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Impact of Digitalization on Logistics Provider Business Models

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Purpose: Digitalization and its technologies enables especially logistics startups to enter the market with low barriers. Well-established enterprises potentially suffer from this development by overlooking the ongoing technological leap. Therefore, the paper includes a research to point out current dynamic of the market and potential risks and chances for current enterprises.

Methodology: For this purpose, an overview of the market development and the fundamental re-thinking of logistics business models based on a literature research is given and reflected. It focuses on technologies, entry barriers for startups and re-thinking of current business models. Subsequently, the impact for current enterprises should be shown up.

Findings: The research points out the dynamic of the business and the risks for well-established enterprises on the market. Startups accelerate the market dynamic by introducing new technologies on the market, which are seen either as risk or chance for enterprises. Organisational inflexibility could lead to a replacement of market leaders.

Originality: Using modern technology business models can be absolutely re-defined. While an abundance of startups could mostly cover performance spectrum of established enterprises in a new way, the latter suffers from rigid company structure. By conducting the research, the current state and risks and chances for current enterprises should be outlined.

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1 Introduction

Material flows and supply chains are definitely changing. This trend is mainly triggered by the development of technology in the last years. New products and services changed the way of business and how supply chains are designed (Hermes, 2019). *Industry 4.0* and the development in the area of digital technologies, is often mainly mentioned in the context of production and its processes (Dietrich and Fiege, 2017). The explicit view of *Industry 4.0* on logistics and transport management is not given from the beginning of this revolution.

This mindset is also confirmed by different studies. In 2016 the consultancy *Bearingpoint* showed that 61% of the surveyed managers think of innovative technology, tools, features and automation in the context of production, when speaking about *Industry 4.0*. They focus of this concept has always been a production-oriented approach. Furthermore, just 33% of the participants think that digital technologies in the context of *Industry 4.0* could also change other business models, what is basically understood as digital transformation (Bearingpoint, 2016).

Meanwhile *Industry 4.0* is also arrived in logistics. The term itself is derived from the 4th industrial revolution. Nowadays researchers defined the area of *Logistics 4.0*, which can be described as the impact of digital technologies on the area of transport and supply management (Manners-Bell and Lyon, 2019).

But *Logistics 4.0* can be also seen as the 4th development step of logistics. Therefore, *Stölzle and Burghardt* (2016) describe the first step of logistics as the functional specification, which is known as transport, material handling and warehousing. The second development step is the design of material

and information flows within enterprises and their relevant organizational departments, the so called management of logistics. The third development step complements the management of logistics by the customer-oriented value creation within and between enterprises, where logistics is seen as part of supply chain management. In the last step, which is called Logistics 4.0, logistics is seen as a digital value network of all supply chain partners by using real time data and cyber physical systems. This means that digital technologies are enabler for seamless material and information flows along the supply chain in order to increase efficiency and customer satisfaction.

As in many practical examples, use cases in production and other areas of companies, digitalization also offers new possibilities in supply chain management. Processes are re-designed and data is provided to ensure a high level of interlinking and transparency (Kille, 2018). This re-design is essential due to the changes triggered by the production and customer side. New products and services are designed to satisfy the new customer behavior and expectation. This change also has a deep impact on the supply chain itself, which have to be more flexible and adaptable, due to the fast changing customer needs. Therefore, digital technologies offer a lot of potentials to handle this challenge.

The application of concepts like *Big Data*, *Advanced Analytics* and many more is just the first step for further improvements in distribution and logistics. Older web solutions in the context of digitalization like eCommerce and eBusiness are already established in different variations and became part of the digital or virtual value chain in the age of internet economy (Scheer and Loos, 2002). This enlargement of communication channels is

not just seen as improvement of processes in order to increase profitability and efficiency in customer order processes, it is more a change in the enterprise's business model to expand customer groups or building up strong relationships with partners (Osterwalder and Pigneur, 2011).

Especially logistics providers have to re-think their business due to the digital transformation. Therefore, they have to learn how to realign their business to meet customer's expectations. Digital transformation has to be seen as more than technical innovation, automation and *Internet of Things* (IoT). Collaborative and agile approaches, as well as new working cultures for the development of value-added services help to break boarders within as well as between collaborating companies (Dietrich and Fiege, 2017).

