

# Changes in customer value co-creation process due to reshaping the multi-industry value chain in automotive industry

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## \* 1. Introduction

Customer perceived value serves as the fundamental basis for all marketing decisions. In professional literature, the prevailing viewpoint suggests that the primary benefit of co-creation for customers lies in its financial aspects, nevertheless, customers can actively participate in the co-creation process without an expectation of financial rewards. During the collaborative process of value co-creation customers accrue additional advantages. As proposed by M. Baehaqi and colleagues (M. Baehaqi et al., 2020) collaborative value creation through customer involvement leads to increased satisfaction, company loyalty, and customer retention, which can trigger commitment and loyalty, which means the customer can lean towards the social, functional or individual aspect in his expectations.

The perception of customer value within the automotive industry can significantly influence how the value chain impacts the creation of value. This sector presents an opportunity for in-depth exploration, particularly by redefining the supply chain based on current trends. This redefinition can alter the perception of companies, ultimately

delivering greater value to customers and enhancing their economic potential. The objective of this study was to analyse and delineate the multi-industry value chain in the automotive sector, shedding light on its current impact on customers and its influence on their decision-making processes. Simultaneously, the study aimed to consider various possibilities and alternatives in car ownership, providing a comprehensive analysis of the evolving dynamics in the value co-creation process.

To conduct this study, qualitative data collection through primary data research (desk research) was employed. The focus of the investigation was the automotive industry, characterized by extensive value networks with overlapping industries. The study examined and analysed various communication channels and factors influencing customers.

The findings underscored a shift in the process of value co-creation for customers, driven by the current landscape. New possibilities are emerging as crucial for customers, altering the traditional approach to creating value. Consequently, companies must adapt their strategies and communication methods to maximize profitability in this evolving scenario.



→ 2. Literature review

The literature review is structured into two distinct sections, each focusing on specific themes. The initial part approaches the different forms of customer-perceived value, while the second part clarifies the concept of value co-creation within a multi-industry value chain.

2.1 Types of perceived value for customers

Several general typologies of customer value can be found in the scientific literature, which form the basis of most studies and deal with dimensions of customer value at the trade and business level. An overview of the perception of value across different authors is listed in the following Table 1.

In a cross-cultural setting, it is anticipated that various consumer groups will perceive these essential dimensions differently, while the general perception of the brand itself remains consistent. Consequently, the impact of each of the aforementioned elements and fundamental dimensions on the overall perception of value can fluctuate among different cultures. By merging these diverse viewpoints, we hold the perspective that the model's overarching structure remains steady and requires ongoing monitoring for the establishment of a resilient global brand (Wiedmann et al., 2007). In the Table 1 can be found an overview of perceived value for the customers according to different authors.

A study conducted by Vakulenko and colleagues (2018) lays the foundation for formulating

Table 1 » Forms of perceived value for the customers according to different authors

Doyle (2000)	A broad axiological framework (Sheth et al., 1991; Holbrook, 1999)	Conceptualization (Davis and Dyer, 2012)	Modernization of total purchase value with 3 dimensions and sub-dimensions (Rintamäki and Kirves, 2017)	A model of utility and hedonic value (Diep and Sweeney, 2008)	Four Values Conceptual Model (Wiedmann et. al, 2007)
<ul style="list-style-type: none"><li>functional</li><li>financial</li><li>individual</li><li>social</li></ul>	<ul style="list-style-type: none"><li>excellence</li><li>spirituality</li><li>ethics</li><li>efficiency</li><li>game</li><li>respect</li><li>status</li></ul>	<ul style="list-style-type: none"><li>acquisitions</li><li>social status</li><li>social interaction</li><li>self-satisfaction</li><li>survey</li><li>aesthetics</li><li>choice</li><li>efficiency</li><li>transactions</li></ul>	<p><b>Utilitarian dimensions</b></p> <ul style="list-style-type: none"><li>financial savings</li><li>comfort</li></ul> <p><b>Social dimensions</b></p> <ul style="list-style-type: none"><li>status</li><li>self-assessment</li></ul> <p><b>Hedonic dimensions</b></p> <ul style="list-style-type: none"><li>entertainment</li><li>discovery</li></ul>	<p><b>Useful purchase value</b></p> <ul style="list-style-type: none"><li>utility value</li><li>product value</li><li>performance</li><li>value for money</li></ul> <p><b>Hedonic value of purchase</b></p> <ul style="list-style-type: none"><li>the hedonic value of the trade</li><li>product value</li><li>emotion</li><li>social</li></ul>	<p><b>Functional</b></p> <ul style="list-style-type: none"><li>price value</li></ul> <p><b>Individual</b></p> <ul style="list-style-type: none"><li>the value of one's own identity</li><li>hedonic value</li><li>materialistic value</li></ul> <p><b>Financial</b></p> <ul style="list-style-type: none"><li>usability value</li><li>the value of quality</li><li>the value of uniqueness</li></ul> <p><b>Social</b></p> <ul style="list-style-type: none"><li>saliency value</li><li>prestige value</li></ul>

