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Strategic Alliances in The Sharing Economy

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Executive summary

This thesis aims to explore how sharing economy firms can improve profitability while remaining asset-light. Thus, we explored the possibility of forming strategic alliances with traditional firms. Currently, in academic literature, there is a lack of research on strategic alliances in the sharing economy. This emphasizes the need for a comprehensive study. Our research identified 42 strategic alliances between sharing economy firms and traditional firms. Moreover, the research revealed that joint distribution alliances were the most common type of alliance in the sharing economy. Thus, the topic was explored through an explanatory case study of the joint distribution alliance between Uber and Hertz, formed in America in 2016. This led to the following research question: "Can sharing economy firms and traditional firms create joint value?" Transaction cost theory was deployed to analyze the impact of the alliance on the firms' profitability. More specifically, deploying transaction cost theory to determine whether the alliance impacted Uber's revenue, costs, and the service providers' transaction cost. Similarly, to evaluate whether the alliance impacted Hertz's asset utilization, revenue, and costs. The findings revealed that Uber's mobility segment experienced significant growth and improved profitability during the first three years of the alliance. Similarly, the American revenue and total revenue increased in this period. In addition, Uber's total costs increased, but the rate of growth decreased in the beginning of the alliance. However, there was a reduction in marketing incentives for the mobility segment. Nevertheless, the findings revealed that the alliance contributed to a significant financial gain for Uber's service providers due to reduced transaction costs. Moreover, the findings also revealed that Hertz experienced an increase in American vehicle utilization following the alliance. In addition, there was an increase in revenue for both the American rental car segment and Hertz Global. Nevertheless, the findings demonstrate a slight increase in the costs for the rental car segment in America. Similarly, there was an increase in total costs. However, the rate of growth of these costs decreased after the first year of the alliance. In addition, depreciation of revenue earning vehicles and lease charges significantly decreased following the alliance. The findings also illustrated that both firms should have gained significant revenue from the alliance. Given that our findings align with transaction cost theory, demonstrating reductions in transaction costs and increased revenue and asset utilization, we conclude that sharing economy firms and traditional firms can create joint value through joint distribution alliances.

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1. Introduction

The emergence of sharing economy firms has caused significant disruption to traditional industries. For instance, the rise of ridesharing and carsharing services has significantly affected the car manufacturing and rental industry, while home-sharing has disrupted the hotel and vacation home industry (Zervas et al., 2017). This shift is driven by young consumers prioritizing environmental consciousness, variety in experiences, financial diversification, and a reduced need for ownership (Kumar et al., 2018). Unfortunately, this trend will likely continue to affect car manufacturers, hotels, and car and home rentals with underutilized capital assets. Despite the prior success in disrupting traditional industries, many sharing economy firms still struggle with profitability despite the rapid growth. For instance, Uber's affordability was largely due to the heavy subsidies provided by investors (Crunchbase, 2023-a). However, in recent years, Uber has consistently incurred significant losses (Uber, 2023-h). Consequently, with the shift towards becoming public companies, sharing economy firms can no longer rely on private capital to achieve further growth. As a result, customers in the sharing economy face a significant price increase.

While raising prices can increase profitability, labor asset risks, high asset maintenance costs, and rapid depreciation make it less attractive for drivers and homeowners to participate in the sharing economy (Kumar et al., 2018). As a result, it may reduce service providers' transaction volumes or under-maintain their overused assets to sustain earnings viability. On the other hand, customers may be reluctant to pay higher prices for poorly maintained, old, or environmentally unfriendly assets. Hence, a vertical integration route is another potential solution to reduce the growth of expenses and reduce the risks for service providers. Vertical integration would entail that sharing economy firms take complete ownership of the assets (Grossman & Hart, 1986). However, this tends to be a costly proposition. Given that the assetlight business model is crucial in the success of disrupting traditional industries, vertical integration may come at the expense of its ability to respond rapidly to changes in supply and demand. Therefore, these firms must determine ways to increase profitability while remaining asset-light. This leads to the following problem statement: "How can sharing economy firms increase profitability while remaining asset-light?" To answer the problem statement, we developed the following research question: "Can sharing economy firms create joint value with traditional firms?" This will be explored through the formation of strategic alliances.

2. Study Background

This chapter provides the study background of this thesis. More specifically, it offers deeper insights into the problem. Thus, we present the challenges in the sharing economy and the challenges traditional firms experience.

2.1.6 Challenges in The Sharing Economy

The main attributes that make the sharing economy unique are the asset-light model that responds rapidly to changes in supply and demand, the independent workers, the co-creation of value, and boundary fluidity through the combination of organizational and market mechanisms to increase interactions (see Chapter 3.1.3). Although these attributes provide strategic advantages compared to traditional firms, sharing economy firms still face significant challenges. Thus, this thesis aims to investigate the financial challenges encountered by these firms and the risks associated with service providers.

Uber rapidly scaled in terms of available drivers and cars, as well as creating high competition among its drivers. For startups, and in general, the marketing cost or the cost of acquiring a new customer tends to be high (Tepeci, 1999). Thus, this could contribute to a significant increase in firms' expenses. In addition, Uber has received \$25.2B in funding (Crunchbase, 2023-a), which would be necessary to cover the expenses associated with its rapid growth, such as marketing, technology, and development costs. Furthermore, other sharing economy firms also received significant investments from private investors and venture capitalists. For instance, Lyft has received \$4,9B in funding (Crunchbase, 2023-b), while Airbnb received \$6,4B in funding (Crunchbase, 2023-c). Business Insider reported that sharing economy firms such as Uber and Airbnb are burning cash due to aggressive marketing and global expansion to attract as many customers as possible (Shead, 2015). With the shift towards becoming public entities, relying on private capital might no longer be a viable solution and might not provide adequate resources to support long-term expansion. For instance, Uber lost a significant amount of money in the following years of becoming a public entity (Scholz, 2022). More specifically, in 2022, Uber reported a net loss of approximately \$9,1 billion (Uber, 2023-h, p. 78).

Moreover, we utilized a sample of sharing economy firms to gain an understanding of the financial industry trends.

Firm	Net income 2022	Net income 2021	Net income 2020	Net income 2019
Uber	\$ (9,141)	\$ (496)	\$ (6,768)	\$ (8,506)
Airbnb	\$ 1,893	\$ (352)	\$ (4,584)	\$ (674)
Lyft	\$ (1,584)	\$ (1,062)	\$ (1,752)	\$ (2,602)
Turo	\$ 154	\$ (40)	\$ (97)	\$ (98)
DoorDash	\$ (1,365)	\$ (1,468)	\$ (461)	\$ (15,44)
Fiverr	\$ (71)	\$ (65)	\$ (14)	\$ (33)

(\$ in millions)

Table 1: Net income of sharing economy firms.

Table 1 illustrates the net income of six selected firms from 2019 to 2022. The sample includes Uber (Uber, 2023-h, p. 74; Uber, 2020, p. 55), Airbnb (Airbnb, 2021, p. 64; Airbnb, 2023, p. 70), Lyft (Lyft, 2021, p. 59; Lyft, 2023, p. 53), Turo (Turo, 2023, p. 18), DoorDash (Doordash, 2023, p. 65; DoorDash, 2020, p. 71), and Fiverr (Fiverr, 2023, p. 51; Fiverr, 2020, p. 6). Except for Airbnb and Turo in 2022, all firms reported net losses for the previous four years. Although sharing economy firms have garnered substantial funding, these firms are experiencing high cash burn due to rapid expansion and, therefore, high marketing costs necessary to acquire as many customers as possible. In addition, firms such as Uber are striving to increase platform interactions and enhance competitiveness by implementing internal innovation processes. For instance, expanding its offerings to Uber Pool, Uber Travel, and Uber Comfort (Uber, 2023-c). This strategy also contributes to exponentially increasing the firm's costs.

To improve profitability, some sharing economy firms have significantly increased prices. For instance, from 2019 to 2022, Uber's prices increased by an average of 45 percent (Scholz, 2022). However, the significant price increase contradicts the value proposition of low-cost offerings. While raising prices can increase profitability, labor asset risks, such as high asset maintenance costs and rapid depreciation, still make it less attractive for drivers and homeowners to participate in the sharing economy. Lloyd's 2018 Innovation Report found that 42% of service providers globally were concerned about potential damages to assets, 40% were concerned about potential theft, and 38% were concerned about the lack of safeguards and protections. On the other hand, customers may be reluctant to pay higher prices for poorly maintained, old, or environmentally unfriendly assets. Lloyd's 2018 Innovation Report also

found that 42% of consumers are concerned about the level of service quality in the sharing economy (Lloyd, 2018).

To elaborate, the asset-light business model, which is the foundation of the success of sharing economy firms, creates additional challenges for these firms in terms of the risk borne by its service providers. In traditional models, the firm bears the risks and receives the rewards. Common risks include service quality, financial, labor assets, and reputational risk. In contrast to traditional firms, in the sharing economy, service providers bear most of the risks as they control and maintain the assets, while the firm receives most benefits, such as leveraging privately owned assets with minimal setup costs (Constantiou et al., 2017). These risks are directly linked to the firm's success. Kumar et al. (2018) found that the dependence on part-time labor and asset availability poses a threat to the firm. In other words, sharing economy firms are restricted to influencing service providers as the firm does not formally employ them. This threat poses a significant financial impact as the firm's revenue depends on additional transactions generated from the increased availability of service providers. However, for service providers, this may lead to certain concerns, such as the ability to utilize assets in their personal time and unforeseen events impacting the physical state of the asset (Kumar et al., 2018).

Furthermore, the asset damages also directly impact the service quality. Parasuraman et al. (1988) modeled the five dimensions of service quality to bridge the gap between customers' expectations and needs (p.23). The following describes the five dimensions: tangibles; physical items and personal appearance, reliability; the ability to perform the service accurately and dependably, assurance; the ability to create trust and credibility, empathy; caring and attending to the needs of the customer, responsiveness; the willingness to provide the service and timeliness. These dimensions are developed from the customer's perspective. However, for this study, service quality from the provider's perspective (supply side) relates to tangibles, reliability, and responsiveness. This is viewed in terms of ownership and the physical state of the asset, ability to perform the service, and willingness/ability to perform the service in a timeline manner.

Furthermore, another significant threat is the platform's lack of control over the quality of the assets or services (Kumar et al., 2018; Berry, 2000). In other words, the firms' role in monitoring and participating in asset and service quality and performance is limited. Thus,

compared to traditional firms, sharing economy firms have higher difficulties controlling service quality and ensuring consistency amongst offerings (Akhmedova et al., 2021; Eckhardt et al., 2019). Lastly, the threat of these risks may pose a barrier for service providers to join the platform. Consequently, this could make it more challenging for the firm to attract a maximum number of users.

A potential solution to reduce the growth of expenses and reduce the risks for service providers is a vertical integration route. A vertical integration route is a strategy where the firm takes control over the different stages of the supply chain, operating with unified ownership over assets (Grossman & Hart, 1986). Integrating this strategy could provide a few advantages, such as balancing the risk distribution. Nevertheless, vertical integration can be profitable as it allows them to control and maintain the assets themselves, reducing the risk borne by service providers and ensuring consistent service quality. In addition, it might make it more attractive for service providers to join the platform and attract a maximum number of users. Thus, this could be a potential step to increase firms' profitability. However, this strategy can be costly for sharing economy firms because it would require firms to acquire assets. Harrigan (1984) states that the disadvantages of vertical integration include internal costs, such as increased overhead costs associated with coordinating the integration process, excess capacity stemming from unbalanced minimum efficient scale plants, and poorly organized integrated firms that may not benefit from synergies that could offset the higher costs. In addition, vertical integration can potentially shift the focus away from its core asset-light approach, moving away from the foundational business model of the sharing economy. As previously stated, the assetlight model responds rapidly to changes in supply and demand. Hence, a vertical integration route could come at the cost of this competitive advantage. In contrast, forming strategic alliances with traditional firms could provide similar advantages without compromising the asset-light model and the associated costs.

2.2 Challenges for Traditional Companies

We have now demonstrated the financial challenges of sharing economy firms, as well as the risks associated with the service providers in the sharing economy. In contrast to the sharing economy firm, traditional firms provide or develop products and services internally, which are directly delivered to customers in exchange for payment (Gordijn, 2004). More specifically, a traditional firm owns its products and delivers its services, thereby operating with fixed assets.

However, in recent years, the rise of ridesharing and car-sharing services have significantly affected the car manufacturing and rental industry, while home-sharing has disrupted the hotel and vacation home industry. Thus, this chapter will further present the challenge of underutilization that traditional companies face.

Underutilization is when resources, such as labor, capital, or assets, are not utilized to its full potential or are used inefficiently (Tsang, 1987). Usually, underutilization occurs when firms have a surplus of inventory compared to the customers' demand or purchase frequency. Underutilized assets are considered a loss of revenue and negatively affect business performance. This issue might be affected by the rise of competitive offerings and a change in consumer preferences. According to Kumar et al. (2018), cost and convenience are crucial drivers of customers' purchase decisions, and the sharing economy offers affordable and convenient alternatives without the burden of ownership. For instance, ridesharing and low-cost rental would be more attractive than purchasing a vehicle. Similarly, Airbnb tends to offer lower prices and greater variety in offerings than hotel chains. Thus, this indication of consumer preferences and the growth in competition might contribute to the challenge of underutilization. Thus, we are investigating the asset utilization of traditional companies such as car rental companies, taxi companies, and hotels.

2.2.1 Transportation

This section explains the challenges of traditional firms operating in the transportation industry, such as car rental firms and taxi firms.

2.2.1.1 Car-rental firms

Car-rental firms face growing competition from sharing economy firms, such as Uber, Lyft, and Turo. These firms offer more convenient and flexible transportation options, often at lower prices. This has led the car-rental companies to be faced with the challenge of underutilization. To illustrate, we have collected data from three recognized rental car firms.

Firm	2019	2020	2021	2022
Hertz	80%	57%	79%	79%
Avis	70,9%	54,6%	69,8%	69,1%
EuropCar	76%	62,2%	72,4%	74,7%

Table 2: Global utilization rate.

Table 2 illustrates the utilization rate for the three car rental firms Hertz (Hertz, 2023-e, p. 48; Hertz, 2020, p. 55), Avis (Avis, 2021; Avis, 2023), and EuropCar (EuropCar, 2020, p. 42; EuropCar, 2022, p. 13). With the exception of 2020, Table 2 demonstrates that Hertz, Avis, and EuropCar have an underutilization of approximately 20 percent, 30 percent, and 25 percent, respectively. To illustrate, this means that 20 percent of Hertz's assets have a negative effect on sales and costs and are considered a loss of revenue. The numbers for 2020 are not applicable due to the COVID-19 pandemic, which evidently had a significant impact on the firms' rental car utilization.

2.2.1.2 Taxi Firms

Taxi firms are among those that the rise of the sharing economy has greatly impacted. This is evident as it has been a major source of discussion in prominent newspapers, such as The Guardian (Benedictus, 2014), Business Insider (Stenovec, 2016), BBC (BBC, 2015), and the New York Times (Barbaro, 2019). In addition, the increased degree of competition from the sharing economy resulted in taxi drivers protesting around the world (Cokelaere, 2022; Reuters, 2023; Wehner, 2023).

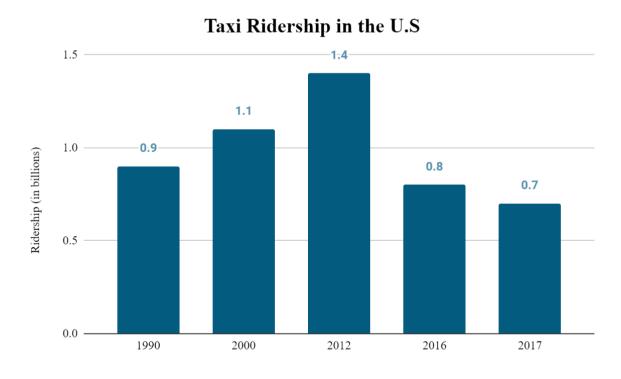


Figure 1: Taxi ridership in America (Statista, 2023).

Figure 1 illustrates the number of taxi rides in America from 1990 to 2017. Following the rise of the sharing economy, there has been a significant decrease in taxi rides. Figure 1 demonstrates a decrease from 1,4 billion in 2012 to 0,7 billion in 2017. Furthermore, we

demonstrate the change in trips per day by taxi and ridesharing firms in America from 2010 to 2022.

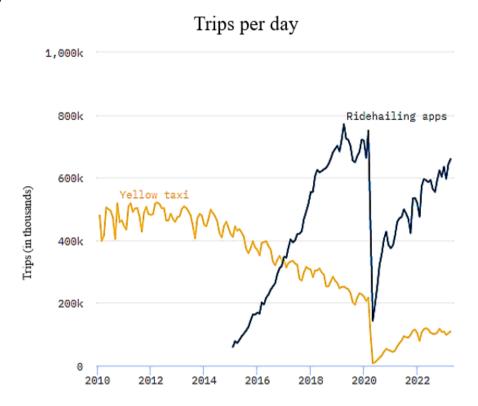


Figure 2: Trips per day (NYC Taxi and Limousine Commission, 2023; Schneider, 2023).

Figure 2 illustrates the number of trips per day for taxi and ridesharing firms in New York. The figure is based on the New York Taxi and Limousine Commission data. It is evident that the number of taxi trips dramatically decreased between 2014 and 2022, strongly exceeded by ridesharing firms.

2.2.2 Accommodation

We will now explain the challenge of underutilization in the accommodation industry for hotels. Thus, we collected the worldwide occupancy rate of four of the largest hotel chains.

Firm	2017	2018	2019	2020	2021	2022
Hilton	75,5%	75,8%	75,7%	40,3%	57,3%	67,5%
Marriott	73,7%	73,3%	73,3%	35,5%	51,3%	64%
Hyatt	75,9%	76,9%	76,8%	22,9%	45,5%	65,8%
Accor Group	68,8%	69,3%	69,3%	32,1%	42,3%	59,8%

Table 3: Occupancy worldwide.

Table 3 illustrates the worldwide occupancy rates of a sample of the largest hotel chains. The sample includes Hilton Worldwide Holdings (Hilton, 2023, p. 52; Hilton, 2022, p. 53; Hilton, 2021, p. 56; Hilton 2020, p. 50; Hilton, 2019, p. 46; Hilton, 2018, p. 47), Marriott International (Marriott, 2023, p.22; Marriott, 2022, p. 26, Marriott, 2021, p. 29; Marriott, 2020, p. 29; Marriott, 2019, p.28; Marriott, 2018, p. 27), Hyatt Hotels Corporation (Hyatt, 2023, p. 77; Hyatt, 2022, p. 80; Hyatt, 2021, p. 77; Hyatt, 2020, p. 78; Hyatt, 2019, p. 77; Hyatt, 2018, p. 77), and Accor Group (Accor Group, 2023; Accor Group, 2022; Accor Group, 2021; Accor Group, 2020; Accor Group, 2019; Accor Group, 2018). The occupancy rate demonstrates the utilization of its available capacity (Hyatt, 2021, p. 73). It is measured by dividing the total of booked rooms by the total of available rooms (Wu et al., 2010). From 2017 to 2019, the selected hotel chains experienced 30 percent of unoccupied rooms. It is evident that COVID-19 impacted the occupancy rates in 2020 and 2021. However, neither of the hotel chains has managed to increase the occupancy rate to similar levels as prior to the pandemic.

2.3 Research Question

We have now demonstrated how sharing economy firms struggle with profitability due to significantly high costs. In addition, we further argued that vertical integration could be an expensive route as it would require sharing economy firms to procure assets, which is a contradiction to the sharing economy business model. Moreover, we demonstrated how traditional firms, such as car rentals and hotels, experience underutilized assets, as well as how taxi trips in America decreased dramatically, highly exceeded by the ridesharing firms. A possible solution to sharing economy firms' profitability challenges and traditional firms' underutilization of assets is to form strategic alliances between sharing economy firms and traditional firms. Thus, the following research question is formed:

Can sharing economy firms create joint value with traditional firms?

3. Literature Review

In this chapter, we present the relevant literature to the research question. Therefore, it contains literature related to the sharing economy and strategic alliances. This chapter creates the foundation of the thesis.

3.1 Sharing Economy

In this section, we define the sharing economy, explain industry forecasts, the sharing economy business model, the business models within the sharing economy, and what makes the sharing economy unique.

3.1.1 Defining the Sharing Economy

Traditionally, business-to-customer (B2C) and customer-to-customer (C2C) exchanges involve a permanent transfer of ownership (Eckhardt et al., 2019). However, as a result of the digital revolution, there has been a shift in the exchange of goods and services between buyers and sellers, emphasizing temporary access instead of permanent ownership (Kumar et al., 2018). Led by the shift in the digital revolution and customer needs, the sharing economy business model emerged. Although several definitions of the sharing economy exist, we will utilize Kumar et al.'s (2018) definition as the foundation of this thesis. Kumar et al. (2018) defines sharing economy as "the monetization of underutilized assets that are owned by service providers (firms or individuals) through short-term rental." Thus, the sharing economy provides access to underutilized commodities and services shared peer-to-peer. The assets should not be owned by the platform itself, which is a direct contradiction to the peer-to-peer economic system (Kumar et al., 2018). Thus, we are excluding rental companies such as Zipcar, Lime, Ryde, and Voi. The selected definition of sharing economy does not include pure marketplaces, which contradicts the "sharing" action (Kumar et al., 2018). Hence, we are excluding marketplaces such as eBay and Alibaba.

The sharing economy has two main aspects. First, the sharing economy is centered around platforms to enable peer-to-peer exchanges. Second, sharing involves the creation of value through renting assets instead of purchasing. More precisely, the assets are rented rather than shared, as the transactions are typically monetary and not free (Ganapati & Reddick, 2018). Thus, we are excluding firms such as Couchsurfing and WeFarm. In addition, we are excluding

firms enabling friend payment, such as Venmo and Vipps. In this thesis, we include sharing economy firms such as Uber, Airbnb, Lyft, Turo, CrowdMed, Taskrabbit, BlaBlaCar, Fiverr, Grab, WeWork, Deliveroo, and JustPark.

3.1.2 Forecast of The Sharing Economy

The sharing economy is driven forward by various factors, including trust, convenience, and a sense of community. With the increasing consumer willingness to experiment with mobile applications, the hurdles of building brands and rapidly expanding have been significantly reduced (PwC, 2015). A report by MarketWatch (2023) analyzing leading enterprises in the sharing economy, as well as regional small and medium-sized companies, identifies a large portion of potential growth. The global sharing economy market is expected to grow at a rapid pace. As of 2021, the global sharing economy market was worth USD 113000.0 million, and it is expected to grow at a compound annual rate of 32.01% until 2028, reaching USD 793680.0 million (Market Watch, 2023).