A wave of digital disruption is about to hit the branch which could change the whole competition and have the potential to overturn the dominant position of established logistics providers, which may not be able to implement collaborative and agile approaches to develop their business. Especially startups have a huge impact on the competition. Technology know how and huge investments into small companies lower the entry barriers in the branch (Riedl, et al., 2018). Established companies suffer from a lack of technology know how and are driven by logistical core competence like the coordination of complex supply chains. But the alignment of processes and new services due to the utilization of digital technology is indispensable. Therefore, the potential of technology should be realized to revolutionize the branch sustainably for future (Suckey and Asdecker, 2019).

This research requires a description of the actual market situation to show up the need for further researches in this area. Subsequently a demarcation of logistics providers and the impact of digitalization on their business

models is given. The entrance of new technologies and startups should be shown up to give an overview of potentials and threats through digital technology on established companies in the business and how they can create profit out of these disruptive change. The literature research is conducted in three essential steps. In general, the research is including studies, research papers and statistics searched on different data bases (Google Scholar, Springer Link, Emerald, Statista), which have been published within the last 5 years to ensure actuality of the research object. Depending on the step of the research, filter conditions like type of the paper, language (mainly German and English) and focus have been changed.

2 Increased Outsourcing of Logistics Activities

To understand the recent market development and change in business models of logistics providers it is essential to analyze the requirements of industrial or trading companies. Over the past few years, there are significant changes in customer's behavior and expectations. In the following part of this research paper, the development is explained by screening relevant studies and statistics about outsourcing activities and the relevance of logistics providers. Afterwards a clear demarcation of the term logistics providers is given to focus in the further sections of this research paper.

Logistics Providers profited from a market pressure and the resulting outsourcing of logistics activities by industrial and trading companies. While companies often organized transport by using own assets like warehouses and vehicles, nowadays there is a trend to outsource this activities (Arnold, et al., 2008 and Bolumole, 2001, p. 88). This trend is also part of a variety of subsequent studies and surveys. Therefore, in 2015 the *Industriewissenschaftliche Institut* made a research on the behavior of logistics outsourcing. 62.5 % of the 56 participating companies in the Austrian districts Salzburg and Upper Austria were already outsourcing transport and logistics activities to logistics providers. Just 3.6 % indicated that transports are mainly operated by their own. (Brunner et al., 2015).

Further studies in Germany confirmed this trend. The *Miebach-Outsourcingstudie published by Hoffmann (2017)* shows that based on German shippers' perspective, transport is the most suitable activity to outsource. 67 % of the participants already outsourced transport, while 17 % planned to outsource transport activities in future. In this context, companies have

seen a risk in outsourcing. 60 % of the surveyed companies are afraid of losing control and competence. The dependence of logistics providers is also seen as one challenge in outsourcing, whereby this study was done in 2017 when new technologies for more transparency were still in its infancy.
Often outsourcing of logistics-related tasks is traced back to a lack of competencies or technical infrastructure. Own studies of the *Institute for Industrial Management* on the state of transport logistics of small and medium-sized enterprises (SME) in Austria (Brunner and Obmann, 2019) strengthen this assumption. In the area of transport planning the most dominant software products are still MS Excel, SAP or company-specific solutions. 23 out of 138 surveyed companies even do not use software or platform for efficient planning, which is shown in figure 1.

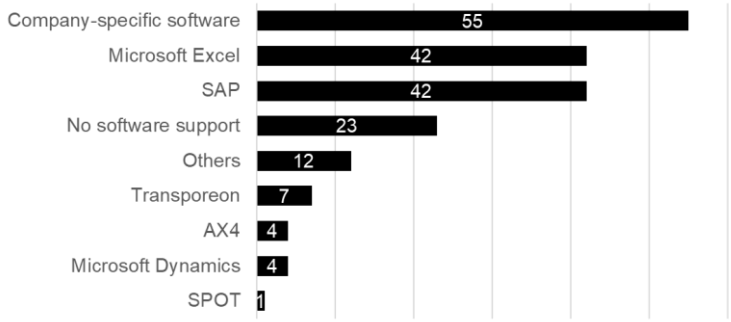

Figure 1: Which software/platform are used for planning of transports? (n=138; multiple response allowed; own elaboration)

Moreover, just 19 % of the surveyed managers apply software to reduce transport costs. 16 % out of the 19 % of the companies are considering real-time data for the planning. A chi square test shows, that enterprises with

more than 550 employees more often use software or platforms for the optimization of transport costs than companies with less employees. The significance value of 0.01072 shows the strong relation between this results. (Brunner and Obmann, 2019).

