

An Exploratory Study on The Revision of Sharing Models

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Abstract. As the world enters the era of sharing, the countries of the European Union are prioritizing the application of sharing models as an area of the circular economy. In the article, the authors analyze the three models of the sharing economy, identify cases of their application in different sectors, and discuss the specifics of the application of sharing models, creating value for businesses and consumers. As companies are moving from "linear" to "sharing" business models, various models are applied during the transformation period. Analysis of the scientific literature revealed that interest in the sharing economy is growing. Scientists are paying great attention to issues of the application of sharing models, trust, and analysis of the application of the sharing models in the accommodation and transport sectors.

Keywords: Sharing models; sharing platforms; sectors; peer-to-peer cooperation.

1. Introduction

The revenue of a business that takes advantage of the sharing economy model is growing faster than that of a company that uses the traditional model to generate revenue. The difference in revenue generated by businesses using the sharing economy model (OECD, 2021) is growing by at least 10-15% (SpendMeNot, 2021), and continuing to grow is projected until 2025, while the growth will also be evident. This income gap is due to businesses' and consumers' orientation towards using the benefits of the sharing economy model (Eurostat, 2022). The sharing model is promoted by data on the location, status, capacity, and availability of shared resources and the provision of information relevant to their users (OECD, 2021) through digital technologies.

The changing economic environment (identified in the European Commission's (2016) communication to the service sectors "A European program for the sharing economy") and changes in business organization processes lead to changes in the provision of logistics services to reduce the consumption of material resources, energy and increase the capacity of the sector as a result of the application of technology, i.e., to increase the use of sharing models.

Lithuanian and foreign authors published publications on the topic of the sharing economy: Laukkanen et al. (2020), Curtis et al. (2020), Ritter et al. (2019), and Trenz et al. (2018). Such authors studied the influence of the sharing economy on the service sectors as Jiang et al. (2021), Li et al. (2020), Kong et al. (2020), Grybaitė et al. (2018), Hawlitschek et al. (2018), Chica et al. (2017), Gao et al. (2017), Hofmann et al. (2017), Mittendorf (2017), Yang et al. (2016), Söllner et al. (2016), Ponte et al. (2015). The authors analysed the impact of sharing economy on specific sectors: Nozari et al. (2021), Strulak-Wójcikiewicz et al. (2021), Ozkan et al. (2020), Standing et al. (2019), Chasin et al. (2018), Kim et al. (2018), Pepić (2018), Feeney (2015), Wallsten (2015), Harding et al. (2001). Researchers Apte et al. (2021) and Dabbous et al. (2021) identify factors that significantly impact the sharing economy's growth.

2. Sharing Models

There are different ways to share: share resources, share requests, and share information.

Innovations towards sharing economy platforms, provided products and services, and information and communication technologies (ICT) have enabled the shared mobile market to grow and scale rapidly with greater operational efficiency, savings of costs, and higher revenues from much more utilized shared resources (Furtado et al., 2013). Apps for mobile phones and data about resource locations have raised interest in using shared resources.

For sharing, cooperation among companies is required. Cooperation is a collaboration among several companies that are in the same sector and performing similar functions (Hosni et al., 2014). Such enterprises are in the same service area

and are competitors (Herbawi et al., 2012).

Some reasons for buyers and sellers to work on the same sharing platform:

- Increased labour productivity and reduced day-to-day expenses.
- Provided higher service quality.
- Signed contracts for higher united via collaboration volumes, etc.

Partner companies can provide customers' orders or requests by optimizing their functionality for providing the required service. An acceptable model for the precise split of costs together with generated revenue is essential for this approach to developing service. Aiming to involve technology, enlarge the scope of service delivery of the beneficiaries, and increase the income generated by the high investment costs.

Sharing information could help improve operational efficiency and have to stand itself as an alternative to traditional business models and attract an extensive range of users. The sharing of information between operators ensures legal protection and interests for such activity. The data flow may be organized by using the services of ICT partners. Strategically, partnerships with 3PL service providers, cargo forwarders, and companies using direct, collaborative interchange of electronic data can be formed. Emergency contracts specify roles and responsibilities in the planning process. Delivery from the partner to the customer must be carried out following agreed service levels. The frequency of communication between firms and the total number of attributes reported simultaneously are well documented. All decisions and information used for them are shared among partners. Process changes are often achieved by comparing them to previous performance.

The knowledge about sharing models presents that they only focus on the relations among factors that influence knowledge-sharing. The integrated path to examine different factors influencing sharing of knowledge aspects, the quality of knowledge, and their influence on the organization's activities have not been thoroughly analyzed.

Business models that offer an approach to assets rather than the transfer of ownership of goods have become a significant industry trend that challenges established companies.

