): 134–144. https://doi.org/10.1016/j.ijresmar.2010.11.002

Bartel E, MacEachen E, Reid-Musson E, Meyer SB, Saunders R, Bigelow P, Kosny A, Varatharajan S. 2019. Stressful by design: Exploring health risks of ride-share work. *Journal of Transport and Health* 14: 100571. https://doi.org/10.1016/j.jth.2019.100571

Cai H, Wang X, Adriaens P, Xu M. 2019. Environmental benefits of taxi ride sharing in Beijing. *Energy* 174: 503–508. https://doi.org/10.1016/j.energy.2019.02.166

Carter DP, Weible CM, Siddiki SN, Basurto X. 2016. Integrating core concepts from the institutional analysis and development framework for the systematic analysis of policy designs: An illustration from the US National Organic Program regulation. *Journal of Theoretical Politics* 28(1): 159–185. https://doi.org/10.1177/0951629815603494

Chen J, Yu C, Jin H. 2019. Evaluation model for business sites planning based on online and offline datasets. *Future Generation Computer Systems* 91: 465–474. https://doi.org/10.1016/j.future.2018.08.024

Cheng HM, Li SY, Ning YZ, Chen X, Pan R, Zhang ZY. 2020. Analysis on utilization of Beijing local roads using taxi GPS data. *Physica A: Statistical Mechanics and Its Applications* 545: 123570. https://doi.org/10.1016/j.physa.2019.123570

Cruz-Cárdenas J, Guadalupe-Lanas J, Ramos-Galarza C, Palacio-Fierro A. 2021. Drivers of technology readiness and motivations for consumption in explaining the tendency of consumers to use technology-based services. *Journal of Business Research* 122: 217–225. https://doi.org/10.1016/j.jbusres.2020.08.054

Čulík K, Kalašová A, Otahálová Z. 2020. Alternative Taxi Services and their Cost Analysis.

Transportation Research Procedia 44: 240–247. https://doi.org/10.1016/j.trpro.2020.02.047

D'Agostin A, de Medeiros JF, Vidor G, Zulpo M, Moretto CF. 2020. Drivers and barriers for the adoption of use-oriented product-service systems: A study with young consumers in medium and small cities. *Sustainable Production and Consumption* 21: 92–103. https://doi.org/10.1016/j.spc.2019.11.002

Dou W, Tang W, Li S, Yu S, Choo KKR. 2019. A heuristic line piloting method to disclose malicious taxicab driver's privacy over GPS big data. *Information Sciences* 483: 247–261. https://doi.org/10.1016/j.ins.2018.12.056

Du M, Cheng L, Li X, and Yang J. 2020. Acceptance of electric ride-hailing under the new policy in Shenzhen, China: Influence factors from the driver's perspective. *Sustainable Cities and Society* 61: 102307. https://doi.org/10.1016/j.scs.2020.102307

Eden C, Ackermann F. 2018. Theory into practice, practice to theory: Action research in method development. *European Journal of Operational Research* 271(3): 1145–1155. https://doi.org/10.1016/j.ejor.2018.05.061

Fernandes T, Oliveira E. 2021. Understanding consumers' acceptance of automated technologies in service encounters: Drivers of digital voice assistants adoption. *Journal of Business Research* 122: 180–191. https://doi.org/10.1016/j.jbusres.2020.08.058

Goswami A, Choudhury G, Sarmah HK. 2019. Role of Fibonacci, Blaise Pascal, Pierre de Fermat and Abraham de Moivre in the Devolopment of Number Patterns and Probability: A Historical Search. *International Journal of Applied Engineering Research* 14(11): 2527–2535.

Grau JMS, Romeu MAE. 2015. Agent based modelling for simulating taxi services. *Procedia Computer Science* 52(1): 902–907. https://doi.org/10.1016/j.procs.2015.05.162

Hayati N, Usman O. 2019. Influence of the Customer Relationship Management (CRM), E-marketing, quality service, and service innovation on loyalty of customers ojek online. http://dx.doi.org/10.2139/ssrn.3509483

Hamman, WR. 2010. Line Oriented Flight Training (LOFT): The Intersection of Technical and Human Factor Crew Resource Management (CRM) Team Skills. In *Crew Resource Management* (pp. 233–263). Elsevier Inc. https://doi.org/10.1016/B978-0-12-374946-8.10008-1

Helmreich RL, Foushee HC. 2019. Why CRM? Empirical and Theoretical Bases of Human Factors Training. In *Crew Resource Management* (pp. 3–52). Elsevier. https://doi.org/10.1016/b978-0-12-812995-1.00001-4

Hollebeek LD, Macky K. 2019. Digital Content Marketing's Role in Fostering Consumer Engagement, Trust, and Value: Framework, Fundamental Propositions, and Implications. *Journal of Interactive Marketing* 45: 27–41. https://doi.org/10.1016/j.intmar.2018.07.003

Ju J, Liu L, Feng Y. 2019. Public and private value in citizen participation in E-governance: Evidence from a government-sponsored green commuting platform. *Government Information Quarterly* 36(4): 101400. https://doi.org/10.1016/j.giq.2019.101400

Khan AI, Al-Habsi S. 2020. Machine Learning in Computer Vision. *Procedia Computer Science* 167: 1444–1451. https://doi.org/10.1016/j.procs.2020.03.355

King N, Burgess M, Harris M. 2019. Electric vehicle drivers use better strategies to counter stereotype threat linked to pro-technology than to pro-environmental identities. *Transportation Research Part F: Traffic Psychology and Behaviour* 60: 440–452. https://doi.org/10.1016/j.trf.2018.10.031