Especially costs are the biggest leverage in transport. This is also recognizable in studies on logistics cost structures, raised by *Fraunhofer* and published by *DVZ* (2018). The figure below points out the potential for savings. With around 46 % of total costs of logistics, transport is seen as the main cost driver. This is a further reason to optimize processes or to outsource processes of transportation to more efficient logistics providers with a deep knowledge in the branch.

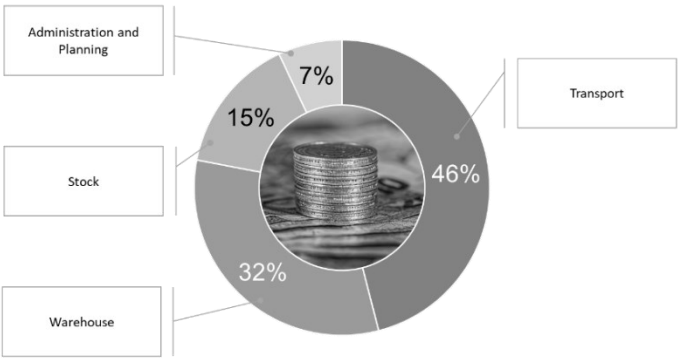

Figure 2: Allocation of Logistics Costs 2018 in Europe (Cost Center View) (DVZ, 2019); own elaboration

To sum up, the trend of outsourcing transport and other related activities is ongoing due to cost structure and a lack of competencies. Logistics is seen as a strategic success factor in global competition. Outsourcing seems

to be an alternative for target-oriented logistics management (Nissen and Bothe, 2002).

The cost reduction is just one aspect of this success factor. Moreover, seasonal fluctuations or variability of overhead costs are seen as additional benefits (Schäfer-Kunz 1998). This trend also led to the fact, that logistics providers additionally offer value-added services (Gabriel, 2019). On the one hand they provide assembling of parts or ready-made products, on the other hand the service can also include planning and managing of the whole logistics processes of the customer. Therefore, the knowledge of the logistics provider is insatiable for the customer, who is additionally able to reduce costs due to the realization of economy of skills (Suckey and Abdecker, 2019).

3 Digital Business Models in Logistics

A successful business model describes a future-oriented value proposition. Moreover, activities are based on customer segmentation and defined value specification as well as adequate value chain structure. Also the realization of turnover and earnings is described, which is generated through the positioning in the value network. (Hausladen, 2011)
Logistics providers offers different services to create turnover and earnings. To understand this different services, a demarcation of the service portfolio is given based on literature to concretizes the focus of this research.

3.1 Demarcation of Logistics Providers

Within the macro logistical system there can be identified three essential logistical institutions. The logistics department of companies and logistics providers form the so-called micro logistical system. Beside this micro logistical system, the logistical infrastructure is the third part of this macro logistical system, providing roads, railway systems, air ways and pipeline systems often regulated by legal and political factors. To concretizes the focus of this research paper, the group of logistics providers have to be classified into five substantial types of services.
In literature this demarcation is described in many different ways. Basically there are carriers, freight forwarder, third and fourth party logistics providers (3/4PL) and lead logistics providers (LLP - combination of 3PL and 4PL). Carriers are responsible for the physical transport of goods from delivery point to receiving point based on the freight contract between consigner or consignee (based on the applied Incoterm 2020) and the carrier. Based on

a forwarding contract the freight forwarder originally has to organize the transport of goods. Therefore, the forwarding contract includes the freight forwarder, consigner, carrier and consignee. The selection of the carrier is based on the mode of transportation and the economic (freight charges and tariffs) as well as ecological factors. In contrast to freight forwarder,3PLs also assume other logistics services and processes like warehousing, commissioning and disposition of goods and other extended services by using their own assets. In practice this service is also known as contract logistics. Similar to 3PLs, 4PLs offer the coordination of material and information flows along the whole supply chain, whereby they do not have own assets. In practice this kind of services provider is rarely applied. The LLP combines special equipment with knowledge of complex supply chains and offers a broad service for industrial and trading logistics. This concept offers scale effects and wins in rationalism due to specialized logistics

knowhow of the provider. (Brunner and Hanusch, 2014, p. 13f and Schulte, 2009, p. 186f)

