

Asymmetric Information on Online Transportation Partnership: An Empirical Study in Indonesia*

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Abstract

The concept of sharing economy is still under debate among experts. Online transportation companies use the concept of a sharing economy with a partnership pattern. The pattern used in such a partnership is different from the common ones. Several studies have found information asymmetry and unbalanced relationships in the partnership. This study aims to identify information asymmetries in online transportation partnerships in Indonesia. Using a qualitative approach with interactive analysis, the informants are online transportation drivers in Malang City. This study finds that drivers have received asymmetric information in terms of order, bonus, and sanctions. Furthermore, they are not the partners of the companies; instead, they are application users, just as customers. All rules and policies are made by the company without involving a driver. Drivers can only accept all policies from the company if they wish to join the partnership. The implication that occurs to the driver causes the driver to lose bargaining power as a partner. However, their income is higher than that before joining the company. The sustainability and future of the driver are very unstable due to the ever-changing rules of the company. Driver loyalty is also considered very low. In light of this trend, the government should enact legislation that spells out the rights and responsibilities of parties involved in online transportation partnerships.

Keywords: Asymmetric Information, Partnership, Online Transportation, Sharing Platform, Sharing Economy

JEL Classification Code: L14, M13, R41

1. Introduction

The development of technology has given birth to a new economic model called the sharing economy, but this term

is still under debate by experts. The sharing economy is an economic model defined as a peer-to-peer (P2P) based activity of acquiring, providing or sharing access to goods and services that are often facilitated by a community-based online platform. Sharing economy is largely summarized in the literature as offering access to ownership (Martin, 2016) by leveraging the unused capacity of goods and services (Harmaala, 2015; Heinrichs, 2013) to provide efficiency by reducing overall consumption and subsequent resource savings (Ala-Mantila et al., 2016; De-Leeuw & Gössling, 2016). Various economies are more summarized as collaborative consumption (Martin et al., 2015), which describes a digital platform that connects consumers and suppliers to get services or commodities through the use of mobile applications or websites (Cockyane, 2016).

The development of the platform business has emerged as a viable alternative to meet various customer needs. One of the businesses is transportation. Online transportation businesses, such as those run by Grab, Gojek, Maxim, and Blitcar, are growing very rapidly to meet customers' needs who want convenience and cheap prices, and the online transportation business model is a part of the sharing economy (Caldieraro et al., 2018). This business model has

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changed ecosystems, markets, and work and consumption patterns (Caldieraro et al., 2018; Lamberton & Rose, 2012; Zervas et al., 2017).

The online transportation business model generally uses digital platforms, and companies do not consider workers as their employees but their partners (Wright et al., 2017; Hall & Krueger, 2018). Mas and Pallais (2017) found that many online drivers have joined app companies on the grounds of the autonomy of flexible working hours and increased welfare. The high compensation received by online transportation drivers when they first join the company has made them switch from part-time to full-time and professional jobs; this can jeopardize the nature of sharing economy (Liu et al., 2020).

When an online transportation driver turns into a full-timer, he depends heavily on the company's application platform. This dependency has caused bargaining power inequality, where companies fully control the drivers' jobs (Rosenblat & Stark, 2016). The platform companies should be tasked with moderating supply and demand. Ironically, they determine the production price unilaterally and control the rules of the game (Nastiti, 2017).

Online-based transportation partnerships do not fit into an idealized sharing economy and tend to be imbalanced. Cockayne (2016) in his study found that there is a relationship between ambivalence and ambiguity in the socio-economic character of application company platforms. Meanwhile, Sprague (2015) argued that independent workers on the platform are not truly independent but highly dependent, and the platform companies are also very dependent on independent workers.

Based on the results of several previous studies related to partnership problems in online transportation, this study aims to identify asymmetric information received by online transportation drivers and its effect on the relationship between drivers and application companies.

2. Literature Review

2.1. Sharing Economy

Sharing economy is characterized by non-ownership, temporary access, and redistribution of material goods or money, space, or time assets that are highly dependent on information technology and make consumption very accessible, flexible, and easy to share (Botsman & Rogers, 2011). It has become very popular in the face of increasing urbanization in the context of limited land and landscapes due to population density, which makes people prefer to share due to not having space to store their goods and their temporary nature (Bardhi & Eckhardt, 2012). Most of the facts say that leasing or peer-to-peer transactions were born out of the global economic crisis in the last few years so

that it provides opportunities for individuals to get additional income, and it becomes an alternative job. The current traditional jobs are considered very difficult at this time, but sharing economy jobs offer flexibility at work (Dervojeda et al., 2013).

