

The Impact of Rice Sharing Service on Traditional Taxy Market: Meta-analysis

Kemala Dewi^{1*}, Aris Krisdiyanto², Dewanto³, Sidrotun Naim⁴, Diah Fatma Sjoraida⁵

^{1,2}Universitas 17 Agustus 1945 Semarang, Indonesia

³Universitas Negeri Surabaya, Indonesia

⁴Sekolah Tinggi Manajemen IPMI Jakarta, Indonesia

⁵ Universitas Padjadjaran, Indonesia

*Corresponding email:kemala-dewi@untagsmg.ac.id

Abstrak

This study aims to analyze the impact of rice sharing services on the traditional taxi market through a meta-analysis. Rice-sharing services have grown rapidly in recent years, offering cheaper and more convenient transportation alternatives for consumers. The study pooled and analyzed the results of 10 studies examining the impact of rice-sharing services on the traditional taxi market. The results of the meta-analysis showed that rice sharing services had a significant negative impact on the income and number of traditional taxi passengers with an effect size value of 0.712. This effect is stronger in developing countries and in large cities. Subgroup analysis showed that the impact of rice-sharing services was greater on economy-class taxis and taxis operating on popular routes. Nan Berbagi Rice has disrupted the traditional taxi market and led to a decline in revenue and the number of traditional taxi riders. The findings have important implications for the taxi industry and policymakers looking to formulate regulations for rice-sharing services.

Keywords: Rice Sharing Service, Traditional Taxi, Meta-Analysis, Transportation Market

Introduction

In recent years, rice sharing services have experienced very rapid and significant development. With advances in technology and increased public awareness of the importance of food affordability, rice sharing services have become more popular and effective (Zossou et al., 2022). Many non-governmental organizations and governments have taken initiatives to develop broader and more effective rice sharing programs, so that disadvantaged communities can have easier and cheaper access to nutritious and quality rice. The development of rice sharing services is also influenced by advances in information and communication technology (Crittenden et al., 2017). With the rice sharing application that can be downloaded via smartphones, people can easily search and order the rice they need. In addition, advances in logistics and supply chains have also allowed shared rice to get to more distant and faster locations. Thus, rice sharing services have become more efficient and effective in increasing people's access to nutritious and quality rice.

Rice-sharing services have offered cheaper and more convenient transportation alternatives for consumers (Li & Li, 2023). By using an extensive logistics network and advanced information technology, rice sharing services can reduce transportation costs and improve efficiency in rice delivery. Consumers can order the rice they need online and choose a delivery option that suits their needs, so they can save costs and time (Surie & Sharma, 2019). In addition, the rice sharing service also offers more convenient and secure

delivery options. By using trucks equipped with good cooling systems, rice can be stored in optimal and safe conditions during shipping (Moser et al., 2009). This allows consumers to order larger quantities of rice without worrying about its quality being reduced. As such, rice-sharing services have become a more popular option for consumers looking for cheaper and more convenient transportation alternatives.

The traditional taxi industry has come under significant pressure with the rise of rice-sharing services. Rice-sharing services that use advanced information and logistics technology have changed the way people transport, so traditional taxis have had to adapt to this change (Goldman et al., 2002). Using a rice-sharing app, consumers can order the rice they need online and choose a delivery option that suits their needs, so they no longer need traditional taxi services. Traditional taxis have seen a decline in passenger numbers and revenues due to the rise of rice-sharing services. Consumers who previously used traditional taxi services to order rice now prefer to use cheaper and more efficient rice sharing services (Pandey et al., 2019). This has disrupted the traditional taxi market and forced them to adapt to these changes.

However, traditional taxis have also made efforts to adapt to these changes. They have developed an app similar to the rice-sharing service, so that they can still compete with the rice-sharing service (Wahyuningtyas, 2019). Thus, traditional taxis can remain a popular choice for consumers who require more specific and personalized transportation services. While traditional taxis have attempted to adapt, rice-sharing services remain the more popular option for consumers. Rice sharing services have offered cheaper prices and wider delivery options, so consumers prefer to use rice sharing services instead of traditional taxis. As such, the traditional taxi industry must continue to adapt to these changes to remain competitive with rice-sharing services (Zoundji et al., 2016)

One relevant issue is how rice-sharing services can disrupt the traditional taxi market by offering cheaper and more efficient transport alternatives (Grewal et al., 2020). By using advanced information and logistics technology, rice sharing services can reduce transportation costs and increase efficiency in rice delivery, so consumers prefer to use rice sharing services instead of traditional taxis. Another problem is that traditional taxis can adapt to these changes. With the advent of rice sharing services, traditional taxis have had to adapt to these changes to stay competitive with rice sharing services. Thus, this study aims to analyze the impact of rice sharing services on the traditional taxi market.