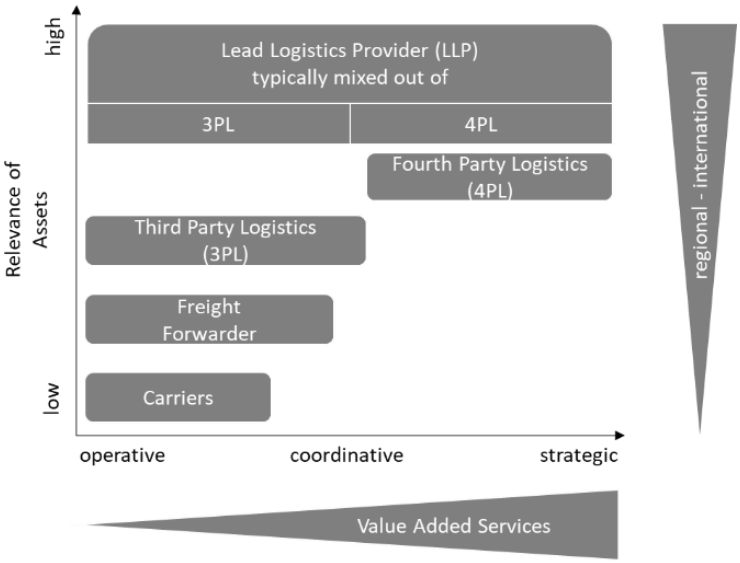

Figure 3: The four-dimensional Demarcation of Logistics Providers; own elaboration modified from Baumgarten and Thoms (2002) and Brunner and Hanusch (2014).

Apparent in the structure above, logistics providers can be identified by four dimensions. While the service portfolio of carriers and freight forwarders are more operational, LLP's competence is covering coordinative and strategic issues on top. The second dimension depends on the relevance of logistics assets like trucks, warehouses or handling equipment. While carriers are often locally operating companies, concentrating on certain areas

and transport routes, LLPs are focusing on complex and international supply chains. Therefore, the geographical aspect of service has to be considered to allow a demarcation without overlaps. The added-value like additional services provided, is another demarcation factor of logistics providers.

In this context, the relevance of 3PLs is clearly visible in researches on European transport and logistics services by *Schwemmer* (2017). In the industrial area the overall cost for contract logistics in Europe is estimated with 231 billion EUR. In Germany further researches estimated the costs by around 77.6 billion EUR (Schwemmer, 2018). Especially this type of logistics providers is challenged by new disruptive business models and digital technologies (Hofmann and Osterwalder, 2017). But also the traditional freight forwarder business is changing due to disruption in many areas (Riedl, et al., 2018 and Gabriel, 2019).

3.2 Digitalization in the Logistics Providers Business

By thinking of business models in the context of digitalization, two substantial aspects have to be regarded:

"How will digitalization change business models and which impact will this change have on business processes?"

In this context, it is important to understand the implementation of digital technology for commercial utilization. It enables in a first step the digitization of analogue to digital data and furthermore the digitalization of whole processes within the own company. This is what we understand as digitalization in a narrow sense (Suckey and Asdecker, 2019).

Digitalization in a broader sense means the development of digital business models based on digitized data and business processes. The digital transformation describes the change of value chains based on the improvement of existing or implementation of new digital technologies, adaption of enterprise strategies based on digital business models as well as the acquisition of relevant competences and qualifications. (Kersten, et al., 2017).

The expansion of existing business models considering the digital transformation means the development of new customer services. To reach this objective, companies have to use creative innovation methods like *Service Engineering* (Hausladen, 2011). It is seen as a standardized concept for the development of new services by using process models, creativity methods and tools and allows an agile approach and environment to develop new services. The concept stands for the re-creation and development of service solutions within interdisciplinary strategy and creativity processes (requirement analysis, idea generation, value and benefit etc.) and the model-based and applied implementation of new service solutions (planning, integration, positioning and development of business and profit models) as part of the value-oriented business development. (Richter and Tschandl, 2017)

Before established companies can start with the development of new services, they have to analyze the potentials of new technologies and the market development in their business. As mentioned before, a successful business model describes a future-oriented value proposition and a unique positioning in the value network. Therefore, models like *Porter's five forces* should be applied for upstream analysis phases. However, this concept is explained frequently in literature, turned out as outstanding tool and is part

of different studies about digital business models in logistics. Therefore, the focus of this research paper concerns the impact of different types of companies on logistics providers. Especially focusing on freight forwarders, which are the due to their limited service portfolio and local activities the most threatened logistics providers due to digitalization.