The sharing economy, also known as collaborative consumption or peer-to-peer-based sharing, is a concept that highlights the ability – and perhaps the preference – of individuals to rent or borrow goods rather than buy and own them. An important criterion of the sharing economy is that it enables individuals to monetize assets that are not being fully utilized (Frenken & Schoor, 2017). A profit-sharing economy is the value of taking underutilized assets and making them accessible online to the community, which leads to a reduced need for ownership of these assets (Stephany, 2015). Acquier et al. (2017) said that sharing economy is divided into three basic building blocks, namely economic access, economic platforms, and community-based economies. The access economy covers a set of initiatives sharing underutilized assets (material, resources, or skills) to optimize their use on the idea of optimizing underused assets to promote access instead of ownership. Access-based transactions that rely on temporal access instead of a transfer of ownership are not new. The platform economy forms a second core of the sharing economy. The platform economy is a set of initiatives that intermediate decentralized exchanges among peers through digital platforms. Platforms are gaining considerable weight in contemporary capitalism. The community-based economy forms the third core of the sharing economy. It refers to initiatives coordinating through non-contractual, non-hierarchical, or non-monetized forms of interaction (to perform work, participate in a project, or form exchange relationships). Rather than the creation and maximization of economic value, the primary purpose of initiatives belonging to the community-based economy is to contribute to a community project, to create social bonding, to promote values, or to achieve a social mission through a collective project. However, according to Munoz and Cohen (2017), not all elements of the three ideal cores above in the sharing economy exist in the practice of the sharing economy; only a few practices use these three cores ideally.

2.2. Sharing Platform In Online Transportation

Currently, the provision of data sharing platforms for businesses has emerged as a new intermediary (Plantin et al., 2018). Online transportation application companies as platform providers serve to match supply and demand between suppliers and users (Otto et al., 2016). Suppliers are online drivers who provide services to customers, while users are customers who need transportation services. The sharing platform considers the incentives of the parties involved in each transaction (Richter & Slowinski, 2019).

The online platform provides convenience and is interested in targeting Generation Z as customers (Pham et al., 2020). From an economic perspective, its main function is to facilitate data sharing by lowering transaction costs through combining multiple data sources to reduce information asymmetry without limiting incentives for suppliers to share (Otto et al., 2016).

Ironically, several studies have found that platform companies do not only act as intermediaries but also determine service prices unilaterally and control various regulations (Nastiti, 2017). In line with that, Rosenblatt and Stark (2016) also found that information control is firmly held by application companies so that driver-partners cannot negotiate in carrying out their work. Pricing of services by application companies pushes drivers into an emotional space similar to gambling or gaming (Cherry, 2012; Schull, 2012). This causes online drivers who previously worked part-time to become full-time and professional workers, and this jeopardizes the nature of the sharing economy (Liu et al., 2020).

A partnership is an association consisting of two or more people who act as co-owners and run a business for profit (Spencer, 1977). The irony is that the partnerships in online transportation are not like that. Drivers as partners are very platform-dependent and not independent (Sprague, 2015). Their motivation for joining the application company is economic interests and self-benefit, whereas altruistic, environmental motive does not seem so important (Wilhelms et al., 2017; Barnes & Mattsson, 2016). The app companies score the driver's performance using the evaluation from customers, who act as if they are managers who rate drivers as the service providers (Stark & Levy, 2018).

2.3. Asymmetric Information

Asymmetric information, also known as “information failure,” occurs when one party to an economic transaction possesses greater material knowledge than the other party. Information asymmetry assumes that at least one party in a transaction has relevant information, while others do not (Akerlof, 1970). Information asymmetry occurs when the knowledge of one contracting party is lower than the other party and about the real intentions of the opposing party and planned activities (Dehlen et al., 2014). The perspective of information is asymmetric when the information is not perfect because it is very expensive to obtain the information (Stiglitz, 2000).

Asymmetric information is determined by two components: the extent to which a general basis for information exists between participants and the level of coordination or communication between team members (Keane & Stavrunova, 2016). Information asymmetry scenarios can be grouped into two main categories (Akerlof et al., 2001): adverse selection

and moral hazard. Adverse selection is related to a situation where one side of the market does not know the type or quality of goods (people) or other parties from the market. Meanwhile, moral hazard is an action taken intentionally by an agent to restrain efforts that have been mutually agreed upon (Berger et al., 2019; Dutta et al., 1994; Frenzen et al., 2010).

Firms that are already established and have high technology when they enter equity partnerships with smaller companies or smaller partners have a tendency to commit fraud against their partners (Benson & Ziedonis, 2009). Smaller companies or partners may need to be careful about reaching partnership contracts with companies when information asymmetry is high because already large partners tend to abuse the technology of smaller companies (Dushnitsky & Shaver, 2009).

