YourNow: Daimler's and BMW's joint road towards new mobility?

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Abstract

In the late 1990s the Dynamic Capabilities framework by Teece et al. (1997) shifted the focus of strategic management to an individual company's resources and its ability to adapt them to external market trends. Refined by Barreto (2010), this resource-based view serves as a theoretical framework for this thesis, which aims at examining the development of a strategic, technological partnership between two established industrial companies.

Hereby, Daimler and BMW, two of Germany's leading automotive manufacturers are used as a real-world example in the form of a case study. The case depicts the current developments in the automotive industry and the opportunities available in the field of new mobility for traditional manufacturing companies. It outlines Daimler's and BMW's historical milestones and their path towards their mobility joint venture YourNow, launched in early 2019.

From a strategic point of view, the case highlights the companies' motives for the joint venture. It analyzes the exogenous shocks the companies faced, urging the former rivals to cooperate. Furthermore, the case evaluates the joint venture's capabilities to succeed in the highly competitive mobility market as of mid 2020.

Keywords: Exogenous Shocks, Dynamic Capabilities, New Mobility, Strategic Partnership, Joint Venture

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Sumário

No final dos anos 1990, a framework das Dynamic Capabilities de Teece et al. (1997) mudou o foco da gestão estratégica para os recursos internos de uma empresa e para a sua capacidade de adaptá-los às tendências do mercado externo. Refinada por Barreto (2010), essa visão baseada em recursos serve como base teórica para esta tese, que visa examinar o desenvolvimento de uma parceria tecnológica estratégica entre duas empresas industriais já estabelecidas no mercado.

O caso de estudo da Daimler e da BMW, dois dos principais fabricantes de automóveis da Alemanha, é utilizado como exemplo do mundo real das empresas. O caso descreve os desenvolvimentos atuais na indústria automóvel e as oportunidades disponíveis no campo da nova mobilidade para os fabricantes tradicionais. São relatados os marcos históricos da Daimler e da BMW e o seu caminho para a joint venture de mobilidade "YourNow", lançada no início de 2019.

Do ponto de vista estratégico, o caso destaca os motivos das empresas para a joint venture. Analisa ainda os choques exógenos enfrentados pelas empresas, que motivaram os antigos rivais a cooperar. Além disso, o caso avalia as capacidades da joint venture ser bem sucedida no mercado altamente competitivo da mobilidade, em meados de 2020.

Palavras-chave: Choques Exógenos, Mudança Estratégica, Dynamic Capabilities, Nova Mobilidade, Parceria Estratégica, Joint Venture

Título da dissertação: YourNow: o caminho conjunto da Daimler e da BMW em direção a uma nova forma de mobilidade?

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List of Abbreviations

bn	Billion
CAGR	Compound Annual Growth Rate
CS	Car Sharing
DC	Dynamic Capabilities
EBIT	Earnings Before Interests and Taxes
JV	Joint Venture
m	Million
MaaS	Mobility as a Service
M&A	Mergers and Acquisitions
OEM	Original Equipment Manufacturer
RBV	Resource-Based View
RH	Ride-Hailing
R&D	Research and Development

1. Introduction

Fast-growing cities and disruptive technologies combined with an increased environmental consciousness are challenging the traditional and well-established automotive industry.

According to Accenture (2018) the revenue growth of the automotive industry has reached its plateau, with profits shrinking slightly until 2030. However, every cloud has a silver lining, and in the case of the classical automotive manufacturers this silver lining is called *Mobility as a Service* (MaaS). Mobility as a Service is defined as "*the integration of various forms of transport services into a single mobility service accessible on-demand*" (Transit Protocol, 2019). This new market sounds promising as it is expected to grow to an estimated $451bn until 2030 within the European Union, depicting a CAGR of 25% (Statista, 2020). The opportunities seized by engaging in the MaaS sphere are vast: from ride-hailing to car-sharing to smart parking it encompasses the whole mobility experience.

The entry barriers of this market seem to be predominantly low for the automotive manufacturers. However, Möller et al. (2019) estimate the investments needed to successfully enter this market to be around $70bn for each individual company. Consequently, traditional automotive manufacturers increasingly engage in partnerships to cover the enormous investments and risks associated with the newly established mobility market.

As a consequence, what better way to face this challenge than to build a $1.13bn joint venture through Germany's biggest and most renowned car companies – Daimler and BMW – which comprises the entire mobility infrastructure (Hawkins, 2019)?

Given the high economic relevance of the automotive industry, this dissertation aims to portray the strategic path BMW and Daimler took to face the exogenous shocks in the manufacturing and car sales market. It highlights the importance of a long-term strategy, with the companies' move into the previously untapped sector of MaaS, and the overall reorientation of a traditional industry. Furthermore, it analyzes the motives to engage in a strategic partnership as well as potential risks and benefits associated with joint ventures. Ultimately, this thesis might serve to illustrate an example of the use of the Dynamic Capabilities framework in order to evaluate how firms can cope with changing environments.

After years of excessive growth in the early 2000s, the German car manufacturers have faced a decline in profitability, forcing them to cut expenditures, primarily by reducing personnel costs and by downsizing production (Manager Magazin, 2019). Focusing on bottom-line growth,

both companies have long been undervaluing the external environment and the potential of the new mobility market. Those challenges led to the question of how Daimler and BMW can use their mobility venture to respond to the changing market developments. The answers will be evaluated by using three theoretical concepts. Firstly, through the *Dynamic Capabilities* approach established by Teece et al. (1997) and refined by Barreto (2010): a four-dimensional strategic framework that defines DCs as "*the firm's potential to systematically solve problems, formed by its propensity to sense opportunities and threats, to make timely and market-oriented decisions, and to change its resource base*". Secondly, Klijn et al. (2010) provide an overview of the motives leading to strategic partnerships and list key success drivers for long-term cooperation. And lastly, a theoretical presentation of the MaaS ecosystem is provided, serving as an introduction to understand the industry setting of the case.

The teaching objective of this case is for students to understand the current developments in the automotive industry – history, challenges, and trends – based on the real-world example of the Daimler and BMW mobility venture YourNow. Additionally, students are asked to classify those developments from a strategic management point of view by connecting the previously mentioned frameworks to the concepts of MaaS and the underlying case. Lastly, the endeavors of Daimler and BMW are critically evaluated concerning future strategic success and competitiveness.

This thesis consists of five chapters. First, the Literature Review provides an overview of the main theoretical concepts relevant to the case. This chapter is followed by the Teaching Case that illustrates the case of BMW, Daimler, and their joint mobility venture YourNow. Then, the Teaching Notes dismantle the case from a pedagogical perspective, before the Discussion and the Conclusion complete the thesis.

2. Literature Review

2.1 Dynamic Capabilities

The starting point of the theoretical frameworks for this thesis is the Dynamic Capabilities (DC) framework. First established by Teece et al. in 1997, it has continuously gained importance in the area of strategic management.

The concept of DC originates in the theory of the "*resource-based view*" (RBV), represented by scholars such as Dierickx and Cool (1989) or Barney (1986). Representatives of the RBV argue that the ability of a firm to achieve a competitive advantage is embedded in its coherent set of unique and non-replicable resources. According to Priem and Butler (2001), the approach illustrates a "*business level*" view of a firm's assets, that challenges the earlier theories of Porter (1979) or Ansoff (1965), which are more focused on responding to the competitive market environment.

The original RBV has been unable to answer two main questions, which have become more substantial given the fast technological developments in the 1990s: how to react to an ever-changing environment and how to make the advantage sustainable (Bleady et al., 2018). As a response, Teece at al. (1997) introduced the idea of DC, defining it as "*the firm's ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environments*".

In order to determine a firm's unique capabilities Teece et. al (1997) established three categories: processes, positions, and paths.

Processes describe organizational routines and operations, the ability to embed external knowledge and to spur learning. This is complemented by the necessity to observe markets and competition as well as to transform and reconfigure one's assets. Consequently, the external environment has to be taken into account. Teece (2007) claims that the DC approach is best suited for underdeveloped markets subject to technological change which is rapid and systematic. However, Zollo and Winter (2002) suggest that DC can also play a role in slower-moving environments, allowing for a broader application of the theory. Eisenhardt and Martin (2000) claim that not solely possessing the DC but rather having the ability to act upon them leads to success. Teece (2007) elucidates those thoughts by evaluating DC on the ability to sense external opportunities and threats, capturing those opportunities, and lastly responding accordingly by adapting or re-orientating the firm's resources. Those "*behaviorally based*" DC can be extended from a psychological point of view. The three capabilities are closely related

to intuition and emotional reactions which are linked to neuroeconomics (Hodkinson & Healey, 2011).

Next, positions describe the company's current assets. Excluding physical assets which can be acquired easily, the assets listed by Teece are predominantly intangible. They range from technology (know-how), reputation, market position to institutional assets.

Lastly, a company possesses path dependencies, past circumstances that now influence future directions. Those path dependencies are, for example, influenced by network externalities and developed economies of scale. Furthermore, this path is shaped by technological opportunities that lie ahead of the company. Barreto (2010) challenges path dependencies and the underlying uniqueness of a firm's DC. Eisenhardt and Martin (2000) support his thinking, claiming that the cornerstones of DC might be similar in various corporations.

In conclusion, DC aim at creating a competitive advantage through an improved firm performance. This includes paths, current processes and opportunities that lie ahead (Teece et al., 1997). However, Eisenhardt and Martin (2000) argue that DC do not serve as a source for a firm's sustainable competitive advantage, especially in dynamic environments. This standpoint is contradicted by multiple scholars, claiming that creating DC lies at the heart of fast-moving markets. And due to a firm's ability to react quickly, this creates an inimitable sustainable advantage (Barney & Wright, 2001; Wang & Ahmed, 2007). Synoptically, Barreto (2010) suggests an "*indirect link*" between performance and DC. He states that the latter "*may change the resource base*", which creates a new standing in the market and consequently impacts the performance.

The DC theory is considered to be relatively scattered, given several definitions and characteristics that developed over the years (Wang & Ahmed, 2007). This is largely due to the lack of quantitative assessment and its rather self-evident description of business processes (Winter, 2003). The theory faces several boundaries. First, there is no proven record regarding what type of firm profits most from the concept of DC (Barney, 1986; Barreto, 2010). Second, the type of external environment, in which the development of DC generates the most return is controversial and has yet to be researched (Barreto, 2010).

Hence, to assess the current state of the DC view, Barreto (2010) proposes an amended definition that takes into account the previously mentioned critiques. He defines DC as "*the firm's potential to systematically solve problems, formed by its propensity to sense opportunities and threats, to make timely and market-oriented decisions, and to change its*

resource base". This definition allows scholars to analyze the concept of DC from four dimensions. Firstly, the ability to sense opportunities and threats, which means scanning the external environment and the capabilities landscape. Secondly, the skill to make timely decisions, which is consistent with what was highlighted by Eisenhardt and Martin (2000): responding quickly is regarded as a capability itself. Thirdly, those decisions need to be market-oriented, which involves the ability to respond to customer behaviour and preferences (Priem, 2007). Lastly, the capacity to change the firm's resource base is vital, meaning that a company continuously has to reinvent its required resources to stay competitive. Conceptualizing DC as an "*aggregate multidimensional construct*" (Barreto, 2010), allows scholars to unravel the theoretical concept of DC, making it more tangible and applicable to real-world business cases.