Source: Author's own study (2021)

propositions and gaining insights into the process of creating customer value within a service context. This value creation process unfolds during the course of delivering the service itself. The research provides empirical support for the existence of four distinct types of value generated in the service delivery process: functional, social, emotional, and financial. These four value types find validation in prior studies (Gaud and Zaveri, 2021; Byoungsoo et al., 2020). The interplay and mutual influence among these value types suggest a correlation, impacting their significance and the quality of service delivery. The study's findings indicate that the level of service value directly influences customers' future interactions with service providers.

## 2.2 Value co-creation in multi-industry value chain

In the matter of co-creation, the company needs to enter the common sphere and engage in dialogue through interaction. If there is no interaction, value co-creation is not possible. Grönroos and Voima (2013) further explained the roles of individual subjects in the sphere of value creation. The three spheres of the value creation process are the supplier sphere, the customer sphere, and the connected sphere. The supplier sphere offers potential value where the supplier is a value broker. The customer sphere is the one that independently creates real value for him without any interaction with the company. The connected sphere is the only one in which value is co-created. In independent value creation, the customer invites the company into a common area for value co-creation.

The concept of value co-creation emphasizes the need for consumers to actively engage in a collaborative process of creating value. Consequently, the role of consumers has garnered significant attention, both within the marketing industry and in academic circles. Palma et al. (Palma et al., 2018) defines six primary triggers for customer value co-creation are affiliation, expertise, expression and

experience, recognition, community, and tangible reward.

The literature shows that the concept of consumer involvement can vary depending on different interpretations. Several possible explanations of the term:

- as a psychological process that leads to the creation of loyalty,
- as a manifestation of behaviour from the customer towards the brand or company that goes beyond purchasing behaviour,
- as a psychological state that is characterized by a degree of vigor, determination, absorption and interaction (Cheung et al., 2011).

In any case, the authors agree on the fact that consumer engagement plays a central role in the process of co-creating value.

Value co-creation is closely tied to achieving strategic competitiveness, which involves the successful formulation and execution of a value creation strategy. This strategy is a well-coordinated set of commitments aimed at leveraging core competencies to gain a competitive advantage (Hitt et al., 2011; Hanson et al., 2016, Mostafa, 2016; Nyukorong, 2016). Several critical factors contribute to achieving strategic competitiveness, including entrepreneurial spirit, a market-oriented approach involving a deep understanding of customer needs, and the utilization of value creation, along with the introduction of innovative products and services. In today's information-rich world, captivating customers' interest in collaborative value creation is increasingly crucial. Such collaboration can greatly aid companies in enhancing their strategic competitiveness.

The transformation in the way value is generated is influenced by technological complexity, global competition, and the ready accessibility of digital information technology. Even major corporations like ABB, IBM, and Microsoft have recognized that attempting to manage all facets of the value chain, spanning from product innovation to customer support, in-house is neither practical nor cost-effective. Consequently, businesses and other



→ societal entities are establishing progressively intricate networks of knowledge and technological interconnections. These evolving networks of firms are replacing traditional market structures and vertically integrated companies.

It's evident that networks are better suited for knowledge-intensive environments due to their enhanced capacity for information processing and adaptable management, as compared to markets and hierarchical organizational structures (Eisenhardt and Martin, 2000). According to Zakrzewska-Bielawska et al. (2021), strategic networks are stable inter-organizational relationships that are intentionally designed and typically involve a finite group of at least three parties. They are often termed strategic or business 'networks' to distinguish them from more general 'firm networks.' These networks manifest in various forms and serve various purposes; in both academic literature and the business realm, one can identify instances such as supply networks, distribution networks, technology development or R&D networks, competitive alliances, technology collaborations, and so forth.

Value networks, also referred to as strategic networks, are fundamentally influenced by the position of a specific network in the value continuum. When value system information is linked to actors' goals and network structure, we can derive the classification framework. According to Möller et al. (2005) most existing networks can be placed in the following types according to this classification:

- vertical value networks — including supplier networks, channel and customer networks and vertically integrated value systems.
- horizontal value networks — cover several modes: competitive alliances, resource/capacity access alliances, resource and capacity development alliances, market and access channels/ collaborative alliances.
- multidimensional value networks — including key or empty organizations of complex business networks and new networks with value systems.

