

## **“We need all the parts to make a car, we can’t do it with 99.9%”**

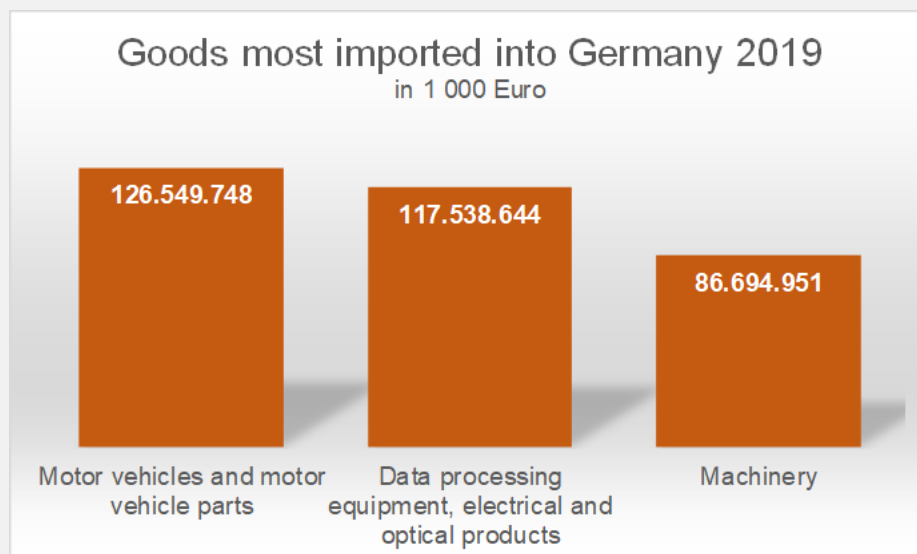
### *Learnings of the automotive industry from the Corona crisis.*

BY ANNA MÜLLER & STELLA KRAFT – 30.05.2020

“Even a disruption of one part [of the supply chain] could depress [...] auto production. We need all the parts to make a car, we can’t do it with 99.9%.” – Kristin Dziczek<sup>[1]</sup>

The Vice President of the Center for Automotive Research Kristin Dziczek pointed out the importance of continuous data and material flow within the Supply Chain of an automotive sector.<sup>[1]</sup> Thus, all spare parts arrive at the production plant timely and without disruptions in assembly. Missing ignition plug, brake pad or just windscreen wiper – all of the spare parts are needed. Otherwise, the automobile cannot be sold.

Nowadays you read in the newspaper about shutdowns, exceedingly small demand and suppliers that are not able to deliver the parts. And in fact, Corona crisis affects the automobile SCM performance extremely negative. Let’s look at the German automobile sector as Germany is known for Mercedes-Benz, BMW, Audi and VW – the biggest four.



*Own representation based on Federal Office of Statistics (Destatis)<sup>[2]</sup>*

The main fact shown by the graph is the relevance of globalization for the German automobile sector. Most of the automobile parts are delivered by foreign suppliers. Thus, it is obvious that the interruptions within the supply chain during the Corona crisis result from closed borders. Because of the missing parts from abroad, automobile companies were not able anymore to employ the workers. Shutdowns cannot be avoided. Mercedes Benz Manufacturing Hungary was closed for five weeks – this never have happened before.<sup>[3]</sup> So, what should the automotive sector learn from the Corona crisis? What should be done to avoid shutdowns and moreover, improve the future supply chain performance?

## **Communication is Key**

Good communication means information sharing with all actors of the supply chain. We want to provide you an example for good communication during the crisis: Mercedes Benz Manufacturing Hungary. Christian Wolff is the CEO of the manufacturing. He told us that he shared the information daily with the employees via short YouTube videos. Also, he talked regularly to the supplier to solve questions like: Who is able to deliver? How much? Furthermore, communication with the carrier was important. An establishment of a taskforce helped to improve the corporate communication and so, solved problems quicker. The factory suffers a shutdown but all in all the production was closed relative late and moreover, it is running again.<sup>[3]</sup>

## **End-To-End SCM**

An improvement in End-To-End SCM is highly connected with communication and moreover, supply chain visibility. Because of supply chain visibility, disruptions within the Supply Chain could be anticipated and avoided. As well as communication, supply chain transparency can be advanced through technologies.<sup>[4]</sup> Nowadays supply chain technologies enhance collaborative relationships between the supply chain actors. Moreover, supply chains are changing to digital supply networks (DSN) which represent a completely connection of the supply chain actors.<sup>[5]</sup> Thus, technologies help the companies to suffer such shocks within the supply chain.