3.3 Impact of Digitalization on Business Models

Especially technology-driven startups trigger the change within the logistics business. They are characterized by transparent services and reduced operational costs. First business models were created in the business-to-customer (B2C) branch triggered by the changed consumer's expectation. (Manke and Funder, 2017). Not only the need for flexible delivery services or even same-day-delivery-concepts (SDD) are part of the changed expectation. Moreover, the necessity in terms of sustainability and increased commodity flows in cities are part of this development. Therefore, data and technology-driven concepts emerged in the area of transport logistics to handle the last mile. In the area of parcel and small packages delivery startups created new solutions to outpace its established competitors. *Liefery* or *Tiramizoo* took their chance to re-create the business by implement one-stop-shops solutions. Other solutions exploit the potential of crowd-based concepts to increase flexibility in delivery. Therefore, private courier can be steered high efficiently by using platforms. *Deliv* or *Amazon's "Flex*" are just a few examples in the B2C business. (Dietrich and Fiege, 2017).

Also in the B2B business startups are the key for the changing environment. Low entry barriers and technology knowledge enables startups to enter the

market with innovative business models that streamline the customer expectation and provide greater visibility into the supply chain. Moreover, the attractiveness of the B2B business cannot be contested by looking on the market structure of freight forwarders. *DHL* had a market share of 17 % in 2017. Overall less than 50 % of all sea and air freight forwarded goods are accounted by the top five companies. The rest is distributed on small and local freight forwarders. Therefore, it is not surprisingly that this business is also attractive to venture capitalists. More than $ 3.3 billion were invested into digital shipping and logistics startups from 2012 to 2017. (Riedl, et al., 2018, p. 3). Especially in the United States high financial flows are recognizable.

Startups try to penetrate rapidly the market in areas, where established logistics providers offer standardized mass business. *CB Insights* tried to unbundle the service portfolio of FedEx to visualize the danger for established companies. The competition on the market is rising clearly due to the fact, that startups could cover mostly all services of established logistics service providers especially in the areas of shipping, tracking and general management of transports. Startups manage to focus on the positive customer experience. Customer-oriented business models are the key for future logistics in B2B and B2C area. The change of customer behavior is also traced back to a change of mindset due to the predominant amount of millennials in managing positions of companies. The demographical change is part of researches of *KfW* in 2016. Therefore, decisions in B2B purchasing are mostly made by millennials. Furthermore, in 2016 1.6 million entrepreneurs were older than 55 years, consequently business is handed over to the next generation. (KfW, 2016).

4 Applications for New Business Models

Digitalization in a narrow sense describes the digitization of analogue data to digital data and furthermore the digitalization of whole processes within the own company. Supply chains are characterized by a high number of media breaks or human coordination processes. Many processes are still based on human communication (Phone, Mail, etc.) which harms the digitization and automation of process along the whole supply chain. Automation of processes requires a fully integration of suppliers, customers and other external partners by EDI (electronic data interface) or other standardized data interchange formats (Hausladen, 2011, p. 64f). The integration of partners is complicated by the amount of different IT systems and standards of all partners and especially of the frequent changes of the partners along the whole supply chain. In the context of platform business models *Amazon*, *Ebay* or *Alibaba* settled standards for processes and bypass interface complications which causes a big competitive advantage in their area (Wurst, 2020, p. 2).

Studies show that the automation of manual processes could reduce costs by up to 40%, while digitizing significant parts of the sales process could reduce related direct costs even more. Especially in the air and sea freight forwarding, there is a high number of manual processes. Companies still rely on email, personal handoffs as well as faxes to convey shipping documents. This is confirmed by the study of *FREIGHTOS*, which have found out that only 5 out of the top 20 forwarder in this branch send automated confirmation emails. This manual and time expensive processes could lead to human errors and subsequently to additional costs. By taking into account

the high number of customers and transactions, there is a big potential for optimization. (Riedl, et al., 2018, p. 1).