3.1.3 The Sharing Economy Business Model

The sharing economy business model is a two-sided market that brings together two distinct groups of users mutually dependent on each other. The platform serves as an intermediary facilitating interactions and transactions between these two groups (Silvennoinen, 2017). Thus, the sharing economy aims to increase interactions on the platform. In this case, the balance of power is significant as neither group will participate without the other (Kumar et al., 2018; Hagiu, 2014). This is known as network effects. To elaborate, network effects arise when the value of a product or service increases as the number of platform participants increases (Parente et al., 2018). The business model of the sharing economy is constructed as a triadic relationship between a platform (firm), service providers, and customers. Service providers can be viewed as micro-entrepreneurs substituting the traditional salesforce (Kumar et al., 2018). Thus, the platform is an intermediary for exchanges between service providers (supply side) and customers (demand side).

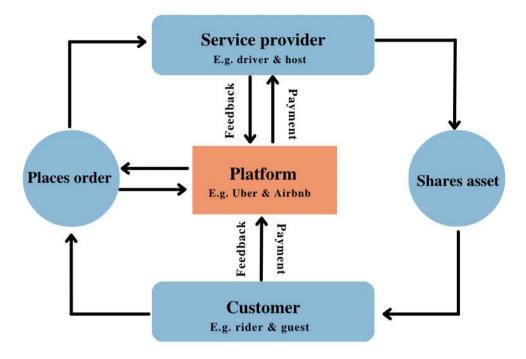


Figure 3: Sharing economy business model.

Figure 3 illustrates the sharing economy business model. As previously stated, the platform acts as an intermediary enabling exchanges between the service provider and the customer. The customer places an order, which is received by the platform and forwarded to the service provider. The service provider then shares the asset or performs the service. Upon completion, the customer pays the platform, which then takes a commission cut before paying the service provider. Uber and Airbnb are examples of sharing economy firms, providing a joint platform for service providers and customers, where the service providers operate as a driver or hosts and the customer as riders or guests.

Furthermore, value capture describes how the firm captures economic value through the provision of information, goods, and services (Curtis & Mont, 2020; Teece, 2010). As these firms enable the exchange of goods and services, the economic value is commonly captured through transaction and commission fees. Revenue streams associated with utility include one-time transaction fees or commission fees from sharing exchanges (Curtis & Mont, 2020). For instance, Airbnb charges a 3 percent transaction fee from hosts and a 6 percent to 12 percent transaction fee from guests (Constantiou et al., 2017). Uber charges drivers a service fee of 25 percent (Uber, 2023-d), while Uber Eats charges 15 to 30 percent for delivery orders (Uber Eats, 2023). The profitability of this revenue structure is largely driven by the pricing structure

of the platform. Curtis & Mont (2020) identified seven pricing discovery mechanisms, which describe how the prices of goods and services are determined through the interaction of buyers and sellers (Bakos, 1998). However, after excluding certain types of firms, only three of the pricing discovery mechanisms apply. This includes prices set by the platform (e.g., Uber), set by the service provider (e.g., Airbnb), and through negotiation between the service provider and customer (e.g., TaskRabbit) (Curtis & Mont, 2020). In the following chapter, we will further categorize sharing economy firms into four different business models.

3.1.4 Business Models Within the Sharing Economy

According to Constantiou et al. (2017), to gain a competitive advantage over traditional firms, sharing economy firms utilize innovative strategies exploiting organizational and market mechanisms. These approaches can be characterized along two primary dimensions: the degree of control exerted over participants (either tight or loose) and the level of competition among participants (either high or low). Constantiou et al. (2017) business models framework offers a valuable framework for analyzing sharing economy firms and understanding its strategic positioning. The four business models are franchiser, principal, chaperone, and gardener.

	Con	trol	
Rivalry	Loose Minimum standards or guiding principles for platform participation are set by the platform owner	Tight Platform participation is specified, standardized and monitored by the platform owner	
High Pricing scheme based on real- time changes in supply and demand Chaperones Prototypical Example: Airbnb Value proposition: Service differentiation Other examples: Homeaway, Rentomo, Apprentus		Franchisers Prototypical Example: Uber Value proposition: Low costs and efficiency gains Other examples: Lyft, Postmates, Caviar	
Low Pricing scheme based on compensation of the suppliers' costs	Gardeners Prototypical Example: Couchsurfing • Value proposition: Selforganization and community building • Other examples: BeWelcome, BlaBlaCar, Peerby	Principals Prototypical Example: Handy Value proposition: Low costs and risk mitigation Other examples: TaskRabbit, Zeel, Deliveroo	

Figure 4: The business model framework (Constantiou et al., 2017).

Figure 4 illustrates the framework for analyzing sharing economy firms and its strategic positioning. The control dimension of sharing economy firms is maintained by incorporating

organizational coordination mechanisms throughout the community, while the rivalry dimension is managed through the market coordination mechanisms developed by these firms (Constantiou et al., 2017; Netter et al., 2019). In other words, coordination mechanisms dictate interactions between participants on both the supply and demand side of the platform. Organizational coordination mechanisms primarily strive to establish uniformity across various aspects of interactions, while market coordination mechanisms include pricing structures incentivizing interactions (Constantiou et al., 2017; Möhlmann et al., 2021). The control dimension pertains to the participants' degree of autonomy in the sharing process. Thus, the level of control is tight when sharing economy firms define, standardize, and supervise the elements of interactions contributing to low transaction costs. On the other hand, the level of control is loose when these firms specify minimum standards and principles. In this case, coordination aims to encourage and facilitate participation instead of dictating it to aspire to internal motivation and creativity. Furthermore, the rivalry dimension is determined based on the extent of the market mechanism (pricing) utilized on the platform. High rivalry occurs when algorithms are deployed to adjust prices based on changes in supply and demand. Thus, creating an environment where participants on the supply side compete for the demand side. This case often results in increased motivation to deliver high service quality or differentiate the service. On the other hand, rivalry is low when payment is regarded as compensation for costs that occurred on the supply side (Constantiou et al., 2017).

The upper-left corner is occupied by chaperones, such as Airbnb. This model fosters high rivalry amongst participants on the platform by providing pricing recommendations based on real-time fluctuations in supply and demand. Similarly, these firms exert loose control by mostly employing guiding principles for participation (Constantiou et al., 2017; Hossain, 2020). For instance, firms may inform service providers about current levels of supply and demand, but the service providers determine which price to charge. Thus, service providers on the supply side compete for the customers on the demand side. In this model, the competitive advantage is created through long-term relationships with service providers. Firms encourage service providers to differentiate and innovate their services to compete against each other and, therefore, create value on the platform. Chaperones' strategic intent is to create differential value. Hence, chaperones will concentrate on motivating service providers to innovate and expand the variety of offerings (Constantiou et al., 2017). For instance, Airbnb's service providers differentiate offerings by building everything from castles to treehouses and increasing variety to offer free airport pickups and bike rentals.

Furthermore, the lower-left corner is occupied by gardeners, such as Couchsurfing and BlaBlaCar. These firms aim to create self-organized communities with a minimum of standardization for compensation-based sharing (Constantiou et al., 2017; Ritter & Schanz, 2019, Hossain, 2020). Similarly, to chaperones, gardeners also exert loose control over platform participation. Thus, these models offer rewards for behavior that conforms to societal norms and expectations and establishes standards of conduct through social norms and community ethics. In contrast, gardeners promote low to no rivalry amongst participants by allowing payment in the form of compensation for a share in costs or the exchange of gifts. This model creates a competitive advantage by leveraging participants' active involvement and intrinsic motivation to coordinate, govern, and develop the platform, which reduces the platform's involvement. Gardners' strategic intent is to attract a community of enthusiasts to participate in further developing the platform and producing innovative offerings (Constantiou et al., 2017).

The upper-right corner consists of franchisers, such as Uber and Lyft, that employ tight control over platform participants. This is often executed through the standardization of procedures and contracts (Constantiou et al., 2017; Möhlmann et al., 2021). This model deploys control and standardization to increase efficiency in transactions by reducing transaction costs. A common tactic to achieve this is through the quantification of service providers' performance indicators, such as rating scores. This allows franchisers to create a competitive advantage through algorithms, standardization, and automation to deliver the value proposition of low costs and efficiency (Constantiou et al., 2017; Möhlmann et al., 2021). Franchisers differ from the other models by setting prices using real-time fluctuations in supply and demand to foster high rivalry among participants. The strategic intent of franchisers is to concentrate on offering competitive prices, attracting a large segment of users to compete against traditional companies using internal innovation processes (Constantiou et al., 2017).

The bottom-left corner consists of principals, such as Handy and Taskrabbit, employing tight control and low rivalry. In contrast to franchisers, principals engage with service providers (supply side) to dictate terms and agreements of performance-based contracts (Constantiou et al., 2017; Ritter & Schanz, 2019). Principals foster low rivalry through standardized service provision and monitoring the performance of service providers. Thus, prices are predefined and not dependent on supply and demand levels. This model creates a competitive advantage by

incentivizing service providers with high performance. Thus, incentivizing increased compensation for higher performance motivates service providers to increase their efforts. As a result, the business model's value proposition is competing on low costs using tight control and mitigating risks by reducing opportunistic behavior. The strategic intent of principals is to compete on low prices and centralized innovation. In contrast to franchisers, principals gain a competitive advantage by decreasing uncertainty concerning service quality. This is due to franchisers competing against traditional companies using competitive prices, while principles do not adjust prices according to supply and demand (Constantiou et al., 2017).

3.1.5 What Makes the Sharing Economy Unique?

At first glance, distinct differences between traditional firms and sharing economy firms are the independent service providers, network effects, ecosystem, and co-creation of value. For instance, typical business-to-business (B2B) and B2C firms include hotels, taxi firms, manufacturing firms, and traditional consulting firms. In these traditional companies, workers have a formally signed employment contract, which normally includes employment benefits, salary, work hours, and a notice period. While service providers in the sharing economy can choose when and where to work, the length of their workday, when to leave the platform, and when to join. Another distinct difference that we briefly mentioned in Chapter 3.1.2, is the presence of network effects. Similarly, to increase interactions and the value of the platform, sharing economy firms usually rely on the creation of ecosystems. Nevertheless, in contrast to traditional firms, sharing economy firms depend on the co-creation of value, which will be discussed in the following section.

Wirtz et al. (2019) identified the following three levels of fundamental differences between sharing economy firms and traditional firms: market-level characteristics, market economics, and firm-level characteristics. Market-level characteristics entail sharing economy firms' decentralized value exchange and traditional firms' centralized value exchange. More specifically, in traditional businesses, value is delivered from the firm directly to the customers. Whereas sharing economy firms mediate the exchanges of two sides and, therefore, leverage assets of liquidity, data, and analytics (Wirtz et al. 2019). This means that the service provider and customer equally contribute to the value appropriation and cannot create value without the presence of the other. Liquidity is essential for transaction execution, while data and analytics reduce information asymmetry and search costs (Wirtz et al., 2019). Moreover, Huurne et al.

(2017) describe information asymmetry as a situation where the seller possesses more knowledge or information than the buyer, which is often solved by utilizing reputation systems in the sharing economy. Thus, sharing economy firms depend on value-co creation between the platform, providers, and customers (Wirtz et al., 2019).

Furthermore, market economics relates to the cost structure of sharing economy firms compared to traditional firms. In contrast to traditional asset-constraint businesses, sharing economy firms are "asset-light," which often results in lower fixed and marginal costs due to the lack of heavy inventory, production, and asset resources. Similarly, sharing economy firms do not adjust supply based on production capacity and demand. Instead, utilize algorithmic analysis of supply and demand and, therefore, manage capacity restraints more efficiently. In addition, capacity restraints are more flexible, which allows rapid responses to changes in supply and demand (Wirtz et al., 2019). For instance, during peak times, Uber's service providers can transport more passengers using Uber Pool. Lastly, firm-level characteristics relate to the needed form of leadership and the strategic focus. Sharing economy firms focus on building an infrastructure that facilitates a large network of service providers with idle assets, resource orchestration based on efficient exchange mechanisms to increase the liquidity of the network, and co-creating value through increased participation which is often enhanced by complementary partners (Wirtz et al., 2019).

Moreover, Constantiou et al. (2017) emphasized that sharing economy firms differ from traditional firms by integrating and combining organizational and market mechanisms to facilitate participation and create value on the platform. In other words, it can be differentiated by the approach to executing business activities. Organizational boundaries are traditionally clearly defined, separating internal and external interactions. However, digitalization resulted in increased fluidity in these boundaries, and sharing economy firms leverage this fluidity as a strategic asset to gain a competitive advantage (Constantiou et al., 2017).

3.2 Strategic Alliances

This section defines strategic alliances. In addition, we will describe the different types of strategic alliances, the cost of alliances, and why we should study strategic alliances in the sharing economy.

3.2.1 Defining Strategic Alliances

Throughout academic literature, strategic alliances are defined in a variety of ways, such as Gulati (1998), Porter (1990), Cobianchi (1994), Wei (2007), and Wheelen and Hungar (2000). For this thesis, we deploy Yoshino and Rangan's (1995) definition, which defines a strategic alliance as a partnership between two or more companies with a common strategic goal, which, however, remains independent in the alliance but shares the benefits created by the alliance activity.

3.2.2 Classifying Strategic Alliances.

Strategic alliances can be categorized into horizontal and vertical alliances and equity and non-equity alliances. A horizontal alliance is a B2B cooperative relationship between firms that operate in the same industry or market (Ozdemir et al., 2017). This type of alliance is typically formed to achieve common goals, share resources, reduce costs, expand market reach, or improve product quality. A vertical alliance, on the other hand, is a cooperative B2B relationship between firms and its value chain members that operate at different stages in the supply chain (Ozdemir et al., 2017). For instance, an alliance between a firm and its supplier. This type of alliance is typically formed to improve the efficiency and effectiveness of the entire supply chain, from raw materials to the final product. There is a presence of both horizontal and vertical alliances in the sharing economy, such as Uber and Hertz's horizontal alliance (Egan, 2016) and Airbnb and Journera's vertical alliance (AP, 2019).

Furthermore, strategic alliances can be distinguished between an equity alliance and a non-equity alliance. An equity alliance is a collaboration between two or more firms that involves the exchange of ownership shares or investment in each other's firms (Bierly et al., 2004). A non-equity alliance is a collaboration between two or more firms that do not involve the exchange of ownership shares or investments (Bierly et al., 2004). Instead, firms in a non-equity alliance agree to cooperate on specific projects or initiatives, such as joint marketing campaigns, product development, or supply chain optimization (Chan et al., 1997). Comparing the two, equity alliances provide firms with more advantages than non-equity. For instance, improved access to information, better performance monitoring, and greater control (Bierly et al., 2004). Non-equity alliances are often less formal than equity alliances but can still be an effective way for firms to benefit from shared resources and expertise. In the sharing economy,

there is a presence of both equity and non-equity. However, there seems to be a larger presence of non-equity alliances (See Appendix A).

Throughout academic literature, strategic alliances are categorized according to Elumuti and Kathawala (2001) (e.g., Lee, 2009, Fyall & Garrod, 2005, Cruijssen, Dullaert & Fleuren, 2007), Coopers and Lybrand (1997) (e.g., Elumuti & Kathawala, 2001, Jeje, 2015), and Technology Associates and Alliances (1999) (e.g., Elumuti & Kathawala, 2001).

Elmuti and Kathawala (2001)	Coopers and Lybrand (1997)	Technology Associates and Alliances (1999)
 Licensing agreements Ad hoc alliances Joint operations Joint venture Consortia Distribution Value chain partnership Hybrid alliances 	 Joint marketing/promotion Joint selling or distribution Production Design collaboration Technological licensing Research and development contracts Other researching purposes 	Marketing and sales - Joint marketing agreements - Value added resellers Product manufacturing - Procurement-supplier alliances - Joint manufacturing Technology and know-how - Technology development - University/industry joint research

Table 4: Previous academic literature categorizing strategic alliances.

Table 4 illustrates previous academic literature categorizing strategic alliances. Based on the previous academic literature's categorization, the following five types of strategic alliances have been selected for this thesis: distribution alliance, technology alliance, marketing alliance, value chain partnership, and joint venture alliance.

3.2.4.1 Joint Distribution Alliances

A joint distribution alliance is a strategic collaboration between two or more firms that involves distributing products or services through a joint sales channel, sharing distribution networks, and logistics (Li et al., 2019). In other words, this alliance entails two or more companies collaborating to distribute a product or service to its customers. For instance, in 2016, Uber and Hertz formed a distribution alliance to offer service providers the ability to rent vehicles from Hertz to utilize while driving for Uber (Hertz, 2021-a). Similarly, in 2021, Uber formed a distribution alliance with Avis to offer service providers a similar offering (Uber, 2023-e). This could lead to increased driver utilization for the sharing economy firm and increased asset utilization for the traditional firm.

The success of a joint distribution alliance lies in whether the participating firms can work cohesively as a synergistic unit. This entails that the individual abilities of the firms do not solely determine the joint distribution alliance's success but also the degree of complementarity between the firms and how well the capabilities match the demands of the distribution task at hand (Cheng et al., 2019). One of the key aspects of a distribution alliance is that it allows firms to leverage each other's strengths and resources to reach a broader customer base (Isoraite, 2009). In addition, a distribution alliance can lead to improved operational efficiency, allowing companies to coordinate distribution efforts to reduce the downtime of its facilities and equipment (Cheng et al., 2019). Furthermore, Coopers and Lybrand (1997) grouped joint distribution with joint selling, and it is evident that these two types of alliances share important characteristics and benefits.

A joint selling alliance is a business strategy where sales teams from different firms work together as "selling partners" to find, develop, and manage business opportunities collaboratively (Smith, 1997). Joint distribution and joint selling alliances bring together complementary sales organizations to achieve shared goals. This approach also aims to leverage the strengths and expertise of each organization to reach a wider audience, increase revenue, and reduce costs. The partnerships often result in long-term relationships and new business opportunities (Smith, 1997). Furthermore, Schreieck et al. (2021) proposed defining joint selling as the utilization of the ecosystem's sales channel by collaborating with ecosystem partners.

3.2.4.2 Technological Alliance

A technological alliance is a strategic collaboration between two or more firms sharing know-how and information to develop new technology and product complexity. The most common agreements are research and development (R&D), licensing agreements, and technology transfers (Somnath, 2003). For example, in 2016, Uber formed an alliance with Volvo Cars to develop autonomous driving technology for ridesharing services (Golson, 2016). In addition, in 2015, CrowdMed formed an alliance with the National Institute of Whole Health, allowing students to use case studies in the curriculum (Hurst, 2015).

Technological collaborations may take a vertical shape, seeking to acquire a specific technological ability, or a horizontal one, focused mainly on gaining entry to a market. Numerous factors can motivate corporations to pursue technological collaborations, but the

desire to minimize the expenses associated with acquiring a specific technological skill is typically among the foremost motivations (Nueno & Oosterveld, 1988). For instance, technology alliances often provide lower R&D expenses. Attaining the necessary critical mass to undertake a particular research effort is another driving force for pursuing technological alliances. Additionally, such collaborations can help establish a sense of commitment. According to Nueno and Oosterveld (1988), R&D projects performed through alliances tend to yield superior outcomes compared to those undertaken by the firm independently.

3.2.4.3 Joint Venture Alliance

A joint venture alliance is a strategic collaboration where two or more firms form a separate entity to establish a new business or company. The firms share economic risks, costs, rewards, and responsibilities (Bingöl & Begec, 2020). For instance, in 2017, Airbnb formed a joint venture with Newgard Development Group (Staff, 2017). This separate entity was established to build apartment complexes designed for sharing, where service providers can sign a lease and rent it out on Airbnb's platform. Hence, this alliance reduces Airbnb's capital expenditures compared to if the firm were to execute the project independently. This type of alliance falls under the category of an equity alliance, and thus, a joint venture can further be defined as an alliance structure that pools resources from multiple firms to establish a new organizational entity distinct from its "parent" companies (Inkpen & Currall, 1998).

The role of trust seemingly plays an important part in the success of a joint venture. Several scholars have stated that a joint venture should be established with equal trust and commitment (Gulati, 1995; Gill and Butler, 1996; Saxton, 1997; Yan and Gray, 1994). Trust can be split into two concepts: reliance and risk. In the presence of risk, trust is the reliance of one firm on another firm. When there is no risk, trust becomes meaningless. For trust to function, the possibility of negative consequences must exist. Following, a great motivation for forming a joint venture is to reduce the risk. Risk-sharing can incentivize certain companies to pursue new or innovative courses of action that they may have otherwise avoided (Inkpen & Currall, 1998).

3.2.4.4 Marketing Alliances

Marketing alliances are strategic collaborations between two or more firms that promote each other's products or services through marketing activities. This includes co-branding, co-advertising, and promotion campaigns (Somnath, 2003). Furthermore, marketing alliances are

also defined as a mutual understanding and recognition that the success of both firms is, to some extent, dependent on the other firm (Anderson & Narus, 1990). Thus, marketing alliances can be viewed as contractual relationships between firms whose products complement each other in the marketplace. The intention is to amplify and build user awareness of the benefits obtained from the complementary products. To demonstrate, in 2018, Uber formed a marketing alliance with Indian Oil Corporation to offer service providers discounted prices on car fuel (Roy, 2019). Similarly, in 2018, Airbnb formed a marketing alliance with Nest to offer Superhosts a 30 percent discount on thermostats and other products to reduce service providers' running costs (Gartenberg, 2018).

In current literature, a common determination of the concept and boundaries of marketing alliances is hard to identify. However, there is a mutual understanding that marketing alliances extend over a wide specter of sub-categories (Grieco & Iasevoli, 2015). Beyond the previously mentioned sub-categories, marketing alliances can extend into research, product development, and production (Bucklin & Sengupta, 1993). Furthermore, these alliances are constructed as lateral partnerships between same-level firms in the value chain (Bucklin & Sengupta, 1993; Adler, 1966; Vardarajan and Rajaratnam, 1986).

Thomaz and Swaminathan's (2015) study on marketing alliances' impact on firm risk found that marketing alliances can reduce firm risk under certain conditions. The study investigates firm risk in relation to idiosyncratic and systematic risk. Idiosyncratic risk refers to risks exclusively associated with the firm, while systematic risk refers to risks associated with the broader market. The study's results demonstrated that marketing alliances lead to a decrease in idiosyncratic risk, resulting in lower volatility of cash flows, which could be attributed to the diversification advantages that marketing alliances offer. This was supported by the objective of forming marketing alliances to gain entry into new markets or customer segments, and to introduce new products, which ultimately contributes to mitigating risk. For instance, Turo and Mercedes-Benz's marketing alliance provides both firms access to new customer segments (Natt, 2017). In addition, it reduces Turo's idiosyncratic risks associated with the reliance on service providers. The study also found that marketing alliances have been shown to effectively mitigate systematic risk, with product integration alliances exhibiting even stronger risk reduction benefits. Integrating complementary products in these alliances could offer additional protection against macroeconomic forces, further safeguarding the firm's operations.