## **Increase Flexibility and Agility of Supply Chains**

Is the focus on cost reduction still the right operating model? The Corona virus hardly questioned this model.

As already mentioned in the beginning, the automotive industry has become increasingly dependent on China. This dependency is caused by the strong cost focus of supply chains which lead to the creation of just-in-time production strategies and global networks. Global networks are indeed great to bring overall costs down. But on the other hand, they make supply chains more vulnerable to disruptions. This is what companies had to painfully learn from the crisis. Supply shortages in China coupled with a just-in-time strategy and closed borders posed major challenges to the global automotive industry.<sup>[6]</sup>

The result: complete closure of production sites. This crisis again illustrates us the importance of flexibility and agility of supply chains and with it the importance of a free, international border traffic.<sup>[3]</sup> In our opinion, as companies recover there will be a trend towards dual-sourcing strategies and flexible, decentralized operating models, such as micro supply chains.

## **Professionalize Online Sales**

Nowadays you can buy just about anything online. But what about new cars? Buying new cars directly from the manufacturer via the internet is more a rarity. In fact, most of the cars are still sold through car dealerships. Consequently, the closing of dealerships, as a measure to contain the virus, is currently having a huge impact on sales numbers in the automotive industry.<sup>[7]</sup> Namely global auto sales are forecasted to drop by more than 12% in comparison to 2019.<sup>[4]</sup> The only major car manufacturer that could increase its sales during the most recent quarter was Tesla. Can you guess why?

Tesla is the only car manufacturer that is selling its products through a fully digitalized sales channel. Cars are directly sold without dealerships in between and are delivered to the customer. Thereby Tesla's supply chain is, in comparison to competitors, less disrupted by Covid-19. This fact shows how important e-commerce is and will be in such volatile times. Thus, it is very likely that Tesla's business model will be adapted in some way by other automakers in the future. Mercedes-Benz is already planning to professionalise its online sales. By 2025 the company wants to make about 25% of its revenue via digital sales channels.<sup>[8]</sup>

### Upgrade Technology

Covid-19 let the impossible become feasible. Who would have thought that in just a few months or rather just a few weeks it would be possible to switch to an almost completely digitalised working environment? Probably no one. In the past years there were a lot of discussions going on about digitalisation at the workplace. But now, in the Corona crisis, many things are suddenly possible that previously seemed unthinkable. One example is home office. While some companies didn't even allow home office before the crisis, it is now a widely spread working model. And it works just fine. <sup>[9]</sup>

However, the abrupt change from a traditional to a digitalized working model has brought the IT systems of many companies to its limits. Because it was not only about equipping employees with appropriate hardware but also about teaching them how to effectively use it.<sup>[3]</sup> Covid-19 showed us that a technology upgrade is needed within companies and that this upgrade should and could have already happened far before the current crisis. We are very curious about what changes will be of permanent nature. But we are already sure that the current situation will have a significant and sustainable impact on the way employees will collaborate in future.

All in all, the Corona crisis has shown us the weaknesses of supply chains in the automotive industry. The point of turning online will in our opinion be a vital step for future success. Furthermore, the crisis has thought us that internal and external communication was and will always be an important factor. Finally, it is about making supply chains in the automotive industry more resilient. Because it is resilience that pays dividends.<sup>[10]</sup>

*Wir erlauben hiermit Frau Carola Schulz, diesen Artikel auf ihrer Homepage der Hochschule Heilbronn unter der Nennung unserer Autorenschaft zu veröffentlichen.*

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