2.2 Joint Venture

Intensifying competition, fast global market developments, and quick technological changes are drivers for companies to engage in strategic alliances, one of them being joint ventures (JV; Yasuda, 2005). JVs are "*separate entities owned jointly by two or more firms that represent a partial combination of their resources"* (Johnson & Houston, 2000). In comparison to M&A activities, the JV partners remain autonomous, oftentimes settling for a 50-50 ownership (Moskalev & Swensen, 2007). JVs are typically horizontally or vertically structured, with a horizontal JV displaying a balanced relationship whereas a vertical JV depicts a "*buyer-seller relationship*" (Lou, 2002). JVs are used as cooperative strategies in mature markets, predominantly to influence the competitive conditions (Harrigan, 1988) or as an accelerator for expansion (Tsang, 1998). According to Harrington (1988), the occurrence and the form of joint ventures depends on various factors such as demand uncertainty and growth, product differentiation, customer sophistication, or the industry structure.

Primarily, JVs serve as a means to reduce costs and risks for the partner companies. This includes the sharing of investment costs and risk diversification among multiple companies and projects (Klijn et al., 2010). Besides the obvious cost savings in production through economies of scale, Kogut (1988) underlines the importance of transaction costs, namely administrative tasks and the power of relationships.

Furthermore, collaborating in a JV increases the companies' market power, be it through expansion or a more effective competitive position (Klijn et al., 2010). Especially when aiming to achieve international expansion, JVs abroad help a domestic company to enter a new market

(Gomes-Casseres, 1989). However, the creation of synergies is mainly associated with horizontal joint ventures, while operational synergies predominantly appear in JVs of similar companies (Johnson & Houston, 2000; Kaplan & Weisbach, 1992).

Another motive closely linked to market power is the ability to combine knowledge, particularly in the field of technology (Klijn et al., 2010). Innovative companies are more inclined to engage in strategic partnerships, generally leveraging the positive relationship between R&D and profitability (Hagedoorn & Schakenraad 1994). JVs can "*supplement existing resource-based advantages*" (Brouthers et al., 2008), which inspire the development of new capabilities. Especially highly technological industries call for strategic alliances, due to their fast-paced market environment (Vilkamo & Keil, 2003). Hereby, a JV is the best option for multiple business partners to transfer knowledge and technology (Wahab, 2010). Concerning the motivational ability, Habib and Mella-Barral (2007) summarize that "*to acquire skills and technical knowhow*" is the main motive for firms to engage in a JV.

Whereas the previously mentioned motives to engage in a JV are more practical, managerial aspects are becoming more significant. Managers sometimes do not act in the firm's best interest. They might engage in a strategic alliance to profit from the increased power the alliance offers them in terms of budget or managerial responsibility (Das et al., 1998). Those agency problems (managers vs. stockholders) can ultimately result in inefficiencies and losses for stockholders, since the decision making authority lies in the management's hands (Fama & Jensen, 1983).

According to Kogut (1991), nearly 70% of all JVs fail, given the high potential for conflict in this type of business partnership. From plant location, to growth plans to advertisement budget – every decision could lead to discrepancies between the partners. So how is it possible to successfully create and manage a JV? Das and He (2006) differentiate between "*task-related criteria*" and "*partner-related criteria*". Hereby, task relatedness encompasses the companies' resources, technological capabilities, reputation as well as management style. Furthermore, connecting the task-related criteria to the DC theory, achieving a fit here helps partners to create and assess new capabilities. Partner-related criteria, on the other hand, consist of strategic fit, objectives, and commitment. Additionally, the creation of reasonable expectations on both sides and the generation of trust serve as the main pillars for a successful strategic alliance (Elmuti & Kathawala, 2001). Ultimately, Harrigan (1986) summarizes both aspects stating that a successful JV is created through "*strategic symmetries and resource asymmetries*".

2.3 Mobility as a Service

Kumaraswamy et al. (2018) describe the 21st century as "*an era of continual disruption*", in which technological innovation questions and overrules existing business models. Those innovations are blurring the lines between consumers and producers through the emergence of the sharing economy. Consumption has moved from the ultimate goal of ownership to an "*access-based consumption*", which is defined as "*transactions that may be market mediated in which no transfer of ownership takes place*" (Bardhi & Eckhardt, 2012). This new form of collaborative consumption has largely been motivated by the development of the Web 2.0 (Belk, 2014). One of the industries that has moved into this direction, especially due to technological advancements, is the transport industry (Jittrapirom, et al., 2017). Comparable to a mobile phone subscription, nowadays transport services are tailored to the customer's needs and are easily adaptable (Hietanen, 2014). The combination of the transport industry with the new form of ownership can be compiled in the term "Mobility as a Service" (MaaS). Its main advantages, compared to traditional forms of transportation, are flexibility, ease of use, and transparent pricing (Kamargianni & Matyas, 2017). The International Association of Public Transport (2011) distinguishes between public vs. private access as well as collective use vs. individual use. Furthermore, it limits the scope of transport modes that are available for MaaS, namely (shared) taxi, bike-sharing, car-sharing, renting services as well as car pooling. Predominantly, those services combine the ideas of individual use on the one hand, while being publicly accessible on the other **(Appendix 1)**. Wong et al. (2018) differentiate the services in terms of mode (road vs. air), product type, and ownership type, consequently enabling a broader and more futuristic view of the concept.

Due to the innovative nature of MaaS, the characteristics are flowing and continuously expanding. Nevertheless, recent research proposes the following main characteristics of MaaS solutions. Firstly, multiple forms of transportation are combined in one digital platform, mainly app-based. Through this platform users can gather information and book their preferred transport service (Jittrapirom et al., 2017). Tickets and payments are already integrated, ensuring a seamless transaction (Kamargianni et al., 2016). Furthermore, it tracks real-time supply and demand and informs the user accordingly (Utriainen & Pöllänen, 2018). Secondly, MaaS is user-centric, it offers personalized information, such as recommendations and removes the consumer's hassle of finding the right transport option (Jittrapirom et al., 2017). Lastly, the MaaS ecosystem combines several types of public and private transport. This includes for example ride-hailing (RH), car-sharing (CS), and bicycles, which can be booked altogether.

Overall, the objective of the MaaS infrastructure is to achieve a new level of transport, that offers a "*higher service level or lower costs, simultaneously*" (Utriainen & Pöllänen, 2018).

3. Teaching Case

"But time is changing. There are people who are not interested in car ownership, but in mobility. Individual mobility, on-demand."

- Dieter Zetsche, Daimler CEO

"We can combine our strengths and become a champion. This is the vision."

- Harald Krüger, BMW CEO

In February 2019, Daimler and BMW, two of the world's leading car manufacturers, announced their JV in the start-up hub Berlin. Consistent with the location, they presented their new mobility venture YourNow, which encompassed five pillars: ReachNow, ChargeNow, ParkNow, FreeNow, and ShareNow. Those entities contained 14 different brands with more than 60 million active users[i], underlining where the companies were heading, namely towards "*sustainable, connected and future-oriented urban mobility*".[ii] The traditional manufacturers were thus embracing new business models such as car-sharing, ride-hailing, digital parking, and electronic charging. Given the reduced growth in vehicle sales on the one hand and the increased potential of new business areas on the other, the companies were aiming for the $1.5 trillion automotive revenue pool created by new mobility **(Appendix 2)**.[iii] However, due to this paradigm shift in the mobility sphere, the manufacturers not only had to face inter-industrial competition but were also competing against technology giants such as Uber and Google.[iv] Consequently, Franz Reiner, CEO of Daimler's Mobility AG, believed that the JV had been the logical next step, since "*Partnerships are becoming increasingly important to succeed in the market*".[v]

The venture consisted of a 50:50 ownership split, which provided both companies with equal decision-making authority.[vi] Given these challenges, both firms planned to invest around €1.13bn in the venture, creating approximately 1,000 new jobs.[ii] In order to catch up with existing technology players, the companies were willing to increase investments through external partners, ultimately aiming at listing the venture at the German stock exchange. The balance sheet valuation of the JV was set at €3.3bn internally in 2019; new financial investments could push the valuation to more than €5bn.[vii] The numbers sounded promising, nevertheless, the question remained whether the JV was the right decision for the car manufacturers. What led to the venture? Did the venture serve as the further development of the companies' capabilities? And was it sufficient to remain competitive in the age of new mobility?

3.1 From the first automobile to the leading luxury car manufacturer: Daimler AG

History

When Carl Benz patented the first version of the modern automobile, the so-called "*Motor-wagen*", in 1886 nobody could have imagined the sweeping implications this innovation was going to have on modern-day transportation.[viii] From the first test drive to the economic crisis in the 1920s – the first steps of the new automobile were full of stumbling blocks. Benz's competitors Gottlieb Daimler and Wilhelm Maybach were facing similar problems, but focused their strategy on their newly developed combustion engine. The merger of the Daimler-Motoren-Gesellschaft and the Benz & Cie. was signed on June 28, 1926, resulting in the Daimler AG with their newly created brand Mercedes-Benz.[ix] After the war, the company profited from the "*economic miracle*", achieving a one billion dollar turnover for the first time and breaking sales records. Daimler-Benz expanded into new markets, started outsourcing production, and capitalized on the rapid industrialization in the 1950s.[ix] In 1998, Daimler merged with Chrysler and formed the DaimlerChrysler AG, with the ultimate goal to create the "*world-leading automotive group*". The deal was annulled in 2009 due to miscommunication and Chrysler's weak performance, and resulted in a loss of around €40bn for Daimler.[x] After the economic crisis in 2008, Daimler diversified its portfolio in the area of trucks and vans. Furthermore, the company invested heavily in the Asian market, reaching double-digits in sales growth, primarily in China. The years after 2012 heralded the company's future orientation: electric mobility, autonomous driving, and the mobility JV.[xi]

Financial Outlook

As of November 25, 2019, the company was divided into four business units, the parent company Daimler AG (strategy, governance, and services), Mercedes-Benz AG (cars and vans), Daimler Truck AG (trucks and busses), and the Daimler Mobility AG (Mobility and Financial Services). Even though the company sold around 2.4m cars in 2019 – a new record – EBIT decreased significantly and dropped by almost 50% compared to 2018 **(Appendix 3)**.[xii] The most promising markets were China, Germany, and South Korea, all depicting a positive development from 2018 to 2019. However, especially the truck, van, and bus branches were struggling, displaying a negative or stagnating EBIT. Looking at the company's ten-year development it became apparent that overall revenue was still growing but slowing down. R&D expenditures had increased dramatically from 2013 onwards, which was also reflected in the increased capital expenditure investments. As a result, the operating margin experienced a sharp

decline in 2017.[xii] This was due to problems such as the China-US trade dispute, mass recalls because of the diesel scandal, and internal inefficiencies.[xiii]