For this study, author will focus on multidimensional or multi-industry networks that originate from Japanese keiretsu organizations representing alliances between firms operating in different unrelated industries. These networks were often organized around one large financial institution, trading company or manufacturing firm, which in turn represents institutionalized relationships. These networks are characterized by dense connections in resource sharing, strategic decision-making, culture and identity, and periodic patterns of collective action (Möller and Rajala, 2007). A "hollow" organization, sometimes a network of opportunities, creates its market offering by integrating the products and services required from a group of different types of suppliers and channel firms. Amazon.com is a good example of this kind of network partner, where its own core capabilities are coordination capabilities and customer relationship skills. Complex business networks require the knowledge and development capabilities of multiple actors. Mobile payment systems, for example, require close cooperation between banks, telecommunications companies and various software manufacturers before the service can be offered to end customers. Stock market opportunity network companies are temporary alignments usually created around a specific customer project.

In today's business landscape, we observe intense competition among interconnected networks of firms. These networks must harmonize and strategically align their operations to gain a competitive edge for the entire supply chain. To establish and maintain this competitive advantage, companies need to approach supply chain management from a holistic standpoint (Parker and Anderson, 2009).

Aligning competitive priorities across a company's supply chain enables adaptation of supply resources and capacities to meet its needs, contingent on prevailing market conditions. (Cousins and Matthews, 2015). Globalized manufacturing networks face challenges of increasing complexity

in all aspects of the product and production life cycle, including supplier selection, design, supply chain coordination, logistics management, and inventory management (Mourtzis, 2016).

Effectively reconciling such intricate global networks necessitates the implementation of advanced strategies that enable a firm to configure individual supply chains within its network from a comprehensive perspective (Macchion et al., 2015). In the development of such strategies for aligning complex global supply networks, it is imperative to segment the supply base. This segmentation allows a company to structure its supply network efficiently, taking into account the supply chains of raw material suppliers, the competitive priorities emanating from these supply chains, regional market conditions, and the specific requirements of the company.

### 3. Methodology

Qualitative data collection in the form of primary data research (desk research) was used in this study. The area of interest is the automotive industry, where it is possible to find wide value networks with multi-industry overlap. The form of desk research was suitable in this case, as it allowed to examine and analyse various communication channels and areas affecting the customer. The data collection was conducted from May 2021 to August 2023 and included the development of the market situation during this period. Analysed areas were:

- marketing communication towards customers of 5 largest automobile companies and their marketing strategies towards the future,
- electromobility,
- alternatives to ownership and sharing economy.

Among the analysed automobile companies were:

- Renault Group,
- Groupe PSA (Stellantis),
- ŠKODA Auto,

- Concert FCA (Stellantis),
- Mercedes-Benz group.

From the ownership alternatives and sharing economy point of view, several online available sources were analysed such as:

- websites of automobile companies,
- websites of service companies,
- annual reports,
- official company strategy in form of online presentations,
- customer forums.

Further on the territory of Czech republic, potentially Slovak republic, were analysed possibilities of sharing economy, such as:

- websites of carsharing/bikesharing/shared scooters/motor scooters companies and
- social media offering shared economy.

The aim of this study was to analyse and define the multi-industry value chain in the automotive industry, which reflects the current affects on the customer and influencing his decision-making process. At the same time, it aims to take into account various possibilities and alternatives of car ownership for the customer.

There were stated these research questions:

- **RQ1: What are the current trends in the automotive market?** – What do car companies focus on in communication towards the customer? What product strategy do they have planned for the future?
- **RQ2: Is it possible to define a multi-industry overlap in the automotive value chain?** This question covers other sub-questions: What subjects can be found in the value chain? What segments are involved in the value chain?
- **RQ3: How has the value network changed due to current trends in the automotive industry?** – How does this affect the customer? How does the customer get the maximum value they require based on their needs?

This study follows on a previous study focused on the co-creation of value for the customer in the automotive industry (Zich and Svobodová, 2020). The result of this study was the finding that finan-



→ cial value is the most important for the customer, but immediately follows the functional and individual value. For 35.55% of respondents, financial value was the most important, for 29.99% functional value and for 29.98% individual value. The least important for the respondents was the social value with a representation of 4.44%. This means that these kinds of value are perceived for those customers and opinion-forming.