The literature suggests several mechanisms that can be used to overcome information asymmetry, including through contract incentives and monitoring (Fama, 1980; Jensen, 1986; Wiseman & Gomez-Mejja, 1998). Another argument for overcoming the uncertainty resulting from information asymmetry is to include an institutional perspective in the study of the many problems that have cooperative structures (Eisenhardt, 1989).

3. Methodology

This study uses an interpretive qualitative method in exploring information asymmetry in online transportation partnership, which is relevant with the statement of Creswell and Plano-Clark (2006) that to sharpen the analysis and provide holistic conclusions from the existing problems, qualitative analysis is needed. The unit of analysis in this research is what and how asymmetric information and the partnership relationship in online transportation practices are. The data analysis uses the Interactive Analysis model from Miles and Huberman (1994), which divides analysis activities into several parts, namely: data collection, data reduction, data presentation, and conclusion drawing or data verification. The data validity was tested using triangulation of sources and techniques.

4. Results and Discussion

4.1. Informant at a Glance

This study aims to identify information asymmetry in partnership between platform companies and online motorcycle transportation riders and to identify the partnership pattern between them. Before further elaboration about the asymmetric information, the suitability of the research object will be detailed, key and supporting informants in this study will be described. Therefore, this section presents the profile of all informants through the following Table 1.

Table 1: Informants Profile

Name	Age	Education	Working Time	Years Joined	Application Company
IsmulAzam	25	Junior High-School	Full time	1	Grab
Abe	24	Junior High-School	Part time	2	Gojek
RifkiPratama	24	Senior High-School	Full Time	2	Gojek
Yusron	45	Senior High-School	Full time	2	Grab
AdiPrayoga	38	Undergraduate School	Full time	3	Gojek
Tri Prasetyo	38	Undergraduate School	Full time	2	Grab
A. FirdausEfendi	22	Junior High-School	Full time	2	Gojek
Sauma	30	Undergraduate School	Full time	2	Grab
Yuri	35	Elementary School	Full time	1	Gojek
Yossy	32	Undergraduate School	Full time	2	Gojek
Hanafi	28	Senior High-School	Full time	2	Grab
Maulana	36	Undergraduate School	Part time	2	Grab
Haryo	28	Senior High-School	Full time	1	Gojek

There are 13 informants used in this study: eleven full-timers and two part-timers, six Grab riders, and seven Gojek riders.

4.2. Asymmetric Information Received by Riders

Application companies are system owners and media service providers that connect drivers and consumers, drivers in this case are riders, and are the companies' partners who use the system provided by the companies and provide goods and people delivery services to consumers. In the operation, riders receive asymmetric information and face many obstacles.

Mr. Ismul Azam, one of the online motorcycle taxi riders, explained the following.

“Information that is difficult to obtain from companies is about the order, how we continue to get orders. The system is very random. The closest rider may not get the order. The information should be transparent, for example, [we must be] informed not to make frequent cancelations later in the future [since] it will affect [future] orders. Another example [of information asymmetry] is the history of what [order] we frequently take? Until now there is no information about our history, so it's still a random system for me”.

Mr. Ismul Azam has shown that information related to the distribution of orders and the system between drivers has not been socialized or informed to the riders, so riders are groping by stopping somewhere or keeping mobile. Even if they stop in one place and there are many riders who would have been

in that place, but the system who-comes-first does not apply. This makes drivers consider that this information should be disclosed, or at least agreement about a fair system must be reached between companies and riders. The informant thinks that the system used by the application company is still not well-understood by riders, so they do trial and error to see whether the orders are directed to the closest rider and to see whether riders with the most service history and high service rating are considered as high-performance riders. The best thing to do is not blocking orders. Orders are randomly directed by the system, without any criteria. Until now, it is acknowledged by the riders that there is no definite and clear information about such matters from the application companies. They say that the system uses algorithm-based artificial intelligence to connect riders and customers (Rosenblatt & Stark, 2016).

Information that is important yet difficult to obtain from the company is about account suspension and partnership termination. Such penalties are usually based on customer ratings and complaints as customers are given the right to give ratings to drivers who provide services (Stark & Levy, 2018). This is consistent with what was conveyed by several other informants.

Mr. Yuri said the following:

“The company should be able to determine whether or not customers give the fair ratings. Sometimes the customer rates us unfairly because he thinks that we are not serious, but actually we are. There were also cases when we receive an order from faraway places and the customers were in a hurry and they canceled the order. There are also close orders with insensibly high service prices, not to mention the fake orders. The company did not tell us why. We don't

exist in this partner. It is true that we are working. But how it works, we aren't informed. They gave us the application, but they didn't tell us how it works. It also happened that we received five orders from the same person in the same day, and then we are suddenly suspended".

Mr. Firdaus explained as follows:

"Actually, companies have to know too that not all customers are good. It sometimes happens we only received one star, saying that our service is not good despite our good services just or they waited too long without knowing that the traffic is bad".