3.2 An innovative force in the heart of Bavaria: BMW

History

The "*Bayrische Motoren Werke*" AG was founded in 1916 by Karl Rapp and Gustav Otto, proudly presenting its iconic logo, which incorporated the Bavarian flag, in 1917. The company produced its first motorcycle in 1923, followed by the first car in 1928. In the following years the company had a diverse product portfolio, producing luxury cars and motorcycles, as well as airplane engines during the war. The first post-war automobile was produced in 1951. However, BMW was struggling in the commercial sector and was almost bought by Daimler in 1959.[xiv] With the introduction of the "*New Class*" in 1962 the rise of the sports car started, and likewise the rise of BMW as one of the world's leading car manufacturers. BMW acquired the British Rover Group, including brands like Land Rover and Mini, in 1994 and Rolls Royce in 1998. However, as a consequence of a company realignment in 2000, the firm ended up selling the Rover Group, keeping only Mini within BMW. In 2007 the company presented its "*Strategy Number ONE*" which outlined BMW's long-term future strategy. In the company's 2020 mission statement the goal became clear: "*to become the world's leading provider of premium products and premium services for individual mobility*".[xv]

Financial Outlook

BMW's vehicle deliveries have increased steadily over the last ten years, resulting in around 2.5m automobiles and 175k motorcycles sold in 2019. Coherently, revenue was on an all-time high in 2019. This was primarily due to the 16% sales growth in China that offset the decline in the European and American markets. Looking at financial figures, such as EBIT and return on sales, the numbers have decreased since 2017 **(Appendix 4)**.[xvi] However, as stated by chairman Oliver Zipse the company was "*working intensively to bring the EBIT margin in the Automotive Segment back within our target range of 8 to 10 percent*". Consequently, BMW was heavily investing in electric and hybrid solutions, with the goal to produce more than one million electric vehicles by 2021. To compensate for the heavy investments, BMW simultaneously aimed at reducing expenditures by €12bn until 2022, mainly by cutting down personnel costs.[xvii]

3.3 Looking further down the Road: The New Mobility Market

According to KPMG Consulting[xviii] three megatrends were shaping the future of mobility: i) connected and autonomous vehicles, ii) electric vehicles and alternative powertrains, and iii) mobility as a service. Through those developments the mobility market was expected to double its size until 2030.[xix] In the last couple of years the traditional carmakers faced enormous challenges after a decade of high profits, with operating profits declining sharply **(Appendix 5)**.[xx] What challenges were automakers like BMW and Daimler facing? And what opportunities did new business models offer in order to circumvent those obstacles? McKinsey differentiated between short-term and long-term challenges.[xxx]

Short-term Challenges

Mostly, challenges could arise from geopolitical and market-specific risks such as trade wars, Brexit, and market saturation. The US-China trade war in 2019 led to a €300m loss for BMW and Daimler even readjusted its profit targets due to the conflict.[xxi] Furthermore, the formerly fast-growing Chinese market was slowing down. Whereas in 2007 car ownership was at only 6.1 cars per 100 households, this number had increased to 37.5 in 2017. Especially the urban upper and middle class households were well-equipped, lessening potential future sales.[xxii] In addition, governmental CO_2 limits were challenging the manufacturers. Those limits differed worldwide, however, in Europe emissions had to be reduced by 37.5% until 2030.[xxiii] In order to circumvent those regulations, many companies engaged in illegal procedures that ultimately resulted in the diesel emissions scandal. The scandal led to high litigation costs, with Daimler expecting to pay up to €1.5bn to German authorities.[xxiv] Lastly, "*classic automotive drivers*", such as segment shifts, intense competition, and new entrants were challenging the traditional market players. Examples were specialized players such as Tesla or the "*big four*" Chinese car manufacturers.[iii]

Long-term Challenges

From a long-term strategic perspective, two challenges had been sticking out: the investment in new technologies and the change in consumer behavior. The technological investment focused primarily on the three megatrends mentioned earlier. A successful development of all three areas would require an individual manufacturer to invest more than $70bn within ten years.[xxx] To develop those new technologies faster, manufacturers were heavily investing in technology companies, especially start-ups. Daimler for example had funded more than 20 new

entrants with approximately $19bn. The scope of involvement ranged from investment, to M&A, to creating accelerators.[xxv] Overall, R&D investments were being redistributed, switching from the product itself to software solutions.[xxvi] Given the high financing costs, it was essential for companies to decide on the right mobility strategy. "*The automotive revolution required more than a gut feeling to drive the right decisions for a successful mobility strategy*"[xxvii], thus, thoughtfully deciding on how to use those investments could be challenging and rewarding at once.

Another long-term challenge was changing consumer behavior. The automotive industry was largely influenced by "*the consumers of tomorrow*", a younger, tech-savvy generation. Technology as well as sustainability played an important part in their daily lives. In urban areas public transport served as the main type of transport in the EU, with car-sharing and alternative mobility solutions on the rise. In China, multi-purpose apps for ride- and car-sharing were popular. In rural areas car ownership prevailed, however, the car itself was rather seen as a functional product and lost its role as a status symbol. PwC differentiated between three different buyer personas and three different markets, underlining the consumer complexity and future indications for the car manufacturers **(Appendix 6)**.[xxxvii]

Car-sharing

The "*consumer of tomorrow*" was mostly living in big or medium-sized cities; 54% of them were using CS services regularly.[xxviii] Although the concept had first been established in the US, the concept quickly developed in Europe, with 5.8m users and 68,000 cars in 2016. The market was expected to grow by 32% (CAGR) until 2020, with Germany being the biggest market in Europe. CS services were classified into three business models, which were mainly distinguished by price and flexibility: peer-to-peer CS, stationary CS, and free-floating CS.[xxix]

Peer-to-peer CS was seen as a niche product, representing only 6% of providers.[xxx] Private individuals offered their car on a platform, allowing others access to the car. Users paid a daily price to use the car, which positioned the service as a direct competitor to rental car services. The market leader was US-based Turo which raised about $450m in funding and started to expand its business to the UK and Germany in 2018.[xxxi] The segment was promising, having depicted the highest growth in CS memberships from 2019 to 2024.[xxxii]

Stationary CS consisted of fixed stations where customers picked up and dropped off the rental car. The service was used for longer drives and targeted at rural areas or medium-sized cities. Stationary CS were often financed publically or through private investments. The biggest player

in Germany was Flinkster, which was financed by Deutsche Bahn, the national railway provider.[xli]

Free-floating CS accounted for 90% of the European CS providers.[xxxiii] The vehicle was picked up and returned anywhere within a specific area. The main advantage was flexibility; the service was primarily used for short trips in urban areas. The pay-as-you-go model provided users with low entry barriers, which led to a high growth in market share of 9% from 2017 to 2018. As of 2016 the biggest market was Asia, followed by Europe and North America.[xlii] The market was estimated to generate revenues of €4.7bn yearly, with approximately 35m users worldwide in 2021.[xxxiv] The majority of free-floating CS were owned by car manufacturers, which primarily used the service as a strategic foothold in the new mobility sector. As of 2018, the market leader in Europe and North America was car2go (Daimler brand) with 24m rentals and 3m users worldwide.[xxxv] Other big players were BMW's DriveNow (1m users in 2017) and Fiat's Enjoy. In China the market was extremely fragmented and 90% of the providers were local.[xxxvi]

Ride-hailing

RH companies offered a "*platform where individuals could hail and pay for a ride from a professional or part-time driver through an app*". The service emerged in 2009, supported by the development of GPS, digital road maps, and smartphone penetration.[xxxvii] As of 2020 the RH market encompassed 1.14bn users, corresponding to a user penetration of 15.4%. The average revenue per user was at $190, depicting a CAGR of the whole market of 13.7% from 2020 to 2023. The RH market was by far the fastest-growing in the MaaS sector, due to a straightforward business model which consisted of an app-based approach and cars owned by private drivers. Consequently, entry barriers were low and competition was fierce.[xxxviii] The main markets were China and the US with a booking volume of $11bn that was expected to grow to more than $25bn in 2021.[xxxix] The US market was twofold, with Uber having maintained a 70% and Lyft a 30% market share. Uber held a first-mover advantage, having established wide-ranging network effects since entering the market in 2009. Furthermore, both companies were diversifying their portfolio into areas such as scooter and bike sharing, as well as food delivery.[xl] The biggest RH market was Asia: of the 16bn rides conducted in 2017 worldwide, 70% had been completed in Asia. China, was dominated by Didi Chuxing with a 90% market share and more than 15m daily users. Didi had already outperformed Uber on the continent, and was aiming at "*competing with Uber globally*", according to its cofounder.[xli] Europe had been dominated by strict government regulations and strong taxi unions, which

made it hard for RH to conquer the market.[xlii] As of 2019 Uber had invested heavily in the European market, however, it faced competition from local players. Mytaxi served as Europe's biggest licensed taxi app and dominated in Germany and Spain. Bolt (former Taxify) with its 25m users, Yandex in Russia as well as Kapten in France were the main players in the European market.[xliii]

Digital Parking & Electronic Charging

With the emergence of smart city solutions, digital parking had developed into one of the fastest-growing ideas to help cope with urbanization. The app-based systems used "*real-time data and applications, and low-cost sensors that enable users to observe […] parking locations*". The benefits were wide-ranging. Parking became more efficient for the users and new revenue streams e.g. through loyalty programs emerged for the providers. For the community, traffic and pollution were reduced.[xliv] The opportunities for the asset-intensive sector had been huge: As of 2017 there were around 155m regulated parking spaces in the EU, each generating an estimate of 780€ per year, and on average a car was parked approximately 90% of its time.[xlv] Furthermore, while in 2019 only 11% of parking spaces worldwide were digital[xlvi] and the smart parking market was about to grow by 20% yearly up until 2025.[xlvii] The market in Europe was fragmented and reached from simple parking reservation apps for cities, to fully autonomous parking apps regulated by on-site sensors. The industry players consisted of automotive companies, startups and telecommunication providers. Due to the market characteristics, M&As as well as strategic partnerships were frequent, and aimed at capturing promising geographic markets.[xlviii]

The development of the MaaS sector went hand-in-hand with the advancing electrification of vehicles. The sales of electric and hybrid vehicles were growing rapidly[xlix], however, this growth required the expansion of the respective charging network. For the EU, to reach its goal to be climate-neutral in 2050, there needed to be 15 times more charging stations available to close the "*charging gap*".[l] Consequently, the electric charging infrastructure would create a completely new industry and, thus, market opportunity, which entailed a "*digital 'smartness'*" such as transparent pricing and smooth payment.[li] The market consisted of two actors: e-mobility service providers and charge point operators. The service providers offered access to various charging stations, either of their own or third-party providers. An app helped to find the stations and to process payment. Charge point operators owned and maintained the infrastructure and set prices.[lii] This capital-intensive sector was dominated by established

players from the power industry, oil and gas, automotive, as well as industrial manufacturing.[liii] As of 2018 the "*battle for electric car supremacy*" was still ongoing. Whoever was able to achieve the critical mass of the charging infrastructure first, might be the one to dominate this new industry.[liv]

3.4 On the road to success? The milestones of the mobility joint venture

"*Growth is compulsory*", this statement by Daimler CEO Dieter Zetsche summarized the motivation to engage in the mobility venture with BMW. "*If you see changes but you avoid to approach them, you are lost*" he added, alluding to the challenges faced by both companies in the automotive segment.[lv] However, it took some time to get used to seeing those two companies together, having been direct rivals for decades. It was safe to say that the collaboration was no spontaneous idea but a longstanding development from both sides. The motives and risks had been evaluated and the path had been set. Nevertheless, a glance into the past, present, and future of the JV is necessary to further understand its significance.

Joint ventures, M&As, and buy-outs – everyday business for Daimler and BMW?