4. Findings

Within the communication of analysed companies and the focus of their strategy, it is possible to find a breakthrough in the following areas as described in Table 2 (Renault group, 2023; PSA group, 2021;

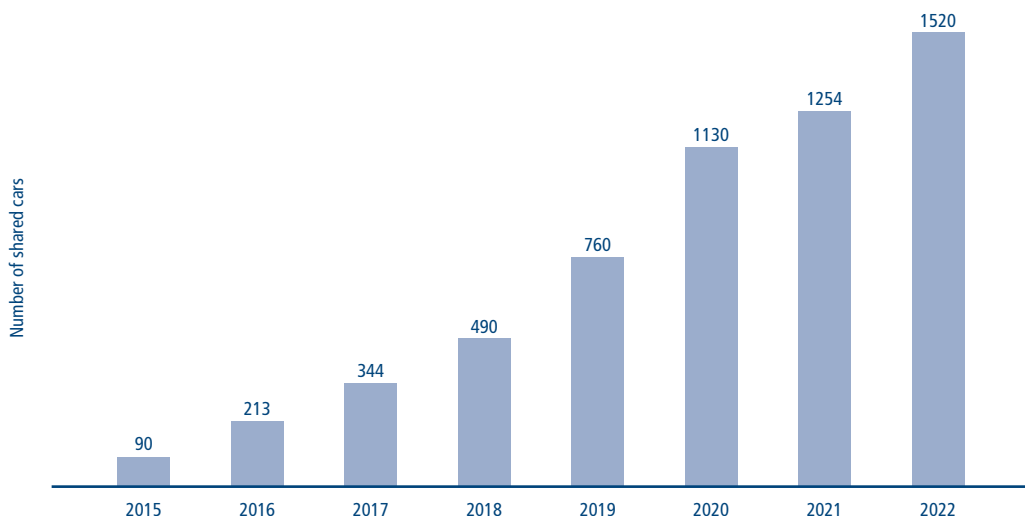
Stellantis, 2023; Škoda auto, 2023; FCA group, 2021; Mercedes-benz, 2023). Each analysed company is focuses its strategy towards mobility, sustainable mobility, reducing the carbon footprint with the strategy of zero air pollution. There can be found a range of electric cars for each brand. The analysed companys' strategy even accepts the circular economy as a fact and prepares for the shared economy. They can offer this functionality directly to customers.

An important alternative to standard forms of car transport is carsharing. In the Czech Republic, carsharing was created in 2003 with the founding of the Autonapůl civic association, which later transformed into a cooperative. In 2015, the Association of Czech Carsharing (AČC = Asociace čes-

Table 2 » Common strategy forms of automobile companies

Area	Description
enabling easy life	Simple and innovative solutions for an easier life for customers.
mobility	Focus on mobility of the future. Areas that are essential for revolutions in this industry: electric mobility — related to the strategy of zero air pollution and reducing the carbon footprint, connected mobility and infotainment — easy connection with the car system, autonomous mobility — integrated system of autonomous driving.
sustainable mobility	Means safer and more ecological mobility through: respect for nature — fight against global warming (reduction of greenhouse gases), preservation of natural resources (optimization of their use and reuse), health (reduction of emissions) • electric vehicles, • circular economy, • new use of mobility as autonomous vehicles without a driver, • road safety — use of the safest technologies, increase awareness of road safety, promotion of safe sleeping.
electromobility	Make electric cars more accessible thanks to products, smart solutions and services.
commercial vehicles products	In order to design solutions for customers in the case of business.
carsharing	Customers want a range of mobility services to meet all their needs. Car sharing, intermodality and on-demand services are the new face of mobility. Modes of transport co-exist and city centers are redesigned to reduce the space used exclusively by cars.
online communication with customers	From the possibility of ordering a test drive to a 3D online showroom. Communication with the customer is moving to the online environment in more and more areas.

Source: Author's own study (2023)

**Figure 1 » Number of shared cars in the Czech Republic in 2015–2022**

Source: Asociace českého carsharingu (2023)

kého carsharingu) was established in the Czech Republic — a professional association whose goal is the support and development of carsharing in the Czech Republic. The founding members were Autonapůl, EMUJ a.s., AJO.cz, Liftago and Sharujeme.cz. In 2014, there were 30 cars on Czech streets, in 2022 there are over 1,500 (Asociace českého carsharingu, 2023). In 2015 in Czech Republic there were 90 cars within shared cars, in 2022 there were more than 1500, which represents more than 1600% increase. The development of the number of cars in carsharing in the Czech Republic between 2015 and 2022 can be seen in the Figure 1.