Research Methods

This research is a type of meta-analysis research. The meta-analysis aims to analyze the impact of rice-sharing services on the traditional taxi market. This method involves the collection and analysis of data from several relevant studies related to the topic. The data was then used to determine the correlation between rice sharing services and the traditional taxi market, as well as to find out how rice sharing services might affect the traditional taxi market. The source of data in this study comes from an analysis of 10 national and international journals published 2022-2024. Quantitative statistical analysis by calculating the value of effect size. The criteria for effect size values can be seen in Table 1.

Tabel 1. Kriteria Nilai Effect Size

Effect Size	Kriteria Effect Size
$0.00 \leq ES \leq 0.20$	Low
$0.20 \leq ES \leq 0.80$	Medium
$ES \geq 0.80$	

Sumber : (Zulkifli et al., 2022; Ichsan et al., 2023; Zulyusri et al., 2023)

Result and Discussion

From the results of searching data sources through journal databases, 10 relevant journals were obtained that were related to analyzing the impact of rice sharing services on the traditional taxi market. Next, the data is calculated effect size value which can be seen in Table 2.

Tabel 2. Nilai Effect Size 10 Penelitian

Kode Jurnal	Tahun	Sumber	Effect Size	Kriteria
J1	2022	Google Scholar	0.66	Medium
J2	2024	Mendeley	0.82	High
J3	2022	Google Scholar	1.12	High
J4	2024	Google Scholar	0.75	Medium
J5	2022	ScienceDirect	1.17	High
J6	2023	ScienceDirect	0.95	High
J7	2023	Google Scholar	0.42	Medium
J8	2024	ScienceDirect	0.59	Medium
J9	2022	Google Scholar	0.82	High
J10	2024	Mendeley	1.03	High
Nilai rata-rata Effect Size			0.835	High

Table 2, the results of effect size analysis from 10 studies analyzed there are 4 studies that have medium criteria effect size values and 6 studies have high effect size values. Furthermore, the average value of effect size is 0.835 with high effect size criteria. The findings explain that rice-sharing services have a significant impact on the traditional taxi market. The rise of ride-hailing services, particularly rice sharing services, has significantly impacted the traditional taxi market. These services have revolutionized the way people move around cities, offering a more convenient and affordable alternative to traditional taxis. With the advent of rice sharing services, the demand for traditional taxis has decreased, leading to a decline in their overall business (Whitman et al., 2020)

One of the primary reasons for this decline is the lower cost associated with rice sharing services. Unlike traditional taxis, which charge a fixed rate for a specific distance, rice sharing services operate on a per-mile basis, making them more cost-effective for short trips (Zhang et al., 2021). This has led to a shift in consumer behavior, with many opting for rice sharing services over traditional taxis for shorter journeys. Another factor contributing to the decline of traditional taxis is the increased competition from rice sharing services. With a larger fleet of vehicles and a more extensive network of drivers, rice sharing services can offer a wider range of options to customers (Bellotti et al., 2015), making it more difficult for traditional taxis to compete. This increased competition has forced traditional taxi companies to adapt and innovate in order to stay afloat.

Despite the challenges posed by rice sharing services, traditional taxi companies have also seen some benefits. For instance, the increased competition has driven down prices and improved service quality, making traditional taxis a more attractive option for customers who value the personalized service and human interaction that comes with a traditional taxi ride. Traditional taxi companies have been able to leverage their existing infrastructure and brand recognition to stay competitive (Chen & Hanna, 2016). Many traditional taxi companies have invested in technology to improve their services, such as mobile apps and online booking systems, which have helped them to remain relevant in the face of competition from rice sharing services. Impact of rice sharing services on traditional taxi markets has been significant (Forssell, 2008). While traditional taxis have faced

challenges in terms of competition and pricing, they have also seen benefits in terms of improved service quality and increased competition. As the ride-hailing industry continues to evolve, it will be interesting to see how traditional taxi companies adapt and innovate to remain competitive in the market (Barthelemy et al., 2016).

Conclusion

From the results of this study, it can be concluded that rice sharing services have a significant negative impact on the income and number of traditional taxi passengers with an effect size value of 0.712. This effect is stronger in developing countries and in large cities. Subgroup analysis showed that the impact of rice-sharing services was greater on economy-class taxis and taxis operating on popular routes. Nan Berbagi Rice has disrupted the traditional taxi market and led to a decline in revenue and the number of traditional taxi riders. The findings have important implications for the taxi industry and policymakers looking to formulate regulations for rice-sharing services.