3.2.4.5 Value Chain Partnership

Value chain partnerships involve creating institutions that facilitate the participation of stakeholders in value chains (Bitzer & Glasbergen, 2015). A value chain refers to the series of strategically relevant activities carried out by a firm to produce and deliver a product or a service to its customers (Brown, 1997). By breaking down a business into strategically relevant activities, the value chain framework enables the identification of a firm's sources of competitive advantage. Hence, firms analyze value chains to determine where to perform these activities more efficiently or effectively than competitors, thus creating a competitive advantage. The value chain partnerships aim to bring together various stakeholders and diverse expertise and specialized roles to complement each other and overcome the challenges faced by smallholders (Bitzer & Glasbergen, 2015). In other words, firms collaborate to improve value chain activities. These activities often include production, R&D, design, sales, and distribution. Thus, these alliances can arise in different categories, such as supplier, distribution, marketing, and technology partnerships (Walters & Lancaster, 2000). For instance, BlaBlaCar formed a value chain partnership with Swiss Re and L'olivier Assurance in 2021. This alliance aims to create a personalized coach for service providers that includes an insurance offering (Swiss Re, 2021). Furthermore, Rich et al. (2011) state that the benefits of value chain partnerships include enhanced firm efficiency and improvement of entrepreneurial capabilities that are difficult to achieve alone. In most cases, these enhancements and improvements normally outweigh the cost of establishing and maintaining the partnership.

3.2.3 Cost of Alliances

According to White and Lui (2005), firms incur costs as it undertakes a joint task with a partner. In the course of undertaking a joint task, partners need to coordinate resources and integrate activities, resulting in cooperation costs. Thus, cooperation costs are defined as the costs incurred during collaborative activity with a partner to achieve alliance-dependent benefits (White & Lui, 2005). Incorporated in the cooperating costs are negotiation costs, contractual costs, operational costs, and monitoring and evaluation costs.

Negotiation costs refer to the costs incurred during the negotiation and formation of the alliance, including the process of reaching an agreement and establishing the terms and conditions of the alliance. This is followed by contractual costs, which refer to drafting up the

agreement in a contract, including legal and administrative activity expenses. Operational costs include all ongoing operational activities, such as joint marketing efforts, sharing of distribution channels, joint research, and collaborative manufacturing activities (Hobbs, 1996). Monitoring and evaluation costs are important for tracking the success and effectiveness of the alliance and include costs such as analyzing data of performance measuring metrics (Hobbs, 1996).

We will further deploy joint task complexity as a basis to explain the cost of alliances. According to White and Lui (2005), the level of cooperation costs is affected by the joint task complexity. More complex tasks require greater coordination and incur proportionally higher costs (Gulati & Singh, 1998). As the scope or depth of interaction between two partners increases, the joint task complexity increases. Scope demonstrates the level of task interface between the partners, and it increases by the level at which the task covers more of the firm's value chain (Childand & Faulkner, 1998; White & Lui, 2005). Depth demonstrates the intensity of the interaction between the firms, i.e., the devoted man-hours (White & Lui, 2005). With an increase in either scope or depth, coordination needs to increase, and thus, cooperation costs increase.

The level of these costs is determined based on the level of joint task complexity between the partnering firms (White & Lui, 2005). The higher the scope or depth of the alliance, the higher cooperation costs the alliance entails. The joint task complexity is thus also affected by the type of alliance formed between firms. To illustrate, we compare the cooperation costs in a joint distribution alliance with a joint technology alliance. In a joint distribution alliance, the joint task is restricted to a small portion of the value chain, resulting in lower effort of negotiation, contracts, operation, and measuring, yielding lower cooperating costs. However, in a technology alliance, the firms collaborate across a much broader portion of the value chain, including R&D, engineering, manufacturing, and marketing, resulting in higher negotiation, contractual, operational, and measuring costs, ultimately yielding higher cooperating costs (White & Lui, 2005).

3.2.4 Why Study Strategic Alliances in The Sharing Economy?

In current literature, there is a lack of research on strategic alliances in the sharing economy. According to Sousa (2014), the coordination of economic activities is determined through a

visible hand of hierarchies, an invisible hand of markets, or through the governance structure. In addition, the decisions concerning the division of labor depend on the costs and benefits of utilizing in-house authority, playing the market, or cooperating with counterparts. Ultimately, the questions concerning strategic alliances are which activities should be kept within the boundaries of the firm, which activities should remain outside its boundaries, and which resources and abilities should be developed internally, purchased in factor markets, or evaluated and investigated through alliances (Sousa, 2014).

As previously stated, the uniqueness of sharing economy firms stems from the integration and combination of organizational and market mechanisms to facilitate participation and create value on the platform. In other words, differentiation occurs through the approach to executing activities. Thus, strategic alliances in the sharing economy could be complementary to the differentiation approach of facilitating participation and developing an environment for multiple sides to interact. Similar activities in need of the same resources and capabilities often reside within the organization. However, complementary dissimilar activities are often found in counterparts in the organization's environment (Sousa, 2014). Hence, strategic alliances in the sharing economy could allow firms to continue exploiting boundary fluidity without taking on activities outside its scope.

Furthermore, sharing economy firms tend to rely on both internal and external systems of innovation. More specifically, in addition to internal efforts of platform innovation, sharing economy firms often leverage external innovations from its ecosystem or complementary partners (Wirtz et al., 2019). For instance, Uber expanding its offerings to UberXshare illustrates internal innovation efforts, while BlaBlaCar's personalized coach developed along with Swiss Re and L'oliver Assurance illustrates external innovation efforts (Uber, 2023-c; Swiss Re, 2021). As previously stated, one of the firm-level characteristics of sharing economy firms is to increase interactions to enhance value creation on the platform. Attracting and integrating partnerships can increase the platform's resilience, making its ecosystem harder to copy, enhancing value, and, therefore, creating a competitive advantage (Wirtz et al., 2019). Thus, studying the role of strategic alliances in the sharing economy could be a crucial part of understanding how these firms maximize the value creation of the platform.

Considering the lack of previous research on strategic alliances in the sharing economy, we performed a comprehensive search and collected several alliances between sharing economy

firms and traditional firms. To further understand the industry trends, we applied the literature on the sharing economy and strategic alliances to identify proper categorization and potential benefits. A sample of the strategic alliances is further demonstrated.

Firms	SE business model	Alliance form	Classification of the alliance	Purpose	Benefits for TF	Benefits for SE
Uber & Hertz (Egan, 2016)	Franchiser	Non-equity / Horizontal	Joint distribution	Providers can rent electric cars from Hertz through the application.	1. Increased asset utilization. 2. Increased revenue. 3. Reduced costs.	1. Reduced risks for SP. 2. Lower barriers for SP to join. 3. Higher switching costs. 4. Increased service quality. 5. Access to new customer segments. 6. Build stronger relationships with SP.
Uber & Indian Oil Corporation (Roy, 2019)	Franchiser	Non-equity / Vertical	Marketing alliance - promotional campaigns	Uber drivers receive discounts on fuel purchases.	1. Access to new markets. 2. Brand awareness. 3. Increased cash flow.	Higher switching costs/satisfaction Reduce SPs running costs. Access to complementary products for SPs.
Airbnb & Newgard Development Group (Staff, 2017)	Chaperones	Equity / Vertical	Joint venture	Building apartment complex designed for sharing, where SP can sign a lease and rent it out on Airbnb	1. Cost and risk sharing 2. Access a wider market 3. Access to better customers	1. Cost and risk sharing 2.Lower barriers to join for SPs 3. Complementary service for SPs 4. Access to resources/skills 5. Increased control for service quality
Uber Freight & Waymo Via (Uber Freight, 2022)	Franchiser	Non-equity/ Horizontal	Technology alliance & joint distribution	Introducing autonomous trucks to the platform.	1. Increased revenue. 2. Access to a wider target segment. 3. Increased assetutilization	I. Increased capacity to complete more rides. Competitive advantage (first movers). Increased customer satisfaction.
Swiss Re, BlaBlaCar & L'olivier Assurance (Swiss Re, 2021)	Gardeners	Non-equity / Vertical	Joint operations & value-chain partnership	Creating BlaBlaCar Coach, personalized coaching and tips for safer driving, comes with insurance	1. Access to a wider customer segment. 2. Increased asset utilization	Increased service quality. Reduced running costs for SPs (insurance). Lower barriers to join the platform. Increased customer satisfaction. Reduces safety risks.

Table 5: Sample of alliances in the sharing economy.

Table 5 illustrates a sample of the alliances in the sharing economy. The complete table is demonstrated in Appendix A. The population in the table consists of both sharing economy firms and traditional firms. The sharing economy firms are Uber, Airbnb, and BlaBlaCar, while the traditional firms are Hertz, Newgard Development Group, Swiss Re, L'oliver Assurance, Indian Oil Corporation, and Waymo Via. The key variables in the data set include the type of sharing economy business model, alliance form, alliance classification, purpose, and the potential benefits for both sharing economy (SE) and traditional firms (TF). This data set consists of primary data, which means that it was collected by the authors (see Chapter 6.2.1.1).

Furthermore, this data is utilized to gain an understanding of the trends in the sharing economy and to obtain a deeper understanding of the matter. Thus, we applied Constantiou's et al. (2017) business model framework and the classification of strategic alliances.

Business model	Joint distribution	Marketing	Value-chain partnership	Joint selling	Technology alliance	Joint venture	Total
Franchiser	13	9	0	0	4	0	22
Chaperones	8	6	0	1	0	1	16
Gardeners	0	0	1	1	1	0	3
Principals	1	3	0	0	0	0	4
Total	22	18	1	2	5	1	

Table 6: Strategic alliances in the sharing economy.

Table 6 illustrates the findings of strategic alliances in the sharing economy. It demonstrates the types of strategic alliances that can be found in the four business models. In the first column, the type of business model is illustrated with a number that represents how many alliances each business model has. The most common types of alliances for franchisers are joint distribution (13) and marketing alliances (9). For chaperones, the most common types of alliances are joint distribution (8) and marketing alliances (6). Furthermore, we found that principals only have marketing alliances (3) and joint distribution (1) alliances. In contrast, we found zero joint distribution and marketing alliances for gardeners. However, gardeners have one value chain partnership, joint selling alliance, and technology alliance.

Alliances in the sharing economy

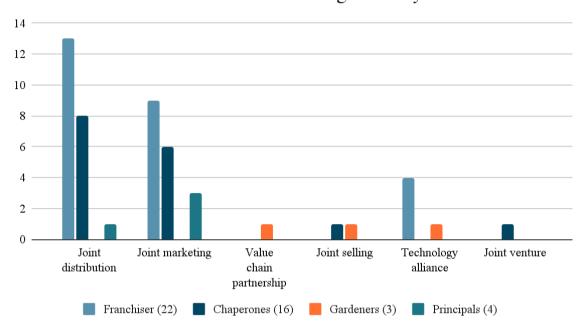


Figure 5: Overview of alliances in the sharing economy.

Figure 5 provides an illustrative overview of the collected strategic alliances in the sharing economy. It is evident that joint distribution alliances are the most common type of strategic alliance in the sharing economy. In addition, it also illustrates that this type of strategic alliance is most common within the franchiser business model. This is followed by the second most common alliance type, marketing alliances, where franchisers also prevail.

4. Theory

To answer the research question, we will deploy the transaction cost theory. The theory is also utilized to develop the propositions of this thesis. The propositions are illustrated through a conceptual framework, which will be presented at the end of the chapter.

4.1 Transaction Cost Theory

Transaction cost theory stems from Coase's 1937 seminal work, "The Nature of the Firm," where he proposes that markets and hierarchies are two distinct forms of governance structures. Coase contends that the selection of each structure depends primarily on the disparity in transaction costs (Geyskens et al., 2006). Moreover, the theory of transaction cost, proposed by Coase in 1937, was further developed by Williamson in 1975, and it explains how firms determine the most suitable governance structure (Russo & Cesarani, 2017). Thus, transaction cost theory revolves around a fundamental inquiry into whether it is more efficient to execute a transaction within a firm through vertical integration or outside via independent contractors using market governance (Geyskens et al., 2006). Transactions broadly refer to the exchange of goods and services between parties (Greve & Argote, 2015). Hence, when it is less expensive to source the transaction internally, firms can experience significant growth. However, when it is cheaper to source the transaction externally in open markets, firms experience less growth or reduce its market position (Pellicelli, 2023). For instance, when it is less expensive to source it internally, the firm will gain a competitive advantage compared to competitors. In contrast, when it is less expensive to source it externally, and the decision to source the transaction internally remains, the firm will not be able to compete at the same level. Thus, vertical integration can be less appealing for firms attempting to remain competitive.

Furthermore, transaction cost theory is often used in alliance studies to explore the outcome of alliances. For instance, studies showed that utilizing the perspective of transaction costs provided a useful framework for studying the result of alliances and the conditions of high-uncertainty situations (Judge & Dooley, 2006; Noordewier & Noordewier, 1990). Moreover, various transaction cost research studies have recognized control mechanisms and trusting relationships as significant factors affecting alliance results (Judge & Dooley, 2006; Bucklin & Sengupta, 1993; Mjoen & Tallman, 1997). Judge & Dooley's (2006) study revealed that contractual safeguards and partner trustworthiness were powerful indicators of opportunistic

behavior and that such opportunism had an adverse effect on the outcome of alliances. In addition, the study found that trust had a greater influence on reducing opportunistic behavior than contractual safeguards.

Prior to explaining transaction cost theory, we must first understand the premise of transaction cost economics. In transaction costs economics, the transaction itself is the fundamental unit of analysis, which can occur either within an organization or across markets. Thus, transaction costs are categorized as market transaction costs and internal transaction costs. (Douma & Schreuder, 2013, p. 167; Williamson, 1975). Transaction costs are the costs incurred in an economic exchange. These costs are not influenced by the competitive market price of the goods or services. Instead, these costs encompass all search and information costs, along with the costs of overseeing and ensuring the fulfillment of contractual obligations (Robins, 1987). The decision of whether to allocate a transaction to the market or organization is based on the cost of minimization. This approach emphasizes the importance of considering both traditional production costs and transaction costs, which include the costs associated with both internal and market transactions (Douma & Schreuder, 2013, p. 167; Williamson, 1975).

Transaction cost theory suggests that transaction costs are based on the assumption that human behavior is boundedly rational and can be opportunistic. Bounded rationality refers to the idea that people have a limited capacity to formulate and solve complex problems (Douma & Schreuder, 2013, p. 169, 197; Williamson, 1975). Opportunism is described as pursuing personal goals above collective goals (Russo & Cesarani, 2017). Within opportunism, Riordan and Williamson (1985) distinguishes between high-powered incentives and low-powered incentives. High-powered incentives are generated through market transactions, where the efficiency benefits resulting from a specific transaction are directly achieved by the parties involved. In contrast, low-powered incentives are found within hierarchies or vertical integration, where neither experience greater gain than the other (Frant, 1996). For instance, in the sharing economy, service providers directly benefit from the transaction and a reduction in transaction costs, while formally employed individuals in traditional firms do not personally benefit from the transaction or a reduction in transaction costs.

According to transaction cost theory, transaction costs depend on three critical dimensions to determine whether the transaction cost will be high or low (Douma & Schreuder, 2013, p. 197; Williamson, 1975). The three dimensions are asset specificity, the degree of uncertainty, and

frequency. Hence, in relation to these dimensions, the economic organization seeks to align transactions with governance structures. This alignment considers variations in costs and capabilities, with the primary objective of minimizing transaction expenses in a discerning manner (Geyskens et al., 2006; Williamson, 1991, p. 79).

First, transaction costs are impacted by the asset specificity of the transaction. This means the extent to which a transaction requires support from transaction-specific assets. If the value of an asset would considerably decrease when repurposed for a different use, then the asset is considered to be transaction specific. Nevertheless, asset specificity commonly refers to physical and human assets. Thus, transactions with high asset specificity have high costs of market transactions (Douma & Schreuder, 2013, p. 179; Williamson, 1975). There are four investment characteristics that can be used to measure the variation in asset specificity. Site specificity refers to decisions to minimize inventory and transportation costs, meaning the asset is highly immobile. Physical asset specificity refers to one or both parties investing in design characteristics specific to that transaction. Human asset specificity refers to investment in human capital and learning-by-doing relating to the transaction. Dedicated assets refer to general investments by the supplier to sell a significant amount to certain customers (Joskow, 1988). Moreover, Geyskens et al. (2006) state that the unique characteristics of these transactions create a challenge to prevent opportunistic behavior, as market competition may not be sufficient. In addition, transaction cost theory proposes that vertical integration is a solution to these challenges associated with high asset specificity. In contrast to market structures, vertical integration provides hierarchical procedures and authority relationships that are assumed to offer better safeguarding capabilities.

Second, the transaction cost also depends on the degree of uncertainty of the transaction. Thus, transactions with a higher degree of uncertainty have higher transaction costs due to the increased need for support activities. Uncertainty can arise in two ways: either the contingencies surrounding an exchange are too unpredictable to be specified in a contract beforehand, leading to environmental uncertainty, or it is difficult to verify the performance of the exchange after, leading to behavioral uncertainty. Environmental uncertainty can create a problem of adaptation, making it hard to adjust agreements and increasing transaction costs. This issue can often be addressed by using hierarchical governance structures. However, some scholars have suggested that high environmental uncertainty can also push firms to maintain flexibility, which may contradict the use of hierarchical governance (Geyskens et al., 2006).

Lastly, the transaction cost depends on the frequency of the transaction (Douma & Schreuder, 2013, p. 179; Williamson, 1975). This means that low-frequency transactions have higher transaction costs in contrast to the economics of scale for high-frequency transactions. Riordan and Williamson (1985) suggested that firms are incentivized to utilize hierarchical governance for transactions that occur with high frequency, as the overhead costs associated with such governance are more easily recovered (Geyskens et al., 2006).

4.2 Developing Propositions

So far, we have explained the transaction cost theory that will be deployed to answer the research question, "Can sharing economy firms create joint value with traditional firms?" Moreover, based on the previous findings (see Table 6), we will further investigate joint distribution alliance, as this type of alliance appears to be the most common type of alliance in the sharing economy.

As previously stated, transaction cost theory has been utilized in alliance literature to evaluate results and explore outcomes. According to transaction cost theory, firms favor transactions where the benefits exceed the transaction costs. In addition, it addresses the critical question of whether to execute a transaction internally or through external contractors. For instance, whether a firm should procure the resources or utilize external sources such as contractors and partners. Thus, transaction cost theory offers a framework for analyzing whether sharing economy firms can create joint value with traditional firms through strategic alliances. The three dimensions, the specificity of the shared asset, the degree of uncertainty of the transaction, and the frequency of the transaction, determine whether the transaction costs will be high or low. For transactions characterized by low frequency, low uncertainty, and low asset specificity, a market governance form, such as strategic alliances, is the most appropriate. For transactions characterized by high frequency, high uncertainty, and high asset specificity, a hierarchy governance form, such as vertical integration, is the most appropriate (Akbar & Tracogna, 2018). Thus, these dimensions can be utilized to determine whether strategic alliances can be a profitable solution compared to both internally procuring the asset and resources and whether the benefits exceed the costs of the alliance.

We further summarize the identified principles of transaction cost theory from the perspective of the sharing economy.

	Degree	Reasoning	Cost
Asset specificity	Low asset specificity.	Assets are easily repurposedLess dependent on support activities	Low market transaction costs.
Uncertainty	Low uncertainty.	 Short-term interactions Transactions can be predictable Less dependent on support activities 	Low market transaction costs.
Frequency	Medium-high frequency.	- The length of the transaction ranges from hourly to weekly, depending on the shared asset	Low internal transaction costs.

Table 7: Sharing economy view.

Table 7 applies the principles of transaction cost theory to the sharing economy. Assets in the sharing economy, such as homes and vehicles, have generally low asset specificity. Therefore, assets are easily repurposed and less dependent on support activities. For instance, Airbnb hosts easily repurposed their homes from personal use to home-sharing. Similarly, Uber and Lyft drivers repurpose their vehicles from personal modes of transportation to ridesharing. Furthermore, transactions such as requesting and accepting Uber trips, Airbnb bookings, Turo rentals, and food ordering and deliveries occur at a medium to high frequency, as the length of the transaction has a different range. In addition, these transactions are generally of low uncertainty as the circumstance surrounding the exchange can be specified beforehand, and the performance can easily be evaluated afterward. For instance, in the case of Uber, the specifications of the trip are prespecified, and both parties can easily evaluate the performance afterward. This is also evident in Uber's rating system. As frequency is the only dimension occurring at a medium to a high level, a market governance structure, such as a strategic alliance, would be the most appropriate for sharing economy firms.

Similarly, to the transaction costs at the firm level, service providers also face transaction costs. Transaction costs include all costs that arise for service providers when completing a trip, renting out homes, and performing tasks (Pelliclli, 2023). For instance, running costs such as maintenance, repair, insurance, and can be considered transaction costs for Uber and Airbnb's service providers. In principle, in the sharing economy, service providers are responsible for

covering these costs. In other words, service providers source these transaction costs internally as they utilize privately-owned assets. Thus, based on the same principles explained in the previous section, a market governance structure, such as a strategic alliance, could reduce service providers' transaction costs. As previously stated, we found that joint distribution alliances were most common in the sharing economy. The objective of a joint distribution alliance is to reach a wider audience, increase revenue, and reduce costs (Smith, 1997). Therefore, the following proposition is developed, Proposition 1(a):

Forming joint distribution alliances with traditional firms is likely to reduce the service providers' transaction costs.

Moreover, a reduction in service providers' transaction costs could potentially increase the utilization of the labor asset, ultimately yielding positive results for the firm's revenue. In transaction cost theory, minimizing transaction costs is a major objective of every party (Oviatt, 1988). Thus, this also includes service providers. Transaction cost theory proposes that reducing transaction costs can significantly affect organizations' and individuals' motivation to engage in activities. In the presence of low transaction costs, individuals and organizations are more likely to be motivated to partake in transactions, thus leading to higher activity and efficiency. In contrast, higher transaction costs tend to discourage individuals and organizations from participating in transactions, which is often amplified by associated challenges and uncertainties (Moschandreas, 1997).