The statement above shows that the assessments made by customers are not all accurate. Technical problems such as traffic jams or vehicle malfunction cannot be identified by customers, or else, customers just do not want to receive any reasons. The impact of such an issue is immediate suspension for the drivers. Some of them brought up their case to the company, and some others just simply give up on the situation.

Mr. Tri Setyo described the following:

"Yes, sometimes the applicator (application company) made a one-sided decision. We have done our job properly, but, still, we are suspended. When we ask them, they say that we have violated the code of ethics. There are many codes of ethics; we don't know which that we have violated. We suddenly just got suspended. The information should be transparent. For example, we are suspended because we did not do what we have been told to do. If we know the codes but yet we still violate them, we will lose our case and must admit that we are wrong".

Mr. Sauma explained as follows:

"I can't defend myself, [so I] just give up. It's different from Gojek, I can appeal there. If all this time we as drivers are not fair, the company is worse. Comparison between customers and drivers, for example. When a customer with a high member level makes a complaint, we will lose after all".

Mr. Rifki Pratama described the following:

"Usually we talk to the office about what we have done, but in fact, the office only receives one-sided reports. Sometimes they do not want to hear from us. Complaints from customers and arguments from drivers must be heard, and then the office can take appropriate actions".

Mr. Adi explained as follows:

"In cases of partnership termination, the system cannot make any explanation. Furthermore, the system keeps

changing, again and again. Policies change every year, but they never get better. Bonus decreases, and target increases. It is burdensome".

Mr. Hanafi said the following:

"We should have been given clear information. For example, we received a notification that our account is suspended for three days. Then they say that if we want to reactivate our account, we must go to the office. When we go to the office, in fact, we still do not receive any clarification. Drivers should be [the company's] partners, not animals forced by power but not receiving good attention. The company must also pay attention to our welfare".

Based on the information above, penalties such as suspension or termination of partners are not always properly explained by the companies. They only consider information from the system without making any further investigation in the matter. The two companies examined in this study have different ways of handling the issue. While Go-Jek has a menu for drivers or riders to make an appeal, Grab does not. Thus, when a violation occurs, whether or not it is done by the driver or rider, the system will read it is an error, and suspension or PM will be imposed. The driver or rider will not have any ability to defend themselves. Meanwhile, policies for bonus point determination are changed unilaterally by the company, and such policies are against the counterpart's favor.

According to the informants, penalties for drivers or riders are not well explained and tend to be one-sided, causing disadvantages for them. The notification about the suspension is delivered through the application. Although the information has mentioned the cause of the suspension, it does not explain the detail. The suspended drivers can appeal for their cases within 14 days after the suspension date. The appeal process takes a lot of time to process. Besides, even though they win the appeal, their account cannot be reactivated immediately. Hence, they choose not to appeal and wait until their account is reopened by the application company.

Inequality in terms of information appears between the information user (principal), namely the driver, and the information provider (agent), namely the company. Conditions when principal and agent have different information either in quality or in amount means that there is hidden information that can be used for the benefit of one of the parties (Dehlen et al., 2014). Drivers or riders as partners expect transparency from the company. Since they are the partners, they also have a stake in enhancing the value and image of the company, so they expect equal information rights and involvements in certain decisions.

So far, fellow drivers and riders talk about their complaints and problems with the company through their social media groups on Facebook, WhatsApp, Twitter, and Instagram. They use others' experiences as a basis to solve

problems they encounter at work. Even so, some groups were given access to discuss the problems directly with the company, but they do not represent all drivers or riders, and such a method does not solve problems of information flow in the partnership.

4.3. The Practice of Partnerships in Online Transportation

The process of joining the application company is developing. In the early days of the company's operations, prospective drivers or riders were required to prepare some papers, come to the company's office and fill in forms, and sign an agreement. Now they do not have to come to the office. The required forms can be downloaded via the application, and the agreement with the company can be signed by simply checking in the application form.

Mr. Haryo told what he had done last year to join the company as follows.

“To get information about what to do to join is not that difficult. You can ask friends who had joined the company earlier. Then, download the application, input the file, and fill in the online form, then wait for a few days. If you are approved, there will be a notification from the application company sent via SMS or WhatsApp. For the files you need, as far as I know, [you only need to provide your] ID card, driver's license, motor vehicle papers, and police records. That's all. To pay for the helmets and jackets, I asked them to charge from my go-pay account every day for IDR 2,500, but I don't remember for how many days they would charge me”.