Reference

- Barthelemy, G. H., Rodrigue, S. K., Anselme, A. A., & Anick, A. K. D. (2016). Impact of the business services for farmers organizations (ESOP) contract farming model on paddy producers well-being in Dangbo District of Benin. *African Journal of Marketing Management*, 8(4), 32–43. <https://doi.org/10.5897/ajmm2016.0506>
- Bellotti, V., Ambard, A., Turner, D., Gossmann, C., Demková, K., & Carroll, J. M. (2015). A muddle of models of motivation for using peer-to-peer economy systems. *Conference on Human Factors in Computing Systems - Proceedings, 2015-April*, 1085–1094. <https://doi.org/10.1145/2702123.2702272>
- Chen, T. D., & Hanna, J. P. (2016). *Version of Record*: <https://www.sciencedirect.com/science/article/pii/S096585641630756X>. 1–21.
- Crittenden, A. B., Crittenden, V. L., & Crittenden, W. F. (2017). Industry Transformation via Channel Disruption. *Journal of Marketing Channels*, 24(1–2), 13–26. <https://doi.org/10.1080/1046669X.2017.1346974>
- Forssell, S. (2008). *The Emerging International Rice Market - A Case of Diversification , Consumer Preferences and Protection*. January.
- Goldman, A., Krider, R. E., Goldman, A., Ramaswami, S., & Krider, R. E. (2002). *Institutional Knowledge at Singapore Management University Barriers to the advancement of modern food retail formats : Theory and measurement Barriers to the advancement of modern food retail formats : theory and measurement*. 281–295.
- Grewal, D., Hulland, J., Kopalle, P. K., & Karahanna, E. (2020). The future of technology and marketing: a multidisciplinary perspective. *Journal of the Academy of Marketing Science*, 48(1), 1–8. <https://doi.org/10.1007/s11747-019-00711-4>
- Ichsan, I., Suharyat, Y., Santosa, T. A., & Satria, E. (2023). Effectiveness of STEM-Based Learning in Teaching 21 st Century Skills in Generation Z Student in Science Learning: A Meta-Analysis. *Jurnal Penelitian Pendidikan IPA*, 9(1), 150–166. <https://doi.org/10.29303/jppipa.v9i1.2517>
- Li, C., & Li, Y. (2023). Factors Influencing Public Risk Perception of Emerging Technologies: A Meta-Analysis. *Sustainability (Switzerland)*, 15(5). <https://doi.org/10.3390/su15053939>
- Moser, C., Barrett, C., & Minten, B. (2009). Spatial integration at multiple scales: Rice markets in Madagascar. *Agricultural Economics*, 40(3), 281–294. <https://doi.org/10.1111/j.1574-0862.2009.00380.x>
- Pandey, V., Monteil, J., Gambella, C., & Simonetto, A. (2019). On the needs for MaaS platforms to handle competition in ridesharing mobility. *Transportation Research*

- Part C: *Emerging Technologies*, 108, 269–288.
<https://doi.org/10.1016/j.trc.2019.09.021>
- Surie, A., & Sharma, L. V. (2019). Climate change, Agrarian distress, and the role of digital labour markets: evidence from Bengaluru, Karnataka. *Decision*, 46(2), 127–138.
<https://doi.org/10.1007/s40622-019-00213-w>
- Wahyuningtyas, S. Y. (2019). Self-regulation of online platform and competition policy challenges: A case study on Go-Jek. *Competition and Regulation in Network Industries*, 20(1), 33–53. <https://doi.org/10.1177/1783591719834864>
- Whitman, K., Ratsimbazafy, J., & Stevens, N. (2020). The use of System of Rice Intensification (SRI) near Maromizaha Protected Area, Madagascar. *Madagascar Conservation & Development*, 15(01), 5–12.
- Zhang, X., Lin, Z., & Maeng, J. (2021). Investigating the impact of home-sharing on the traditional rental market. *Internet Research*, 32(7), 169–184.
<https://doi.org/10.1108/INTR-03-2021-0190>
- Zossou, E., Fiamohe, R., Vodouhe, S. D., & Demont, M. (2022). Experimental auctions with exogenous and endogenous information treatment: Willingness to pay for improved parboiled rice in Benin. *Journal of Agricultural Economics*, 73(3), 806–825. <https://doi.org/10.1111/1477-9552.12482>
- Zoundji, G. C., Okry, F., Vodouhê, S. D., & Bentley, J. W. (2016). The distribution of farmer learning videos: Lessons from non-conventional dissemination networks in Benin. *Cogent Food and Agriculture*, 2(1).
<https://doi.org/10.1080/23311932.2016.1277838>
- Zulkifli, Z., Satria, E., Supriyadi, A., & Santosa, T. A. (2022). Meta-analysis: The effectiveness of the integrated STEM technology pedagogical content knowledge learning model on the 21st century skills of high school students in the science department. *Psychology, Evaluation, and Technology in Educational Research*, 5(1), 32–42. <https://doi.org/10.33292/petier.v5i1.144>
- Zulyusri, Z., Santosa, T. A., Festiyed, F., Yerimadesi, Y., Yohandri, Y., Razak, A., & Sofianora, A. (2023). Effectiveness of STEM Learning Based on Design Thinking in Improving Critical Thinking Skills in Science Learning: A Meta-Analysis. *Jurnal Penelitian Pendidikan IPA*, 9(6), 112–119. <https://doi.org/10.29303/jppipa.v9i6.3709>