

## Socio-Economic Impact of the Emergence of Online Transportation in Indonesia: Opportunities and Challenges

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### ABSTRACT

In the current era, people can easily get pick-up and drop-off services via online transportation modes, this makes offline transport drivers such as angkot, bus and taxi drivers have their own challenges, on the other hand this also provides an opportunity for people to get pick-up services. pick up via online transportation mode. some people looking for work. By these developments, it is necessary to conduct research on the socio-economic impact of the emergence of online transportation to determine the opportunities and challenges for drivers regarding technological developments related to transportation. This study uses a survey method to determine the level of opportunities and challenges for offline and online drivers. The results obtained from the interviews were that there were negative and positive impacts experienced by drivers, both offline drivers and offline drivers had their own impacts. Online drivers get more opportunities and offline drivers get more challenges, because it is known that online transportation is more recommended and more chosen by the public as the main alternative.

**Keywords:** *Transportation, Driver, Offline Transportation, Online Transportation, Impact*

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### INTRODUCTION

Transportation is the most important part of living life, because the movement of people or goods from one place to another requires transportation. According to Bowersox (1981), transportation is the movement of goods or passengers from one place to another, where the product is moved to the destination where it is needed. (Bowersox., 1981.

Generally, transportation is an activity of moving something (goods and/or goods) from one place to another, either with or without means. The era is increasingly developing and transportation is increasingly sophisticated, the sophistication of this transportation has both negative and positive impacts on the community, especially drivers. Online transportation drivers, such as Gojek, Grab, Maxim, and the like have many opportunities to make money in the shuttle sector, but offline transportation drivers such

as public transportation, bus, taxi drivers actually add to the challenges of making money, because most people prefer to use online transportation in today's era which is more efficient in terms of time and cost. Offline drivers have difficulty getting passengers and sometimes don't get passengers at all, this is certainly very detrimental to them, therefore it is necessary to conduct research related to the socio-economic impact to analyze changes in economic income experienced by offline transportation drivers due to the presence of online transportation is very important.

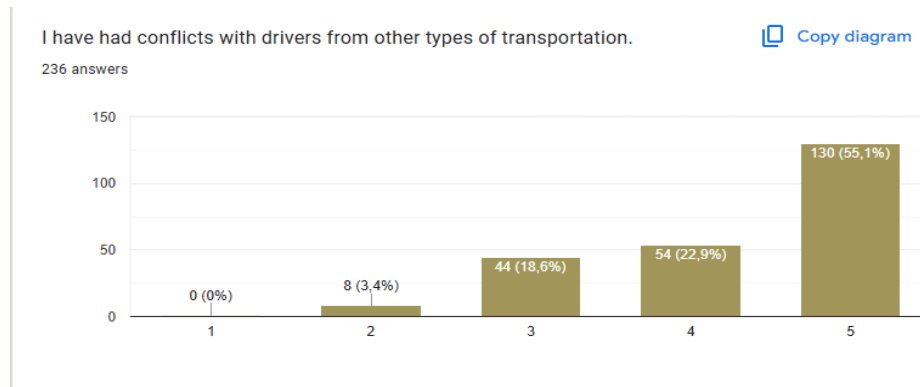
## METHOD

The method used in this study is a quantitative approach with the collection of primary data through closed-ended questionnaires distributed to respondents. The questionnaire utilizes a linear scale available in Google Forms to measure respondents' attitudes, opinions, or perceptions regarding the topic being studied. Some of the questions include personal data and linear questions that generate numerical data ready for analysis. The collected data is then analyzed using statistical techniques to identify patterns or relationships between the variables being studied. The questionnaire is created online using devices such as smartphones, laptops, or computers with internet access, and the form is shared via a link with the targeted respondents. This method allows for the efficient collection of structured data, which can be quickly processed to produce valid and measurable findings.