As previously stated, in the sharing economy, service providers are often driven by high-powered incentives. More specifically, individuals who can personally benefit from cost savings have higher incentives and motivation to access such savings (Frant, 1996). Thus, such cost savings could potentially compensate for existing monetary incentives if the benefits are equal to or greater than the existing monetary incentives. In other words, deploying the rationale of transaction cost theory, reducing transaction costs could serve as an incentive itself. More specifically, if individuals consider participating in a transaction to be simple, efficient, and bear low risk, then they are more inclined and motivated to participate (Frant, 1996). In contrast, when transaction costs are higher, individuals often need incentives and other rewards to outweigh the risks and difficulties (Frant, 1996). Thus, reducing service providers' transaction costs can incentivize them to increase their participation on the platform, which will positively impact the firm's revenue. Similarly, reducing transaction costs combined with

contractual safeguards through the alliance can reduce individuals' opportunistic behaviors, such as disintermediation (Moschandreas, 1997). Disintermediation is a situation where the service provider and customer continue the relationship outside the platform and, therefore, negatively impact the firm's future revenue (Wang & Heng, 2017). Thus, this drives Proposition 1(b):

Reducing service providers' transaction costs is likely to increase the sharing economy firm's revenue.

As previously stated, assets in the sharing economy have low asset specificity and are, therefore, easily repurposed. As the traditional firm has already procured or developed the asset, adding an additional channel through a joint distribution alliance should increase the firm's asset utilization. Building on previous arguments, reducing service providers' transaction costs through joint distribution alliances is likely to increase the sharing economy firm's revenue. Similarly, this indicates that it should, in most cases, also lead to an increase in asset utilization for the partnering firm. Transaction cost theory proposes that individuals and organizations aim to determine where it is most efficient to source the transaction (Geyskens et al., 2006). The same reasoning should apply to service providers, i.e., the service provider should be more willing to use the alliance offering instead of sourcing the transaction themselves. In addition, when uncertainty increases, it creates incentives to shift from vertical integration to market governance structures (Staatz, 1987). To illustrate, if service providers experience increased concerns about the contingencies surrounding the exchange, it creates an incentive to shift to a market governance structure. For instance, if service providers worry about increased costs associated with labor asset damages and rapid depreciation. Thus, this drives Proposition 2(a):

Forming joint distribution alliances with traditional firms is likely to increase traditional firms' asset utilization.

Low asset specificity often comes without generating high costs relating to negotiations and contracts. More specifically, the traditional firm can utilize standard contracts as the terms of the alliance offering do not need significant customization (Barney, 1999). As the traditional firm already sources the transaction internally, the firm already has existing costs. Thus, in this case, increasing asset utilization should further impact economies of scale. To elaborate, most

assets in the sharing economy have medium to high frequency. Several joint distribution alliances commonly include these assets in the alliance offerings (see Appendix A). As previously stated, medium to high-frequency transactions are recovered more easily internally (Geyskens et al., 2006). Hence, for the traditional firm, it should contribute to lowering the associated costs. As underutilized assets are considered a loss of revenue, increased asset utilization should positively impact the firm's revenue (Tsang, 1987). More specifically, utilizing assets more efficiently to its full potential should increase the firm's revenue. Thus, this drives Proposition 2(b):

Increasing traditional firm's asset utilization is likely to increase traditional firm's revenue.

4.3 Propositions

We further demonstrate the relationship between the variables and propositions in this thesis.

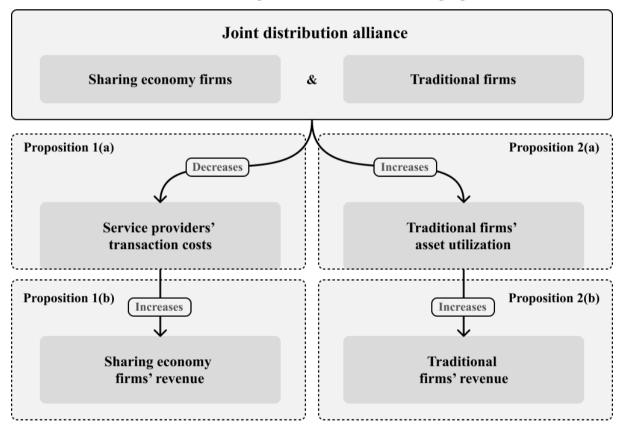


Figure 6: Conceptual framework.

Figure 6 demonstrates the conceptual framework that is based on the empirical findings from the literature review, the data collection on strategic alliances, and the transaction cost theory. For sharing economy firms, joint distribution alliances lead to increased revenue by reducing

the service providers' transaction costs. In addition, joint distribution alliances reduce service providers' costs and risks associated with the transaction. More specifically, this benefits the sharing economy firm by increasing driver utilization by tapping into a new customer segment and increasing participation from existing service providers. Moreover, reducing service providers' transaction costs benefits traditional firms as asset utilization and sales increase due to attracting more customers. The asset utilization is increased as the firm attracts more customers, and more customers generate increased revenue. Thus, distribution alliances lead to increased revenue for traditional firms by increasing the firm's asset utilization.

To summarize, we have gathered and paired the research question with the following propositions.

Research question: How can sharing economy firms create joint value with traditional firms?

Proposition 1(a): Forming joint distribution alliances with traditional firms is likely to reduce the service providers' transaction costs.

Proposition 1(b): Reducing service providers' transaction costs is likely to increase the sharing economy firm's revenue.

Proposition 2(a): Forming joint distribution alliances with traditional firms is likely to increase traditional firms' asset utilization.

Proposition 2(b): Increasing traditional firm's asset utilization is likely to increase traditional firm's revenue.

To answer the research question, a case study research methodology of the joint distribution alliance between Uber and Hertz will be deployed. This is based on the findings from the data collection of strategic alliances, literature review, and transaction costs theory.

5. Methodology

This chapter provides the methodology deployed to answer the research question. This chapter also highlights the implications of methodology on the research. Nevertheless, it offers an empirical model illustrating how the thesis is constructed. First, we present the research design, followed by the data collection. We will then evaluate the research quality by evaluating the validity, reliability, strengths, and weaknesses of the research.

5.1 Research Design

This section explains the research design deployed to answer the research question.

5.1.1 Case Study

To answer the research questions, we will deploy a case study research method. Schramm (1971) states that "the essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what results" (Yin, 2018, p. 14). This definition emphasizes cases as decisions. However, other common forms of cases are individuals, organizations, programs, and events (Yin, 2018, p. 14). This is supported by Orum et al. (2016), stating that the social phenomenon in a case study can vary between organizations, cities, and entire groups of people (p. 2). In this thesis, organizations are applied as the case of study interest. Furthermore, a case study is an empirical methodology that entails investigating a current phenomenon in-depth and in the context of real-world events, particularly when the distinction between the phenomenon and setting may not be immediately obvious (Yin, 2018, p. 15). Moreover, a case study deals with unique situations where there will be many variables of interest than data points. Thus, a case study benefits from the development of theoretical propositions prior to the design, data collection, and analysis phases. It also relies on multiple sources of evidence (Yin, 2018, p. 15; Orum et al., 2016, p. 2).

Furthermore, the decision to deploy case study research is based on the four main areas where researchers should employ a case study. First, the most significant is the need to explain the presumptive causal relationships in real-world interventions that are challenging for survey or experimental methodologies. Second, the description of an intervention and the environment in which it took place in real life. Third, a case study might serve as an example of specific

evaluation subjects in a descriptive manner. Fourth, case study research may be deployed to highlight circumstances where the intervention being assessed lacks a clear, singular set of outcomes (Yin, 2018, p. 18). In other words, deploying case study research could offer deeper insight into the problem and the evolution at large.

In case study research, there are two main approaches: single-case study and multiple-case study. In a single-case study, a researcher examines one specific case in detail, while in multiple-case studies, a researcher examines multiple instances of an event, as that event occurs in a variety of different cases (Flyvbjerg, 2011, p. 245; Stake, 2005). Moreover, case studies can be distinguished between an explanatory case study, a descriptive case study, and an exploratory case study. Explanatory case studies seek to answer "how" and "why" questions within the context of real-life situations (Dudovskiy, 2022). Descriptive case studies seek to analyze interpersonal events as it addresses descriptive questions such as "What is happening or what has happened" (Yin, 2012). Exploratory case studies seek to answer questions concerning "what" and "who" (Dudovskiy, 2022). In this thesis, we will deploy an explanatory single-case study as the research question seeks to find out how sharing economy firms and traditional firms can create joint value.

In case study research, the case study design can be further categorized as holistic or embedded. A holistic research design involves a thoroughly qualitative approach that depends on a single phenomenon, while embedded case studies can involve more than one unit of analysis and are not typically limited to only utilizing a qualitative analysis (Scholz & Tietje, 2022, p. 9). In this thesis, we are deploying qualitative research. Qualitative research relies on non-numerical data such as interviews, observations, and documents (e.g., literature, newspapers, and reports) (Strauss & Corbin, 1990). The qualitative research in this thesis includes annual reports, academic papers, company announcements, and newspaper articles. Thus, we further deploy an explanatory single-case study with an embedded research design.

5.2 Data Collection

This section presents the overview of the sample of sharing economy firms and traditional firms. Furthermore, the primary and secondary data employed in this thesis will be presented. Primary data refers to data collected by the researcher himself, while secondary data refers to data previously collected by another researcher (Singh & Mangat, 1996, p.2). The primary data

consists of the collection of strategic alliances in the sharing economy and annual reports. The secondary data consists of news articles and company announcements.

5.2.1 Overview of The Sample

In this chapter, we will present the sample that has been utilized in this thesis.

Sharing economy firms	15
Traditional firms and entities	37
Total alliances	42

Table 8: Overview of the sample.

Table 8 presents an overview of the sample collected for this thesis. The sample consists of 15 sharing economy firms, 37 traditional firms and entities, and a total of 42 strategic alliances. Sharing economy firms include firms such as Uber, Turo, CrowdMed, Airbnb, and Lyft. Traditional firms include firms such as Hertz, Toyota, IKEA, and Newgard development group. The full list of sharing economy firms and traditional firms can be found in Appendix B and C, respectively. As previously stated, the type of sharing economy firms is restricted to fit specific criteria. The criteria to fit in the selection is that the asset is owned by service providers and not the platform itself. In addition, the asset must be rented for a limited period and not purchased by the customer. Lastly, there must be a monetary exchange of the asset or service. To fit the sample of traditional firms, the firms must fit the criteria of providing or developing products and services directly to customers.

5.2.1.1 Data Collection on Strategic Alliances

To collect data on strategic alliances in the sharing economy, we used a variety of search methods. First, we conducted a comprehensive Google Search using relevant keywords and phrases related to sharing economy alliances, such as "sharing economy partnerships," "strategic alliances sharing economy," "platform partnerships," "marketing alliances sharing economy," and "co-distribution alliance sharing economy." Then performed a search through the official websites of relevant companies in the sharing economy, such as Airbnb, Uber, Lyft, and TaskRabbit, to gather information on the firm's past and current alliances. In addition, we utilized Oria, the Norwegian academic library search engine, to identify academic papers and other publications related to sharing economy alliances. By using a combination of these search

methods, we collected a wide range of data on past and present alliances in the sharing economy, providing a comprehensive overview of alliance activity in the sharing economy.

5.2.2 Annual Reports

According to Hox and Boeije (2005), a researcher must first locate relevant data sources, second retrieve the relevant data, and third evaluate how well the data fits the research question and research methodology. To collect data for this thesis, we first located relevant data sources useful to our research question. The relevant data was first located in Uber and Hertz's annual reports, ranging from 2014 to 2022. Second, the annual reports of the two firms were publicly available on the firms' websites. Thus, we were able to retrieve the relevant data. Third, the reports were carefully analyzed to evaluate whether the data fit the research question and methodology. Through analyzing the reports, specific data points of interest were extracted. Further, these data points will be presented through the process of operationalization.

5.2.2.1 Operationalization

Operationalization can be viewed as the process of defining and translating concepts or variables into measurable or observable indicators or variables (Bibse & Chenhall, 2007). First, we explain the revenue and cost variables that are applicable to both firms.

Revenue

The revenue demonstrates the firm's sales and income generated from its operations. This data point provides an assessment of the firm's growth trajectory and the market demand for its products or services. Ultimately, revenues are inflows of a firm's ongoing operations (Gibson, 2013).

Costs

The costs are the expenses incurred by a firm, generated through its operations. This data point provides valuable information about a firm's financial performance, such as its ability to manage expenses. Ultimately, costs are outflows of a firm's ongoing operations (Gibson, 2013).

Further, we explain the variables that are applicable to Uber. The variables are trips, monthly active platform consumers, net adjusted revenue, and segment-adjusted EBITDA.

Trips

Uber defines trips as the number of completed consumer mobility and delivery orders in a given period (Uber, 2023-h, p. 58). For instance, one UberX ride with two passengers represents one trip, whereas one Uber Share ride with two passengers demonstrates two trips. The measurement of trips is a great representation of the scale and usage of Uber's platform.

Monthly Active Platform Consumers

The monthly active platform consumers demonstrate the number of unique consumers who completed mobility or received a delivery order on Uber's platform at least once in a given month (Uber, 2023-h, p. 58). A unique consumer can use several services on Uber's platform in a given month, but the unique consumer is counted as only one. Thus, active platform consumers are the end-users.

Adjusted Net Revenue

The adjusted net revenue demonstrates the mobility and delivery segments' revenue after accounting for driver incentives and referrals. More accurately, it demonstrates the change in driver incentives and referrals for each segment in the years between 2017 to 2019 to identify either increases or decreases (Uber, 2020, p. 74).

Segment-adjusted EBITDA

Uber reports its segment-adjusted EBITDA, which represents the revenue of each segment minus the associated expenses, such as cost of revenue, operations and support, general and administrative, sales and marketing, and R&D (Uber, 2020, p. 61) In addition, it also excludes expenses that are not representative of the segment's operating performance. This data point provides an accurate representation of the net earnings that each segment individually generates.

Moreover, we explain the variables applicable to Hertz. The variables are vehicle utilization and customer mix.

Vehicle Utilization

The vehicle utilization demonstrates the extent to which a vehicle is occupied during a specific period. The data point is calculated by dividing total transaction days by available car days (Hertz, 2023-e, p. 58). Thus, this gives the following formula:

Vehicle utilization = total transaction days / available car days.

Available car days are found by multiplying the average rental vehicles by the number of days in the given period (Hertz, 2023-e, p. 44). This gives the following formula:

Available car days = average rental vehicles x number of days in period.

Furthermore, vehicle utilization illustrates the performance of a firm's vehicle fleet. More specifically, how effectively and efficiently a vehicle is utilized compared to its intended potential.

Customer mix

Hertz divides its customers into business and leisure (Hertz, 2023-e, p. 5). The business category includes customers who rent for commercial activities, governments, and other organizations. This category also includes customers belonging to partners such as Uber. The leisure category includes individual travelers and other customers who rent vehicles for their personal needs.

5.3 Empirical model

The empirical model is demonstrated to provide a holistic illustration of the research design.

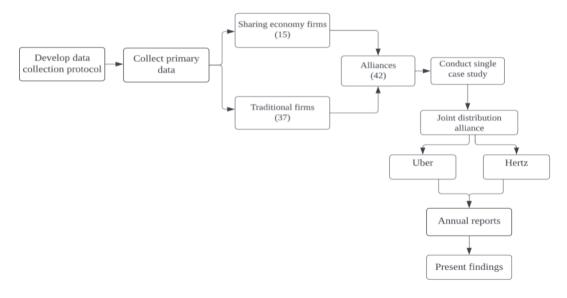


Figure 7: Empirical model.

Figure 7 illustrates the empirical model of this thesis. The model demonstrates a summary of the research design. Yin (2018) states that the research design links the data collection and the conclusions to the initial study question (p.24). More specifically, the model demonstrates the steps from developing the data collection protocol to the final presentation of the case study report.

5.3 Quality of Research Design

The research design is intended to represent a logical set of statements and the quality of the research design can therefore be estimated according to certain logical tests (Yin, 2018, p.42). The first test is constructing validity. This test is utilized to determine the correct operational measures for the phenomena of the study. More precisely, using multiple sources of evidence. The second test is internal validity. Internal validity contributes to establishing a causal relationship, meaning that certain conditions directly influence other conditions. The third test is external validity, and it illustrates whether findings from the study can be generalized. Lastly, the fourth test is reliability. Reliability tests demonstrate whether the data collection approach can be repeated, yielding the same results.

5.3.1 Validity of Research Design

To construct validity, the researcher must identify the correct operational measures for the study objective (Yin, 2018, p. 42). We utilized multiple data sources to retrieve a holistic understanding of the industry trends, which included identifying patterns as to why these firms were forming strategic alliances and what the potential benefits were. To identify these patterns, we deployed insights gained from alliance literature with the firms' official announcements and the reasoning behind the decisions. Thus, we identified 42 strategic alliances between 15 sharing economy firms and 37 traditional firms to determine the suitable operational variables to analyze.

Furthermore, internal validity refers to researchers seeking to determine causal patterns distinguished from spurious patterns, which mainly concern explanatory case studies (Yin, 2018, p. 42). Similarly, Saunders et al. (2007) define internal validity as the extent to which findings could be attributed to interventions instead of research design flaws (p. 137). The first concern with internal validity is whether research incorrectly concludes a causal relationship without being aware of a third event that could have a significant impact (Yin, 2018, p. 45). To

reduce the risk of incorrectly concluding casual relationships, we enhance the internal validity by utilizing multiple data sources, such as official announcements, annual reports, and news articles. By doing so, we reduce the risk of misinterpreting the results. The second concern with internal validity concerns rivalry explanations (Yin, 2018, p. 45). To further enhance the internal validity of this study, we performed pattern matching when collecting the overall strategic alliance trends in the sharing economy, as well as addressing rivalry explanations.

Moreover, external validity refers to addressing whether the findings can be generalized (Yin, 2018, p. 42). More specifically, the concern of whether the findings can be generalized to other research settings, such as other firms (Saunders et al., 2007, p. 151). However, to reduce this risk and enhance the external validity, we select one analysis of the most common type of alliance in the sharing economy, where the terms of the alliance are significantly similar to other alliances between similar firms. Nevertheless, to enhance the overall validity, we analyze data ranging from a five to nine-year period. Saunders et al. (2007) explain that a threat to validity is if the research is executed shortly after the study object occurred, then this might significantly impact the findings (p. 150). Thus, we enhance the validity by selecting a strategic alliance that has been active for a seven-year period.

5.3.2 Reliability of Research Design

The reliability of research design refers to the extent to which the result of a study can be replicated (Yin, 2018, p. 46). More precisely, it is necessary to document the procedures followed in the case study. To address the concern of reliability, we have first outlined the steps taken to gather data on past and current alliances in the sharing economy. Providing a clear outline of these procedures enables further researchers to follow the same steps and replicate the study, thereby increasing its reliability. Furthermore, we documented the procedures followed to retrieve the collected data points from Uber and Hertz's annual reports. The reliability of the data point is determined by the extent to which the collection techniques and analysis will display consistent findings (Saunders et al., 2007, p. 149). This can be evaluated by addressing if the measurements will provide the same results on other occasions, provide similar conclusions when measured by other observers, and by the transparency of sense made from the data.

The annual reports provide a comprehensive overview of a firm's operations and financial statements. Although corporate firms control what content to display in the narrative section and how it is presented, corporate auditors closely examine and apply government regulations and standards regarding the accuracy of the financial data (Public Company Accounting Oversight Board, 2007; Penrose, 2008). Thus, the numbers reported in an annual report are considered to be accurate and consistent. It is, therefore, reasonable to assume that when collected by other researchers on different occasions, the data points yield the same results, facilitating reliability. To assess if the findings from the data points will provide similar conclusions when measured by other observers, we have documented our data sources, variables, and measurements. This allows another researcher to follow the same steps to reach the same conclusion. To ensure transparency of our results, we have provided a clear and comprehensive description of our findings that are easily accessible.

5.3.3 Strengths and Weaknesses of Case Study

Although case study research yields several benefits, there are some traditional concerns that need to be addressed. According to Yin (2018), the five traditional concerns are whether case studies are rigorous enough, confusion with "nonresearch" case studies, generalization from case studies, unmanageable level of effort, and whether it offers a comparative advantage (pp. 18-21). The concern of case studies not being rigorous enough stems from researchers not following systematic procedures or that equivocal evidence (i.e., multiple interpretations) has impacted the direction of the findings. Thus, it is critical to work systematically to avoid such practices (Yin, 2018, p. 18). The concern regarding confusion with "nonresearch" case studies typically stems from teaching and professional functions where case studies do not follow a research method. Thus, the quality of the case study might be put into question. However, to overcome this challenge, it is important to emphasize the methodic procedures (Yin, 2018, p. 19). The next concern is how to generalize from case study research. To address this concern, case study research aims to expand and generalize theories, which are considered to be analytical generalizations and not probabilities, also known as statistical generalizations (Yin, 2018, p. 19). Moreover, a common concern is also the unmanageable level of effort, which stems from the fact that case studies can take a long time and, therefore, result in an overflow of information to the reader. Although this might have been the case in previous work, it is not guaranteed to occur if the case study is properly composed and uses specific data methods (Yin, 2018, p. 21). Lastly, a potential concern is whether case studies provide a comparative

advantage compared to other research methods. However, this perspective often stems from previous trends favoring randomized controlled trials and experiments. Although nonexperimental methods often do not directly address the issue, case study research can easily complement quantitative and statistical methods (Yin, 2018, p. 21).

6. Case Report

This chapter presents the case study report of the joint distribution alliance between Uber and Hertz. We will first introduce the two firms, the terms of the alliance, and how Uber's business model aligns with the joint distribution alliance according to the literature findings. Then, we present the data collected from the firms' annual reports. Lastly, we discuss the findings in accordance with transaction cost theory.

6.1 Case Introduction

This chapter introduces two multinational firms, Uber and Hertz, which serve as an applicable case study to explore the dynamics between sharing economy firms and traditional firms. Uber operates within the sharing economy business model, while Hertz adheres to the traditional business model. The initial section of this chapter provides an individual presentation of each firm before introducing the alliance established between Uber and Hertz in 2016. Subsequently, relevant data on each firm's key metrics are collected and presented in an attempt to apprehend whether the alliance has impacted the firm's results of operations.

6.1.1 Uber

Uber Technologies, Inc. (Uber) is a multinational transportation networking firm founded in 2009 (Uber, 2023-f). The firm operates through a mobile application, connecting passengers with drivers through their smartphones. Uber's technology matches consumers with independent service providers. Uber has three primary segments, which are mobility, delivery, and freight. First, the mobility segment consists of a wide range of transportation offerings, such as ridesharing, carsharing, micro-mobility, rentals, and public transportation (Uber, 2023-e, p. 4). These offerings take consumers to their desired destination. Through the application, consumers get access to personal information about the driver, such as their name, rating, and vehicle type. Consumers can choose between six different ride options, for instance, UberX, Uber Black, UberX Share (Uber, 2023-g). Second, the delivery segment consists of food delivery from retailers and restaurants. This segment further matches consumers with independent delivery service providers. This offering allows consumers to search for and discover meals and groceries and either pick-up or have it delivered (Uber, 2023-e, p.4). Third, the freight segment offers a transportation and logistics network, and connects shippers and carriers in a digital marketplace (Uber, 2023-e, p.4). The joint distribution alliance between

Uber and Hertz is available to the mobility segment. The firm operates in over 70 countries and 10.000 cities worldwide (Uber, 2023-f). Consequently, Uber has become one of the most prominent examples of the sharing economy.