From Mr. Haryo's statement, it can be concluded that there is no written contract between the driver and the company at this time. The drivers or riders only need to apply to the mobile app by downloading and submitting the files needed by the company. Besides, the company also requires them to have smartphones that have at least 3 GB of RAM and motor vehicles for at least the last five years. Within a few days, the approval or disapproval of the request will be notified via the driver's smartphone. This is not much different from customers who use online transportation services. They need to download an application to verify their personal data to be approved by the company. Online transportation drivers or riders are not much different from customers; they are the users of the companies' applications, not their partners. Meanwhile, the company provides more information for customers rather than for drivers or riders.

A contract is the essence of the partnership business. The essence of a partnership is an equal relationship for all parties, and the benefits and losses from which are shared (Burns, 1966), so comfort and openness of information at work can be provided. There is no such equal relationship in

online transportation partnerships as drivers or riders do not get their rights to information about their work continuity. This was stated by informants as follows.

Mr. Yuri: *“The partnership is not good. [I say this] because we know the real conditions. The company does not understand us [who work] in the field”.* Mr. Firdaus: *“The partnership is still not good because it is not transparent. It was good then when you can finish the day with 20 or 22 points every day. I have been stuck in a condition of cannot reaching more than 11 points for a long time. In fact, I have worked from morning to evening. Many drivers have to take a bed rest due to hours of work”.*

Mr. Rifki Pratama: *“The partnership relationship is good, but the information is still lacking explanation”.*

Mr. Tri Prasetyo: *“Good enough. It is just the ever-changing policies that are not beneficial for drivers”.*

Based on the statements above, it can be concluded that drivers are disappointed with the company in regards to policies; one of which is the bonus point policy. At the early times of their partnership, target points were easier to reach, and they made good incomes. Now that the system has changed, whenever drivers and riders are almost reaching the target points, no orders are coming. Many drivers have complained about this to the company, but the company responded to it by saying that it is the algorithmic system that regulates the orders. However, some informants said that the partnership is quite good but there is no information transparency and there are continuous policy changes.

The involvement of the partners in making joint policies is a major issue in online transportation partnerships, although drivers or riders are the service providers who ensure service quality and know more about conditions in the field. Drivers are more like the users of the company's application, free to enter and exit the application. It will not be a problem for part-timers, but for full-time drivers or riders, who make the job their main source of income, policy changes can put them into trouble. Recruiting more partners is also the authority of the company, and they do it without the consent of their existing partners. More recruitment without considering demand and supply will cause excessive drivers or riders if the addition of partners is greater than the addition of customers. This will certainly reduce the partner's bargaining power to the company, and the company gains more control over them.

In regards to the welfare of partners, informants have mentioned that their welfare is relatively increased after joining the partnership.

Mr. Yosi: *“I used to work at a hotel, receiving the minimum regional wage plus incentives. Now that I joined Grab, I can take IDR 100–150 thousand per day. The net*

income is similar, but now I have to pay more for vehicle maintenance". Mr. Maulana as follows: "Yes, Alhamdulillah, it (the income) is higher than [what I got] from the previous job". Mr. Yusron said: "Before joining Gojek, I worked in a pharmacy. I resigned because my income started to be not fulfilling. I switched jobs to be online (motorcycle taxi rider), and Alhamdulillah [I get more money]. However, it [my income] was better in the early periods. It's a bit lower now".

Based on the information above, the welfare of drivers or riders has increased after joining the company. However, now they receive less money since orders have decreased and the achievement of target points for incentives has become more difficult. Despite the decrease in income, they still get more money now compared to the income from their previous jobs. Some drivers feel that they are quite dependent on their job as online drivers or riders because their age makes the switch to another job not possible. Meanwhile, some drivers or riders who use institutional loans for vehicle purchases are also unable to leave the partnership. They are more likely to accept the situation and follow company policies even though they feel that such policies reduce their income or are detrimental to them.

Participants of sharing economy in online transportation services look more at the economic aspect of it to increase their income and look less at taking advantage of unemployed capacity or for environmental sustainability. This is relevant to the finding of Barnes and Mattsson (2016) and Wilhelms et al. (2017). Meanwhile, asymmetric information in such a partnership is related to the system of orders, bonuses, and suspension. This finding is in line with that of Rosenblatt and Stark (2016), mentioning that algorithm system used by application companies makes information more controlled by the companies so that they can control their partners, who are not truly free because the companies unilaterally determine the product prices and target points and control various rules (Nastiti, 2017).

Basically, partnerships in online transportation services are not the same as the partnerships as referred to by Spencer (1977). Likewise, they do not fulfill the partnership indicators according to Boeck and Wamba (2007). The indicators are (a) communication and information sharing, in that information flow and quality of information between the driver and the company are not very good; (b) cooperation, in that the willingness to take action to achieve common goals have not been achieved if the driver is not directed to a sense of belonging to the company; (c) trust, in that when the driver's confidence and trust are very low in the company, the partners will carry out their obligations and do the best out of compulsion; (d) commitment, in that when commitment between partners is low, the certainty and sustainable relationship is also low.