The automation of processes as starting point enables tremendous cost reductions potentials in operative processes to customers and partners. Due to digitalization of processes, companies are able to extend their portfolio or improve existing services more customer-oriented. The combination of fast and mobile networks and high-performance hardware combined with new possibilities of data analysis and artificial intelligence leads to accelerating changes of business (Giersberg, 2018). By screening the literature again following trends can be recognized in the branch. Some of this concepts are mainly introduced of startups with high affinity of digital technologies, which also shows the importance of the new and often small players on the market. By offering new solutions, established companies can either make use of this solutions by integrating into the business model or be displaced from the market by forward or backward integration. The focus in this step is on research papers and reports. The literature screening also showed that the mentioned concepts below are often mentioned and seen as the future perspective of the branch.

4.1 Transparency and Control along the Supply Chain

Digitalization enables more transparency of supply chain processes. Nevertheless, in the area of transport operations traditionally transportation orders are reported back to the system manually. By using *Supply Chain Event Management Systems* (Hausladen, 2011) automatic identification and localization of objects in the supply chain by using active (GPS) or passive

(RFID) technology is implemented. Based on events in the supply chain, information on temperature or shocks of goods can be traced. By providing this information new pricing models for freight transport can be implemented to offer customers performance-oriented pricing. In this context, transport costs could be calculated based on the condition of goods during the transportation. Needed data can be collected by using blockchain technology to ensure quality aspects as part of pricing.

4.2 Market Places for Price Comparison and Tendering

For a successful positioning on the market, three essential factors have to be given: a valid pricing model, reliability of the service and a unique selling proposition (USP) by offering new functionalities. Due to the high percentage of transport on the overall logistics costs, new services in this area are very popular as long as the price for the utilization of new platform is below the price of current freight exchange platforms. (Manke and Funder, 2017).
An example for lackluster customer experience is shown by a study of *FREIGHTOS*. Shippers asking for a quote at a selected air or see freight forwarder can wait as long as 100 hours. This definitely shows the length of traditional offline quotations and bookings. Furthermore, in a traditional offline process, the checking of shipping documents is a time-consuming procedure. Due to missing tracking technology the desired control of supply chain in real time is not realizable. Customers still not have the possibility to react on delays in the shipment to ensure their cargo will arrive according to plan. (Riedl, et al., 2018)
Matching the demand with supply is one example for new digital business models. Different market places like *FREIGHTO*, *mycargorates*, *Colo21* or

Truckin offer platforms to meet the customer needs. Shippers can find easily free capacity for their cargo by getting detailed information of capacity providers such as carriers and freight forwarders. These platforms enable shippers to book capacities immediately online at a given rate. (Riedl, et al., 2018).

They represent independent platforms in an intermediary role between shipper and carrier. In the background of these platforms, algorithms and machine learning allow the automated allocation of capacities. For transactional processes with sensitive data, the blockchain technology is a possibility to provide data to all partners in the supply chain. In maritime logistics, *IBM* and *Maersk* are providing cloud-based platforms to provide real-time data and to allow data and document management across companies (Suckey and Asdecker, 2019). As mentioned before, its role is seen as intermediary, which means that usually the providers neither assume no liability nor responsibility for transport problems or damages. The advantages are primarily seen in the price transparency, real time availability of capacities and recessions of former transportations. This factors should strengthen thrust and relationship between shipper and carrier (Dietrich and Fiege, 2017).

4.3 Digital Carriers

So called digital freight forwarders (DFFs) offer a broad range of logistics services and is comparable to the portfolio of typical freight forwarder. A so called one-stop-shop which covers the whole transport process and provides data in real time. (Dietrich and Fiege, 2017) DFFs are aggregating in-

formation of shipped goods to provide a seamless user experience by replacing manual processes and paperwork. Instant price quotations and standardized document management are just one piece of their core value proposition. Easy access to real time data and tracking of the shipment enables the customers and partners to get more transparency and control of transported goods (Riedl, et al., 2018).

The objective of DFFs is the improvement of usability. Transparency and automatization of processes also leads to process improvements in operation and administration. Transports are often processed by partners like located carriers. (Dietrich and Fiege, 2017). The advantage of outsourcing transport to carriers is the reduction of operational complexity. They trust in smaller and locally based carriers with operational know-how and physical assets to avoid attendant costs and operational complexity. However, this also means forgoing direct control and less possibilities to standardize and streamline processes. From the business model's perspective, less standardization and streamlined processes lead to inflexible business models, whereby these companies have to concentrate on simple shipments and transactional customers like *Flexport* does. To provide a large geographical coverage of service, own assets and operational processes, however under the consumption that the provided services more limited in comparison to DFFs with external partners. (Riedl, et al., 2018).