Besides their internal expenditures in the mobility sector, both companies had been heavily investing, buying, and partnering with emerging mobility startups **(Appendix 7)**.

Daimler had a diversivied portfolio in the mobility sector. It reached from classical RH companies like MyTaxi, the US-based company RideScout[lvi], a 60% stake in Hailo[lvii] to a $20m investment in Blacklane, an on-demand limousine service.[lviii] Additionally, the company had invested in mass transport: it was engaged in a partnership with Clevershuttle, a ride-pooling service[lix], and had a stake in Flixbus, the half a billion Euro rated intercity bus service.[lx] Besides on-road services, Daimler had been funding the flying taxi startup Velocopter with $30m.[lxi]

BMW started its mobility investment in 2014 with a stake in RideCell, a leading software provider for MaaS.[lxii] Further funding included the carpooling service Scoop, the local journey planer Moovit, as well as the new-generation car rental company Skurt.

BMW, Daimler, and Audi announced their acquisition of Nokia's mapping and location service in August 2015. The deal, which cost the automakers €2.8bn, was classified as a competitive move against Google, which relied heavily on accurate mapping systems for its self-driving cars.[lxiii] Daimler additionally invested in Starship, a delivery robot company, ultimately aiming at robots delivering goods out of Mercedes vans.[lxiv] BMW had engaged in 3D printing through

companies like Carbon and DesktopMetal. The company also had a stake in Nauto, a self-driving startup, together with GM and Toyota.[lxv]

Daimler launched its accelerator "Startup Autobahn", "*an innovation platform that opens its doors to entrepreneurship in the mobility sector*" in mid-2016. The accelerator screened around 1,000 mobility startups yearly, offering 30 of them exclusive collaborations with companies such as Daimler, BASF, and Linde. The offered services reached from mobile payment systems to AI to blockchain.[lxvi] BMW's €500m venture capital fund "BMW i Ventures" invested, inter alia, in the areas of autonomous driving, digital car, on-demand mobility, and digital life.[lxvii] As of 2017, BMW and Daimler had stakes in 37 and 36 startups respectively – exemplary for the venture capital efforts of carmakers in startups.[lxviii]

How two became one – the development of the YOUR NOW mobility JV

Besides their investments in external partnerships, the companies had been heavily investing in mobility solutions internally **(Appendix 8)**. As of 2019, the newly developed Daimler Mobility unit was the company's only business department that was displaying a positive financial trend.[xii] The division incorporated financial services (leasing, insurance), fleet management as well as digital mobility solutions. Daimler was pioneering the car-sharing market with car2go since its launch in 2008 and was heavily expanding in European and North American markets.[lxix] BMW started the new mobility era with DriveNow in 2011, together with the German rental car company Sixt.[lxx] In the US the company launched ReachNow, a multimodality app that combined multiple types of transport in one app.[lxxi] ParkNow was launched in the US in 2015. Additionally, the company launched the digital charging service ChargeNow.[lxxii]

The first speculations about the JV started in the beginning of 2017. The plans intensified in May 2017, claiming that both companies were aiming to merge their mobility services in the third quarter of 2017. The overall goal was to establish entry barriers for competitors like Google and Uber. Furthermore, consolidating the companies' client base to scale operations. As a prerequisite both companies had to repurchase the shares of their car-sharing venture partners. BMW paid €209m for the 50% DriveNow shares of Sixt and Daimler purchased 25% of car2go shares from Europcar.[lxxiii] The JV was officially announced at the end of March 2018. Both companies had been negotiating for more than one year, which was mainly due to discussions about an adequate valuation of the JV.[lxxiv] Until then, Daimler was generating €167bn and BMW €99bn with their respective mobility solutions.[lv] To launch the JV, the

companies' next step was to convince the European and US competition authorities. The automakers succeeded and the JV was approved by the authorities at the end of 2018.[lxxv] After having received legal consent, the JV was launched on 22nd of February 2019. The new brand YourNow combined a total of 14 brands with 60m users. Just after the launch YourNow encompassed five pillars which represented the main business areas **(Appendix 9)**:

1. **FreeNow**: Ride-hailing – contained companies such as MyTaxi, Kapten or Beat
2. **ShareNow**: Car-sharing – included the two companies car2go and DriveNow
3. **ReachNow**: Multimodal mobility platform for the North American market – offered a MaaS platform that combined all mobility services in one app
4. **ParkNow**: Digital parking platform – included companies such as ParkNow, ParkMobile
5. **ChargeNow**: Electronic charging network (e-mobility service provider)

To accelerate growth, both companies announced an investment of €1.13bn in the new JV.[i] Besides the internal investment, Daimler and BMW were further looking for external investors, having been in contact with financial investors as well as other automakers.[vi] By the end of 2019, the JV had published its ambitious growth plan, which aimed at combining the originally five pillars to only three pillars: 1. FreeNow & ReachNow 2. ShareNow 3. ParkNow & ChargeNow. The first developments sounded promising and user numbers had increased by 44% since the launch of the JV, to 90m users worldwide. Especially FreeNow contributed to the growth, with the number of trips increasing by 120% and a revenue of €2bn in 2019.[lxxvi] However, the established car-sharing division of the companies had developed into a problem child. ShareNow was pulled out of the North American market and the UK in early 2020 due to a lack of demand and high costs. Daimler and BMW highlighted that ShareNow will continue its operations in profitable European locations[lxxvii], while at the same time announcing to restructure the JV to "*pave the way for profitable growth*".[lxxviii] As of the 1st of January 2020 the new umbrella organization managing the three pillars was launched. Only in mid-January 2020 the new ShareNow app went live, which combined the previously separate entities car2go and DriveNow.[lxxix] The publishing of the app was seen as a milestone by the two companies, but was badly received by customers because of technical problems.[lxxx]

A windy road ahead – what is next for the JV?

As of 2019 automotive manufacturers generated 99% of their revenue through car sales. By 2035, this number was projected to decrease to 60%, while new mobility concepts were supposed to account for 40% of revenue.[lxxxi]

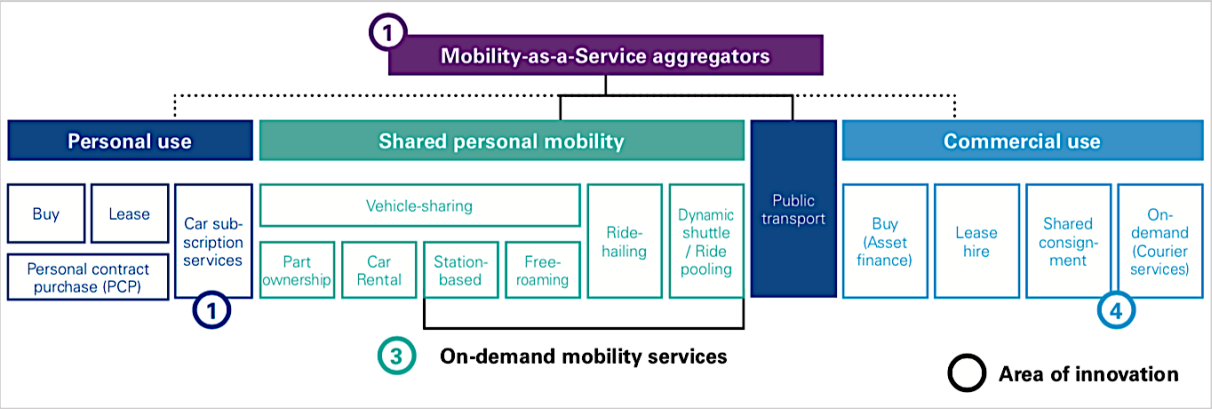
However, the process to embed mobility services into the companies' business had proven to be more difficult than expected. Firstly, the strategic investments in new mobility did not pay off immediately. The services took time to generate a user base and to become profitable. According to experts, mobility concepts that had been established until 2019 would only generate profits earliest 2025.[lxxxii] One example was CS, which faced extreme price pressure. On average, one car was estimated to generate 45€ per day. But competition was tense and the service asset-intensive. Consequently, the service's profitability was low and needed to be backed by investors. Yet, this implied a huge risk, due to them losing interest because of lacking profits and extensive testing which was needed to identify favorable markets.[lxxxiii] Secondly, technology players were entering the market and fighting for a lead. Compared to the manufacturers those technology companies had extremely high cash reserves and market valuations, which provided them with enormous cash resources and, hence, financial flexibility. This resulted in tech players spending over 10% of their revenue in R&D, while the automakers contributed less than 5%.[lxxxiv] In various areas, incumbents were miles ahead, with Uber and Didi having achieved more than $50bn in valuation and traditional manufacturers placed in the follower position.[lxxxv] Lastly, especially regarding the new mobility target customer, the companies were in need to realign their image. The heritage aspect had become less important for young customers, as opposed to a brand equity that was comprised of innovation and digitization.[lxxxvi] Both companies have been entangled in the diesel emission scandal. Consequently, customer trust had been lost, which had resulted in customers doubting the companies' promise to work for a more sustainable urban environment.[lxxxvii]

But there was also hope for the JV and the future orientation of both companies. Their cooperation had been a huge success factor. Sharing investment burdens served as a motive for two-thirds of automotive partnerships since 2004. By engaging in YourNow, as well as incorporating further partnerships and M&As in the JV, Daimler and BMW underlined their willingness to innovate and to invest in the future.[lxxxviii] Furthermore, the manufacturers had existing and long-established capabilities that provided them with an initial competitive advantage. They were in the front row to leverage this opportunity – "*so long as they can bolster their existing capabilities around creating and manufacturing cars, and build new capabilities*

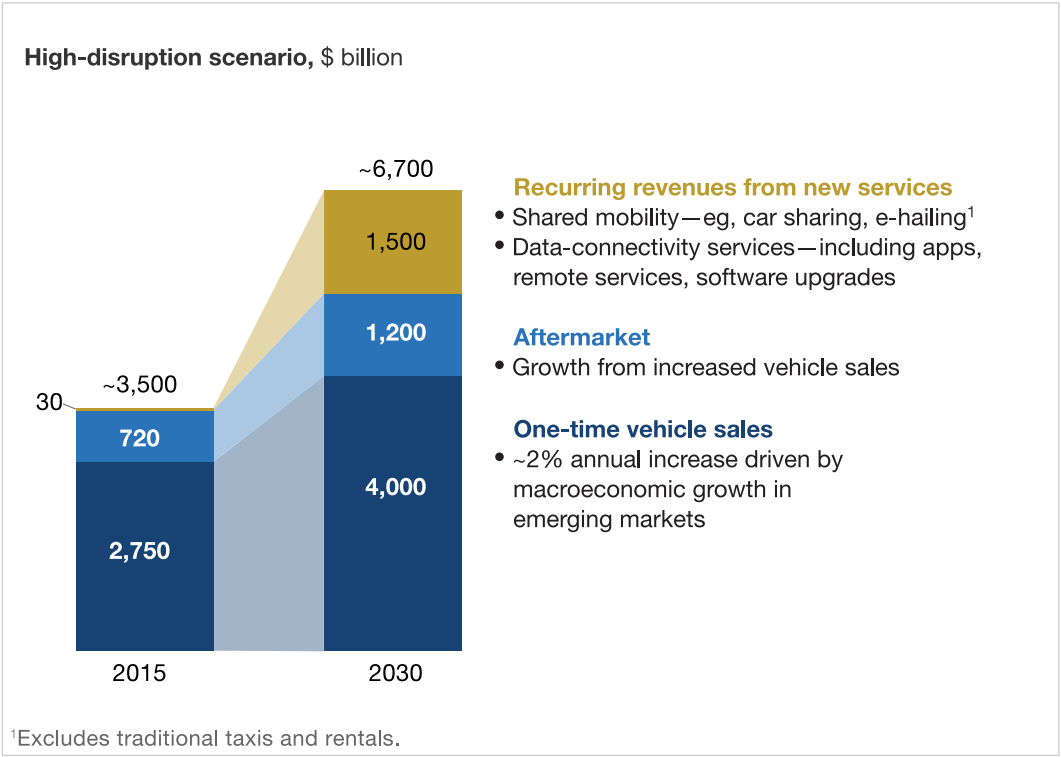
around ideating, testing, and rolling out mobility and digital services." Both companies had the means and experience to follow a "*full mobility provider*" business model **(Appendix 10)** by complementing their existing capabilities and by developing their future capabilities.[lxxxix]