In Chapter 3.1.4, we identified Uber as a franchiser business model (Constantiou et al., 2017). The firm can be categorized as a franchiser as it exhibits tight control over its participants and fosters high competition amongst its service providers. Franchisers employ tight control over platform participants through the standardization of procedures and contracts. Control and standardization are critical to increasing efficiency in transactions by reducing transaction costs. The level of control and rivalry demonstrates that franchisers have full authority over the service and pricing decisions (Constantiou et al., 2017). In the case of Uber, this is evident in its standardized processes of accepting and requesting trips and its pricing algorithm. In addition, this is also evident in its rating system. Service providers and consumers using Uber are both giving rating scores based on previous participants' experience with the other. Doing so allows Uber to achieve a competitive advantage through its algorithms setting prices based on real-time demand, standardizing procedures and rating systems, and automating the process to create value at low costs with high efficiency. Hence, Uber introduced a new offering providing consumers with cheaper prices and service providers with lower transaction costs than traditional taxi and car rental firms. Lastly, utilizing real-time fluctuations in supply and demand fosters high rivalry between service providers. As previously stated, its strategic intent is to offer competitive prices that attract a large segment of customers to compete against traditional firms, such as taxi firms, with internal innovation processes rather than encouraging service providers to innovate (Constantiou et al., 2017). This is demonstrated by Uber expanding its offerings, such as UberX Share, Uber Travel, and Uber Comfort (Uber, 2023-c).

6.1.2 Hertz

The Hertz Corporation (Hertz), founded in 1918 (Hertz, 2023-b), is one of the largest car rental companies worldwide. The firm operates in North America, Europe, the Caribbean, Latin America, Africa, the Middle East, Asia, Australia, and New Zealand. Customers can choose between a range of rental options, including electric cars, luxury vehicles, SUVs, trucks, and vans, with various durations ranging from a few hours to several weeks. In addition, in the previous years, Hertz has expanded its services beyond vehicle rentals, establishing Hertz Car Sales, (Hertz, 2023-c), and Hertz Ride, offering motorcycle rentals (Hertz, 2023-d). However,

in this thesis, Hertz's vehicle rental is the primary point of interest. In its rental operations, Hertz offers rental vehicles to both business and leisure. The customer mix is divided between American and international segments. The business category includes customers who rent for commercial activities, governments, and other organizations. The leisure category includes individual travelers and other customers who rent vehicles for their personal needs. The alliance concerns the business segment in America.

6.1.3 Uber and Hertz's Alliance

The alliance between Uber and Hertz was formed in 2016 and is currently active in America. The firms are now planning to expand the alliance to Europe, offering up to 25,000 electric vehicles for Uber's service providers to rent by 2025 (Hertz, 2023-e). The alliance between Uber and Hertz enables Uber's service providers to rent cars from Hertz at affordable prices, with quick approvals and unlimited miles. The rental base rate starts at \$260 per week, plus taxes and fuel. In addition, a refundable security deposit of \$200 is required. This alliance offers several benefits. For Uber, the alliance could attract service providers without a vehicle or who do not wish to utilize their personal vehicles. This enables Uber to expand its network of service providers. For Hertz, the alliance introduces the firm to the growing ridesharing market and could offer increased vehicle utilization. The benefits for service providers include convenience, auto insurance, basic maintenance, and unlimited miles (Uber, 2023-a). Uber's service providers can rent different types of vehicles, such as Tesla, midsize sedans, and Hyundai Sonata. To be eligible, service providers must be 21 years or above and have a government-issued driver's license (Uber, 2023-a). Furthermore, the firm reported that almost 50,000 Uber service providers in America have benefitted from the rental program (Uber, 2023-b).

Uber and Hertz's strategic alliances can be categorized as a non-equity alliance, as there is no exchange of ownership stakes. Similarly, the alliance can further be categorized as a horizontal alliance. As previously stated, a horizontal alliance is a B2B cooperative relationship between companies that operate in the same industry or market (Ozdemir et al., 2017). The firms operate in the automotive and transportation industry and offer complementary services. More specifically, Uber relies on a network of service providers in need of vehicles to perform their service, while Hertz specializes in providing consumers with rental offerings through its fleet of vehicles. In addition, the firms have an overlap in target segments. More specifically, both firms target consumers in need of a mode of transportation. For instance, the firms target

consumers without a vehicle of transportation, tourists, and short-time visitors in a certain location. As previously explained, horizontal alliances are typically formed to achieve common goals, share resources, reduce costs, expand market reach, or improve product quality (Ozdemir et al., 2017). In this case, it allows Hertz to improve the asset utilization of its fleet, while Uber can increase the network of service providers by attracting service providers without a vehicle or service providers that do not wish to utilize their personal vehicles.

Furthermore, the strategic alliance can be classified as a joint distribution alliance. As previously described, a joint distribution alliance entails two or more companies collaborating to distribute a product or service to customers (Li et al., 2019). In this case, Hertz supplies rental vehicles to Uber's service providers (product), who subsequently use the vehicles to provide transportation to customers (service). As previously stated, the success of a joint distribution alliance relies on the degree of complementary between the companies and how well its capabilities match the demand of the distribution task at hand (Cheng et al., 2016). In this case, there is a high degree of complementary as Hertz provides rental vehicles to Uber's service providers to utilize for ridesharing services. Thus, this partnership utilizes the complementary factor and matches the distribution task. Ultimately, this alliance allows the companies to leverage each other's resources to reach a broader customer base, which is a key aspect of a joint distribution alliance (Isoraite, 2009).

In Chapter 3.2.6, we found joint distribution alliances to be the most common type of strategic alliance in the sharing economy. In addition, this type of alliance was commonly found within the franchiser business model. These results indicate a common denominator for either the desired objectives, or that the motivation for entering this type of alliance stems from similar challenges. We further compare the business model characteristics and value proposition to the objective of the joint distribution alliance. As previously stated, the franchiser's value proposition is to deliver on low cost and efficiency. This aligns with the objective of joint distribution alliances to reach a wider audience, increase revenue, and decrease costs. In addition, it was previously identified that the strategic intent of a franchiser, such as Uber, is to offer competitive prices to attract a large segment of customers to compete against traditional firms. This also aligns with the purpose of the alliance between Uber and Hertz, as it allows Uber to scale further by attracting more service providers.

6.2 Findings

This section presents the findings from the analysis of the collected data points on service providers, Uber, and Hertz. The objective of this section is to examine the impact of the joint distribution alliance on service providers, Uber, and Hertz. More specifically, the impact on service providers' transaction costs. This analysis further evaluates the effects on Uber's revenue and costs, along with the impact on Hertz's asset utilization, revenue, and costs.

6.2.1 Service Providers

To understand the impact of the joint distribution alliance, we conduct an analysis of Uber's service providers' operating costs, ownership costs, and earnings before taxes in America. This section presents two scenarios to obtain an accurate representation of the impact of the alliance. First, a scenario where the service provider purchases a new vehicle with a five-year down payment. Second, a scenario where the service provider has completed the down payment. The miles driven and the associated costs are based on Uber's service providers' average miles and costs per month (Campbell, 2023).

	Private		Hertz		Gain		
Operating costs							
Fuel	\$	0.1095	\$	-			
Maintenance	\$	0.0781	\$	-			
Costs per mile	\$	0.1876	\$	-			
Ownership costs							
Insurance	\$	1,075.00	\$	-			
License, registration, and taxes	\$	726.00	\$	-			
Depreciation	\$	3,839.00	\$	-			
Finance charge	\$	692.00	\$	-			
Cost of car or lease	\$	7,644.00	\$	12,480.00			
Total ownership costs per year	\$	13,976.00	\$	12,480.00			
Total ownership costs per day	\$	38.29	\$	34.19			
Monthly costs (4,722 miles)							
Operating costs per 4,722 miles	\$	885.85	\$	-			
Ownership costs per month (30.5 days)	\$	1,167.86	\$	-			
Total monthly costs per 4,722 miles	\$	2,053.70	\$	1,040.00			
Monthly earings after Uber fees (tips ex.)	\$	4,722.00	\$	4,722.00			
Monthly earnings before taxes	\$	2,668.30	\$	3,682.00	\$	1,013.70	

Table 9: Overview of service providers' transaction costs and earnings.

Table 9 demonstrates scenario one, where Uber's service providers' costs and earnings apply to utilizing new privately-owned vehicles compared to Hertz's alliance offering. The table includes operating costs, ownership costs, earnings before taxes, and the difference between the two modes of transportation. Net income is not included as the tax rate varies between states and due to other influential factors impacting individuals' tax levels. To determine the cost of owning and utilizing a vehicle, we deployed The American Automobile Association (AAA)'s 2018 data collection. The costs are differentiated by vehicle type (The American Automobile Association; Helling, 2023-a).

For this analysis, the costs relate to a minivan, more specifically, the Toyota Sienna. Thus, the "cost of car" is based on a purchase of the Toyota Sienna for \$38,200 (Kelly Blue Book, 2023). In addition, the common length of a down payment is five years. Therefore, the monthly "cost of car" is calculated by taking the annual cost of a five-year down payment divided by the total months. The operating costs include fuel and maintenance, while ownership costs include insurance, license, registration, taxes, depreciation, and finance charge. The AAA's data collection does not account for the cost of the vehicle. However, this is essential when compared to the alliance offering, particularly for new service providers without a vehicle. As demonstrated in Table 9, the total monthly cost per 4,722 miles for a privately owned vehicle is \$2,053.7, while the monthly earnings before taxes are \$2,668.3. In contrast, the total monthly costs per 4,722 for the alliance offering is \$1,040, while the monthly earnings before taxes are \$3,682. Overall, this results in a \$1,013.7 financial gain when utilizing the alliance offering. A visual comparison of the findings is further illustrated.

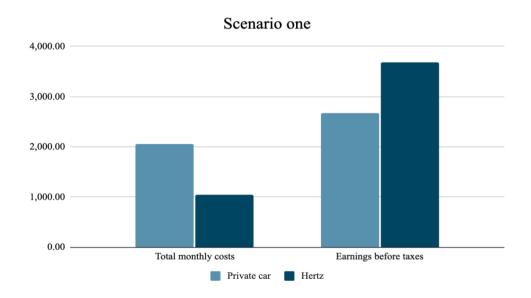


Figure 8: Comparison of monthly costs and earnings (scenario 1).

Figure 8 illustrates a comparison of the benefits of utilizing a privately-owned vehicle and the alliance offering. The figure provides a visualization of the difference in total monthly costs and earnings before taxes. It is evident that utilizing Uber and Hertz's alliance offering, brings a significant financial gain for Uber's service providers. Moreover, scenario two concerns service providers who have completed the down payment.

I		vate	He	rtz	Gain		
Operating costs							
Fuel	\$	0.1095	\$	-			
Maintenance	\$	0.0781	\$	-			
Costs per mile	\$	0.1876	\$	-			
Ownership costs							
Insurance	\$	1,075.00	\$	-			
License, registration, and taxes	\$	726.00	\$	-			
Depreciation	\$	3,839.00	\$	-			
Finance charge	\$	692.00	\$	-			
Cost of car or lease	\$	-	\$	12,480.00			
Total ownership costs per year	\$	6,332.00	\$	12,480.00			
Total ownership costs per day	\$	17.35	\$	34.19			
Monthly costs (4,722 miles)							
Operating costs per 4,722 miles	\$	885.85	\$	-			
Ownership costs per month (30.5 days)	\$	529.11	\$	-			
Total monthly costs per 4,722 miles	\$	1,414.96	\$	1,040.00			
Monthly earings after Uber fees (tips ex.)	\$	4,722.00	\$	4,722.00			
Monthly earnings before taxes	\$	3,307.04	\$	3,682.00	\$	374.96	

Table 10: Service providers' transaction costs and earnings excluding a new vehicle.

Table 10 demonstrates scenario two, where service providers' transaction costs and earning does not account for a new vehicle. More specifically, the service provider has completed the down payment in advance. Thus, the "cost of car or lease" is set to zero. All other costs remain. However, it is evident that service providers experience a financial gain. More specifically, the service provider gains \$374.96 in monthly earnings before taxes. A visual comparison of the findings is further illustrated.

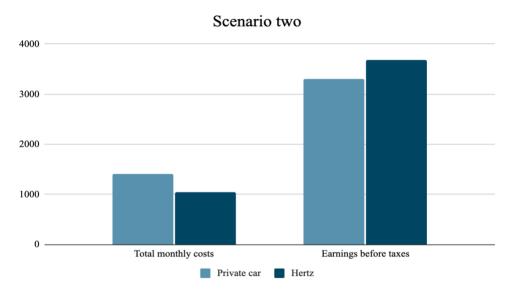


Figure 9: Comparison of monthly costs and earnings (scenario 2).

Figure 9 illustrates a comparison of the benefits of utilizing a privately-owned vehicle with a completed down payment compared to the alliance offering. The figure demonstrates the difference in total monthly costs and earnings before taxes. Although the difference in total monthly costs and earnings before taxes is less than scenario one, the alliance offering still brings financial gain for Uber's service providers. Furthermore, this section analyzed the impact of the alliance of service providers' transaction costs. The analysis demonstrated that reducing service providers' transaction costs leads to a significant financial gain. As previously discussed, reducing service providers' transaction costs could positively impact the firm's revenue. Consequently, the following section will analyze this assumption.

6.2.2 Uber

This section presents the data collected from Uber's annual reports from 2017 to 2022. The data is deployed to gain a deeper understanding of Uber's financial strengths and weaknesses to determine its financial standing prior to and after the formation of the joint distribution alliance. To increase the firm's revenue, there will be incurred costs. Similarly, there are costs of forming strategic alliances (see Chapter 3.2.3). However, to determine whether the firm has increased its revenue through the alliance successfully, the associated costs must also be analyzed. More specifically, evaluating the impact of the alliance on Uber's revenue and cost and, therefore, the impact on the firm's overall profitability. An analysis of Uber's operational activity is first presented. This includes the number of completed trips and monthly active platform consumers.

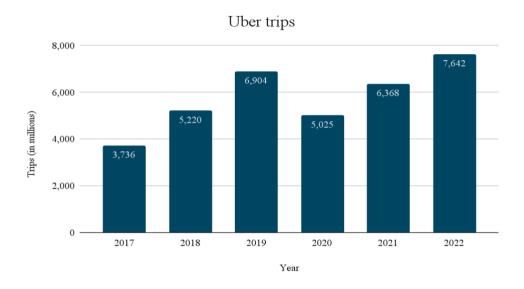


Figure 10: Overview of Uber trips.

Figure 10 demonstrates an overview of the total number of Uber trips from 2017 to 2022 (Uber, 2020, p. 52; Uber, 2023-h, p. 58). As previously stated, trips are the number of completed consumer mobility rides and delivery orders each year. As demonstrated in Figure 10, the number of trips significantly increased from 2017 to 2019 and further increased in 2022. The reduction in 2020 is a result of the COVID-19 pandemic, which impacted the demand in the mobility segment (Uber, 2021-a, p. 24). However, Uber quickly recovered, leading to the highest number of trips in 2022. Moreover, Uber's monthly active platform consumers also demonstrate operational activity.

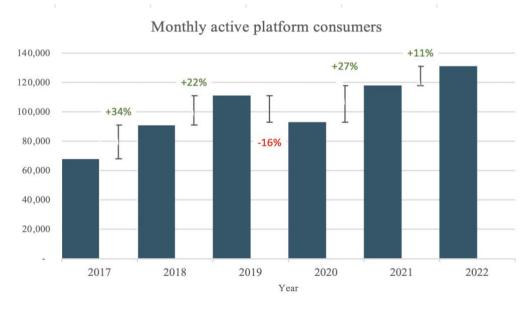


Figure 11: Monthly active platform consumers.

Figure 11 illustrates Uber's average number of monthly active platform consumers from 2017 and 2022 (Uber, 2020, p. 52; Uber, 2023-h, p. 58). Uber defines active platform consumers as consumers who completed a mobility trip or received a delivery order (Uber, 2023-h, p. 58). Figure 11 demonstrates that from 2017 to 2018, the monthly average active consumer increased by 34 percent, followed by a further 22 percent increase in 2019. The reduction in 2020 is affected by the COVID-19 pandemic. Furthermore, the monthly average platform consumer further increased by 11 percent from 2021 to 2022, recovering from the pandemic. Furthermore, we will now analyze Uber's financial metrics relating to the strategic alliance. Thus, we first collected Uber's total revenue and costs from 2015 to 2022.

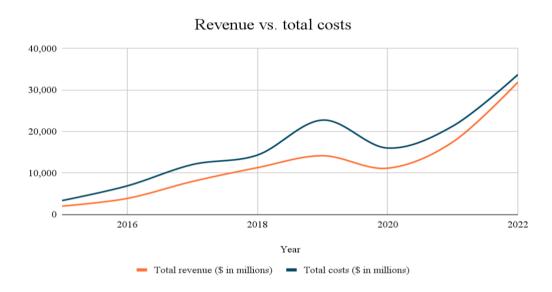


Figure 12: Uber's cost and revenue comparison.

Figure 12 illustrates Uber's total revenue and total costs from 2015 to 2022 (Uber, 2020, p. 55; Uber, 2023-h, p. 74). As demonstrated in the figure, it is evident that Uber is not profitable due to significant costs exceeding its annual revenue. However, in 2022, the difference between total revenue and total costs has decreased. This is a positive shift and might indicate that the firm is moving toward profitability. From 2016 to 2019, the total revenue experienced a steady increase. Moreover, from 2016 to 2019, total costs increased. However, there was a significant reduction in the rate of growth in the total costs between 2017 to 2018. More specifically, from 2016 to 2017, the total costs grew by approximately 75 percent, while from 2017 to 2018, it grew by approximately 19 percent. In addition, there is a significant increase in both total revenue and total cost in 2022 compared to the previous years. As previously stated, the alliance is active in America. Thus, it is necessary to perform a deeper analysis of the American revenue.

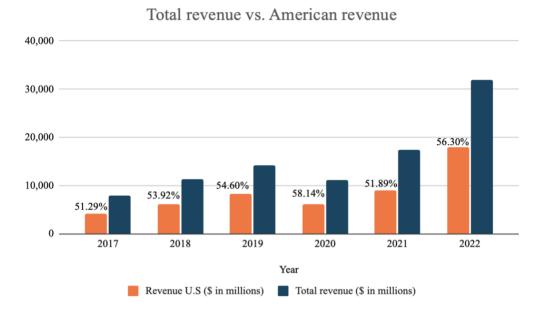


Figure 13: Total revenue vs. American revenue.

Figure 13 demonstrates Uber's total revenue compared to the American revenue from 2017 to 2022 (Uber, 2020, p. 143; Uber, 2023-h, p. 94). As demonstrated in the figure, the revenue generated in America accounts for approximately half of the total revenue. As the alliance offering is available solely in America, this offers some important insights into how the revenue is distributed between markets. Similarly, the alliance is only available to the mobility segment. Therefore, further analysis of the revenue distribution for all segments is necessary.

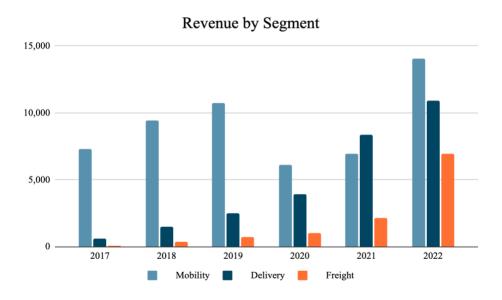


Figure 14: Revenue by segment.

Figure 14 illustrates the revenue generated by the different segments from 2017 to 2022 (Uber, 2020, p. 115; Uber, 2023-h, p. 94). The figure demonstrates that the revenue from the mobility

segment increased from 2017 to 2019. In addition, generating the highest revenue, with the exception of 2021. During this period, the mobility segment was significantly impacted by COVID-19, whereas the delivery segment prospered. The delivery segment has continued to have significant growth even after the pandemic. Similarly, the revenue from the freight segment has continued to increase following the pandemic. Nevertheless, in 2022, the revenue of the mobility segment rapidly bounced back to levels higher than pre-pandemic. However, the revenue does not accurately represent the segments' profitability. Thus, we further analyze how the segments perform after adjusting for the relevant expenses.

	2017	2018	2019	2020	2021	2022
Segment-adjusted EBITDA:						
Mobility	388	1,541	2,071	1,169	1,596	3,299
Delivery	(355)	(601)	(1,372)	(873)	(348)	551
Freight	(39)	(102)	(217)	(461)	(130)	0
Adjusted EBITDA	(2,642)	(1,847)	(2,725)	(2,528)	(774)	1,713

(\$ in millions)

Table 11: Uber's segment-adjusted EBITDA.

Table 11 illustrates Uber's segment-adjusted earnings before interest, taxes, depreciation, and amortization (EBITDA) from 2017 to 2022 (Uber, 2020, p. 71; Uber, 2021, p. 57; Uber, 2023h, p. 57). As previously stated, Uber defines its segment-adjusted EBITDA as the revenue of each segment minus the associated expenses. In addition, it also excludes expenses that are not representative of the segment's operating performance (Uber, 2020, p. 71). Uber attributed the increase in mobility-adjusted EBITDA in 2018 to increased gross bookings and higher booking fees, and a decrease in incentive spending. However, this was partially offset by an increase in variable costs due to overall growth (Uber, 2020, p. 72). Furthermore, the increase in 2019 was attributed to an increase in segment revenue due to pricing changes in America and deeper penetration in international markets, which was partially offset by an increase in variable costs and customer promotions (Uber, 2020, p. 72). In addition, Uber reported that this segment experienced a significant increase in miles driven (Uber, 2020, p. 66). Moreover, it is evident that the results for 2020 were highly impacted by COVID-19. Following the consequences of the pandemic, the segment-adjusted EBITDA for all segments increased beyond the results pre-pandemic in 2022. The positive result in the adjusted EBITDA in 2022 was attributed to a \$7.1 billion increase in the revenue generated by the mobility segment. However, this was partially offset by a \$1.4 billion increase in insurance costs due to an increase in miles driven

by service providers (Uber, 2023-h, p. 57). Moreover, we further demonstrate the trends of the segment-adjusted EBITDA.