The rapidly growing scientific literature includes new ways of sharing resources to change the relationships between companies and their customers.

The communication phenomenon focuses on online sharing services and refers to the joint supervision, negotiation, reporting, and testing of the activities necessary to develop resource management systems, which have a much wider spectrum of functionalities. Thus, the sharing economy becomes a method of meeting the needs of individuals and organizations and can lead to the sustainable use of resources.

The activities of the sharing economy cover product creation, production, distribution, sales processes, and the consumption of items and services by companies and individuals in a typical system. The concept and practice of sharing and collaboration show that market information is used to promote a more cooperative

and sustainable society. The focus of sharing economy is not related to sharing money but cooperation for sharing everyday goods and services, providing mutual assistance, and supporting changes that involve differences from the market economy. The sharing economy includes both collaborative production and collaborative consumption. For joint production, networks of people are needed to create, produce, or distribute goods. A channel or platform is the basics that are part of the overall model of the platform, where customer relationships are automated in most cases. The sharing platform operator manages to facilitate access to transactions.

The sharing platform's value-added model ensures faster and safer market access for participants and connects supply and demand. The value of delivery can be found on the online platform. Recognition of value is achieved by taxing the parties involved in exchanging, renting, or purchasing goods or services. The sharing platform model is expanding the market for traditional products and services.

We identify three sharing economy models "Token compensation," "Compensation," and "No compensation."

Table 1: Sharing economy models

Sharing economy model	Application in various sectors' cases
Token compensation	Public (online) libraries
	Joint babysitting services,
	Organize clothing swaps
Compensation	Airbnb, Zipcar, Uber
	Peer-to-peer rental
	Launderette
	Online retailers
	Paid for car sharing with friends and family
No compensation	Wikipedia, Facebook, Twitter
	Couchsurfing
	Peer-to-peer product sharing (eBay)
	Car sharing/pooling with friends and family, helper

All sharing models focus on specific value suggestions and strategic intentions. They use the growing fluidity of organizational boundaries. Companies can evaluate and respond to the risks and possibilities posed by sharing platforms. The models analyze sharing economy platforms' competitive positioning.

3. Peculiarities of Sharing Models

Token compensation. This work, used for the sharing economy, defines it as the "peer-to-peer" online services used for receiving, giving, and sharing access to services and

products. Such platforms form marketplaces for the provision of asset-related services important for individuals who are not being in the market as known market players. Usually, the ascension of such sharing platforms enlarges the work bar and its scope for SMEs. Also, service provision platforms create professional services as a communication channel used for businesses with various services and suggest a new way that helps individuals to be entrepreneurs with no aim to enlarge the list of traditional organizations.

Following such a definition, the online platform is one way for individuals to coordinate actions through a service or resource. Collaborating companies often use new ways for providing sharing services, such as short-term accommodation services delivered by Airbnb and urban transportation services delivered by Uber. This excludes them from many other disruptions of business that digital technologies have caused over the last two decades.

In the descriptions of sharing, we determine the significance of two dimensions: the target auditorium for which sharing is specified and the way for compensation (absent, symbolic, financial). Collaborative networks have become a significant social occurrence in the distribution of information goods and can become an essential alternative to traditional client-server network architectures for knowledge sharing. Thus, networks often promise a more social, sustainable, varied, convenient, or inexpensive alternative to other conventional means of consumption. The platforms create a new category of commerce that converts unofficial peer-to-peer activity into a business.

Sharing is a social practice in which a group practices the daily consumption and distribution of a product. Such activities relate to target groups, such as family or household-oriented buyers. The range of existing platforms illustrates that the sharing economy also has seed goods and services into the scope of "peer-to-peer" markets, which we probably would not have expected to see. Objects like vacation homes, which have been broken between individuals offline already, today, even handbags, closing exchanged from "peer-to-peer." Some regard this as starting a "Zero Margin Cost Society." Such sharing is seen as a positive normative connotation with sharing, leading to more meaningful social relationships. Often, this type of sharing is not or only slightly rewarded (e.g., a joint childcare service). Sharing platforms include different revenue models for other target groups and/or services.

The sharing economy differs from the above in that it includes sharing with market transactions: low paid sharing. The sign of the sharing economy is usually used to describe business models in which the Internet is used as an exchange platform, where resources are used by several users (and therefore, they include a combination of intangible and tangible products). In these discussions, self-definition is used to define the sharing economy: if a sharing label is spoken of in an initiative or the press, it is fixed as a part of this phenomenon.

The positive impact of the spread of (implicit) sharing of business models is a

problem due to the negative social impact of the widespread use of platform business models, especially when it comes to how they affect working relationships.

Another characteristic of similar empirical phenomena is "general consumption," which is characterized as "persons coordinating the acquisition and distribution of resources for a fee or other compensation." The sharing economy overlaps perfectly; the fundamental difference is that the coordination of such compensated sharing is not described as taking place online.