As of 2020 the mobility JV of BMW and Daimler was still in its initial phase, having completed one full year which served as an indicator to where it was heading. The overall objective was to solve the problem of new mobility, sensing the opportunities of changing consumer behavior and technological developments on the one hand, while dealing with new technology entrants and declining profits in the core business on the other hand. The ability to make "*timely and market-oriented decisions*" required extensive and fast-paced R&D investments as well as flexible business models. Consequently, having complemented one's existing capabilities while consistently adapting them to a changing external environment might have created the companies' opportunity to seize the market. However, only time will tell whether the road they took will lead them to the pole position in the mobility segment or whether they will be overtaken by the competition.

4. Appendix



Appendix 1: The emerging mobility services landscape[xciv]



Appendix 2: Newly developed automotive revenue pool[iii]

€ amounts in millions	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
From the statements of income										
Revenue	97.761	106.540	114.297	117.982	129.872	149.467	153.261	164.154	167.362	172.745
Personnel expenses[1]	16.454	17.424	18.002	18.753	19.607	20.949	21.141	22.186	22.432	22.657
Research and development expenditure[2]	4.849	5.634	5.644	5.489	5.68	6.564	7.572	8.711	9.107	9.662
thereof capitalized	1.373	1.460	1.465	1.284	1.148	1.804	2.315	2.773	2.526	3.076
EBIT[1]	7.274	8.755	8.820	10.815	10.752	13.186	12.902	14.348	11.132	4.329
Operating margin (%)[1]	7,4	8,2	7,7	9,2	8,3	8,8	8,4	8,7	6,7	2,5
Profit (loss) before income taxes[1]	6.628	8.449	8.116	10.139	10.173	12.744	12.574	13.967	10.595	3.83
Net operating profit (loss)[1]	5.120	6.240	7.302	9.173	7.678	9.007	9.007	10.88	7.963	3.068
as % of net assets (RONA)[1, 3]	17,5	19,9	19,6	22,6	18,8	20,1	19,1	22,5	14,8	4,8
Net profit (loss)[1]	4.674	6.029	6.830	8.720	7.290	8.711	8.784	10.617	7.582	2.709
Net profit (loss) per share (€)[1]	4,28	5,32	6,02	6,40	6,40	7,87	7,97	9,61	6,78	2,22
Total dividend	1.971	2.346	2.349	2.407	2.621	3.477	3.477	3.905	3.477	963
Dividend per share (€)	1,85	2,20	2,20	2,25	2,45	3,25	3,25	3,65	3,25	0,90

[1] The figures for the year 2012 have been adjusted, primarily due to effects arising from application of the amended version of IAS 19.

[2] The figure for the year 2013 has been adjusted due to reclassifications within functional costs.

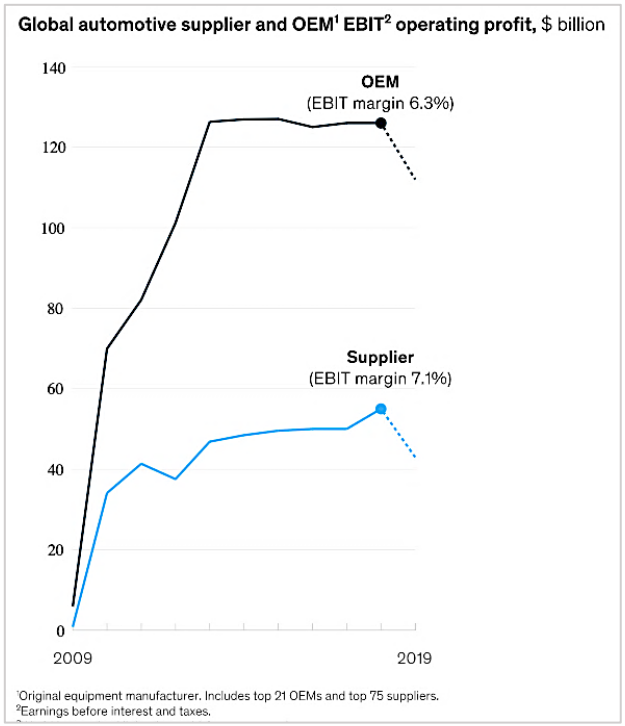
[3] In the context of fine tuning the performance measurement system, the definition of net assets has been adjusted with retroactive effect as of 2015.

Appendix 3: Financial Key Figures Daimler, Ten Year Summary[xci]

€ amounts in millions	2019	2018 [1]	2017	2016	2015	2014	2013	2012	2011	2010
Revenues	104.21	96.855	98.282	94.163	92.175	80.401	76.059	76.848	68.821	60.477
Gross profit margin in %	17,3	19,0	20,3	19,9	19,7	21,2	20,1	20,2	21,1	18,1
Earnings before financial result	7.411	8.933	9.899	9.386	9.593	9.118	7.978	8.275	8.018	5.111
Earnings before tax	7.118	9.627	10.675	9.665	9.224	8.707	7.893	7.803	7.383	4.853
Return on sales (earnings before tax / revenues) in %	6,8	9,9	10,9	10,3	10,0	10,8	10,4	10,2	10,7	8,0
Net profit for the year	5.022	7.064	8.675	6.910	6.396	5.817	5.329	5.111	4.907	3.243
Dividend total	1.646	2.303	2.630	2.300	2.102	1.904	1.707	1.640	1.508	852
Dividend per share of common stock / preferred stock	2,50 /2,52	3,50 / 3,52	4,00 / 4,02	3,50 / 3,52	3,20 / 3,22	2,90 / 2,92	2,60 / 2,62	2,50 /2,52	2,30 / 2,32	1,30 / 1,32

[1] Prior year's figures adjusted due to a change in accounting policy in connection with the adoption of IFRS 16; see note 6 to the Group Financial Statements.
In addition, figures for the prior year have been adjusted due to changes in presentation of selected items, which are not material overall.

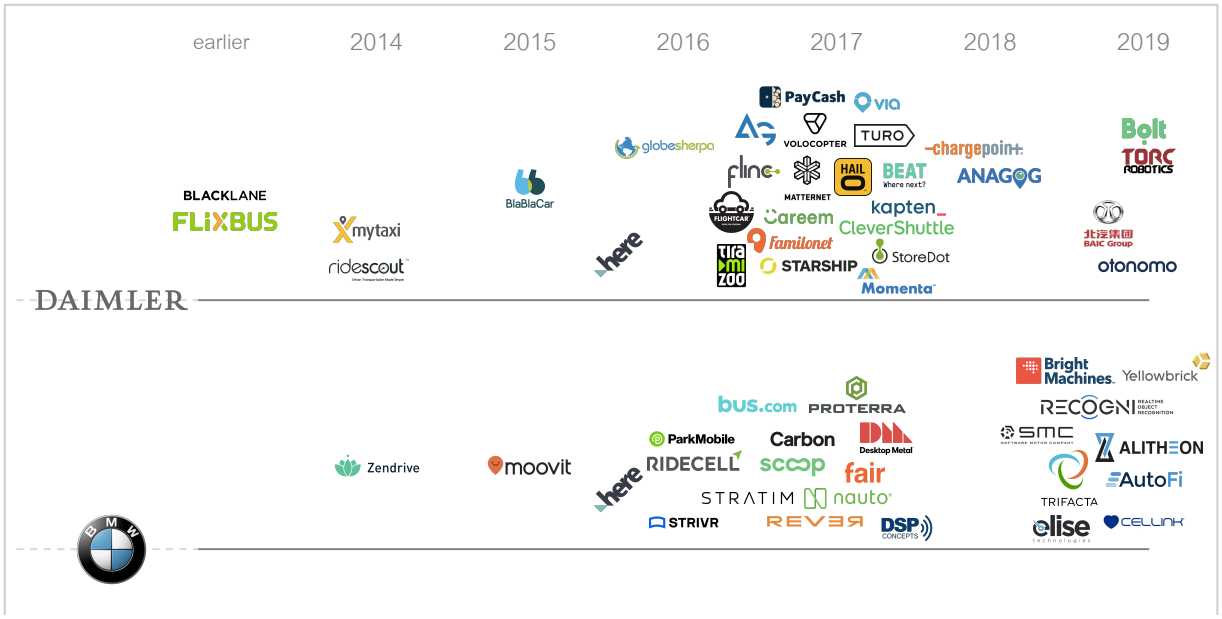
Appendix 4: Financial Key Figures BMW, Ten Year Summary[xcii]



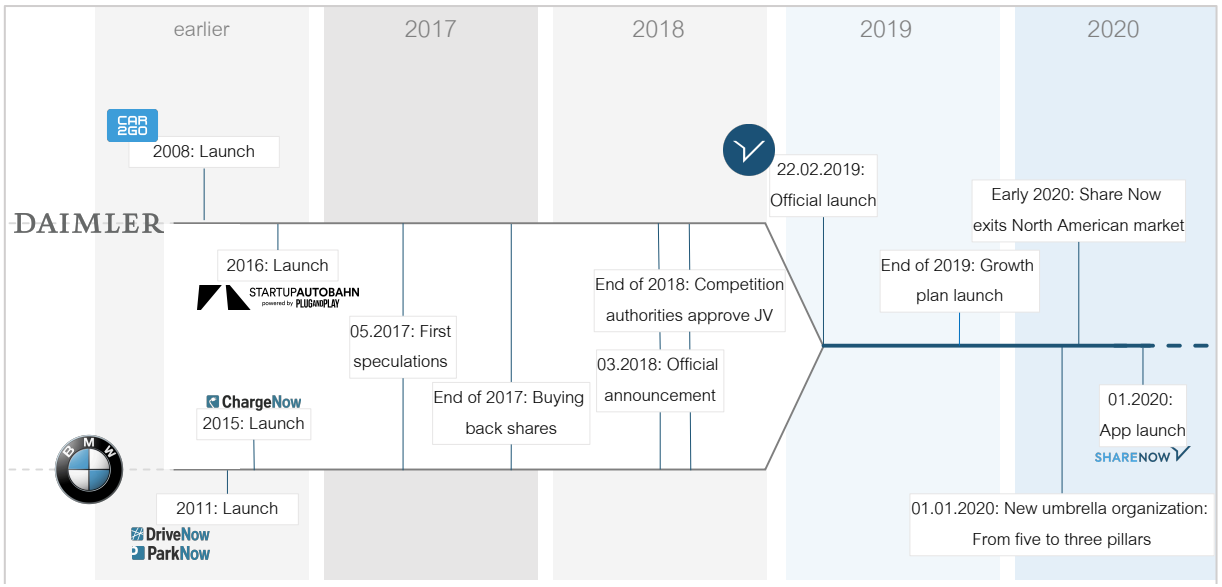
Appendix 5: Global Automotive supplier and OEM EBIT operating profit[xx]