## FINDING AND DISCUSSION

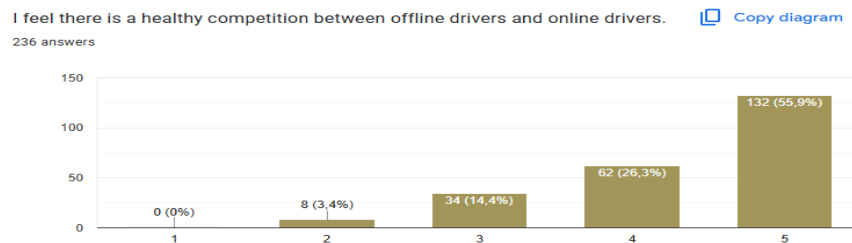
### RESULT

Based on the online questionnaire conducted over a period of four days, from November 20, 2024, to November 23, 2024, a total of 236 responses were received. The results are as follows: Respondents were asked to rate their agreement with various statements using a scale ranging from 1 to 5, where 1 indicates "Strongly Disagree," 2 means "Disagree," 3 represents "Neutral," 4 stands for "Agree," and 5 signifies "Strongly Agree."



**Figure 1: Various Conflict Experienced by Drivers With Other Transportation Users**

The data presented shows the various conflicts experienced by drivers with other transportation users. The highest number of conflicts occurred at score 5, with 130 respondents, or 55.1% of the total respondents, indicating that the majority of drivers experience the most intense conflicts with other transportation users. In contrast, the lowest number of conflicts was reported at score 1, with only 1 respondent, or 0% of the total, suggesting that a very small number of drivers do not face any conflicts with other transportation users. The distribution of responses across the other scores indicates a range of experiences: score 4 was selected by 54 respondents (22.9%), score 3 by 44 respondents (18.6%), and score 2 by 8 respondents (3.4%). This suggests that while a significant portion of drivers experience serious conflicts, there is also a notable group that faces mild to moderate levels of conflict, with a small percentage reporting no conflict at all.

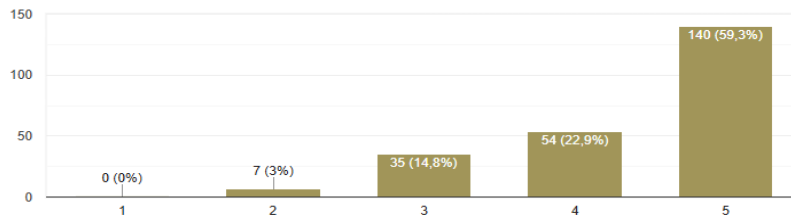


**Figure 2: Healthy Competition Between Offline and Online Drivers**

The data presented reveals respondents' perceptions of the existence of healthy competition between offline and online drivers. The highest number of respondents rated it at score 5, with 132 respondents, or 55.9% of the total, indicating that the majority of respondents believe there is healthy competition between the two groups of drivers. On the other hand, the lowest number of respondents was at score 1, with 0 respondents, or 0% of the total, meaning no respondents completely disagreed with the idea of healthy competition. The other scores show a relatively varied distribution of responses, with score 4 having 62 respondents (26.3%), score 3 with 34 respondents (14.4%), and score 2 with 8 respondents (3.4%). This suggests that while the majority perceive a healthy competition, there is still a notable portion who view it with varying degrees of uncertainty or neutrality.

I believe that collaboration between offline and online drivers can improve overall transportation services. [Copy diagram](#)

236 answers

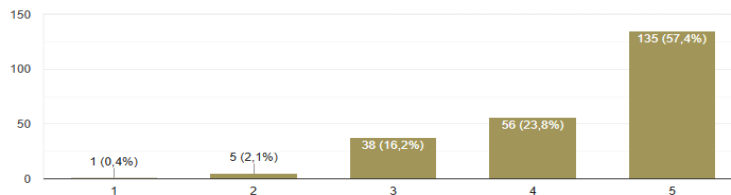


**Figure 3: Collaboration Between Offline and Online Drivers**

The data indicates that the majority of respondents, 140 individuals or 59.3%, believe that collaboration between offline and online drivers can enhance the overall transportation services. Furthermore, 54 respondents (22.9%) also agree with this statement, while 35 respondents (14.8%) and 7 respondents (3%) expressed lower levels of agreement. Notably, no respondents (0%) disagreed with the statement, highlighting a strong consensus on the potential benefits of collaboration between the two groups of drivers.