Carsharing can be divided into three categories according to Asociace českého carsharingu, (2023):

### **1. Station-based carsharing (roundtrip carsharing)**

A company operating roundtrip or station-based carsharing owns a fleet of cars that it operates. Cars are typically equipped with technology that allows access to the vehicle using a smart card or mobile app. Cars are parked in reserved places, sometimes

marked with the company's logo. A big advantage of station-based carsharing is that you can reserve a car long in advance and you know exactly what kind of car it will be and where it will be parked. The disadvantage is the necessity of returning and picking up at designated places, which increases the travel time and brings some discomfort. The vehicle fleet is varied, from small city vehicles, through family cars to nine-seater vans. A variant is zone-based carsharing, where you can park and pick up the car within the designated parking zone. You can find the vehicles in the app on your smartphone. Carsharing of this type is historically the oldest, it was originally created in local communities that passed the keys from hand to hand. Vehicles are much better used — most companies report that a shared car drives 30%–40% of the time, which is much higher than the 4% reported for private cars.

### **2. Free-floating carsharing**

The fleet of a free-floating carsharing company is typically much larger and more uniform. In large



→ cities, which are the main domain of free-floating carsharing, companies can operate hundreds to thousands of cars. In this model, the whole city functions as one big parking zone, and you can pick up and park your car anywhere. As a result, you cannot reserve a specific car, and these companies typically do not even allow advance booking.

Carsharing of this type is usually significantly more expensive, especially for short rentals, which make up most of the sales. Some companies charge prices per minute and the price is close to a taxi ride. Free-floating carsharing needs a large fleet of cars for successful operation, which must be available at any time, so these cars often stay in the same place for several days. The typical operating time of a shared car in this mode is less than 10%, which is not much different from a private car and therefore does not contribute to saving parking spaces in large cities. Due to the way of use (short journeys) it competes with taxis and public transport and does not lead to the replacement of private cars by shared ones.

### 3. Peer-to-peer carsharing

The newest form of carsharing is the so-called peer-to-peer carsharing, i.e. the sharing of private cars between people. In this mode, people offer their own cars on the platform of the carsharing operator, which is actually just a rental intermediary (similar to, for example, Airbnb in the case of accommodation rental mediation). Peer-to-peer carsharing offers an interesting opportunity to make extra money for those whose car sits idle in front of their house most of the time (and there are many of them). It then offers the enquirer a choice from a wide range of vehicles. But he must prepare for the fact that the technical condition of the vehicle is not guaranteed. The disadvantage is also the impossibility of renting a car for just a few hours (the minimum rental period is usually one day) and the need to sign a new contract for each rental. Unlike other types of carsharing, where cars can be dropped off contactless, a personal drop-off is usually required.

In the Czech republic co-exist several carsharing services, see Table 3.

In general, it can be said that station-based carsharing replaces a large number of private cars, while free-floating almost none (there is no relevant data for peer-to-peer carsharing yet). Following Table 4 lists ratios for various European cities.

Autonapůl is similar to station-based carsharing. According to the UJEP survey conducted for Autonapůl in 2019, it serves as a replacement for the first car in the family (more than 70% of households that use Autonapůl do not own a car). So the semi-automobile currently replaces up to 500 private cars, and that the replacement ratio is 1:17 (Asociace českého carsharingu, 2023)

Other alternatives of shared economy are listed in Table 5 below.

Besides the certain carsharing service and its applications, on the carsharing market there can be found the application Free2move offering “an app of apps”. This application offers an “app of apps” that allows access to almost 50 mobility services provided by all types of operators in 34 cities. It allows people to access the most popular mobile solutions – cars, bikes, freeride kicks and scooters, mass transit services and public transport – from one app. It was launched in April 2017 and since then Free2Move has been downloaded by 2 million users to date. Free2Move offers 65,000 vehicles (cars, scooters and bikes) in Europe (France, Germany, Austria, Spain, Italy, UK, Belgium, Sweden, Portugal, Netherlands and Denmark) and through a range of operators in the United States. The transition to mobility as a service is gaining momentum and the number of users of mobility services is expected to reach 36 million worldwide by 2025. In addition to its app, Free2move is also a car sharing operator currently available in five cities: Washington DC, Madrid, Lisbon, Paris and Wuhan, China. Each city has a fleet of 500 to 1,000 self-service electric vehicles. 260,000 customers have already used the carsharing services of the PSA group. On average, they use them three to five times a month, rarely for more than 30 minutes at