	EU	US	China
modern 2017 ***33 %*** 2030 ***38 %*** ***+5*** percentage points, relative increase of ***+15%***	• Technical innovations are part of everyday life: Use of smartphones and apps for urban transport • Sustainable and healthy lifestyle demands pragmatic view of cars as transportation • Increased inter-modal transport (car versus public transport) • Car ownership less important as a status symbol • Rural areas still use cars ***e*** + ***a*** + ***s*** ++ ***c*** ++	• Huge interest in digital technology and innovative mobility concepts • Young, urban users in particular choose variety of transport options that do not involve owning a car • Rural areas are still dependent on cars due to insufficient infrastructure for long-distance travel • Journeys in urban areas often rely on inter-modal approach (e.g. Park+Ride) ***e*** + ***a*** ++ ***s*** ++ ***c*** ++	• Young, urban generation experiences economic upswing • New technologies are actively embraced • Car-sharing and ride-sharing services very popular (e.g.: Didi Chuxing App with >400 m users) • Need for own car limited to social status • Long-distance journeys in rural areas continue to rely on own car ***e*** ++ ***a*** ++ ***s*** ++ ***c*** ++
transitory 2017 ***41 %*** 2030 ***39 %*** ***–2*** percentage points, relative decrease of ***–5%***	• Individuality and consumption behaviour promote the formation of different mobility profiles • Primarily young, urban users use alternatives such as car-sharing • The still traditionally-oriented user group continues to prefer owning a car for reasons of comfort, status and flexibility ***e*** ***a*** ***s*** + ***c*** +	• Both traditional and modern values • Car ownership is anchored in mobility attitude • Public transport plays a bigger role in cities • Basically open to new mobility alternatives ***e*** + ***a*** ***s*** + ***c***	• Symbolic for the start of the economic upswing • Shared attitude to modern mobility solutions • Traditional prevailing use of own car in rural areas • Widespread use of public transport ***e*** ++ ***a*** + ***s*** + ***c*** +
traditional 2017 ***26 %*** 2030 ***23 %*** ***–3*** percentage points, relative decline of ***–12%***	• Mainly rural population that tends to shy away from technological innovations • Ownership or access to own car is the norm • In urban environments, they often turn to public transport to avoid congestion and parking problems ***e*** – ***a*** –– ***s*** – ***c*** –	• Predominantly older groups of society with deeply entrenched values and convictions • Larger share of rural population in segment comparison • Mobility is almost exclusively equated with own car • Not interested in innovative mobility concepts ***e*** ***a*** – ***s*** – ***c*** ––	• Public transport preferred, especially in cities • Comparatively open to technological developments • Car use for reasons of flexibility and comfort • Car ownership to express social status ***e*** + ***a*** ***s*** – ***c***

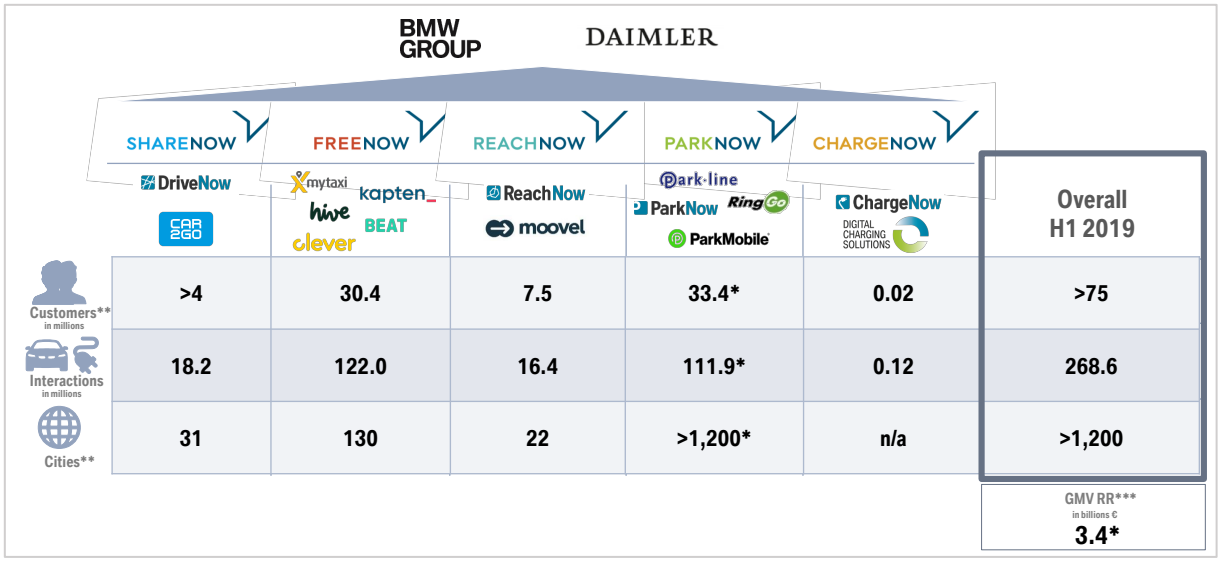
Appendix 6: Comparison of global customer personas[xxxvii] (easc = electrified, autonomous, shared, connected)



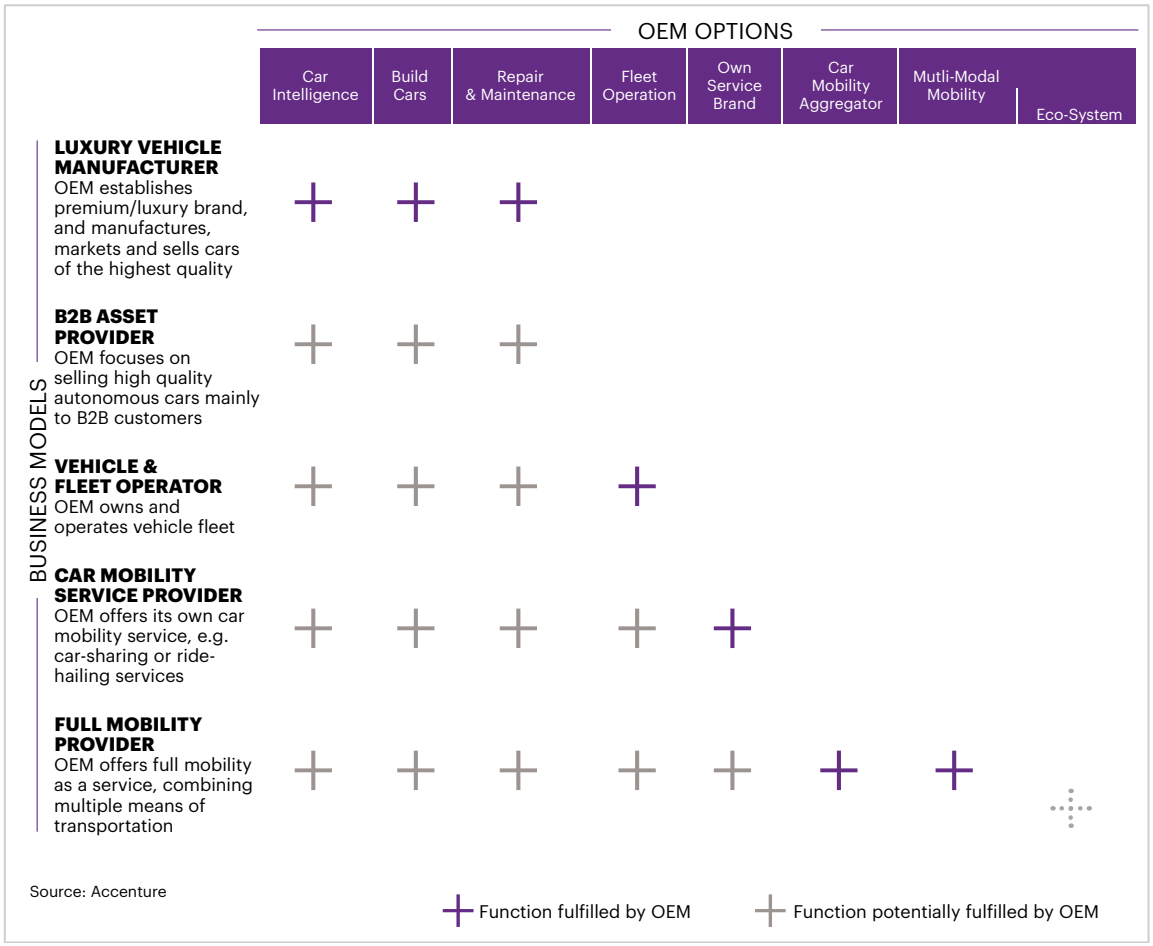
Appendix 7: Timeline of Daimler's and BMW's M&A activities (own illustration; based on available information on the web)



Appendix 8: Timeline of internal developments leading to the YourNow Joint Venture (own illustration; based on available information on the web)



Appendix 9: YourNow Venture Overview[xciii]



Appendix 10: Mobility Business Model Options for OEMs[xciv]

5. Teaching Notes

5.1 Overview

This case study provides an overview of Daimler's and BMW's engagement in the sector of new mobility and how the companies' mobility JV serves as a means of succeeding in this newly established sector. The first part provides the reader with the necessary background on the companies' histories and underlines the financial struggles due to the prevalent problems in the automotive sector. The second part focuses on the market environment – namely the traditional automotive industry. First, it states the short and long-term challenges of the mobility market. Moreover, it analyzes the four main business models, which are of importance for the YourNow JV, based on their growth potential, target customers, and competitive environment. The third part describes the development and significance of the JV. It includes the preceded M&A strategies of both companies and presents the timeline of the JV, providing an assessment of the companies' JV as of early 2020. Ultimately, positive and negative future scenarios for the JV's development are presented.

5.2 Teaching Objectives

The case aims to be taught to university students in the field of management that are focusing on the areas of strategy, dynamic capabilities, organizational change, and disruptive technologies. Furthermore, the case can serve as an example of why to engage in strategic partnerships and how to bundle resources to stay competitive. It demonstrates how traditional manufacturing companies are facing external digital shocks, which force them to realign their existing resources. The case of the discussed companies might serve as an example for other historical first-movers that have to adapt their strategy to the newly developed challenges of the 21st century. Having successfully worked through the presented case, readers should be able to:

- Understand the concepts of DC and strategic partnerships
- Gain an overall understanding of the struggles in a traditional manufacturing industry, based on financial and market data, as well as the opportunities and threats generated by technological disruption in the market
- Analyze the strategic M&A choices of two leading companies and comprehend the motives promoting the creation of a strategic partnership
- Evaluate the prospects of success of a strategic partnership, particularly with regard to realigning a company's capabilities in line with future market developments

5.3 Intended Contribution

This case aims to underline the challenges the two German car manufacturers, Daimler and BMW, were facing. It provides an overview of the new mobility market developments and the opportunities emerging for the automakers. Consequently, it contrasts the new digital business models with the traditional manufacturing business of the two companies. Besides establishing the industry setting, the case underlines the importance of strategic partnerships in the age of digital business models. It creates a timeline of the companies' M&A activities as a means to enter the market and outlines the former opponents' path to a strategic partnership. As a result, the case aims to provide the motives for the mobility JV and the opportunities created by it. At the same time it aims to critically examine the challenges the partnership has to face, given the already sophisticated global mobility markets. Therefore, it contributes to a better understanding of how strategic partnerships can be implemented. The case also illustrates, with a real-life example, the topic of DC and how important it is for firms to access them in order to respond to a highly dynamic environment.