Nevertheless, in terms of income, the partners get a higher income compared to that from their previous job.

For this reason, they still really need the platform application despite the asymmetric information. The use of platform applications can provide cost efficiency to users (Henten & Windekilde, 2016). It is this efficient cost that causes both parties to benefit. According to Eisenmann (2006), both parties who choose to transact through the platform will be more efficient than transacting directly. With this level of efficiency, application companies have succeeded in providing more benefits to drivers when compared to working offline. Welfare will be achieved with the support of technological advances and the acceleration of extraordinary innovation (Firman et al., 2020).

The role of the government is required in balancing their rights. The government can make regulations and facilitate driver or rider partners to form independent and legal associations (Dermawan et al., 2020). The sharing economy can create chaos if it is governed by the norms used to govern conventional business (Fajar, 2020). So far, the government has helped drivers by determining the upper and lower limit tariffs for the application companies. However, for the partners, the role of the government is still low, especially in relation to their sustainability in earning a living. So far, online motorcycle riders are not protected either by laws or government regulations. Hence, the Indonesian government is required to push for regulations that clarify the rights and obligations of parties involved in online transportation partnerships in the country.

5. Conclusion

Asymmetry Information that occurs in online transportation activities has an impact on online transportation partnerships. This has implications for bad perceptions in the partnership relationship between drivers and companies. The impact is that loyalty and the sustainability of the partnership relationship are not going well. The information asymmetry that occurs is related to the application system operated by the company. Asymmetric information occurs between the driver and the company due to hidden knowledge that is owned by the company. Companies make applications with algorithmic information technology that can facilitate and be controlled by the company. Meanwhile, the driver does not have the understanding and knowledge related to the application system technology.

References

- Acquier, A., Daudigeos, T., & Pinkse, J. (2017). Promises and paradoxes of the sharing economy: An organizing framework. *Technological Forecasting and Social Change*, 125(C), 1–10. <https://doi.org/10.1016/j.techfore.2017.07.006>
- Akerlof, G. A. (1970). The market for lemons: Quality uncertainty and the market mechanism. *Quarterly Journal of Economics*, 84, 488–500. <https://doi.org/10.2307/1879431>