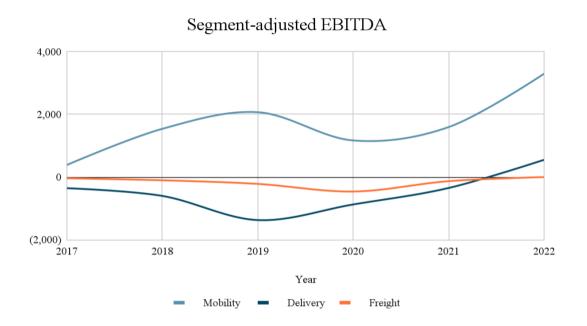


Figure 15: Six-year evolution of segment-adjusted EBITDA.

Figure 15 demonstrates the evolution of the segment-adjusted EBITDA for Uber's three primary segments from 2017 to 2022 (Uber, 2020, p. 71; Uber, 2021, p. 57, Uber, 2023-h, p. 57). With the exception of 2020, Figure 15 illustrates that the segment-adjusted EBIDTA for mobility yields positive and increasing results in contrast to the other segments. However, in 2022, the segment-adjusted EBITDA for delivery also yielded positive results.

So far, Uber's total revenue, market revenue, revenue by segment, and segment-adjusted EBITDA have been analyzed. As previously stated, to determine whether the firm has increased its revenue through the alliance successfully, the associated costs must also be analyzed. Therefore, Uber's expenses are analyzed on a yearly basis. By deploying the rationale of transaction cost theory, a slight increase in overhead costs, such as general and administrative expenses, is expected (Barney, 1999). Due to a reduction in service providers' transaction costs, a reduction in the cost of revenue related to monetary incentives and marketing and sales expenses is expected (Frant, 1996). In the alliance offering, Hertz includes auto liability insurance in its rental offering (Uber, 2023-a). Thus, these costs should decrease for service providers in the mobility segment.

Overview of Uber's expenses

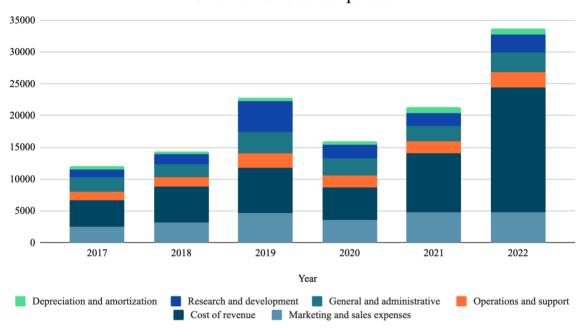


Figure 16: Overview of Uber's expenses.

Figure 16 illustrates Uber's total costs from 2017 to 2022 (Uber, 2020, p. 52; Uber, 2023-h, p. 64). As demonstrated in Figure 16, the cost of revenue is the largest cost, followed by marketing and sales expenses. Uber's cost of revenue includes insurance costs covering mobility and delivery offerings, banking fees, payment processing fees, data center and networking expenses, costs related to carriers for freight transportation, mobile device and service costs, costs associated with fare chargebacks and credit card losses, excess driver incentives, and certain costs associated with mobility and delivery transactions such as pay for drivers and couriers (Uber, 2023-h, p. 50). The insurance costs include auto liability, uninsured and underinsured motorist liability, general liability, and auto physical damage (Uber, 2020, p. 62). Figure 16 demonstrates that the cost of revenue was lowest in 2017, 2018, 2019, and 2020. It also illustrates a significant increase in the cost of revenue in 2022. This increase is largely attributed to a \$2.7 billion increase in mobility driver payments and incentives and a \$1.4 billion increase in courier payments and incentives. However, Uber largely contributed the increase to the business model changes in the United Kingdom, which includes classifying service providers as employees (Uber, 2023-h, p. 53).

Moreover, Uber's sales and marketing expenses consist of compensation costs, advertising costs, loyalty programs, product marketing costs and discounts, promotions, refunds, driver referrals, and credits (Uber, 2023-h, p. 51). Figure 16 illustrates that sales and marketing

expenses were lowest in 2017 and 2018 and peaked in 2021. However, in 2022, Uber decreased marketing initiatives, such as offering consumer discounts, rider-facing loyalty expenses, credits, refunds, and promotions, by \$33 million. This decrease was partially offset by a \$152 million increase in employee headcount costs, an increase in stock-based compensation of \$19 million, and an increase in indirect advertising of \$25 million (Uber, 2023-h, p. 54). However, a more detailed analysis of the adjusted net revenue is necessary to better understand the impact of the alliance on the monetary incentives related to the mobility segment. Thus, we further analyze the change in driver incentives and referrals after the first three years of the alliance.

	2017	2018	2019	Change 2017-2018	Change 2018-2019
Adjusted Net Revenue reconciliation:					
Revenue	7,932	11,270	11,147		
Excess Driver incentives	(530)	(837)	(1,147)	57.92%	37.04%
Driver referrals	(199)	(136)	(103)	-31.66%	-24.26%
Adjusted Net Revnue	7,203	10,297	12,897		
Mobility Adjusted Net Revenue reconciliation:					
Mobility revenue	7,278	9,437	10,745		
Excess Driver incentives	(320)	(150)	(41)	-53.13%	-72.67%
Driver referrals	(185)	(122)	(82)	-34.05%	-32.79%
Mobility Adjusted Net Revenue	6,773	9,165	10,622		
Delivery Adjusted Net Revenue reconciliation:					
Delivery revenue	587	1,460	2,510		
Excess Driver incentives	(210)	(687)	(1,106)	227.14%	60.99%
Driver referrals	(14)	(14)	(21)	0.00%	50.00%
Delivery Adjusted Net Revenue	363	759	1,383		
(\$ in millions)					

Table 12: Uber's adjusted net revenue.

Table 12 illustrates Uber's adjusted net revenue after accounting for driver incentives and referrals (Uber, 2020, p. 74). This table includes the two largest segments, mobility, and delivery. Table 12 demonstrates an increase in total excess driver incentives and a decrease in total driver referrals from 2017 to 2019. However, there has been a significant decrease in both excess driver incentives and driver referrals for the mobility segment from 2017 to 2019. Conversely, there has been a significant increase in excess driver incentives and driver referrals for the delivery segment. Moreover, both the revenue of the mobility and delivery segment experienced a significant increase from 2017 to 2019. Thus, we conduct an analysis of Uber's potential revenue generated by the joint distribution alliance.

Results from the alliance (approximately)	Average trips per day Average earnings pe	r ride	Trips	Revenue
50,000 drivers (1 week)	7.5	10.5	2,625,000	\$ 27,562,500
50,000 drivers (1 month)	7.5	10.5	7,500,000	\$ 78,750,000

Table 13: Uber's potential revenue from the alliance.

Table 13 illustrates Uber's potential earnings generated from the alliance. To determine the potential results from the alliance, we utilized the 50,000 service providers who utilized (Uber, 2023-b), average trips per day (Helling, 2023-b), and Uber's average earning per ride (Helling, 2023-c; Zego, 2022). The potential earnings are based on two scenarios. First, the offering was utilized for the minimum rental period of one week. Second, the offering was utilized for one month. Thus, to find the number of trips generated from the alliance, we multiplied 50,000 service providers by the average trips per day for the given period. This demonstrated a minimum gain of 2,625,000 trips. In addition, for a one-month rental period, the gain would be 7,500,000 trips. Moreover, to determine the potential revenue, we multiplied the gain in trips by the average earnings per ride. This resulted in a minimum revenue of \$27,562,500 for a one-week rental period, and a revenue of \$78,750,000 for a one-month rental period. This would be evident in the revenue of the mobility segment. However, this does not account for the costs associated with each transaction.

To summarize, this section demonstrated that Uber's operational activity in terms of trips and active platform consumers increased from 2017 to 2019. In addition, the findings also show that the American market accounts for approximately half of the total revenue. The revenue from the mobility segment increased during this period, and generated the highest revenue compared to the other segments. Similarly, the segment-adjusted EBITDA illustrated that the mobility segment was the only profitable segment from 2017 to 2021, and that there was a significant improvement in profitability from 2017 to 2019. Furthermore, there was an increase in the total cost of revenue and marketing and sales expenses. However, from 2017 to 2019, there was a significant reduction in excess driver incentives and driver referrals for the mobility segment. Lastly, Uber's potential revenue from the alliance should be a minimum of \$27,562,500 as well as a minimum gain of 2,625,000 trips.

6.2.3 Hertz

This section presents the data collected from Hertz's annual reports from 2014 to 2022. The data is utilized to gain an understanding of Hertz vehicle utilization and financial performance before and after forming the joint distribution alliance with Uber. To evaluate whether the alliance has created joint value, the reduction in service providers' transaction costs should increase Hertz's asset utilization. Similarly, the increased asset utilization should positively affect the firm's revenue. However, the cost associated with increasing revenue should not

exceed the value captured from the alliance. Therefore, the analysis concern Hertz's asset utilization and customer mix. In addition, it also concerns the revenue of the American and global market, and the American business segment. Nevertheless, the costs of the American and global market, and the costs of the American rental car reportable segment (RAC).

First, the firm's asset utilization is demonstrated. Hertz defines vehicle utilization as the portion of vehicles utilized to generate revenue, and vehicles refer to cars, vans, crossovers, and light trucks (Hertz, 2020, p. 44).

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
Vehicle utilization (America)	77%	78%	80%	79%	81%	80%	53%	77%	79%
Vehicle utilization (International)	77%	78%	77%	77%	77%	76%	59%	72%	73%
Vehicles (America)	499,100	489,800	484,800	484,700	506,900	555,220	437,547	355,647	411,047
Vehicles (International)	166,900	168,700	173,400	178,100	180,400	160,382	102,793	77,643	94,999
Utilized vehicles (America)	384,307	382,044	387,840	382,913	410,589	444,176	231,900	273,848	324,727
Utilized vehicles (International)	128,513	131,586	133,518	137,137	138,908	121,890	60,648	55,903	69,349
Under-utilized vehicles (America)	114,793	107,756	101,808	106,634	106,449	122,148	192,521	88,912	86,320
Under-utilized vehicles (International)	38,387	37,114	39,882	40,963	41,492	38,492	43,173	21,740	25,650
Change in utilization from past year (America)	-	-0.59%	1.52%	-1.27%	7.23%	8.18%	-47.79%	18.09%	18.58%
Change in utilization from past year (International)	-	2.39%	1.47%	2.71%	1.29%	-12.25%	-50.24%	-7.82%	24.05%

Numbers are displayed in units (except percentages).

Table 14: Hertz's vehicle utilization.

Table 14 illustrates Hertz's vehicle utilization from 2014 to 2022 (Hertz, 2017, p. 51; Hertz, 2020, p. 50; Hertz, 2022, p. 70; Hertz, 2023-e, p. 53). Vehicle utilization is divided into international and American vehicle utilization. The table demonstrates Hertz's total number of vehicles for the two regions each year. Although the utilization rate provides an indication of revenue earning vehicles, it does not reflect the actual number of utilized and underutilized vehicles. Therefore, we multiplied the American and international utilization rates by the annual number of vehicles in each market. In America, the highest number of utilized vehicles was in 2019, followed by 2018. The highest number of underutilized vehicles was in 2020, followed by 2017. The highest number of underutilized vehicles was in 2020, followed by 2018. The table illustrates a significant difference in the number of vehicles in America compared to internationally. Nevertheless, from 2017 to 2019, the utilized vehicles in America increased significantly. In contrast, international vehicle utilization experienced lower

fluctuations and considerably greater reductions than in America. Moreover, it is evident that vehicle utilization in 2020 is greatly impacted by COVID-19. Thus, these findings may not represent the true effects of the alliance.

The vehicle utilization is further presented with a visual demonstration.

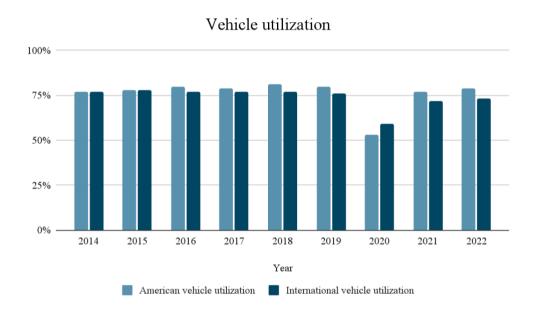


Figure 17: Comparison of Hertz's utilization rate.

Figure 17 illustrates the vehicle utilization rate in the American and international markets (Hertz, 2017, p.51; Hertz, 2020, p. 50; Hertz, 2023-e, p. 53). Utilizing an illustrative comparison of vehicle utilization demonstrates that the utilization rate does not appear to vary significantly in the two regions. In contrast, the utilization rate is slightly higher in America compared to the international level. Both American and international vehicle utilization demonstrates minor fluctuations in percentages. However, this does not provide an accurate representation of the changes in utilization, as the change in number of vehicles is not accounted for. Thus, we further analyze the findings from American vehicle utilization.

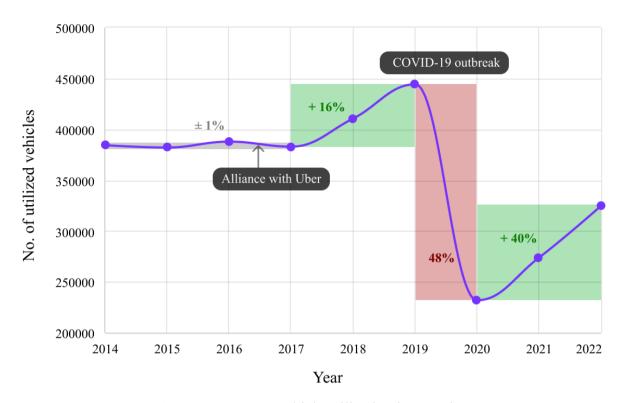


Figure 18: Hertz's vehicle utilization in America.

Figure 18 demonstrates the number of utilized vehicles in America (Hertz, 2017, p. 51; Hertz, 2020, p. 50; Hertz, 2023-e, p. 53). This illustration provides a more accurate representation of the change in utilized vehicles compared to Figure 17. The figure demonstrates the change in the number of utilized vehicles for four significant periods. First, prior to entering the alliance with Uber, there were only small fluctuations in utilized vehicles. However, after the first six months of entering the alliance, there was a significant increase in utilized assets. More specifically, the number of vehicles increased by 70,900 units. The increase in utilization during this period equals approximately 16 percent. Thus, the number of utilized vehicles increased by 61,263 units. Then, from 2019 to 2020, there is a significant decrease following COVID-19. Lastly, the figure illustrates a rapid recovery following the pandemic from 2020 to 2022.

So far, the changes in vehicle utilization were compared across markets. As vehicle utilization reflects the revenue earning vehicles, it is necessary to conduct a deeper analysis of the revenue distribution between the firm's customer mix. As previously stated, Hertz divides its customer mix into American and international segments, separating between business and leisure. Thus, we further analyze the difference between these customer segments.

American customer mix									
Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
Revenue business	35%	34%	35%	36%	38%	38%	44%	25%	32%
Revenue leisure	65%	66%	65%	64%	62%	62%	56%	75%	68%
Transactions business	41%	38%	36%	36%	37%	37%	38%	29%	32%
Transactions leisure	59%	62%	64%	64%	63%	63%	62%	71%	600/
	3970	0270	0470	0470	0376	03%	0276	7170	08%
International customer mix	3970	0270	0470	0476	0376	0376	0276	7170	68%
International customer mix Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
International customer mix									
International customer mix Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
International customer mix Year Revenue business	2014 59%	2015 47%	2016 41%	2017 42%	2018 41%	2019 42%	2020 38%	2021 52%	2022 48%

Table 15: Hertz's customer mix.

Table 15 illustrates Hertz's customer mix in America and internationally (Hertz, 2017, p. 8; Hertz, 2020, p. 5; Hertz, 2023-e, p. 5). The table demonstrates that leisure generates higher revenues and transactions in both markets. Typically, leisure rentals are longer in duration and generate higher revenue per transaction than business rentals (Hertz, 2023-e, p. 5). However, American business revenue increased following the alliance while simultaneously decreasing internationally. Moreover, in America, the number of business-related transactions decreased prior to the alliance. However, during the beginning of the alliance, this started to stabilize followed by a slight increase until 2021. In contrast, during this period, business-related transactions internationally decreased.

Thus far, the analysis has explored the differences between the American and international business and leisure segments. However, as the alliance offering is available to the American business segment, a closer analysis of this segment's actual earnings is necessary.

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
American RAC revenue	6,471	6,286	6,114	5,994	6,480	6,938	3,756	6,215	7,280
Business segment of American revenue (%)	35%	34%	35%	36%	38%	38%	44%	25%	32%
Revenue from American business segment	2,265	2,137	2,140	2,158	2,462	2,636	1,653	1,554	2,330
% change from previous year	-	-6%	0%	1%	14%	7%	-37%	-6%	50%
(\$ in millions).									

Table 16: Revenue generated by the American business segment.

Table 16 demonstrates the revenue generated by the American business segment. The revenue accounts for earnings generated by the RAC segment. The revenue and the percentage of revenue are collected from Hertz's annual reports (Hertz, 2015, p. 7; Hertz, 2016, p. 7, Hertz, 2017, pp. 8, 51; Hertz, 2020, pp. 4, 50; Hertz, 2021-b, p. 5; Hertz, 2022, p. 5; Hertz, 2023-e, pp. 5, 53). To determine the revenue generated by the American business segment, we multiplied the American RAC revenue by the percentage of the American business revenue. This approach illustrated that the revenue decreased prior to the alliance. However, after the

first six months of entering the alliance, the revenue increased by approximately 22 percent until 2019. In addition, the revenue recovered quickly after COVID-19.

Although these findings demonstrated positive results following the alliance, further analysis of the American costs is needed. Hertz's primary costs are direct vehicle and operating expenses, depreciation of revenue earning vehicles, selling, general and administrative expenses, and vehicle interest expense. Direct vehicle and operating expenses primarily consist of wages and benefits, commissions and concession fees, facility, reservation costs and selfinsurance, and other expenses concerning the operation and rental of vehicles, such as maintenance, fuel, and damages. The depreciation of revenue earning vehicles and lease charges consist of gains and losses and associated expenses with vehicle disposal (Hertz, 2020, p. 44). By deploying the rationale of transaction cost theory, overhead costs such as selling, general, and administrative expenses are expected to increase slightly. However, due to the frequency of the transaction, these costs are more easily recovered internally (Barney, 1999; Geyskens et al., 2006). Thus, it is expected that the growth of these expenses will decrease over time. Moreover, direct vehicle and operating expenses are also expected to increase. However, the growth of these expenses should also gradually decrease due to increased efficiency, negotiation, and learning. This is based on the assumption that high-frequency transactions further impact economies of scale (Geyskens et al., 2006), as well as better contractual terms from suppliers due to increased volume. Similarly, depreciation of revenue earning vehicles and lease charges could potentially decrease based on a similar rationale (Hertz, 2020, p. 10). Therefore, the following includes an overview of these costs.

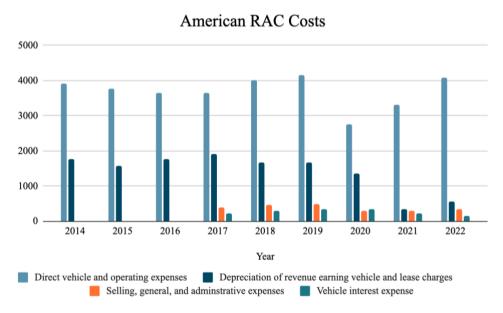


Figure 19: American RAC costs.

Figure 19 illustrates the American RAC costs (Hertz, 2017, p. 51; Hertz, 2020, p. 50; Hertz, 2023-e, p. 53). It is evident that direct vehicle and operating expenses is the highest cost for the American RAC segment. There is a clear increase in these costs from 2017 to 2019 following the alliance. Hertz contributes this increase primarily due to increased rental volume (Hertz, 2020, p. 50; Hertz, 2023, p. 53). However, these costs decrease in 2020, which could be contributed to COVID-19. The depreciation of revenue earning vehicles and lease charges increase at the beginning of the alliance and decrease from 2017 to 2022. Hertz attributes this decrease to stronger residual values (i.e., increased worth after depreciation), dispositions of vehicles to higher-yielding retail and dealer channels, and an increase in gains from disposed vehicles (Hertz, 2020, p. 48; Hertz, 2023, p. 51). Moreover, Hertz did not account for vehicle interest expense and selling, general and administrative expenses on a market basis prior to 2017. Hence, the level of these costs cannot be compared prior to the alliance. Lastly, vehicle interest expense and selling, general and administrative expenses increase from 2017 to 2019, and decrease from 2019 to 2022. However, the rate of growth in these cost categories decreased each year between 2017 and 2019.

The changes in direct vehicle and operating expenses and depreciation of revenue earning vehicles are further compared to the American RAC revenue. These costs relate directly to the vehicles.

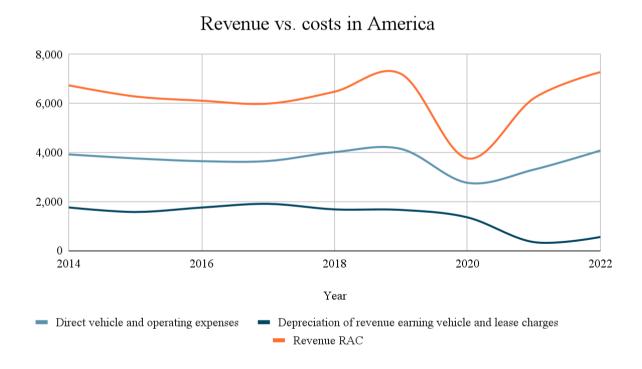


Figure 20: American revenue and cost comparison.

Figure 20 illustrates a comparison of Hertz's RAC revenue and costs in America from 2014 to 2022 (Hertz, 2017, p. 51; Hertz, 2020, p. 50; Hertz, 2023-e, p. 53). The figure demonstrates that the revenue experienced a decrease of approximately 2 percent from 2016 to 2017. This was lower than the decrease in the previous years. Following the alliance, the revenue grew by approximately 16 percent from 2017 to 2019. Moreover, the direct vehicle and operating expenses only experienced a slight increase from 2016 to 2019. More specifically, the cost experienced a 0.14 percent increase from 2016 to 2017, a 9.94 percent increase from 2017 to 2018, and a 3.29 percent increase from 2018 to 2019. Thus, in 2018 the rate of growth declines. Similarly, depreciation of the revenue earning vehicles and lease charges also fluctuated during this period. This cost category increased by 8.61 percent from 2016 to 2017, decreased by 11.87 percent from 2017 to 2018, and further decreased by 1.31 percent from 2018 to 2019. Hence, there is a slight growth prior to and in the beginning of the alliance. However, it decreased from 2018 to 2021. In addition, in 2020, the revenue and costs significantly decreased. This could be contributed to COVID-19. However, in 2021 both the revenue and direct vehicle operating expenses increased due to increased volume (Hertz, 2023-e, p 53). In contrast, the depreciation of revenue earning vehicle and lease charges continued to decrease.