5.4 Pedagogical Overview

In order to dive into the case and to analyze it from a strategic point of view, a fundamental knowledge of management, business processes, and technological trends is required. Additionally, the case as well as its theoretical concepts and corporate environment need to be prepared thoroughly before the classroom discussion.

It is recommended for students and instructors to familiarize themselves with the concept of DC. Hereby, two theoretical foundations serve as guidelines: *Dynamic Capabilities and Strategic Management* by Teece et al. (1997) as well as *Dynamic Capabilities: A Review of Past Research and an Agenda for the Future* by Barreto (2010). The latter furthermore serves as a framework to successfully complete the assignment questions. Besides the concept of DC, it is recommended to understand the motives leading to strategic partnerships. *Combinations of partners' joint venture formation motives* by Klijn et al. (2010) creates a well-defined overview to understand the topic of JVs.

Additionally, readers must get a general impression of the business setting as well as the two key players BMW and Daimler. In order to be able to classify the developments in the automotive industry, McKinsey's industry outlook *Automotive revolution – perspective towards 2030* as well as the report *How automakers can master new mobility,* summarize the

main trends and challenges faced by the automotive industry and provide solutions for new mobility concepts. Since the case focuses on the YourNow venture, it is recommended to visit the corporate website which serves as a good source to receive additional information. To get a more holistic view of the companies' mobility strategies, readers are advised to peruse the websites of Daimler Mobility and the BMW Mobility Services.

Overall, the instructor should be acquainted with the new mobility landscape and the automotive sector to successfully guide the classroom discussion and to spur new ideas.

5.5 Assignment Questions & Analysis

Question 1: What are the key drivers and the constraints on the demand for mobility services?

Drivers of demand	Constraints on the demand
Changing consumer behavior Customers nowadays do not want to, or do not need to, own a car. Making use of mobility services allows them to lead a flexible lifestyle, adapting the mobility solution to their needs.	**Data privacy concerns** Mobility services rely on GPS data, have access to consumers' payment data and user behavior. Many customers are afraid of the technology behind the service and the lack of transparency thereof.
New technological advancements New technological developments and internet access allows people around the world to connect with other users. These technological advancements decrease frictions and make it enormously easy to use mobility services.	**Immature business models** It took Daimler and BMW months to launch their joint carsharing app. Once published, technological problems discouraged users. In North America the car-sharing model failed completely, due to the ill-fitting approach of the business model.
Urbanization With increasing urbanization, traffic increases, parking spaces are hard to find and a ten-minute drive develops into a horror trip. Mobility services offer solutions that create a smooth travel experience.	**Government regulations** Oftentimes city officials oppose new mobility services in order to protect certain lobbies. One example is the taxi lobby in Germany and Spain which prevents RH companies from entering those markets.

Government regulations Increased CO_2 taxes and off-limit city areas are making car-ownership increasingly unattractive. Many people are questioning the hassle of purchasing and owning a car, which drives them towards alternative solutions.	**Pricing** Compared to public transportation, mobility services are high-priced, leading to consumers limiting their use to special occasions. A daily usage of mobility services, especially for long-term travel seems unaffordable for the majority of consumers.
Government Incentives Besides limiting traditional car travel, governments incentivize the emergence of new mobility solutions in order to promote the creation of smart cities.	**Resistance to Change** Especially the older generation (see "traditional" persona in Appendix 6) is oftentimes clinging to the status quo. Making them use technological and unfamiliar mobility solutions is a huge challenge.

Question 2: After having read the case thoroughly, please name and describe three motives that lead Daimler and BMW to engage in their strategic partnership.

1. **Increasing market power**

The JV allowed both companies to achieve a better competitive position by leveraging a stronger market power. Given the combination of the horizontal JV, the merger of the branches allowed to extend the user base, creating a critical mass that puts them in a leader position. Resultantly, this market power can be used to further diversify and expand the companies' services. One example of the increased market power is the creation of ShareNow through car2go and DriveNow. By combining two of the biggest players in the CS market, the merger to ShareNow allows to establish entry barriers through pricing power and a strong brand name. Furthermore, by combining the companies' acquisitions, the JV covers various industries and geographical locations that create an extensive company network.

2. Combined (technological) knowledge

Given the fast-paced market environment the companies find themselves in, new capabilities need to be developed quickly. A strategic partnership enables technology-driven companies to interlink their R&D efforts, which leads to faster and more innovative results. For example, whereas Daimler is more engaged in the field of ride-hailing and carsharing, BMW has more expertise in the field of parking and electronic charging. Combining this expertise allows both companies to create *the* future mobility provider. Additionally, new technology players are entering the market and can invest more money in research than the automotive companies, allowing them to create more innovative services. By combining their knowledge and R&D spendings the automakers aim to catch up or defend their position against technology companies by positioning themselves as an innovative force in the mobility field.

3. Risk mitigation

The outsourcing of the mobility branches as the new YourNow venture decreases risks as well as costs. Firstly, cost synergies appear due to the combination of the venture's administration. Both previously standalone mobility branches are now combined into one, which decreases personnel costs. Secondly, economies of scale are created. This includes for example the maintenance of the shared cars or the development of apps for the various mobility solutions. Thirdly, both companies share the investment burden for the development of the venture, instead of trying to finance the mobility solutions themselves. With regard to risk, the companies are able to diversify it over two stock companies consisting of numerous subsidiaries. A weak performance in one market or one branch of the venture can be offset by another branch. And more holistically, a weak performance in the YourNow venture can be canceled out by another business area in the companies' portfolios.

Question 3: Analyze the YourNow venture using the four dimensions of the Dynamic Capabilities framework by Barreto (2010).

Examining each unique dimension, students are asked to evaluate how and to which extent the mobility venture was able to respond to exogenous shocks.

Dimension 1: Ability so sense opportunities and threats	**Rating: High**
Both companies sensed the potential threats that emerged through a decline in traditional car sales and technology companies entering the mobility market. They concluded that the investments needed to compete in the market would lead to a huge financial burden if the strategy was pursued independently. Daimler and BMW identified the opportunities of the new mobility market and its potential to offset the losses in the traditional segment. They inferred that by engaging in a strategic partnership their capabilities would be bundled, resulting in an increased market power and a stronger innovative capability. Both companies realized that they needed to overcome their business rivalry to create a sustainable competitive advantage.	
Dimension 2: Ability to make timely decisions	**Rating: Medium**
Dimension 2: Ability to make timely decisions – Medium The first speculations about the venture started in 2017 and intensified in May 2017, with the plan to launch the JV late 2017. Nevertheless, it took until February 2019 for the venture to be officially launched, due to ongoing and slow negotiations. Even though both companies had been investing heavily in various mobility startups since 2011, the overall urge to engage in a strategic partnership lagged behind. Consequently, the delay of the decisions to build a JV might have given the already established market players such as Uber or Didi an advantage.	

Dimension 3: Ability to make market-oriented decisions	**Rating: High**
Both BMW and Daimler have identified the key drivers of the new mobility market through their R&D team. As a result, they engaged heavily in respective market players through M&A activities as well as partnerships. Those investments covered areas such as shared mobility, electromobility, and autonomous vehicles. Additionally, future-oriented investments in 3D printing, virtual reality, or cybersecurity underline the companies' intentions to seize emerging markets as well. Besides external investments the companies furthermore developed internal solutions through their in-house mobility research facilities, resulting, for example, in ParkNow or car2go. With regard to the JV, the market-orientation of the companies' decisions can be exemplified by its CS strategy: Identifying potential geographical markets, testing them by launching the CS operations, and closing the market if CS proves to be unprofitable.	
Dimension 4: Ability to make market-oriented decisions	**Rating: High**
The companies engaged in the JV to accelerate the transformation of their resource base from traditional manufacturing to service provision. This goes in line with the realignment of their strategies, which aim at diversifying their portfolio in order to become a "*full mobility provider*". The companies have gained new resources through their extensive M&A activities. They released resources when they got rid of unprofitable acquisitions, such as Chrysler, and have also realigned their business, for example through the outsourcing of the mobility unit. This future-oriented strategy can ultimately create spillover effects for the organization as a whole.	

Question 4: Do you think the JV between BMW and Daimler equips the automakers to succeed in the new mobility market?

After knowing which group you belong to, prepare your arguments and facts for the debate keeping in mind the DC framework and the motives collected earlier. Engage in an open classroom discussion.

Group 1: Representatives of Daimler and BMW that are now employed in the YourNow venture.
Group 2: Representatives of new tech players such as Google and Uber.

After carefully evaluating the case and the theoretical background, students will be divided into two groups by the instructor and are asked to prepare their arguments before the lecture. They will be asked to engage in a discussion led by the instructor. In an alternating debate, students are asked to present their arguments and reasoning behind them. The instructor is responsible for tracking the speaking time, recording the arguments and ultimately summarizing the findings of both groups.

The following table presents some of the arguments that might be brought up by students during the debate:

PRO "The JV equips Daimler and BMW to succeed in the new mobility market."	**CONTRA** "The JV does not equip the automakers to succeed in the new mobility market."
Expertise Both companies have a centuries-old business experience in the mobility field. Using this experience and having learned from mistakes allows them to enter or create new mobility markets.	**Slow-moving corporate structure** Both companies are enormous and have been established for a long time. This structure decelerates processes and impedes innovativeness.
Large customer base and brand name Both brands are well-known and have sold millions of cars to customers. Those loyal customers can be transferred to the new mobility solutions, linking the traditional and emerging business.	**Loss of historical brand equity** Young people do not associate historical brand names with technology or innovation. They would rather support young tech firms that fit their lifestyles than "*old*" industrial companies.

Joint capabilities The JV enables BMW and Daimler to complement their existing services, which allows the companies to create a far-reaching network that encompasses various services and markets. This helps to achieve a critical mass as well as profitability faster.	**From rivals to partners?** Even though Daimler and BMW use the JV to underline their forward-thinking strategy, profit maximization for their shareholders remains the priority. This being said, the conversion of rivals into "start-up"-like partners requires effort and can quickly lead to power struggles.
Expanding their head start Daimler and BMW have been pioneering in CS (car2go and DriveNow) as well as RH (MyTaxi). They have been dominating several new mobility markets and industries before new technology players entered. Combining their strengths allows them to defend this first-mover advantage more rigorously.	**Even combined not innovative enough** Despite the JV and the merging of capabilities, the venture will not be as innovative as the technology players. Uber's and Google's whole business model breathes innovation. This deeply embedded focus on the next big thing and hyper-growth cannot be "*learned*" by simply creating an outsourced JV.
Shareholder interests Since both BMW and Daimler are joint-stock companies they pursue the interests of their shareholders. Furthermore, they rely on them for external financing. Engaging in the mobility JV sent a strong message to their shareholders, which back the venture with their financial support.	**Financial freedom** Shareholder promises and tight financial responsibilities are an alien concept for technology companies. For them, growth is more important than profitability, the former oftentimes heavily backed by venture capitalists. This financial freedom allows them to be more resourceful and innovative.