- Akerlof, G. A., Spence, M. A., & Stiglitz, J. E. (2001). *Markets with asymmetric*. <http://cob.jmu.edu/rosserjb/Nobel%20Prize.%20Akerlof-Spence-Stiglitz.doc>
- Ala-Mantila, S., Ottelin, J., Heinonen, J., & Junnila, S. (2016). To each their own? The greenhouse gas impacts of intra-household sharing in different urban zones. *Journal of Cleaner Production*, 135, 356–367. <https://doi.org/10.1016/j.jclepro.2016.05.156>
- Bardhi, F., & Eckhardt, G. M. (2012). Access-based consumption: The case of car sharing. *Journal of Consumer Research*, 39(4), 881–898. <https://doi.org/10.1086/666376>
- Barnes, S. J., & Mattsson, J. (2016). Understanding current and future issues in collaborative consumption: A four-stage Delphi study. *Technological Forecasting and Social Change*, 104(C), 200–211. <https://doi.org/10.1016/j.techfore.2016.01.006>
- Benson, D., & Ziedonis, R. H. (2009). Corporate venture capital as a window on new technologies: Implications for the performance of corporate investors when acquiring startups. *Organization Science*, 20(2), 329–351. <http://doi.org/10.1287/orsc.1080.0386>
- Berger, T., Frey, C. B., Levin, G., & Danda, S. R. (2019). Uber happy? Work and well-being in the “Gig Economy”. *Economic Policy*, 34, 429–477. <https://doi.org/10.1093/epolic/eiz007>
- Boeck, H., & Wamba, S. (2008). RFID and buyer-seller relationships in the retail supply chain. *International Journal of Retail & Distribution Management*, 36(6), 433–460. <https://doi.org/10.1108/09590550810873929>
- Botsman, R. & Rogers, R. (2011). *What's mine is yours: How collaborative consumption is changing the way we live*. London, United Kingdom: HarperCollins Publishers.
- Burns, A. A. (1966). *Partnership in an encyclopedia of the social sciences*. New York: The Macmillan Co.
- Caldieraro, F., Zhang, J. Z., Cunha, M., & Shulman, J. D. (2018). Strategic information transmission in peer-to-peer lending markets. *Journal of Marketing*, 82(2), 42–63. <https://doi.org/10.1509/jm.16.0113>
- Cherry, M. A. (2012). The gamification of work. *Hofstra Law Review*, 40(4), 851–858. <https://ssrn.com/abstract=2273673>
- Creswell, J. W., & Plano-Clark, V. L. (2006). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.
- Cockayne, D. G. (2016). Sharing and neoliberal discourse: The economic function of sharing in the digital on-demand economy. *Geoforum*, 77, 73–82. <https://doi.org/10.1016/j.geoforum.2016.10.005>
- De-Leeuw, T., & Gössling, T. (2016). Theorizing change revisited: An amended process model of institutional innovations and changes in institutional fields. *Journal of Cleaner Production*, 135, 435–448. <https://doi.org/10.1016/j.jclepro.2016.06.119>
- Dehlen, T., Zellweger, T., Kammerlander, N., & Halter, F. (2014). The role of information asymmetry in the choice of entrepreneurial exit routes. *Journal of Business Venturing*, 29(2), 193–209. <https://doi.org/10.1016/j.jbusvent.2012.10.001>
- Dermawan, D., Ashar, K., Noor, I., & Manzilati, A. (2020). Asymmetric information of sharing economy. *Advances in Economics, Business and Management Research*, 144, 196–222. <https://doi.org/10.2991/aebmr.k.200606.005>
- Dervojeda, K., Verzijl, D., Nategaal, F., Lengton, M., Rouwmaat, E., & Monfardini, E. (2013). *The sharing economy: Accessibility based business models for peer to peer market*. Luxembourg: European Commission.
- Dushnitsky, G., & Shaver, J. M. (2009). Limitations to inter-organizational knowledge acquisition: The paradox of corporate venture capital. *Strategic Management Journal*, 30, 1045–1064. <https://doi.org/10.1002/smj.781>
- Dutta, S., Bergen, M., & John, G. (1994). The governance of exclusive territories when dealers can bootleg. *Marketing Science*, 13(1), 83–99. <https://doi.org/10.1287/mksc.13.1.83>
- Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review*, 14(1), 57–74. <https://doi.org/10.5465/amr.1989.4279003>
- Eisenmann, T. R. (2006). Internet companies' growth strategies: determinants of investment intensity and long-term performance. *Strategic Management Journal*, 27(12), 1183–1204. <https://doi.org/10.1002/smj.567>
- Fajar, M. (2020). Fair competition: The concept of regulation in the sharing economy. *Journal of Asian Finance, Economics, and Business*, 7(11), 637–645. <http://doi.org/10.13106/jafeb.2020.vol7.no11.637>
- Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy*, 88, 288–307. <https://www.jstor.org/stable/1837292>
- Firman, A., Putra, A. H. P. K., Mustapa, Z., Ilyas, G. B., & Karim, K. (2020). Re-conceptualization of a business model for marketing nowadays: Theory and implications. *Journal of Asian Finance, Economics, and Business*, 7(7), 279–291. <http://doi.org/10.13106/jafeb.2020.vol7.no7.279>
- Frenken, K., & Schor, J. (2017). Putting the sharing economy into perspective. *Environmental Innovation and Societal Transitions*, 23, 3–10. <https://doi.org/10.1016/j.eist.2017.01.003>
- Frenzen, H., Hansen, A. K., Krafft, M., Mantrala, M. K., & Schmidt, S. (2010). Delegation of pricing authority to the sales force: An agency-theoretic perspective of its determinants and impact on performance. *International Journal of Research in Marketing*, 27(1), 58–68. <https://doi.org/10.1016/j.ijresmar.2009.09.006>
- Hall, J. V., & Krueger, A. B. (2018). An analysis of the labor market for Uber's driver-partners in the United States. *ILR Review*, 71(3), 705–732.
- Harmaala, M. M. (2015). The sharing city as a platform for a more sustainable city environment?. *International Journal of Environment and Health*, 7(4), 309–328. <https://doi.org/10.1504/IJENVH.2015.077116>
- Heinrichs, H. (2013). Sharing economy: A potential new pathway to sustainability. *GAIA - Ecological Perspectives for Science and Society*, 22(4), 228–231. <https://doi.org/10.14512/gaia.22.4.5>