**Table 3 » Overview of used carsharing services in the Czech Republic in 2021**

Type	Company	Availability in Czechia	IoT	Use	Without carbone footprint	Note	Disadvantages
Station-based carsharing	AJO.CZ (2022)	Praha, Brno	✓	web app	✗	LPG drive	a new framework contract for each car rental, the trip abroad is approved individually
	Anytime (2023)	Praha	✓	Android, iOS	✗	adventure tariff — a combination of carsharing and an escape game	the possibility of driving only in the Czech Republic
	Autonapůl (2018)	Praha, Brno Ostrava Plzeň Liberec Olomouc Hradec Králové Pardubice České Budějovice	✓	Android, iOS	✗	max. the age of the vehicle is 5 years, large vehicles are also available, a demo version of the application to try, discounted offers for entrepreneurs, small companies, etc.	refundable deposit 5,000 CZK
	Car4Way (2023)	Praha Brno	✓	Android, iOS / webová aplikace	✗	carsharing services, car rental, operational leasing, The „airport“ package — the possibility to drive to the airport in Prague or a trip from the airport	refundable deposit of CZK 5,000 after the end of using the service, travel abroad must be reported by email 3 days in advance
	GoDrive (2023)	České Budějovice	✓	Android, iOS	✗	✗	✗
	Karkulka (2023)	Plzeň	✓	Android, iOS	✗	service from Pilsen municipal transport of the enterprise (PMDP)	✗
	Re.volt (2021)	Praha	✓	Android, iOS	✓	shared cars, scooters, motorbikes, scooters, possibility to buy a scooter or scooter, add them to the Re.volt fleet and earn	✗
	GreenGo (2022)	Praha	✓	Android, iOS	✓	✗	✗
	UniqWay (2023)	Praha	✓	Android, iOS	✓	from Škoda Auto, carsharing for university students and employees	✗
Free-floating carsharing	✗						
Peer-to-peer carsharing	HoppyGo (2023)	Czechia	✗	Android, iOS / web app	✗	by Škoda Auto & Leo Express, the possibility of contactless rental using the HW add-on, tips on how to take an attractive photo of a car to increase demand, the Travelking project – tips for trips to the Czech Republic and what kind of car	✗
	Campiri (2023)	Czechia	✗	Web app	✗	carsharing for caravans	✗

Source: Author's own study (2021)



→ **Table 4 » Replacement of private cars with shared cars in some German cities according to the type of carsharing**

City	Type	Ratio
Berlin	station-based	1:18
Frankfurt	station-based	1:10
Bremy	station-based	1:7
Cardiff	station-based	1:18
Frankfurt, Cologne, Stuttgart	free-float	1:0,3
Munich	free-float	1:2

Source: ceskycarsharing.cz (2023)

**Table 5 » Alternatives to shared economy besides carsharing in Czech and Slovak republic in 2021**

Type of shared economy	Companies/Applications
Shared electric scooters	Bolt (IoT) YOYOWAY (IoT) Lime (IoT) Re.volt (IoT)
Bikesharing	Rekola Lime (IoT) Nextbike (IoT) BeRider by Škoda AUTO DigiLab (IoT) BikeKIA (IoT) Arriva bike
Shared motor scooters	Re.volt (IoT) BeRider by Škoda AUTO DigiLab (IoT)
Social media	Specific groups for travel on Facebook Blabla car

Source: Author’s own study (2021)

a time. It’s also available for companies: carsharing, company fleet, leasing (PSA group, 2021).

*Discussion*

The development of strategic competitiveness based on the co-creation of value for the customer in the automotive industry provides a broad framework for analyses of this area.

The initial research question (RQ1) delved into the prevailing trends in the automotive market.