5.6 Board Plan

Case analysis and discussion	20 minutes
Question 1	15 minutes
Question 2	10 minutes
Question 3	15 minutes
Question 4	20 minutes
Conclusion	10 minutes

6. Discussion

The DC theory has influenced the field of strategic management tremendously since its first publication in 1997 by Teece et al. Since then, a variety of scholars has further elaborated the framework, illuminating it from diverse perspectives. Barreto's (2010) transformation of the theoretical concept into an "*aggregate multidimensional construct"* allows the DC framework to be applied to real-world business cases, allowing decision-makers to grade and potentially realign the company's strategic focus. The underlying case, which covers the emergence of Daimler's and BMW's mobility JV YourNow, serves as such a practical example. The case combines the strategic challenges traditional manufacturing companies are facing, in a world that is continuously exposed to technological disruptions and changing consumer behavior. It underlines the importance of a company's existing resource base and its potential to change this base in a timely manner in accordance with market developments. Besides an in-depth analysis of the DC framework, it examines the occurrence of strategic partnerships, especially the motives leading to the creation of a JV.

Daimler and BMW have been chosen for the underlying case due to their decade-long history in the automotive sector. The initial rivals have been undisputed leaders in this sector up until recently when exogenous shocks in the form of decreasing demand and increasing competition from new technological entrants jeopardized their position. Concurrently, the companies' resource base was challenged, raising the question of whether a quick transformation into the mobility sector was feasible. The case analysis in light of Barreto's (2010) four-dimensional DC framework attempts to answer this question.

Not merely the possession of capabilities but intuitively sensing external changes creates the base for a competitive advantage (Barreto, 2010; Eisenhardt and Martin, 2000). Daimler and BMW took notice of the declining traditional car sales market. Consequently, they engaged in a JV in order to access the new mobility market.

As underlined by Barney & Wright (2001) and Wang & Ahmed (2007) the DC theory lies at the heart of the fast-moving market, such as the mobility market. Consequently, reacting to exogenous shocks in a timely manner is a prerequisite to achieve a sustainable competitive advantage. Although the companies' internal mobility developments and external mobility acquisitions started already in 2011, the decision to engage in a JV took until 2019. With many technological competitors already having entered the field with sophisticated mobility business models, this delay might have prevented Daimler and BMW from gaining the upper hand as the leading mobility provider.

Additionally, the ability to make market-oriented decisions is highlighted. Teece (2007) states that this applies primarily to markets that are underdeveloped and subject to technological change. The mobility market is relatively well-developed in terms of geographical coverage, technological advancement, and customer acceptance. However, while the market cannot be categorized as underdeveloped it is certainly influenced by technological change. Technology is at the core of all new mobility concepts, for example, in the form of apps, data processing, or GPS functions. Rapid technological developments have led to and are consistently transforming the mobility market, which requires high innovativeness and huge investments from firms.

Lastly, the DC framework incorporates the company's ability to change its resource base. This is dependent on the company's current, primarily intangible assets as well as the path dependencies stemming from them (Teece, 1997). Realigning the company's resource base can be achieved through gaining, releasing, or reconfiguring resources (Barreto, 2010). As shown in Appendix 7, Daimler and BMW have been heavily engaged in M&A activities, strengthening their position in the mobility market. However, they also decided to sell some of the acquired companies that did not show to be competitive, such as Chrysler or Range Rover. Additionally, they were able to reconfigure their resources, for example by internally creating new mobility business models that were outsourced in a separate mobility division. Eisenhardt & Martin (2000) and Barreto (2010) challenge the concept of path dependencies presented by Teece (1997), stating that companies can possess similar DC. This plays an important part in this case, due to BMW's and Daimler's direct competition in the automotive sector as well as in the new mobility sector (for example DriveNow vs. car2go).

The objective of DC is to achieve a sustainable competitive advantage. An "*indirect link*" (Barreto, 2010) connects a firm's capabilities with its profit, due to its ongoing realignment with the market's requirements. As of 2020 the JV's numbers look promising, however, the majority of the mobility branches is not yet profitable. Compared to the existing capabilities in the manufacturing and sales business, the new mobility branch plays a minor role in terms of profit generation. Nevertheless, taking into account the long-winded timeline of the JV, its capacity to transform into a profitable branch of the automakers might require some additional time and financial investment.

Just like the majority of JVs, allowing for autonomy of both partners, the YourNow venture is organized in a 50-50 ownership split as a balanced horizontal JV (Moskalev & Swensen, 2007; Lou 2002). As stated by Harrigan (1988), JVs are largely used in mature markets to increase

competitiveness and to expand the companies' businesses. However, as demonstrated by the underlying case, JVs also serve as a means to create new markets and to diversify the existing portfolio.

Given their dynamic market environment, especially the technology industry calls for strategic alliances, due to the opportunity to combine and transfer technological know-how (Vilkamo & Keil, 2003; Wahab, 2010). Entering the new mobility market, the manufacturers find themselves in such an innovative industry where technology players are disrupting common business models. To combine R&D resources, the JV allows both companies to supplement their existing resources in the mobility sector, which ultimately spurs the development of new capabilities (Brouthers et al., 2008). By combining their resources both companies were able to invest around €1.13bn into the mobility venture. Uniting the acquired technology companies in their respective portfolio additionally allows them to create a broad knowledge network spanning across various industries. Ultimately, the JV enables Daimler and BMW to leverage their joint experience in the traditional automotive sector while increasing their innovativeness through a broad diversification into new mobility markets.

Besides the technological knowhow, Daimler and BMW are using their JV to reduce risk, one of the main motives to engage in a strategic partnership (Klijn et al., 2010). The investment burden to succeed in the new mobility market is estimated at $70bn for an individual company (Möller et al., 2019). Given the companies' recent declines in profits from their vehicle sales, such investments carry a huge risk, especially given the companies' status as stock companies. Consequently, the JV allows them to spread the risk across various markets, products, and subsidiaries. This allows the carmakers to test mobility solutions as well as locations without coevally risking to lose too much money. Besides the mitigation of risk, engaging in a JV also creates cost synergies and operational synergies, for horizontal JVs and JVs of similar companies respectively (Johnson & Houston, 2000; Kaplan & Weisbach, 1992). Even though YourNow can be categorized as a horizontal JV and Daimler and BMW are similar companies, the case is not able to prove that the above-mentioned synergies exist. Even though both companies have merged their mobility companies, they announced the emergence of 1,000 additional jobs, increasing the overall workforce and, hence, personnel costs.

Overall, by engaging in JVs, companies are able to increase their competitive market power (Klijn et al., 2010). This is true for segments where Daimler and BMW have been competing simultaneously, such as the carsharing market. In cities where DriveNow and car2go have both been operating, the transformation into ShareNow has created enormous entry barriers for

competitors and operational economies of scale. Furthermore, through strategic partnerships, companies are able to enter new geographical markets (Gomes-Casseres, 1989). In the case of the YourNow venture this does not seem to be the primary motive for the JV. Just after having launched the JV, the companies announced their withdrawal from the North American market. However, on a more partial note, the companies' individual M&A activities into diverse startup companies might serve as a means to expand internationally.

In summary, almost 70% of JVs fail (Kogut, 1991), hence, there is a huge risk that the 2019 established JV between Daimler and BMW might not work out. Even though the "*task-related criteria*" which encompass the companies' capabilities look good on paper, the intangible "*partner-related criteria"* such as strategic fit, objectives, and commitment are more difficult to assess (Das & He, 2006). Both companies are under tremendous pressure to make the JV work and have already experienced major setbacks such as the US exit or the delay in establishing the JV in the first place. The financial burden of funding the unprofitable mobility segment, while concurrently needing to respond to other megatrends, such as electronic vehicles and autonomous driving, creates a lot of conflict potential for the two carmakers. Consequently, it remains to be seen whether the motives that lead to the JV will pay off in the near future.

Overall, the case of Daimler's and BMW's mobility venture can serve as an example for traditional manufacturing industry players that are confronted with external technological shocks which oblige them to rethink their strategic orientation. It highlights the obstacles that industrial companies are facing and how they are able to circumvent them through the power of cooperation. However, not without considering the constant effort needed to successfully lead a strategic partnership.

Certain limitations have to be considered when analyzing the case, as well as its managerial implications. First of all, the case only covers two companies and their strategy to respond to exogenous shocks. Hence, the scope of the examination is limited and additional research for other industries and companies is required. Furthermore, the companies have particularly been examined from the perspective of the strategic partnership. Consequently, a more holistic view, including other strategic processes and a more comprehensive timeframe might be necessary to draw in-depth future predictions. Thirdly, the application of the DC theory is merely a qualitative one and, thus, might be biased (Winter, 2003). A more quantitative approach of the DC framework would be needed in order to prove a linkage between a company's strategic capabilities and the creation of a sustainable competitive advantage. Lastly, it would be

interesting to research the correlation between DC and strategic partnerships, and how supplementing capabilities through mergers or partnerships influence a firm's success, compared to the internal development of DC.

7. Conclusion

Technological disruptions have shaped the 21st century and constitute one of the biggest challenges faced by industrial enterprises. Even though those disruptions made life easier for millions of consumers, they diminished the resource base of established market leaders. The automotive industry is one of the sectors that is heavily influenced by technological advancements and, hence, is required to react to exogenous shocks by having its players adjust their individual capabilities. In order to exemplify the realignment of automotive companies towards new mobility solutions, Daimler's and BMW's journey towards their joint mobility venture YourNow has been thoroughly examined in the form of a case study. Hereby, the concept of DC served as a framework to analyze the timeline and underlying resources of the JV from a managerial perspective. Combining the theoretical concept with the real-world case paved the way for a deeper understanding of the firms' industry setting as well as their strategic orientations in terms of new mobility developments. Complementary, by examining the motives for the venture, the significance of strategic partnerships in fast-moving and investment-intensive environments was highlighted.

Taking Barretos's four dimensions of the DC framework into account, it becomes clear that Daimler and BMW have reacted in accordance with market developments. The industry is moving away from traditional car sales into more flexible mobility solutions. By introducing the five (and later three) pillars of the YourNow venture, the companies are well-positioned – or as Harald Krüger, the former BMW CEO put it: "*can combine their strengths and become a champion."* The firms' merger created a chance for both carmakers to remain competitive by bundling their expertise, finances, and visions. Nevertheless, time is ticking and the competition has never been as innovative and venture-backed as today. The YourNow venture is still in its infancy and the pressure to succeed is high, with both companies wanting to achieve profitability. Hence, it remains to be seen whether BMW's and Daimler's mobility cooperation proves itself to be a "*champion*".

In conclusion, this thesis provided the opportunity to take a deep dive into the automotive industry and the challenges it is exposed to. By working through one of the most significant strategic frameworks, namely DC, it was possible to investigate the case of the YourNow venture from various managerial angles. This certainly underlined the significance of long-term strategic planning when responding to the question of how firms can cope with changing environments.

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