- Henten, A. H., & Windekilde, I. M. (2016). Transaction costs and the sharing economy. *Info*, 18(1), 1–15. <https://doi.org/10.1108/info-09-2015-0044>
- Jensen, M. C. (1986). Agency cost of free cash flow, corporate finance, and takeovers. *American Economic Review*, 76(2), 323–329. <http://www.jstor.org/stable/1818789>
- Keane, M., & Stavrunova, O. (2016). Adverse selection, moral hazard, and the demand for medigap insurance. *Journal of Econometrics*, Elsevier, 190(1), 62–78. <https://doi.org/10.1016/j.jeconom.2015.08.002>
- Lamberton, C. & Rose, R. L. (2012). When is ours better than mine? A framework for understanding and altering participation in commercial sharing systems. *Journal of Marketing*, 76(4), 109–125. <https://dx.doi.org/10.2139/ssrn.1939289>
- Liu, C., Chan, R. K. H., Wang, M., & Yang, Z. (2020). Mapping the sharing economy in China. *Sustainability*, 12(16), 6333. <https://doi.org/10.3390/su12166333>
- Martin, C. J. (2016). The sharing economy: A pathway to sustainability or a nightmarish form of neoliberal capitalism?. *Ecological Economics*, 121, 149–159. <https://doi.org/10.1016/j.ecolecon.2015.11.02>
- Martin, C. J., Upham, P., & Budd, L. (2015). Commercial orientation in grassroots social innovation: Insights from the sharing economy. *Ecological Economics*, 118, Pages 240–251. <https://doi.org/10.1016/j.ecolecon.2015.08.001>
- Mas, A., & Pallais, A. (2017). Valuing alternative work arrangements. *American Economic Review*, 107(12), 3722–59. <https://doi.org/10.1257/aer.20161500>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). London: Sage Publication.
- Munoz, P., & Cohen, B. (2017). Mapping out the sharing economy: A configurational approach to sharing business modeling. *Technological Forecasting and Social Change*, Elsevier, 125(C), pages 21–37. <https://doi.org/10.1016/j.techfore.2017.03.035>
- Nastiti, D. A. (2017). *Worker unrest and contentious labor practice of ride-hailing services in Indonesia*. Evanston, IL: Northwestern University.
- Otto, B., Auer S., Cirullies, J., Jurjens, J., Menz, N., Schon, J., & Wenzel, S. (2016). *Industrial data space*. Germany: Fraunhofer-Gesellschaft, Munchen.
- Pham, H. T., Hoang, K. T., Nguyen, T. T., Do, P. H., & Mar, M. T. C. (2021). Sharing economy: Generation Z's intention toward online fashion rental in Vietnam. *Journal of Asian Finance, Economics, and Business*, 8(3), 997–1007. <http://doi.org/10.13106/jafeb.2021.vol8.no3.0997>
- Plantin, J. C., Lagoze, C., & Edwards, P. N. (2018). Re-integrating scholarly infrastructure: the ambiguous role of data sharing platforms. *Big Data Soc*, 5(1), 14–28. <https://doi.org/10.1177/2053951718756683>
- Richter, H., & Slowinski, P. R. (2019). The data-sharing economy: On the emergence of new intermediaries. *IIC* 50, 4–29. <https://doi.org/10.1007/s40319-018-00777-7>
- Rosenblat, A., & Stark, L. (2016). Algorithmic labor and information asymmetries: A case study of uber's drivers. *International Journal of Communication*, 10, 3758–3784. <https://doi.org/10.2139/ssrn.2686227>
- Schull, N. D. (2012). *Addiction by design: machine gambling in Las Vegas*. Princeton, NJ: Princeton University Press.
- Spencer, M. H. (1977). *Contemporary economics* 3rd edition. Worth Publishers Inc. New York.
- Sprague, R. (2015). Worker (mis)classification in the sharing economy: Trying to fit square pegs into round holes. *ABA Journal of Labor & Employment Law*, 31, 53. <https://doi.org/10.2139/ssrn.2606600>
- Stark, L., & Levy, K. (2018). The surveillant consumer. *Media, Culture & Society*, 40(8), 1202–1220. <https://doi.org/10.1177/02F0163443718781985>
- Stephany, A. (2015). *The business of sharing: Making it in the new sharing economy*. New York: Palgrave MacMillan.
- Stiglitz, J. E. (2000). The contributions of the economics of information to twentieth-century economics. *The Quarterly Journal of Economics*, 115(4), 1441–1478. <https://doi.org/10.1162/003355300555015>
- Wilhelms, M. P., Henkel, S., & Falk, T. (2017). To earn is not enough: A means-end analysis to uncover peer providers participation motives in peer-to-peer carsharing. *Technological Forecasting and Social Change*, Elsevier, 125, 38–47. <https://doi.org/10.1016/j.techfore.2017.03.030>
- Wiseman, R. M., & Gomez-Mejja, L. R. (1998). A behavioral agency model of managerial risk-taking. *Academy of Management Review*, 23(1), 133–153. <https://doi.org/10.2307/259103>
- Wright, C. F., Wailes, N., Bamber, G. J., & Lansbury, R. D. (2017). Beyond national systems, Towards a “Gig Economy”? A research agenda for international and comparative employment relations. *Employee Responsibilities and Rights Journal*, 29, 247–257. <https://doi.org/10.1007/s10672-017-9308-2>
- Zervas, G., Proserpio, D. & Byers, J. W. (2017). The rise of the sharing economy: Estimating the impact of Airbnb on the hotel industry. *Journal of Marketing Research*, 54(5), 687–705. <https://doi.org/10.2139/ssrn.2366898>