I agree if there is a joint training program between offline and online drivers to improve each other's understanding. [Copy diagram](#)

235 answers



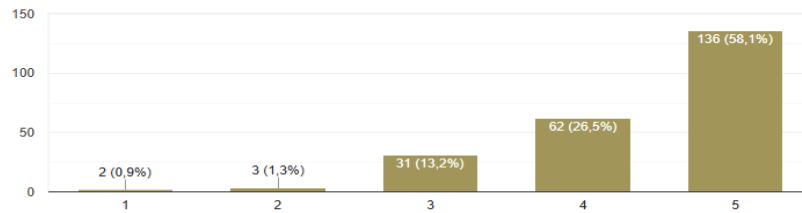
**Figure 4: Joint Training Program Between Offline and Online Drivers**

The data indicates that the majority of respondents, 135 individuals or 57.4%, agree that a joint training program between offline and online drivers would help improve mutual understanding. Additionally, 56 respondents (23.8%) also support this statement, while 38 respondents (16.2%) and 5 respondents (2.1%) expressed lower levels of agreement. Only 1 respondent (0.4%) disagreed with the idea of a joint training program, suggesting a generally positive attitude towards such an initiative.

I believe that education about drivers' rights and obligations can reduce conflict between the two groups.

[Copy diagram](#)

234 answers



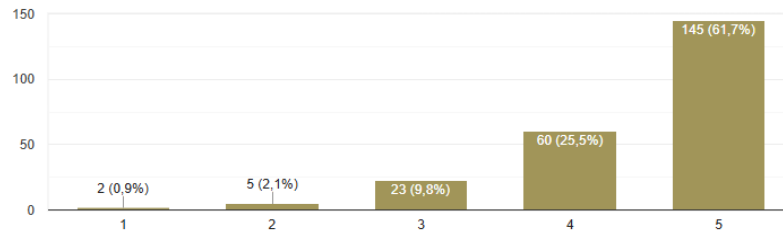
**Figure 5: Education About The Rights and Responsibilities of Drivers**

The data shows that the majority of respondents, 136 individuals or 58.1%, believe that education about the rights and responsibilities of drivers can help reduce conflicts between offline and online drivers. Additionally, 62 respondents (26.5%) also agree with this statement, while 31 respondents (13.2%) and 3 respondents (1.3%) expressed lower levels of agreement. Only 2 respondents (0.9%) disagreed completely with the statement, suggesting strong support for the idea that education could play a key role in reducing conflicts between the two groups.

I agree if there are regulations that limit the number of online transportation vehicles in certain areas to support offline drivers.

[Copy diagram](#)

235 answers

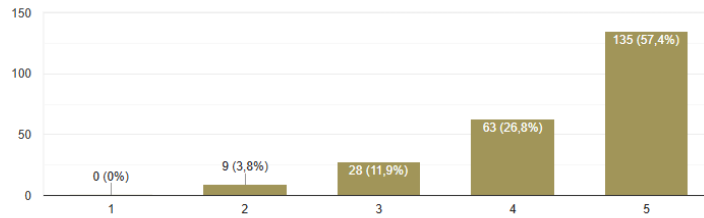


**Figure 6: Regulations Limiting Number of Online Transportation**

The data shows that the majority of respondents, 145 individuals or 61.7%, agree that regulations limiting the number of online transportation vehicles in certain areas would help support offline drivers. Additionally, 60 respondents (25.5%) also agree with this statement, while 23 respondents (9.8%) and 5 respondents (2.1%) expressed lower levels of agreement. Only 2 respondents (0.9%) disagreed with the idea of regulating the number of online transportation vehicles, indicating broad support for such regulatory measures.

I hope there will be improved communication between offline and online drivers to create a better relationship. [Copy diagram](#)

235 answers

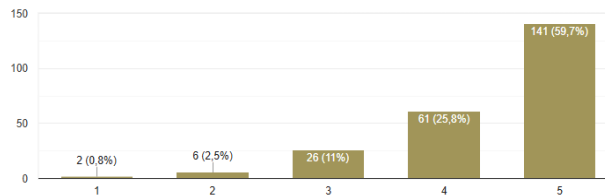


**Figure 7: Improved Communication Between Offline And Online Drivers**

The data indicates that the majority of respondents, 135 individuals or 57.4%, hope for improved communication between offline and online drivers to foster better relationships. Additionally, 63 respondents (26.8%) also agree with this statement, while 28 respondents (11.9%) and 9 respondents (3.8%) expressed lower levels of agreement. Notably, no respondents (0%) disagreed with the idea of enhancing communication, suggesting widespread support for the need to improve interactions between the two groups of drivers.