So far, the findings compare the vehicle utilization, customer mix, revenue in the American business segment, and the American RAC costs. Now, the total revenue and costs are presented on a global level.

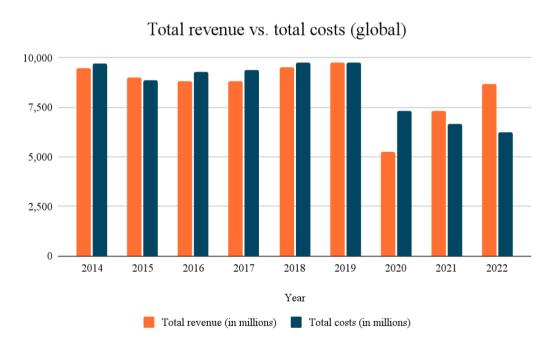


Figure 21: Hertz's global revenue and costs.

Figure 21 illustrates the total revenue and costs for Hertz globally. The total costs include direct vehicle and operating expenses, depreciation of revenue earning vehicles and lease charges, selling, general and administrative expenses, interest expenses, and goodwill and intangible asset impairments (Hertz, 2023-e, p. 37). With the exception of 2015, the costs incurred by the firm exceeded the total revenue from 2014 to 2020. However, the rate of growth of the total costs decreased significantly in 2019. In contrast, in both 2021 and 2022, the firm experienced a shift, with the generated revenue exceeding the incurred costs. In addition, the figure reveals that the total revenue increased from 2016 to 2019 following the alliance. Similarly, there is a slight increase in total costs during the same period. Furthermore, the analysis demonstrated an increase in both the American RAC revenue and total revenue. Therefore, we conduct an analysis of Hertz's potential revenue generated by the joint distribution alliance.

Results from alliance (approximately)	Revenue
50,000 drivers (1 week)	13,000,000
50,000 drivers (1 month)	52,000,000

Table 17: Hertz's potential revenue from the alliance offering.

Table 17 demonstrates Hertz's potential earnings from the joint distribution alliance with Uber. As previously stated, the firm reported that 50,000 of Uber's service providers have utilized the offering (Uber, 2023-b). Thus, multiplying 50,000 by the minimum rental price of \$260 demonstrated that it should have resulted in a minimum revenue of \$13,000,000. Another scenario, where each service provider utilized the rental offering for one month, would have yielded a result of \$52,000,000. However, this does not account for the costs associated with each transaction.

To summarize, this section demonstrated that Hertz's American vehicle utilization increased by 16 percent during the first three years of the alliance. In contrast, international utilization experienced minor fluctuations as well as a decrease. Similarly, American business revenue increased by approximately 22 percent, while it decreased internationally. In addition, the total revenue grew by approximately 16 percent. Moreover, the total costs increased during this period. For the American RAC, all costs slightly increased following the alliance, except depreciation of revenue earning vehicles and lease charges. This cost category increased in 2017, followed by a decrease from 2018 to 2022. Nevertheless, the rate of growth in these expenses decreases throughout the alliance. Lastly, the analysis illustrated that Hertz's potential minimum revenue generated by the alliance should equal \$13,000,000.

7. Interpretation and Discussion

This chapter deploys the data collected on service providers, Uber, and Hertz, along with transaction cost theory and literature, to answer the research question, "Can sharing economy firms create joint value with traditional firms?"

7.1 Uber

In Chapter 4.2, we identified that transactions in the sharing economy have low asset specificity, low uncertainty, and medium to high frequency. As previously stated, a market governance form, such as a strategic alliance, is most suitable when transactions have low asset specificity, low uncertainty, and low frequency, while for transactions with high levels of these attributes, a hierarchical governance form such as vertical integration is the most suitable (Akbar & Tracogna, 2018). Thus, for Uber to retrieve vehicles, entering a joint distribution alliance would be the most efficient and bear the lowest costs.

For Uber's service providers, the transaction costs relate to the exchange of their services, such as maintenance, repair, insurance, and gasoline. In the study background, it was identified that service providers are concerned about high maintenance costs, labor asset damages, and rapid depreciation (see Chapter 2.1.6). Our findings demonstrate that service providers' transaction costs decrease when utilizing the alliance offering while simultaneously reducing uncertainty. In scenario one (including cost of new vehicle), the service providers' monthly costs decrease from approximately \$2,053 to \$1,040, resulting in a \$1,013 monthly gain. In scenario two (excluding cost of new vehicle), the service providers' monthly costs decrease from approximately \$1,414 to \$1,040, resulting in a \$374 monthly gain. These findings demonstrate that it is less expensive to utilize a market governance structure than to cover the cost internally. Thus, reducing transaction costs, reducing the risks of asset damages, and the risk of rapid depreciation should make it more attractive for service providers to participate in the sharing economy. More specifically, the alliance offering reduces transaction costs and ensures that potential labor asset damages do not restrict them from using personal vehicles in their spare time or hinder their ability to continue driving for Uber. Additionally, the mileage driven does not affect the depreciation of their personal vehicle.

Furthermore, it was argued that assets in the sharing economy generally have low asset specificity (see Chapter 4.2). The findings indicate that service providers have relatively high transaction costs. Thus, driving for Uber might create higher levels of specificity. That is, making investments to meet Uber's quality standards may increase the specificity of this asset. To elaborate, increased physical asset specificity through investments in upgrades or increased dedicated asset by purchasing a new vehicle with the primary intention of driving for Uber (Joskow, 1988). Thus, as the alliance offers reduced transaction costs, it may effectively reduce the level of specificity. Moreover, in periods with high fluctuations in demand, the high transaction costs may increase the uncertainty of the transaction, especially if the service provider's income largely relies on driving for Uber. Hence, for these service providers, the alliance should reduce the degree of uncertainty due to reduced transaction costs (Geyskens et al., 2006).

Consistent with transaction costs theory's cost of minimization (Douma & Schreuder, 2013, p. 167; Williamson, 1975), these findings indicate that the transaction should be allocated to the market. Thus, these findings support Proposition 1(a): Forming joint distribution alliances with traditional firms is likely to reduce service providers' transaction costs. Although the alliance reduces the transaction cost for service providers, there are some potential downsides worth considering. First, while vehicles depreciate, the vehicle owner may recover some of the initial cost when reselling the vehicle. In contrast, when utilizing a rental offering, the renter cannot retrieve the monetary value directly associated with the disposal of the vehicle. Second, the service provider must drive 4,722 miles to achieve these cost savings. Hence, service providers utilizing the offering must ensure that they complete enough trips or drive certain miles for the alliance offerings to be profitable. In other words, the alliance offering may not be profitable for service providers considering driving for Uber as a part-time gig.

So far, we have demonstrated how the findings and theoretical framework support Proposition 1(a). We now argue that reducing service providers' transaction costs positively impacts the firm's revenue. Our findings demonstrate that the number of trips significantly increased in the first three years of the alliance. This is further supported by the significant increase in Uber's monthly average platform consumers. These findings give rise to three scenarios. First, the number of new consumers has increased. Second, the number of trips each service provider completes has increased. Third, the number of new or returning service providers has increased.

However, based on the previous findings of the reduction in service providers' transaction costs, scenarios two and three are favorable from the perspective of transaction cost theory.

As previously stated, Uber and Hertz's alliance is available for Uber's American mobility segment. Based on the segment's high levels of revenue and growth, it demonstrates that the mobility segment is the most profitable segment. This is further supported by the segmentadjusted EBITDA. In addition, the findings show that this segment is the only segment yielding profitable results for the first five years of the alliance, even during COVID-19. Nevertheless, our findings demonstrate a significant increase in earnings for the mobility segment during the first three years of the alliance. This could be due to an increase in service providers and an increase in miles driven, which is supported by the findings that approximately 50,000 service providers have taken advantage of the offering (Uber, 2023-b) and the significant increase in miles driven in the mobility segment during this period (Uber, 2020, p. 66). As previously argued, the alliance offering would be more profitable for service providers that complete more and longer trips. Thus, when service providers commit to the rental offering, they may be more motivated to drive more. This assumption aligns with the transaction cost theory's rationale that personal gains can serve as an incentive to participate, which again could suggest a causal relationship between the variables. This assumption is also supported by the rationale that reducing service providers' transaction costs can reduce opportunistic behavior, such as disintermediation (Moschandreas, 1997). Hence, reduced transaction costs could have hindered an increase in lost revenue due to disintermediation.

To compare the two largest segments, mobility and delivery, it is evident that the firm has managed to increase the mobility segment's revenue without exceeding the costs. In contrast, when the delivery segment experienced a significant spike in revenue, the associated costs also increased to higher levels than its revenue. This could be due to an increase in marketing costs, which may decrease when delivery starts to mature. However, it may also indicate that the alliance positively impacted the mobility segment by maintaining sufficient cost levels during the growth in revenue. More specifically, the growth in mobility revenue may not have required a significant increase in marketing initiatives such as driver referrals and driver incentives. This assumption further aligns with the transaction cost theory's rationale that reducing transaction costs for individuals who can personally gain from these cost savings has a higher incentive to participate (Frant, 1996). It is worth noting that the delivery segment is a relatively newer offering than mobility. Thus, in accordance with Uber's aggressive strategy, it might require

more marketing support and it is reasonable to assume that this could be impacted by higher levels of direct competition.

Further analysis demonstrated that Uber decreased driver incentives and driver referrals for the mobility segment by 53 percent from 2017 to 2018, followed by a 72 percent decrease from 2018 to 2019. In contrast, there was a significant increase in these spendings during the same period for the delivery segment. A reasonable assumption is that Uber is reducing its marketing initiatives and instead compensating with reduced transaction costs for service providers through the alliance. This assumption is supported by the significant increase in profitability in the mobility segment, and the approximately 50,000 service providers that have utilized the offering (Uber, 2023-b). More specifically, service providers previously motivated by monetary incentives are compensated with cost-saving incentives to maintain their levels of participation (Frant, 1996). Hence, these findings support Proposition 1(b): *Reducing service providers' transaction costs is likely to increase the sharing economy firm's revenue*. In addition, this also supports scenarios two and three of Uber experiencing an increase in trips and an increase in new or returning service providers.

Thus far, it was argued that reducing service providers' transaction costs positively impacted the mobility segment's profitability. We will now discuss whether there is a clear impact on the firm's overall profitability. In Chapter 2.1.6, we identified that sharing economy firms' profitability challenges stem from significantly high costs. Our findings demonstrated that Uber has not been profitable in the time between 2017 to 2022. Thus, to successfully increase the firm's revenue through a reduction of service providers' transaction costs, it has to either attract new service providers or increase service provider participation.

Our findings demonstrated that Uber's total revenue increased significantly between 2015 and 2019 in accordance with the growth in mobility revenue. This could be attributed to the mobility segment, as this segment accounts for the majority of the total revenue. Simultaneously, the American revenue accounts for approximately half of the total revenue. Being that the approximately 50,000 service providers who utilized the alliance offering fall within this segment (Uber, 2023-b), it aligns with the transaction cost theory rationale that individuals that can personally gain from the transaction have higher incentive and motivation to participate (Frant, 1996). Nevertheless, our findings illustrate that Uber's minimum revenue from the alliance should equal \$27,562,500 as well as a minimum gain of 2,625,000 trips. Thus,

it also aligns with the assumption that reducing service providers' transaction costs would increase the firm's revenue. This further supports Proposition 1(b): *Reducing service providers' transaction costs is likely to increase the sharing economy firm's revenue*. However, the total revenue decreased in 2020 due to COVID-19. This was then followed by a sudden and significant increase in 2021, which previous findings indicated was largely impacted by the significant increase in the delivery segment. As a result, it is evident that the mobility segment had a significant impact on the firm's revenue from 2017 to 2019. Alternatively, it may not be as apparent in 2021 due to the growth in the delivery segment.

Moreover, the findings illustrate Uber's significant cost levels compared to total revenue. Uber's total costs peaked in 2022, which was largely due to the high cost of revenue. Thus, we further discuss the impact of the alliance on Uber's total costs. While Uber reduced the mobility segment's driver referrals and driver incentives from 2017 to 2019, mobility driver payments and incentives increased by \$2.7 billion, and courier payments and incentives increased by \$1.4 billion in 2022. However, Uber primarily contributed this increase to the business model changes in the United Kingdom, which includes classifying service providers as employees (Uber, 2022, p. 53). Thus, there was a significant increase in total costs largely due to a high cost of revenue in 2021 and 2022. It is also reasonable to assume that the significant increase was a result of costs associated with restoring business operations to pre-pandemic levels.

Furthermore, the findings show that the increase in revenue in 2022 was followed by a \$1.4 billion increase in insurance expenses (Uber, 2022, p. 57). In other words, when service providers increase miles driven, the associated insurance expenses follow. As previously stated, Uber's insurance costs include auto liability insurance (Uber, 2020, p. 62). However, in the alliance, Hertz includes this insurance in the rental offering (Uber, 2023-a). This means that Uber's auto liability insurance costs should decrease for service providers utilizing the alliance offering. This could be evident in the first year of the alliance, as the findings illustrate that the cost of revenue was lowest in 2017 and 2018. In contrast, there is a significant spike in 2022, which would be consistent with costs related to the growth in the delivery segment. Thus, the impact of the alliance on the total cost of revenue is not prominent in 2022.

Moreover, our findings illustrate that marketing and sales expenses were lowest in 2017 and 2018 and peaked in 2021. However, in 2022, total sales and marketing expenses decreased by \$33 million (Uber, 2022, p. 54). Thus, it is not prominent whether the alliance directly impacted

these costs. In contrast, in accordance with transaction costs theory, due to increased incentives to participate, these costs should not necessarily increase in relation to service providers in the mobility segment (Frant, 1996). Nevertheless, the findings also demonstrate that total cost has increased in accordance with the total revenue. However, from 2017 to 2018, there was a significant reduction in the rate of growth of these expenses. This is supported by transaction cost theory, which proposes a slight increase in costs associated with the alliance, such as negotiation costs and governance costs (Robins, 1987; Akbar & Tracogna, 2018). Thus, this could indicate improved efficiency, negotiations, and learning-by-doing.

Although previous findings related to the mobility segment support Proposition 1(b), the effects may not be as evident in relation to total revenue and costs. This could be due to increased efforts in the delivery and freight segment, which brings increased R&D costs, marketing costs, and cost of revenue. In addition, the firm has invested significant effort and resources into autonomous vehicles. These transactions may have higher levels of uncertainty. As previously stated, transactions with high uncertainty tend to have higher transaction costs (Geyskens et al., 2006). Hence, this would have a significant impact on the firm's costs and make it challenging to determine the impact of the alliance on the firm's overall profitability. More specifically, although previous findings support Proposition 1(b) and align with the rationale of transaction cost theory, we cannot confidently specify a direct impact on the firm's overall profitability.

Thus far, we have discussed the impact of the alliance on Uber and its service providers. Nonetheless, as the research question aims to evaluate the possibility of value creation through joint distribution alliances between sharing economy firms and traditional firms, the following section will discuss the effects of this alliance on Hertz.

7.2 Hertz

In transaction cost theory, assets with low asset specificity are easily re-purposed and less dependent on support activities. This means that these assets generally have low transaction costs (Douma & Schreuder, 2013, p. 179; Williamson, 1975). Through low asset specificity, market governance structures can achieve economies of scale by offering the same products to numerous customers (Alaghehband et al., 2011). More specifically, the market gains a cost advantage due to the ability to keep production costs and governance costs lower than if Uber

were to select vertical integration. In this alliance, partnering with Hertz means deploying a market mechanism and, therefore, Hertz acts as the market.

According to transaction cost theory, since Hertz has already procured the assets, the alliance should reduce the associated costs by increasing asset utilization (Geyskens et al., 2006). The findings illustrated that in the first three years of the alliance, there was a significant increase in utilization in America. This is also greater than the slight increase in utilization for the international market. In addition, the findings also demonstrate that in 2018 Hertz had a slight reduction in underutilized vehicles in America despite increasing the number of available vehicles. In contrast, the international market had a higher number of underutilized vehicles than prior to 2016, with the expectation of 2021. However, there are some potential contributing factors to this difference, such as the availability of public transportation, population, demographics, and psychographics. On the other hand, deploying the rationale of transaction cost theory could attribute this difference to reduced transaction costs for service providers. More specifically, American service providers have higher incentive and motivation to participate in the transaction due to lower transaction costs (Frant, 1996). In other words, service providers will be motivated to utilize the offering due to cost savings. Comparing the utilization rate between the two markets illustrated that the American utilization rate remains higher than the international levels expected during COVID-19 in 2020. Nevertheless, the findings demonstrate that six months after entering the alliance with Uber, from 2017 to 2019, American vehicle utilization significantly increased. The utilization increased by 16 percent during this period. Thus, these findings support Proposition 2(a): forming distribution alliances with traditional firms is likely to increase traditional firms' asset utilization.

Furthermore, low asset specificity means that assets can easily be rearranged through the market without generating high costs relating to negotiations and contracts. More specifically, when there is low asset specificity, Hertz can utilize standard contracts as the terms would not need significant customization. In addition, lower asset specificity would lead to a decrease in production costs (Alaghehband et al., 2011). Thus, for Hertz, this means that entering the alliance should reduce its production costs over time. The findings demonstrated that there was a slight increase in direct vehicle and operating expenses and total costs following the beginning of the alliance. In addition, there was an increase in the depreciation of the revenue earning vehicles and lease charges in the first six months. However, this started to decrease from 2017 to 2019. Nevertheless, our findings illustrate that vehicle interest expense and

selling, general, and administrative expenses increase in the first three years of the alliance. However, the rate of growth decreases each year.

In Chapter 2.4, we identified that the cost of strategic alliances includes cooperating costs, such as negotiation costs, contractual costs, operational costs, and monitoring and evaluation costs (White & Lui, 2005). However, cooperating costs increase in the presence of high asset specificity and environmental uncertainty (Artz & Brush, 2000). In other words, due to low asset specificity and low uncertainty, Hertz and Uber's cooperating costs should not be significantly high. Similarly, there should be low joint complexity as the alliance would not require intense levels of interaction. Hence, the level of cooperation costs would be low (White & Lui, 2005). Moreover, these costs could explain the slight increase in the early stages of the alliance. Thus, the analysis of Hertz's overhead and operation costs in the American market and globally demonstrate a minimal increase in expenses following the alliance. This is supported by the transaction costs theory's rationale that assets with low asset specificity entails low transaction costs when re-purposed. The minimal increase in costs in the years following the alliance is supported by the transaction cost theory's inquiry that high-frequency transactions can easily recover the overhead costs internally (Geyskens et al. 2006).

Furthermore, the findings illustrated an increase in Hertz's RAC and total revenue following the first three years of the alliance. The alliance between Uber and Hertz operates in the business category, which experienced an increase in both revenue and transactions following the alliance. As previously stated, the findings revealed a 16 percent increase in Hertz vehicle utilization in America from 2017 to 2019. This may also have contributed to the significant 22 percent increase in revenue for the American business segment, in the same period. Thus, these findings support proposition 2(b): *Increasing traditional firm's asset utilization is likely to increase traditional firm's revenue*. This is further supported by the findings demonstrating that Hertz's minimum revenue before accounting for the associated costs should equal \$13,000,000. This demonstrates that the alliance would have profitable returns in addition to increasing asset utilization. This is further supported by the announcement that the terms of the alliance will expand by 25,000 vehicles (Hertz, 2023-a).

Lastly, expanding the terms of the alliance could result in further reduction in production costs due to the frequency of the transaction. Thus, further improving the firm's profitability and asset utilization. On the other hand, the firm identifies that there are risk factors with electric

vehicles, such as maintenance costs and depreciation (Hertz, 2023-e, p. 24). These risks are related to the costs of the alliance. For instance, in a long-term perspective, the alliance may result in faster depreciation due to higher utilization, which increases the transaction costs and could impact the firm's financials. However, our analysis revealed that the costs associated with depreciation has decreased and, therefore, may not currently be of high risk. Moreover, electric vehicles can lead to higher maintenance costs, especially in terms of batteries and other materials. These risks might lead to an increased need for higher human and physical asset specificity, which might increase transaction costs. Therefore, Hertz must determine the proper way to manage these risks to ensure the long-term success of the alliance.

8. Conclusion

The purpose of this thesis is to determine how sharing economy firms can improve profitability while remaining asset-light. Sharing economy firms have disrupted traditional industries. Therefore, in Chapter 2, we identified sharing economy firms' profitability challenges and traditional firms' asset utilization challenges. Thus, it seeks to answer the research question, "Can sharing economy firms and traditional firms create joint value?" While collecting data relating to industry trends, we found 42 strategic alliances between sharing economy firms and traditional firms. Existing literature and transaction costs theory guided the propositions toward the formation of strategic alliances. The collected strategic alliances demonstrated joint distribution to be the most common type of alliance in the sharing economy, as well as heavily deployed within the franchiser business model. Thus, we conducted a single-case study on the joint distribution alliance between Uber and Hertz. Within the single-case study, we further deployed an explanatory case study to determine how the two firms create joint value. Lastly, we utilized an embedded case study design as there are more than one unit of analysis. To answer the research question, we collected qualitative data from annual reports and performed the necessary calculations to determine whether the joint distribution alliance impacted Uber's service providers and revenue, and Hertz's asset utilization and revenue.

We will now summarize the key findings and offer some concluding remarks. First, we found that the alliance reduced service providers' transaction costs. These findings are supported by transaction costs theory, which explains that transactions with low asset specificity and uncertainty have lower transaction costs when allocated to the market. Furthermore, we found that the mobility segment is the most profitable among Uber's segments. In addition, we demonstrated that the mobility segment experienced significant growth in the first three years of the alliance while also managing to decrease marketing incentives. These findings suggest that reducing service providers' transaction costs motivated service providers to participate. This is supported by transaction cost theory's rationale that reducing transaction costs incentives service providers to participate in the transaction. On the other hand, we also argued that the significant portion of the increase in Uber's total revenue and decrease in total costs could be partially attributed to the mobility segment. Nevertheless, the findings illustrated that Uber should have gained significant revenue from the alliance. However, Uber's great efforts to scale the delivery and freight segment, as well as its autonomous vehicle efforts, make it challenging to properly determine the alliance's impact on the firm's overall profitability.