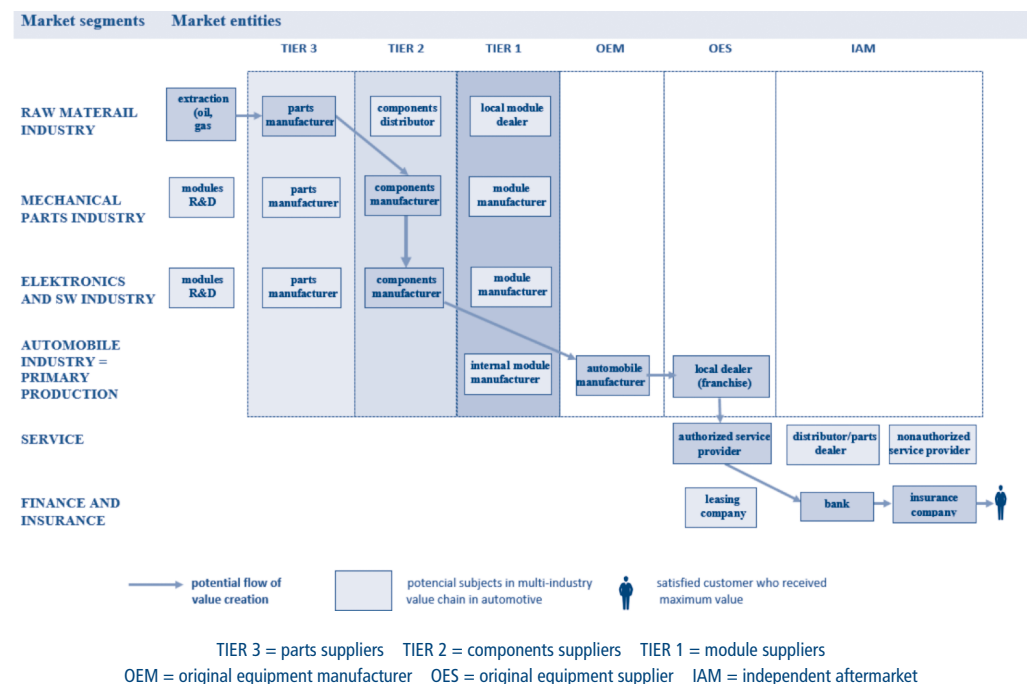
The analysis revealed that automotive companies are incorporating mobility into their product strategies, emphasizing sustainable mobility, and exploring opportunities in car-sharing. The strategies of all analysed companies show these common features. Automobile companies are aware of the decreasing need for people to own a car and are starting to orient their product strategy towards sustainability and mobility. At the same time by doing this, they fulfill the strategy of reducing air pollution and zero carbon footprint.

Second research question (RQ2) which discussed whether it is possible to find multi-industry overlap in automobile industry showed that multi-industry is connecting various industries, not just electronic and mechanic industry, but also service providers, financial and insurance companies. It is possible to find various alliances of companies on the market, where, for example, a certain car company cooperates with a financial institution and offers the customer favourable financing or tailor-made insurance. The value chain for the customer is intertwined in the raw material industry, industry of mechanical parts, electronics parts and SW development, primary production, service companies, financing and insurance companies. Besides perceived value for customer passes not only through the channels TIER 3 = parts supplier, TIER 2 = components supplier and TIER 1 = module

supplier but also through the area of OEM = original equipment manufacturer to the areas of OES = original equipment supplier and IAM = independent aftermarket, which can play a significant role in influencing the creation of value for the customer.

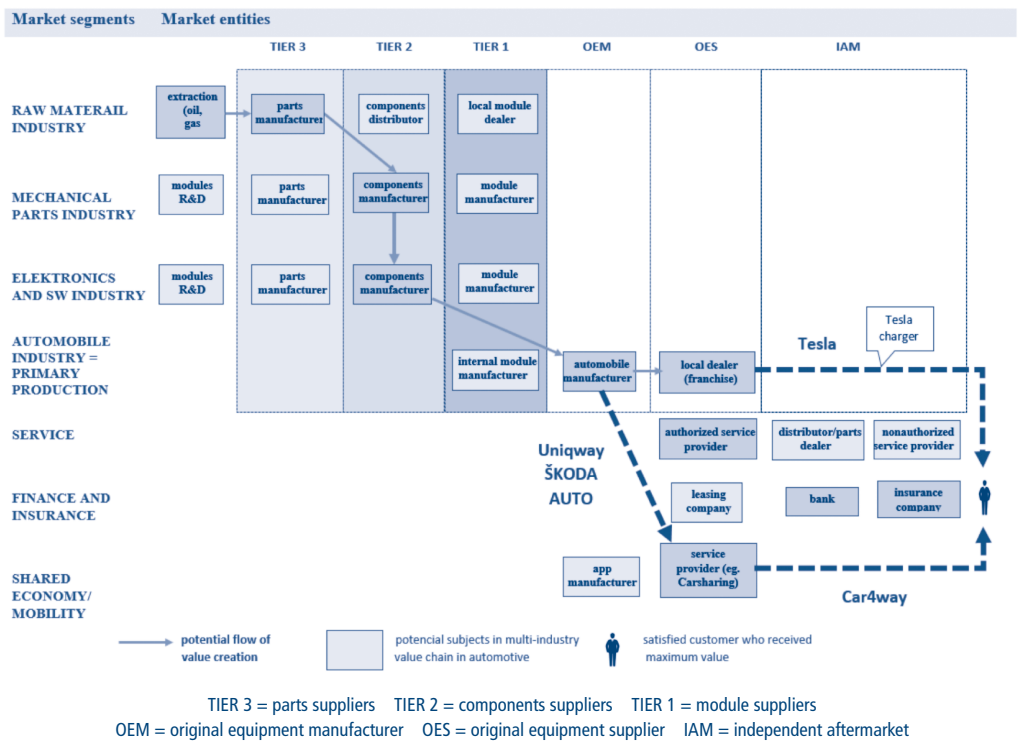
Based on the results from the analysis of the sources mentioned above, it is possible to create a multi-industry value chain of the automotive industry and the process of creating value for the customer, as shown in the Figure 2. The figure illustrates various market segments contributing to the creation of customer value. Within each segment, there is an exemplification of a supplier network or value network. These inter-segment value networks that can be also called multi-industry value networks, form a diverse industry network where the collaborative creation of customer value