I believe that the future of transportation in this city would be better if both groups worked together rather than competing with each other. [Copy diagram](#)

236 answers

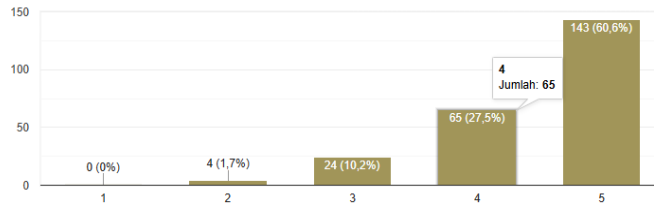


**Figure 8: Future Of Transportation**

The data shows that the majority of respondents, 141 individuals or 59.7%, believe that the future of transportation in this city will be better if both groups of drivers work together rather than compete against each other. Additionally, 61 respondents (25.8%) also agree with this statement, while 26 respondents (11%) and 6 respondents (2.5%) expressed lower levels of agreement. Only 2 respondents (0.8%) disagreed with the statement, indicating strong support for the idea that collaboration between offline and online drivers would lead to a better transportation system in the city.

I feel that the current regulations are sufficient to regulate both types of transportation (offline and online). [Copy diagram](#)

236 answers

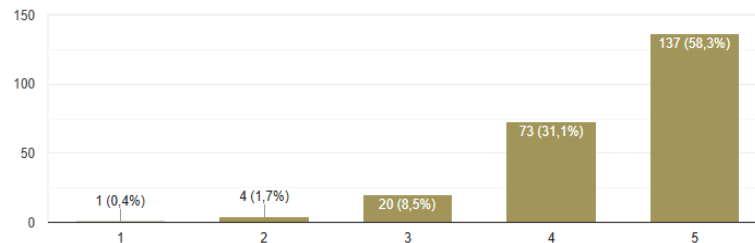


**Figure 9: Current Regulations Offline and Online Transportation**

The data indicates that the majority of respondents, 143 individuals or 60.6%, feel that the current regulations are sufficient to govern both offline and online transportation. Additionally, 65 respondents (27.5%) also agree with this statement, while 24 respondents (10.2%) and 4 respondents (1.7%) expressed lower levels of agreement. Notably, no respondents (0%) disagreed with the adequacy of the current regulations, suggesting broad confidence in the existing regulatory framework for managing both types of transportation.

I feel the stress of competition between offline and online drivers is affecting my mental health. [Copy diagram](#)

235 answers



**Figure 10: Competition Between Offline and Online Drivers**

The data shows that the majority of respondents, 137 individuals or 58.3%, feel that the competition between offline and online drivers affects their mental health. Additionally, 73 respondents (31.1%) also agree with this statement, while 20 respondents (8.5%) and 4 respondents (1.7%) expressed lower levels of agreement. Only 1 respondent (0.4%) disagreed with the idea that the competition impacts their mental health, indicating a significant concern about the mental well-being of drivers due to this competition.

## DISCUSSION

The emergence of online transportation services, such as ride-hailing platforms like Gojek and Grab, has significantly reshaped the transportation landscape in Indonesia. This disruption has created both substantial opportunities and considerable challenges for the socio-economic environment, particularly for drivers who work in the traditional (offline) transportation sector. The findings of this study provide valuable insight into how these changes are affecting the experiences of both offline and online drivers and can be understood within the broader socio-economic context of Indonesia's transportation sector.

The rise of online transportation services has introduced new opportunities for drivers, particularly for those who were previously unemployed or underemployed. Online platforms offer a more flexible work structure, where drivers can choose their hours and earn income based on the amount of work they put in. This flexibility is an attractive feature for many, especially in urban areas where demand for transportation is high. This aligns with the survey findings, where a significant portion of respondents (59.3%) believe that collaboration between offline and online drivers could enhance transportation services overall. It indicates a recognition of the benefits that technology-driven services can bring to the sector, including improved efficiency, greater convenience for passengers, and better market access for drivers. Moreover, the expansion of ride-hailing services has been shown to create a more competitive market that pushes both online and offline services to improve their quality and lower their prices, benefiting consumers. From a socio-economic perspective, this increased competition can lead to more affordable transportation options for the public, while drivers, especially those in the online sector, enjoy the ability to tap into a larger pool of customers compared to traditional taxi services.