Based on the efficiency of using materials, products, and services, systems have appeared to determine how consumers buy a service, not a physical product. This has to do with sharing services such as traditional laundry, which is interesting because it promises greater efficiency in using materials - thus, less impact on the environment than property-based ways of providing.

Laundries and shared rentals deliver services locally. However, Airbnb and Zipcar launched sharing models, which enabled their presents on the Internet and via apps. Sharing platforms emphasize cost and resource saving and a variety of further aspects like social experience or hedonic value.

As the sharing concept changes the competitive environment, companies have to clarify the specificities of the sharing activities and act strategically in an increasing number of industries. The pioneers of sharing activities are Uber and Airbnb, which nowadays are internationally known players.

Perception of sharing economy has two advantages (indicating the price of each service in real-time). Online companies act as sellers of products. They offer online platforms directly from the buyer to the seller.

In the traditional e-commerce market, the justification helps to work out a format that will help reduce the impact on extra margin and benefit both intermediaries and suppliers by sharing the income received via sharing system. Collaborating markets used by companies such as eBay, Uber, and Airbnb allow small suppliers to compete with traditional providers of products. The primary function of these markets is to make the solution easy to find buyers for sellers and take up comfortable and safe transactions.

The authors believe that high competition with service providers significantly reduces this possibility. We also note that the interaction between the cost of fulfilling orders and competitive gravity softens the choice of the optimal option mode.

Especially when the cost of fulfilling orders is low, the range of products of suppliers is highly differentiated, and competition is intense, the choice is the market mode. Prices for fulfilling orders are high when the supply of products from suppliers is similar, competition is high, and the pure regime of the reseller is the most suitable option.

Finally, preference is given to the hybrid mode; if the cost of fulfilling the order is small and the suppliers' products are comparable, the intensity of competition is low. The results depend on the compromise revising the transfer of the right to the price

and responsibility towards the contract.

A retailer could receive money for rent services and commissions from other sellers (including third-party) which connect to the platform. In addition, such third-party sellers could open the possibility of reaching their customers via the retailer's point of sale. For example, the competition could become more intense when different companies trade with similar goods on the same sharing platform. Sharing platform provides users with additional purchase channels to buy the product.

In an organized environment with a symbolic fee for participation or a unique environment for friends and family, there is no necessity for sharing compensation (e.g., change of clothes) to reduce the ecological footprint.

Free sharing of data and online physical resources (such as Wikipedia) is used as a public solution for unpaid sharing activity. Millions of websites like Facebook and Twitter are classified as non-funded sharing because of a funding model that is not visible. Voluntary and free sharing or the exchange of knowledge and resources (e.g., Home – Couchsurfing) could be included into the summary picture. The poster players of this economy have well understood to market themselves on the wave toward a novel: more sustainable, social, personal, or local consumption. The transaction-oriented model is called a "high volume, but low payment model," which could work in case sufficient transactions are formed. In the frequently used model, Helper and carsharing platforms, part of a fee is used to pay for insurance.

eBay does not produce or sell goods but helps to connect consumers with something to sell, linking them with future buyers.

The first is random cooperating companies on both sides of the sharing platform; then, the official company and the platform owner manage the platform and charge a commission for all users' transactions. Following supply and demand in two-sided platforms, models of "peer-to-peer" sharing economy platforms must consider pricing. Two-sided markets have addressed the platforms' pricing strategies, that is, how to charge provisions of fixed fees from one, the other, or both markets sides, and platform competition. A common and essential characteristic of "peer-to-peer" sharing platforms is that suppliers determine product prices individually and uncontrolled by the platform.

Sharing economy platforms do not allow the sale and purchase of goods, but mutual rentals are becoming increasingly affordable and provide temporary access to goods and resources. Sharing economy platforms gain a competitive advantage not because of what they do but how they do it.

The sharing of consumer information can reflect the trust that encourages the purchase of products from sellers. Trust is one, if not the most, factor in long-term success in peer-to-peer rental. The feedback it aggregates includes reliable information about past behavior; a reputation system can help build trust with potential online interaction partners. Reliability towards products can help customers make correct purchasing decisions by using e-marketplace websites that propose

consumers to validate their products in only one aspect, like a five-star ranking system, which cannot fully reflect consumer satisfaction.

The model measures the trust score of products and sellers based on products' prices, quality, and delivery as its delivery as aspects of revision. The information of positive or negative ratings not only affects factors such as loyalty and satisfaction but also directly impacts the parties involved.