Li HR. 2016. Taxi Positioning in the New Age of Internet and Industrial Development Research. *Procedia Engineering* 137: 811–816. https://doi.org/10.1016/j.proeng.2016.01.320

Lin X, Sun C, Cao B, Zhou YW, Chen C. 2020. Should ride-sharing platforms cooperate with car-rental companies? Implications for consumer surplus and driver surplus. *Omega (United Kingdom)* 102309. https://doi.org/10.1016/j.omega.2020.102309

Merfeld K, Wilhelms MP, Henkel S, Kreutzer K. 2019. Carsharing with shared autonomous vehicles: Uncovering drivers, barriers and future developments – A four-stage Delphi study. *Technological Forecasting and Social Change* 144: 66–81. https://doi.org/10.1016/j.techfore.2019.03.012

Nguyen-Phuoc, DQ, Nguyen HA, De Gruyter C, Su DN, Nguyen VH. 2019. Exploring the prevalence and factors associated with self-reported traffic crashes among app-based motorcycle taxis in Vietnam. *Transport Policy* 81: 68–74. https://

doi.org/10.1016/j.tranpol.2019.06.006

Nugroho SB, Zusman E, Nakano R. 2020. Explaining the spread of online taxi services in Semarang, Bogor and Bandung, Indonesia; a discrete choice analysis. *Travel Behaviour and Society* 20: 358–369. https://doi.org/10.1016/j.tbs.2020.04.008

Orlady LM. 2019. Airline Pilots, Training, and CRM in Today's Environment. In *Crew Resource Management* (pp. 553–579). Elsevier. https://doi.org/10.1016/b978-0-12-812995-1.00021-x

Rachmatullah A, Wiebe E, Boulden, D, Mott B, Boyer K, Lester J. 2020. Development and validation of the Computer Science Attitudes Scale for middle school students (MG-CS attitudes). *Computers in Human Behavior Reports* 2: 100018. https://doi.org/10.1016/j.chbr.2020.100018

Rajendran S, Srinivas S. 2020. Air taxi service for urban mobility: A critical review of recent developments, future challenges, and opportunities. *Transportation Research Part E: Logistics and Transportation Review* 143: 102090. https://doi.org/10.1016/j.tre.2020.102090

Richey RC. 2014. Design and Development Research. In *Design and Development Research*. Routledge. https://doi.org/10.4324/9780203826034

Shaikh AA, Alharthi MD, Alamoudi HO. 2020. Examining key drivers of consumer experience with (non-financial) digital services—An exploratory study. *Journal of Retailing and Consumer Services* 55: 102073. https://doi.org/10.1016/j.jretconser.2020.102073

Sileyew KJ. 2020. Research Design and Methodology. In *Cyberspace*. IntechOpen. https://doi.org/10.5772/intechopen.85731

Sivaraks P, Krairit D, Tang JCS. 2011. Effects of e-CRM on customer-bank relationship quality and outcomes: The case of Thailand. *Journal of High Technology Management Research* 22(2): 141–157. https://doi.org/10.1016/j.hitech.2011.09.006

Skippon SM. 2014. How consumer drivers construe vehicle performance: Implications for electric vehicles. *Transportation Research Part F: Traffic Psychology and Behaviour*, 23: 15–31. https://doi.org/10.1016/j.trf.2013.12.008

Suatmadi AY, Creutzig F, Otto IM. 2019. On-demand motorcycle taxis improve mobility, not sustainability. *Case Studies on Transport Policy* 7(2): 218–229. https://doi.org/10.1016/j.cstp.2019.04.005

Suhartanto D, Dean D, Gan C, Suwatno, Chen BT, Michael A. 2020. An examination of satisfaction towards online motorcycle taxis at different usage levels. *Case Studies on Transport Policy* 8(3): 984–991. https://doi.org/10.1016/j.cstp.2020.04.008

Ventoniemi V. 2018. Implementation of a Customer Relationship Management System: A Case Study [thesis]. Helsinki: Bachelor of Business Administration, Metropolia University of Applied Sciences.

Wang T, Zhang Y, Fu X, Li X, Liu L. 2019. Finding taxi service management opportunities based on the analysis of choice behavior for passengers with different travel distances. *Research in Transportation Business and Management* 33 100457. https://doi.org/10.1016/j.rtbm.2020.100457

Wu J, Liao H, Wang JW. 2020. Analysis of consumer attitudes towards autonomous, connected, and electric vehicles: A survey in China. *Research in Transportation Economics* 80: 100828. https://doi.org/10.1016/j.retrec.2020.100828

Xiao M, Guo M. 2020. Computer network security and preventive measures in the age of big data. *Procedia Computer Science* 166: 438–442. https://doi.org/10.1016/j.procs.2020.02.068

Yun Y, Ma D, Yang M. 2021. Human–computer interaction-based Decision Support System with Applications in Data Mining. *Future Generation Computer Systems* 114: 285–289. https://doi.org/10.1016/j.future.2020.07.048

Zandi F, Tavana M. 2011. A fuzzy group quality function deployment model for e-CRM framework assessment in agile manufacturing. *Computers and Industrial Engineering* 61(1): 1–19. https://doi.org/10.1016/j.cie.2011.02.004

Zhang W, Honnappa H, Ukkusuri SV. 2020. Modeling urban taxi services with e-hailings: A queueing network approach. *Transportation Research Part C: Emerging Technologies* 113: 332–349. https://doi.org/10.1016/j.trc.2019.05.036