**Figure 2 » Potential flow of value creation for the customer in the automotive multi-industry value chain**



Source: Author's own study (2023)

→ **Figure 3 » Potential flow of value creation for the customer in the automotive multi-industry value chain concerning new trends**



Source: Author's own study (2023)

becomes evident. Under these circumstances, it becomes feasible to delineate the potential flow of value creation, as indicated by blue arrows. When a customer purchases a car, he can receives a portion of the overall value from the local car dealer. Simultaneously, the total value is collaboratively shaped by other entities such as service providers, banks that are often involved in customer financing, and insurance companies, which can enhance the customer's value through favourable insurance terms.

Following the analysis derived from this study, it can be inferred that new market segments are gaining significance. The realms of shared economy and mobility are becoming increasingly crucial to customers, offering avenues through which de-

sired value can be attained, as illustrated in Figure 3. This figure delineates the potential flow of value creation, capturing current trends within market segments, notably the ascent of the shared economy. This contemporary trend exerts an influence on customer value creation, potentially altering the processes involved. Automotive manufacturers and companies are adjusting their strategies, actively endeavoring to provide the entirety of value directly to the customer. As we can see eg. at ŠKODA AUTO, which has ventured into establishing its own carsharing service, allowing customers to access the desired value firsthand. Consequently, the customer value creation process is evolving, prompting adaptation by car companies to align with this trend. Consequently, the last research

question (RQ3) revealed the changes in the multi-industry value chain within the automotive sector, particularly in the final stages of value creation for customers. The findings indicated that value for customers can skip certain market segments or industries. Car manufacturers can directly contribute to customer value and are preparing their product strategies to do so. E.g. ŠKODA AUTO is working on its own car-sharing application Car4way for the customer, which eliminates the need for the customer to look for financing and insurance, because there is no need for ownership. In this last part of the multi-industry value chain, the way of co-creating value for the customer changes significantly.

This conclusion holds substantial importance for companies aiming to strengthen their strategic competitiveness. It provides valuable insights into the evolving perceptions of value held by customers. Embracing these insights presents companies with a strategic opportunity to augment their competitive edge. By adeptly adapting to the changing dynamics of customer value, businesses can position themselves favourably in the market, ensuring their products or services resonate more effectively with the evolving preferences and expectations of their target audience. In essence, the ability to align strategies with shifting customer perceptions

of value becomes a pivotal factor in maintaining and advancing competitiveness in the dynamic business landscape.

### Conclusion

This contribution served as an exploration of the value creation process for the customer in the automotive industry focused on the Czech market. It turns out that the value creation process changes based on changes in the market segments. Car manufacturers and car companies reflect these changes in their strategies and change their communication towards the customer. However, this research has its limitations in the form of analysis of available sources. Even so, this survey shows current trends in the process of changing value co-creation for the customer in the automotive industry. This study can serve as a building block for wider research on the same topic to see how the topic develops.

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*The three spheres of the value creation process are the supplier sphere, the customer sphere, and the connected sphere. The supplier sphere offers potential value where the supplier is a value broker. The customer sphere is the one that independently creates real value for him without any interaction with the company. The connected sphere is the only one in which value is co-created. In independent value creation, the customer invites the company into a common area for value co-creation.*

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## Changes in customer value co-creation process due to reshaping the multi-industry value chain in automotive industry →

**→ ABSTRACT**

*The concept of co-creating value for the customer in the automotive industry offers wide possibilities thanks to a branched value chain, cooperation of companies from different areas or alliances. Currently, more than ever, the customer has opportunities to participate in the co-creation of value and maximize it according to their preferences. The aim of this study is to examine current trends on the market in the automotive industry, to determine the potential for a multi-industry overlap within the value network and, based on this, to define changes in the multi-industry value chain resulting from the impact of these prevailing trends. Changes in the approach of automotive companies to product strategy and communication towards the customer should be considered so that these companies increase their competitiveness to maximize the value obtained by the customer.*

**KEYWORDS**

*Perceived Value; Value co-creation; Multi-industry Value Chain*

**JEL CLASSIFICATION**

*L10; L14; M31*