Within the business of DFF, it has to be differentiated between two distinct models. On the one hand, digital forwarder operational capabilities are in-house, on the other hand they can also rely on partners for operations. Nevertheless, both models can be seen as threat to established freight forwarding business.

5 Chances and Risks for Established Companies

New platforms have not changed the business yet. But the revolution of the business is starting due to the broad portfolio of services and digital solutions on the market. Many of them are concentrating on niches, whereby none of them offers a complete portfolio of services. Therefore, established businesses have the chance to dive into the development now. Visible in the previous analysis of the market and the impact of new services, startups are accelerating the digital transformation. Especially freight forwarders are threatened by this development. They are seen in a sandwich position and have to fear the loss of customer and network sovereignty. Therefore, they have to decide which strategic direction they want to pursue in future. (Manke and Funder, 2017)

Challenging their current business models is indispensable. *"What stands out the current business model regarding the customer centricity?"* and *"How developed are operative, technological and digital skills in the company and do employees have the essential skills?"* are just some exemplary questions for challenging by *Dietrich and Fiege (2017)*, which clearly show the most relevant prerequisites for the digital transformation of logistics providers.

The strategical mindset of building masterplans for digitalization is outdated. Agile working methods like *Scrum* offer the possibility to create strategic guidelines. Within this guidelines flexibility and creativity are insatiable assets for future success. It enables to define how the customer can be focused, which role in ecosystem should the company play in future and which value is created by this new strategic orientation. This helps to reduce organizational barriers regarding the digital transformation. (Dietrich and Fiege, 2017). Typical elements of modern change management are part

of this development to ensure a successful change within the whole organization by acceptance of the employees to ensure competitive readiness for future. (Kreutzer et al., 2016).

The implementation of digital technologies also requires the appropriate infrastructure. *Internet of Things*, automation, digitalized processes or data lakes can be implemented by offering a scalable IT infrastructure. Often logistics providers are facing challenges in the conquering old data stocks and inherited infrastructural burdens in sense of heterogeneous IT systems. The interlinking of different systems and applications to create and collect data for further customer-oriented analysis is the prerequisite for new business models. (Dietrich and Fiege, 2017)

To develop the underdeveloped awareness for digitalization within the company, employees have to be qualified to accelerate the digital transformation. Therefore, digital skills and working culture have to be developed. Technical and technological knowledge, data science and awareness for agile working culture are as important as the logistics provider specific branch knowledge. Experimental methods like *Co-Creation* with customers are as important as the open handling of errors to drive the improvement as part of a fail fast-culture

Startups often place enhanced attention on employer branding, to win the war for talents. The demographically change also have an impact on the choose of employer. Young talent's mindset has changed due to the generation of millennials. Flexible working conditions (time and place) have changed. Established companies have to be competitive in this war to ensure a successful recruitment. (Dietrich and Fiege, 2017).

6 Concluding Remarks

The reflection of the current dynamic on the market and the impact of digital technologies clearly shows the need for action. The trend of outsourcing logistics activities is ongoing due the cost pressure and missing competences and resources of industrial or trading companies.

For this reason, the potential market for logistics providers is increasing and market entry barriers are lowered due to big investments into startups with a high affinity of digital technology. The market entrance of these startups should be seen as a chance for established companies. They accelerate the digital transformation of logistics by implementing new digital technologies and create new digital business models for specialized solutions in niche markets.

Nevertheless, freight forwarders are the most threatened business area of these startups. The landscape of freight forwarder will definitely undergo significant changes. Companies which are not able to provide incremental value or transform into digital freight forwarders (DFF) will fade away from the market due to the dynamic change of services. They have to digitize their business to be well positioned on a global market. This will happen by building up an agile organization organically or by consolidation or partnerships. Merge and acquisition activities of freight forwarders or other logistics providers are not excluded. Digital knowledge, motivated employees and innovative ideas can be acquired with different approaches. An organic approach assumes, that companies challenge their current business models. They have to decide on which strategic focus should be considered and how the digital transformation should be pushed within the company.

Therefore, the expertise of the market development and digital technology are the prerequisites for further development.

This research finally shows a deep managerial impact. To achieve a successful market proposition in future, logistics providers will have to rethink their business. This paper is limited on the market dynamic to demonstrate the need for further researches in the application of technologies for logistics, in the area of innovation and change management and business creation to provide managers a toolbox and procedure model in future to manage this change

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