Moreover, the findings revealed that Hertz's number of utilized vehicles in America increased after the first six months of the alliances until the pandemic in 2020. This, again, is supported by transaction cost theory's rationale that reducing service providers' transaction costs will incentivize service providers to participate in the transaction. Nevertheless, the findings illustrated a reduction in Hertz's depreciation of revenue earning vehicles and lease charges. We also found a slight increase in direct vehicle and operating expense, vehicle interest expense, selling, general and administrative expenses in the American RAC, and total costs globally. However, the rate of growth of these expenses decreased in 2019. These findings are supported by the rationale that low asset specificity, low uncertainty, and medium to high frequency have lower transaction costs and can easily be recovered internally. Moreover, the findings illustrated an increase in revenue for both the American RAC and Hertz Global, which aligns with the assumption that increased asset utilization increases the firm's revenue. Nevertheless, the findings illustrated that Hertz should have generated a significant increase in revenue from the alliance offering. Lastly, we found that COVID-19 had a significant impact on the firm's revenue and costs, which made it difficult to interpret the alliance's impact on both firms' profitability during this period.

Based on these findings, we therefore conclude that sharing economy firms and traditional firms can create joint value by forming strategic alliances. Nevertheless, our findings support that joint distribution alliances reduce service providers' transaction costs, and in turn, is likely to increase the sharing economy firm's revenue. Similarly, our findings support that joint distribution alliances are likely to increase the traditional firm's asset utilization, which in turn, increases the firm's revenue.

8.1 Limitations

This thesis is posed to some limitations that should be addressed. The first constraint is the lack of academic literature studying strategic alliances in the sharing economy. Thus, it is challenging to compare and support the findings with existing academic literature specific to the sharing economy. Furthermore, the thesis relies on data collected from the annual reports as the primary source of information. The annual reports do not specify the exact measurements captured from the alliance. It is, therefore, important to acknowledge that the thesis does not reflect the complete and accurate numerical data of the revenue, costs, and asset utilization

derived solely from the alliance. Having said that, we discussed and evaluated alternative explanations and contributing factors, such as the significant impact of COVID-19 in 2020 and 2021. However, there is a possibility that there are other contributing factors that we did not consider. Case studies tend to require great amount of time and effort (Yin, 2018, p. 21). A single-case study can make it challenging to apply the findings in different context. With a longer timeframe, it could be beneficial to conduct a multiple-case study on additional firms. However, it is important to specify that this thesis aims to contribute to the theory and provide a foundation for future research (Yin, 2018, p. 19).

8.2 Implications

The thesis offers several managerial implications for the sharing economy, service providers, and traditional firms. The findings offer sharing economy firms insights of how to increase profitability without jeopardizing the asset-light business model. In addition, it further provides insights into how sharing economy firms can continue to scale while reducing the excessive costs of acquiring and retaining service providers. Nevertheless, this thesis also provides implications for service providers in the sharing economy. It offers an understanding of how service providers can continue to leverage the sharing economy while reducing the associated risks and running costs. Furthermore, the findings illustrate that traditional firms can optimize asset utilization through strategic alliances. Thus, traditional firms in other industries may look too similar solutions to increase asset utilization, especially where assets can be shared and leveraged by other businesses. Nevertheless, it provides insight into how traditional firms can leverage the changes in consumer preferences rather than solely competing with sharing economy firms.

Moreover, the thesis also offers some academic implications. In current literature, there is a great deal of research on strategic alliances and the sharing economy, separately. However, there is an academic gap when it comes to research on strategic alliances in the sharing economy. Thus, the thesis may offer several contributing insights to academic literature. More specifically, this thesis provides an academic contribution by demonstrating the application of transaction costs theory in the context of strategic alliances between sharing economy firms and traditional firms. Moreover, the identification of joint distribution alliances as the most common type of alliance benefits other researchers studying strategic alliances in the sharing economy. This identification offers direction and context to focus further research and provide

a benchmark for comparison. Moreover, the research design also offers a framework for further research, incorporated with case study methodology and the utilization of qualitative data. It contributes to the understanding of how such alliances can create joint value. This could encourage future researchers to adopt similar methodologies to gain a deeper understanding of alliance dynamics and its performance.

8.3. Future Research

The limitations and implications give rise to further research. First, we suggest that researchers conduct multiple-case study research concerning other sharing economy firms and traditional firms. This would benefit from a variation in sharing economy business models and types of alliances. For instance, marketing alliances between chaperones and traditional firms, such as Airbnb and Nest. Other examples include technology alliances between franchisers and traditional firms, such as Lyft and General Motors. This could give rise to other value-creation variables that do not apply to our case study. This can further enhance the validity of our findings and lead the research on joint value toward generalization. In addition, our findings demonstrate that it is common for one sharing economy firm to have multiple alliances. Thus, academic literature could greatly benefit from an understanding of the differences in effects between the alliance types. Furthermore, our findings were significantly impacted by COVID-19 in 2020 and 2021. We therefore suggest that researchers attempt to understand the effect over a longer timeframe. Nevertheless, it is advisable to further explore the use of qualitative research supplemented with quantitative research. This would benefit from incorporating primary data, such as interviews with key stakeholders or the collection of precise numbers and measurements generated from collaboration, to supplement and deepen the understanding of strategic alliances in the sharing economy. Lastly, we discussed rivalry explanations for the findings. For instance, our findings revealed that Uber experienced a significant cost increase in 2022 due to business model changes in the United Kingdom. Hence, it would be interesting to further explore how strategic alliances could affect such changes.

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Appendix

Appendix A: Strategic alliances in the sharing economy.

Appendix A demonstrates the identified strategic alliances in the sharing economy.

Firm	SE business model	Alliance form	Classificatio n of the alliance	This alliance entails	Benefits for TF	Benefits for SE
Uber & Hertz (Egan, 2016)	Franchiser	Non-equity / Horizontal	Joint distribution	Providers can rent electric cars from Hertz through the application.	1. Increased asset utilization. 2. Increased revenue. 3. Reduced costs.	1.Reduced risks for SP. 2. Lower barriers for SP to join. 3. Higher switching costs. 4. Increased service quality. 5. Access to new customer segment. 6. Build stronger relationship with SP.
Lyft & Hertz (Egan, 2016)	Franchiser	Non-equity / Horizontal	Joint distribution	Providers can rent electric cars from Hertz through the application.	1. Increased asset utilization. 2. Increased revenue. 3. Reduced costs.	1.Reduced risks for SP. 2. Lower barriers for SP to join. 3. Higher switching costs. 4. Increased service quality. 5. Access to new customer segment. 6. Build stronger relationship with SP
Uber & Avis - Valet (Tech Xplore,2021)	Franchiser	Non-equity / Horizontal	Joint distribution	Rent a car and get it delivered to your doorstep	1. Increased asset utilization. 2. Increased revenue. 3. Reduced costs.	1.Reduced risks for SP. 2. Lower barriers for SP to join. 3. Higher switching costs. 5. Access to new customer segment. 6. Build stronger relationship with SP.

Uber & Volvo Cars (Golson, 2016)	Franchiser	Non-equity Horizontal	Technology alliance	To develop autonomous driving technology for ride-hailing services.	1. Reduce costs associated with acquiring new technology. 2. Accessing a larger number of employees. 3. Competitive advantage	1. Reduce costs associated with acquiring new technology. 2. Competitive advantage, 3. Reduced costs (SP), less dependence on SPs.
Uber & Toyota (Marshall, 2018)	Franchiser	Equity / Horizontal	Joint distribution & marketing alliance	Buy and lease a car from Toyota and drive for Uber (discount)	1. Increased asset utilization. 2. Increased revenue. 3. Reduced costs.	1. Reduced risks for SP. 2. Lower barriers for SP to join. 3. Higher switching costs. 5. Access to new customer segment 6. Build stronger relationships with SP.
Uber Fleet & Tata Motors (Uber, 2023- i)	Franchiser	Non-equity / Horizontal	Joint distribution	Tata Motors will supply Uber Fleet India with 25k EVs, and install charges near airports, railroads, etc.	1. Increased asset utilization. 2. Increased revenue. 3. Reduced costs.	1. Reduced risks for SP. 2. Lower barriers for SP to join. 3. Higher switching costs. 5. Access to new customer segment. 6. Build stronger relationships with SP.
Uber & Indian Oil Corporation (Roy, 2019)	Franchiser	Non-equity / Vertical	Marketing alliance	Uber drivers who visited select Indian Oil fuel stations could receive discounts on fuel purchases.	1. Access to new markets. 2. Brand awareness. 3. Increased cash flow.	1.Higher switching costs/satisfaction 2. Reduce SPs running costs. 3. Access to complementary products for SPs.
Uber & Getaround (Menkovic, 2017)	Franchiser & chaperones	Non-equity / Horizontal	Joint distribution	Rent a car from Getaround and drive with Uber (includes insurance and pre-inspections)	1. Increased asset utilization for TF 2. Increased revenue.	1. Reduced risks for SP. 2. Lower barriers for SP to join. 3. Higher switching costs. 5. Access to new customer segment (don't own a car). 6. Build a stronger relationship with SP.

Turo & Mercedes- Benz (Natt, 2017)	Chaperones	Non-equity / Horizontal	Joint distribution & marketing alliance	Lease or purchase a car from MB and list on Turo.	1. Increased asset utilization. 2. Increased revenue. 3. Reduced costs. 4. Brand awareness. 5. Access to retailers' customers. 6. Create stronger offerings.	1. Reduced risks for SP. 2. Lower barriers for SP to join. 3. Higher switching costs/satisfaction. 5. Access to new customer segment (don't own a car). 6. Increase customer acquisition.
Turo Canada and AVEQ (Abdi, 2020)	Chaperones	Non-equity / Vertical	Marketing alliance	Use AVEQ chargers. AVEQ members receive \$250 when they earn their first \$250 on Turo.	1. Brand awareness. 2. Access to retailers' customers. 3. Create stronger offerings. 4. Increased asset utilization.	Access to new customer segments. Increase customer acquisition. Access to complementary products for SPs.
CrowdMed & NIWH (Hurst, 2015)	Gardener	Non-equity / Vertical	Technology alliance	Using the case studies in the curriculum (pro bono)	1.Development of knowledge.	1. Access to knowledge 2. Access to customer segment (SPs) 2. Accessing a higher number of solvers.
Airbnb & Newgard Development Group (Staff, 2017)	Chaperones	Equity / Vertical	Joint venture	Building apartment complex designed for sharing, where SP can sign a lease and rent it out on Airbnb	1. Cost and risk sharing 2. Access a wider market 3. Access to better customers	1.Cost and risk sharing 2.Lower barriers to join for SPs 3.Complementary service for SPs 4. Access to resources/skills 5. Increased control for service quality
Airbnb & Handy (Lawler, 2014)	Chaperones & principles	Non-equity/ Vertical	Marketing alliance	Allows Airbnb hosts to easily book cleaning and handyman services to their properties through the Airbnb platform	1. Increased access to jobs. 2. Increased revenue.	1. Reduced risks for SP (fixes damages). 2. Lower barriers for SP to join. 3. Higher switching costs. 5. Build a stronger relationship with SP. 6. Increased quality.

Airbnb & Journera (Stevens, 2019)	Chaperones	Non-equity / Horizontal	Marketing alliance	Connect and manage travel information in the Airbnb platform. Synchronize hosts booking with airlines or other traveling providers.	1. Access to a wider target segment. 2. Brand awareness. 3. Increased cash flow.	1.Higher switching costs/satisfaction. 2. Access to complementary services for SPs and customers. 3. Higher level of control and assurance for SPs.
Airbnb & Guesty (Guesty, 2015).	Chaperones	Non-equity / Vertical	Joint distribution	Airbnb hosts can access Guesty's property management tools.	1. Access to a wider target segment. 2. Increased revenue.	Increase switching costs for hosts. Increased efficiency for SPs.
Airbnb & Keycafe (BrainStation , 2014)	Chaperones	Non-equity/ Vertical	Joint selling	Provide secure key exchange solutions for short-term rental hosts and their guests.	1. Access to a wider customer base 2. Increased revenue.	1. Lower barriers for SPs to join the platform. 2. Increase switching costs for hosts. 3. Increased convivence for SPs. 3.Improving the guest experience.
Airbnb & Nest (Gartenberg, 2018)	Chaperones	Non-equity / Vertical	Marketing alliance	Providing superhost with 30% off on thermostats and other products. Helping hosts manage their energy usage and reduce costs.	1. Access to a wider target segment. 2. Brand awareness. 3. Increased cash flow.	1.Higher switching costs/satisfaction. 2. Access to complementary products for SPs. 3. Higher level of control and assurance for SPs. 4. Reduced running costs for SPs.
Lyft & GM (General Motors, 2016-a)	Franchiser	Equity / Horizontal	Technology alliance	Develop and test autonomous vehicles for ridesharing.	1. Reduce costs associated with acquiring new technology. 2. Accessing a larger number of employees. 3. Competitive advantage.	1. Reduce costs associated with acquiring new technology. 2. Competitive advantage. 3. Reduced costs (SP). 4. Less dependence on SPs. 5. Creating new opportunities in the industry.
Lyft & Shell (Statt, 2015)	Franchiser	Non-equity / Vertical	Marketing alliance	Offer cheaper gas prices for SPs driving for Lyft.	1. Access to new markets. 2. Brand awareness.	1.Higher switching costs/satisfaction 2. Reduce SPs running costs.

					3. Increased cash flow.	3. Access to complementary products for SPs.
Taskrabbit & IKEA (Brustein, 2017)	Principals	Equity / Vertical	Joint distribution	Allows customers to book a Tasker to help them assemble their IKEA furniture at an additional cost.	Increased revenue. Increased customer satisfaction.	Increased access to jobs. Increased assurance of income.
Uber Freight & Volvo Autonomous Solutions (Volvo, 2022)	Franchiser	Non-equity / Horizontal	Technology alliance & joint distribution	Introducing autonomous trucks to the platform.	1. Increased revenue. 2. Access to a wider target segment. 3. Increased asset-utilization	1.Increased capacity to complete more rides. 2. Competitive advantage (first movers). 3. Increased customers satisfaction.
Uber Freight & Waymo Via (Uber Freight, 2022)	Franchiser	Non-equity/ Horizontal	Technology alliance & joint distribution	Introducing autonomous trucks to the platform.	 Increased revenue. Access to a wider target segment. Increased asset-utilization 	1.Increased capacity to complete more rides. 2. Competitive advantage (first movers). 3. Increased customers satisfaction.
BlaBlaCar & Swiss Re & L'olivier Assurance (Swiss Re, 2021)	Gardeners	Non-equity / Vertical	Joint selling & value-chain partnership	Creating BlaBlaCar Coach, personalized coaching and tips for safer driving, comes with insurance	1.Access to a wider customer segment. 2. Increased asset-utilization	1.Increased service quality. 2. Reduced running costs for SPs (insurance). 3. Lower barriers to join the platform. 4. Increased customer satisfaction. 5. Reduces safety risks.
Fiverr & Shutterstock (Fiverr, 2022)	Principles	Non-equity / Vertical	Marketing alliance	Offering a range of tools and resources for SPs.	1. Increased revenue. 2. Access to a wider target segment. 3. Increased asset-utilization	Higher switching costs. Higher service quality for customers. Lower running costs for SPs.
Grab & Hyundai	Franchiser	Non-equity/ Horizontal	Joint distribution	Providing SPs with EV.	1. Increased revenue.	1. Reduced risks for SPs.

(Russel, 2018)					Access to a wider target segment. Increased asset-utilization	2. Lower barriers for SPs to join. 3. Higher switching costs. 4. Sustainability. 5. Increased access to SPs segment. (don't own a car). 6. Build a stronger relationship with SP.
Airbnb & Proper Insurance (Proper insurance, n.d)	Chaperones	Non-equity/ Vertical	Marketing alliance & joint distribution	Hosts are able to purchase insurance to protect their homes.	1. Increased revenue. 2. Access to a wider target segment. 3. Increased asset utilization	1. Reduced risks for SPs. 2. Lower barriers for SPs to join. 3. Higher switching costs. 4. Build a stronger relationship with SPs.
Uber & AXA (Uber, 2018)	Franchiser	Non-equity / Vertical	Joint distribution & marketing alliance	SPs are covered by AXA insurance throughout the trip to reduce SPs' medical costs and lost earning opportunities.	Increased revenue. Access to a wider target segment. Increased asset-utilization	1. Reduced risks for SPs. 2. Lower barriers for SPs to join. 3. Higher switching costs. 4. Build a stronger relationship with SPs.
Uber & Maven gig (GM) (Sage, 2016)	Franchiser	Non-equity / Horizontal	Joint distribution	SPs can rent a car which includes insurance, maintenance, and electric vehicle charging.	1. Increased revenue. 2. Access to a wider target segment. 3. Increased asset-utilization	1. Reduced risks and running costs for SPs. 2. Lower barriers for SPs to join. 3. Higher switching costs. 4. Increased access to SPs segment. (don't own a car). 5. Build a stronger relationship with SP.
Lyft & Maven gig (GM) (General Motors, 2016-b)	Franchiser	Non-equity/ Horizontal	Joint distribution	SPs can rent a car which includes insurance, maintenance, and electric vehicle charging.	Increased revenue. Access to a wider target segment. Increased asset-utilization	1. Reduced risks and running costs for SPs. 2. Lower barriers for SPs to join. 3. Higher switching costs. 4. Increased access to SPs segment. (don't own a car). 5. Build a stronger

						relationship with SP.
DoorDash & WeWork (DoorDash,2 022)	Franchiser	Non-equity / Vertical	Marketing alliance	Discounted delivery services to WeWork members.	1. Access to new markets. 2. Brand awareness. 3. Increased cash flow.	1.Higher switching costs/satisfaction 2. Access to complementary products for SPs.
Uber and Delta Airlines (Negroni, 2017)	Franchiser	Non-equity / Vertical	Marketing alliance	The members can link their Uber and Delta accounts and earn miles for every dollar spent on Uber rides.	1. Access to new markets. 2. Brand awareness. 3. Increased cash flow. 4. Differentiates itself from other airlines.	1.Higher switching costs/satisfaction 2. Access to complementary products for customers. 3. Attract more customers.
Deliveroo & Amazon (Shead, 2021)	Principal	Non-equity/ Vertical	Marketing alliance	Amazon Prime members gets free delivery when the order exceeds \$34.	1. Access to new markets. 2. Brand awareness.	1. Access to complementary products for customers. 2. Attract more customers. 3. Increased demand for SPs.
JustCharge & Zap-Map (Brown, 2022)	Franchiser	Non-equity/ Vertical	Marketing alliance & joint distribution	Integrating Zap- Map's EV charging points onto its platform.	1. Increased revenue. 2. Access to a wider target segment. 3. Increased offerings for customers.	1. Increased customers for SPs. 3. Higher switching costs. 5. Build a stronger relationship with SP.
Uber & GMB (U.K) (Butler, 2021).	Franchiser	Non-equity/ Vertical	Consortia	Provide a strong voice to drivers and raise standard of flexible work across the industry	Stronger advocacy. Increased members.	1.Build a stronger relationship with SP's 2.Higher switching costs. 3.increased number of SP's.
Uber & Arizona State University (ASU, 2018).	Franchiser	Non-equity/ Vertical	Marketing alliance	Offer drivers and family members access to hundred graduate degree programs	1.Increased utilization 2. Access to a wider target segment 3. Increased	1. Increased offerings for SP's 2. Higher switching costs. 3.
Airbnb & Greystar (Greystar, 2023)	Chaperones	Non-equity /Horizontal	Joint distribution	Rent GreyStar homes/apartme nts on Airbnb.	1. Increased revenue	1. Increased revenue 2. Access to a wider target segment.

					2. Access to a wider target segment	
Uber & Curb, CMT (Hu et al., (2022).	Franchiser	Non-equity / Horizontal	Joint distribution	Allows Ubers users to order a yellow taxi on the Uber app (NY).	1. Increased revenue. 2. Access to a wider target segment. 3. Increased asset-utilization	1. Increased revenue 2. Access to a wider target segment
Uber & Hilton (Jacobs, 2019)	Franchiser	Non-equity / Vertical	Marketing alliance	Hotel guests can bypass the Uber app and book an Uber through the Hilton hotel app	1.Increased offerings for customers 2. Enhanced guest experience 3.	Enhanced customer experience. Increased user base Increased brand visibility
Airbnb & HotelTonight (Airbnb, 2019)	Chaperones	Equity / Horizonal Now acquisition.	Joint distribution	Integrate Airbnb offerings on the HotelTonight's platform.	 Increased revenue. Access to a wider target segment. Increased asset-utilization 	Increased revenue Access to a wider target segment
Airbnb & SiteMinder (Airbnb, 2018)	Chaperones	Non-equity / Horizontal	Joint distribution	Global hotel technology partnership. Partnership with SiteMinder makes it easier for traditional hospitality providers to reach Airbnb community	 Increased revenue. Access to a wider target segment. Increased asset-utilization 	Increased revenue Access to a wider target segment
Uber & Shell (Uber, 2021- b)	Franchiser	Non-equity /Vertical	Marketing alliance	Offer cheaper gas prices for SPs driving for Uber India.	1. Access to new markets. 2. Brand awareness. 3. Increased cash flow.	1.Higher switching costs/satisfaction 2. Reduce SPs running costs. 3. Access to complementary products for SPs.
Airbnb & TBAA (Sritama, 2018)	Chaperons	Non-equity /Horizontal	Joint distribution	To strengthen the presence of boutique hotels in Thailand. Airbnb. Bring boutique hotels onto Airbnb's platform.	Increased revenue. Access to a wider target segment. Increased asset-utilization	1. Increased revenue 2. Access to a wider target segment

Appendix B: Sample of sharing economy firms.

Appendix B demonstrates the sample of sharing economy firms.

Sharing economy firms					
Uber	Grab				
Turo	DoorDash				
CrowdMed	Deliveroo				
Airbnb	JustCharge				
Lyft	GetAround				
TaskRabbit	Handy				
BlaBlaCar	WeWork				
Fiverr					

Appendix C: Sample of traditional firms.

Appendix C demonstrates the sample of traditional firms, institutions, and entities.

Traditional firms			
Hertz	Journera	Shutterstock	GreyStar
Avis	Guesty	Hyundai	Curb
Volvo Cars	Keycafé	Proper Insurance	Creative Mobile Technologies (CMT)
Toyota	Nest	AXA	Hilton Worldwide
TataMoters	General Motors	Maven Gig (GM)	HotelTonight
Indian Oil Corporation	Shell	Delta Airlines	SiteMinder
Mercedes-Benz	IKEA	Amazon	ZapMap
Association des Véhicules Électriques (AVEQ)	Volvo Autonomous Solution	Thailand Boutique Accommodation Trade Association TBAA	
National Insitute of Whole Health (NIWH)	Waymo Via	GMB Union	
Newgard Development Group	L'Oliver Assurance	Arizona State University	