However, this transformation also presents significant challenges, especially in the context of socio-economic stability for traditional (offline) drivers. The findings from this research highlight a significant concern for offline drivers, as 55.1% of respondents reported experiencing intense conflicts with other transportation users, including online drivers. The competition between offline and online drivers is not simply a matter of business rivalry—it also has broader social and economic consequences. As online ride-hailing services have expanded, they have often undercut traditional taxi fares, putting pressure on offline drivers' income levels and making it harder for them to compete. This situation exacerbates economic inequality within the sector and creates tensions between the two groups of drivers.

The negative effects of this competition are also reflected in the survey responses related to mental health. The fact that 58.3% of respondents feel that the competition between offline and online drivers affects their mental well-being underscores the psychological strain that arises from this intense rivalry. For many traditional drivers, the rise of online transportation services has meant decreased earnings, job insecurity, and a sense of being marginalized in an increasingly digitalized economy. This can lead to heightened stress and anxiety, which in turn impacts both the well-being of the drivers

and the quality of service they provide. In a broader socio-economic context, these tensions point to a critical issue of job displacement in the transportation sector. As online platforms gain market share, they risk diminishing the role of traditional transportation services, which have long been a reliable source of employment for many, especially in urban and peri-urban areas. The challenge here is to ensure that the growth of the online sector does not come at the expense of job security for those in the offline sector.

One promising way to address the challenges faced by both online and offline drivers is through education and joint training programs. The survey results show that 57.4% of respondents support the idea of a joint training program between online and offline drivers to improve mutual understanding. This finding highlights a critical socio-economic opportunity: creating pathways for collaboration, not just competition, between the two groups. In a context like Indonesia, where economic and social disparities between different sectors can be stark, providing education and training opportunities that foster cooperation could help bridge the gap between these two groups and reduce tensions.

Joint training programs could equip drivers with not only better customer service skills but also an understanding of their rights, responsibilities, and the potential benefits of working together. For example, education on the legal and regulatory aspects of the transportation industry could help reduce conflicts by providing drivers with a clearer understanding of the rules governing their work. It could also offer insight into how both types of drivers—offline and online—can coexist in a competitive yet harmonious market.

In addition, such programs could help mitigate the mental health issues reported by the drivers in the study. By fostering a sense of unity and reducing feelings of competition, joint training initiatives could promote better mental well-being among drivers. This is especially important in a socio-economic context where job insecurity and low wages are often associated with high levels of stress and dissatisfaction.

Regulation plays a crucial role in managing the socio-economic impact of the rise of online transportation services in Indonesia. According to the survey, 61.7% of respondents support regulating the number of online vehicles in certain areas to help support offline drivers. This reflects a growing awareness of the need for policy interventions to balance the interests of both groups of drivers. In a country like Indonesia, where urbanization has led to increased competition for limited resources and space, regulating the number of vehicles operating in particular zones could help alleviate tensions between the two groups.

Moreover, 60.6% of respondents felt that the current regulations governing both offline and online transportation were sufficient. This suggests that there is confidence in the existing regulatory framework, but it also highlights the need for ongoing adaptation as the industry continues to evolve. Policymakers must ensure that regulations not only create fair competition but also provide safeguards for traditional drivers who may be negatively affected by the growing presence of online platforms.

The integration of regulatory measures such as pricing caps, licensing requirements, and restrictions on the number of online vehicles in specific areas could

help create a more level playing field. This would reduce the pressure on offline drivers and ensure that the online transportation services do not completely dominate the market. Additionally, such regulations could protect consumers from monopolistic practices and ensure that the benefits of both sectors are maximized without unfairly disadvantaging any group.

## CONCLUSION

In conclusion, the emergence of online transportation in Indonesia presents both significant opportunities and challenges in the socio-economic context. The findings of this study demonstrate that while the rise of online services has the potential to improve transportation services, create jobs, and increase mobility for consumers, it also brings with it issues of competition, job insecurity, and mental health concerns for drivers. Addressing these challenges through regulation, education, and training programs, while fostering collaboration between offline and online drivers, can help create a more equitable and sustainable transportation ecosystem. In the long term, this approach could allow both online and offline drivers to thrive, ensuring that the socio-economic benefits of online transportation are realized without undermining the livelihoods of traditional drivers.

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