Expanding peer-to-peer businesses requires new platforms, which have an economic impact on activity. Collaborating companies formed as engaged in activity on new platforms suggest new consumption experiences with higher quality and a greater variety of products and services, helping to activate the economy. The peer-to-peer businesses associated with these new platforms can lead to more efficient use of physical capital that is not being fully used. The creation of these platforms allows society to tap into individual abilities and aspirations that would have otherwise not been realized. The peer-to-peer business is facilitated by new platforms that shift labour from concisely specialized to a broader range of activities. Creating new peer-to-peer rental opportunities affects the volume to which people purchase manufactured goods.

Such sharing model platforms could be as new engines creating opportunities for innovation that stimulate individuals to take the role of microentrepreneurship instead of employment at full time work.

Sharing platforms could be used to share information when millions of product and location combinations are formed; these plans are different because of the individual perspectives (product, location and partner hierarchies) for each supply chain party (it doesn't matter what ordering algorithms they are using).

Sharing short term forecasts helps to organise better production and delivery planning, optimal stock level (reduce inventory level and reduced amount of obsolete stock) in the chain and increase products on shelf availability by preventing stock-outs and it is only a question, how much it could increase sales.

This could be measured in terms of how closely actual demand matches forecasted demand. Information sharing could be useful:

1) Internal integration (inside the company) - demand and supply planning processes are aggregated across the firm. Changes in the process are evaluated by comparing the performance of the previous activity.

2) External integration (outside company) - strategically partnership with suppliers and customers, using direct, collaborative, and electronic data exchanges (EDI). Agreements for supply chain service define specific roles and responsibilities in the planning process. If the supplier forecasts and makes deliveries to the customer (in the case of Vendor Management System VMI), it must be performed by taking into account the defined service level. An example of these programs could be Syncra Xt, KARS, which, based on information sharing, allows synchronizing production planning, shipments, and promotions forecast accuracy.

3) Cross-Enterprise Collaboration- demand/ supply decisions and information share across the global supply chain.

The external integration level of the customer and supplier planning process is, so that: 79% of customers share their forecasts with their suppliers, and 38% of them are electronically linked together with their own and suppliers' forecasts; others are sharing by using fax, phone, and e-mail. With the use of an electronic system, demand changes at one end of the supply chain (for example, at the customer) are automatically transformed into the forecast shared with the supplier. In contrast, on the demand side, only 29% of suppliers formally share forecasts with their customers, and only 8% of them have electronically linked their forecasts to their customers' forecasts. The frequency of external communication and the total number of attributes communicated altogether between retailers and vendors are increasing; 62 percent of retailers communicate with vendors at least every week. The top four elements retailers communicate with vendors are sales, chain totals, inventory, and units (Bearing point 2022).

81 percent of retailers selected the Internet as a link with vendors and other channels. Retailers presented what type of information is shared for the Bearing point (2022) study:

- The parameters for replenishment methods could be service levels, reorder points, safety stock levels, and lead times.
- Regarding collaborative practices, retailers could share promotional events, data about planning locations (selling space, emerging trends), seasonality factors, and others.

For the last five to seven years, companies have been concentrating on getting two or three of their processes right. This learning has translated into major improvements in sharing technology, higher levels of organizational efficiency, and well-defined processes. And now, they are looking at how to supplement their core replenishment methods with those that have been matured by other business models. The sharing of forecasts solutions should be used as more synchronized and integrated tools till the forecast models consider the rate of products sales through a planning location, the policies controlling reorder unit size, and the factors causing return on sales to vary (demographics, planning, promotional events, seasonality, merchandising, etc.), the Mean Average Percentage Error will continue to be relatively high and inconsistent, especial at manufacturer level for the individual product.

The team from Athens University concentrated on collaboration and built the process of a Collaborative Store Ordering model for information exchange between retailer and supplier (Pramatari et al. 2002). Following this model, information sharing helps to achieve 95,7% stock accuracy and minimise inventory obstacles: receiving errors (6,77%), selling errors (6,61%), physical inventory counting errors (6,40%), stocking errors (5,01%) and human errors, such as errors related to wrong product, wrong its location, damages, and expired products between all products

groups.

4. Conclusions

The results are in line with the current understanding of how the company and its stakeholders can benefit more from the competition petition.

Given the fierce competition in the nowadays environment of business, the company or industry has to be more competitive and hostile.

Companies acting in the sharing economy have competition in many different markets, with companies acting in a traditional way. The main challenge of this type of competition at the moment is the aim of the existing regulation. While established companies rely on this, sharing economy companies often believe this does not apply to their business model.

The article showed how sharing platforms help to coordinate various resources and provide support for management in an innovative way. This can help to reach a competitive advantage through sharing models; rather than traditional business models, they follow the logic of multi-sided platforms.

The article has some limitations: the authors could revise the combined application of several sharing models.

Further research directions could be oriented to the empirical investigation of the application of sharing models and identifying which sharing model prevents.

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