How technology and a changing consumer behaviour instigated change in the Deutsche Post DHL Group: An analysis on organizational change

Audrey Wright

2020

Bachelor of Commerce Best Business Research Papers

UVic Libraries ePublishing Services

Original citation:

Wright, A. (2020). How technology and a changing consumer behaviour instigated change in the Deutsche Post DHL Group: An analysis on organizational change. *Bachelor of Commerce Best Business Research Papers*, *13*, 116–133.

How Technology and a Changing Consumer Behaviour Instigated Change in the Deutsche Post DHL Group: An Analysis on Organizational Change

Audrey Wright

ABSTRACT

This paper will depict a detailed analysis of Germany's leading logistics company, Deutsche Post DHL Group, and their recent organizational change. Technological advances and eCommerce will be explored as an external factor influencing the company's success and internal decision-making. This analysis will include an examination of the group's innovative efforts to develop useful and sustainable operations in their changing industry. The paper will also include the group's previous response to a corporate challenge. Key performance indicators, such as a Carbon Efficiency Index and EBIT, will portray the company's progress shortly after their response and assume future performance.

INTRODUCTION

The Deutsche Post DHL Group

The Deutsche Post DHL Group, headquartered in Bonn, Germany, is one of the world's largest logistics service providers. In 2002, the German corporation Deutsche Post acquired American company DHL, forming what is now the Deutsche Post DHL Group (DPDHL). DHL runs the company's international services in over 220 countries, while Deutsche Post operates solely in Germany. The acquisition supported the group's efforts to develop a worldwide presence in domestic markets. DHL is one of the world's most recognized brands and was valued at US$20.6 billion(b) in 2018 by research institute Kantar Millward Brown (DPDHL, 2019). Deutsche Post was ranked the 21st strongest German brand in the Brand Finance Germany 100 in 2018 (Brand Finance, 2018). They employ approximately 550,000 people worldwide, 155,000 being domestic German employees. Deutsche Post trades on the Frankfurt Stock Exchange under the symbol DPW (DPW.F).

Prior to 2019, the company consisted of four corporate divisions: Post- eCommerce – Parcel (PeP), Express, Global Forwarding and Freight (GFF), and Supply Chain (SC) (Figure 1). As of January 2019, DPDHL has restructured its PeP division into two separate business units: Post & Parcel Germany (P&P) and DHL eCommerce Solutions (DeCS) (Figure 2). The DHL brand is used for all divisions except the German domestic post and parcel which is branded by Deutsche Post.

Figure 1: DPDHL structure of corporate divisions before 2019 restructuring.

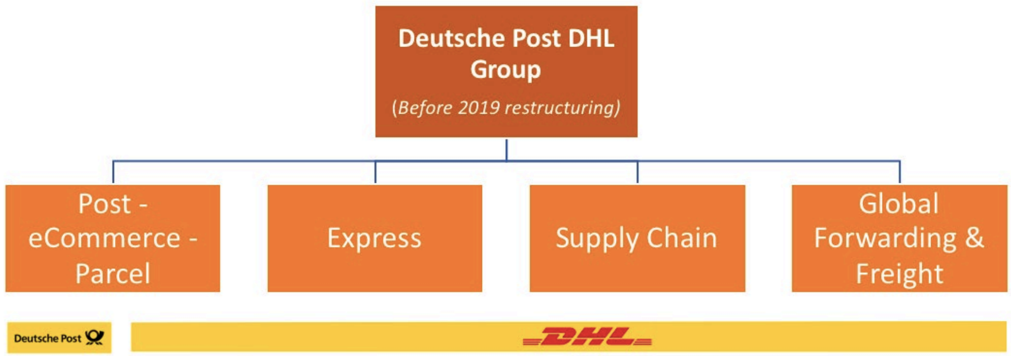
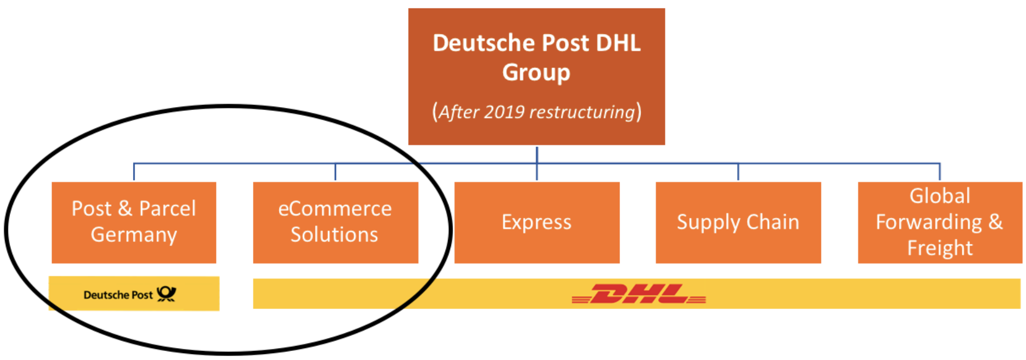


Figure 2: DPDHL structure of corporate divisions after 2019 restructuring.



In their 2018 fiscal year, the group reported total revenue of €61.5b and an EBIT of €3.2b (DPDHL, 2019). The firm actively participates in creating sustainable innovations that benefit the environment, having received a rating of A- by CDP, an external reporting agency for the environmental impact of major corporations. The firm operates every aspect of its business with strong discipline towards its stated corporate strategy; to be the customer, investment, and employer of choice, which supports its dedication towards conducting accountable business (DPDHL, 2019).

Logistics, Post and Parcel in Germany

Germany is considered Europe's biggest logistics hub given its central location. It was ranked number one in the World Bank's Logistics Performance Index in 2018, scoring high in timeliness, infrastructure, and logistics competence (The World Bank, 2018). Germany carries out significant investments in road, rail, air, and inland waterway infrastructure, totaling an estimated investment of €20.7b in 2017 (OECD, 2017). However, in 2017, Germany accounted for 20.9% of the European Union's total greenhouse gas emissions (Eurostat, 2019). Located in the German state of North Rhine-Westphalia (NRW) and conveniently close to DPDHL's headquarters, is the research initiative EffizienzCluster LogistikRuhr. This initiative carries out research to develop sustainable logistics services such as the Hub2Move, whose aim is to increase the flexibility of the flow of physical materials (EffizienzCluster LogistikRuhr. n.d.). The NRW also hosts the Zukunftskongress Logistik (Future Logistics Congress) in Dortmund every year.

Although Germany's logistics network is large, the country has been experiencing a decline in demand for physical letter mail communications. According to the European Commission, domestic mail traffic between the years 2014 and 2017 declined by 2.5% (European Commission, 2019). Between 2017 and 2018, the German mail communications market for business customers decreased by €200million (m) (DPDHL, 2017, 2018). In contrast, the German parcel market has had an increase of €800m during the same time period. In 2016, it was predicted that parcel market volumes in Germany could double by the year 2025 (McKinsey & Co., 2016).

Table 1: Total greenhouse gas emissions by country, 1990-2017.

Total greenhouse gas emissions by country (incl international aviation, indirect CO2 and excl LULUCF), 1990 - 2017
(Million tonnes of CO2 equivalents)

	1990	1995	2000	2005	2010	2015	2017	Share in EU-28*
EU-28	**5 722.9**	**5 397.8**	**5 287.2**	**5 362.0**	**4 917.5**	**4 470.3**	**4 483.1**	**100.0%**
Belgium	149.7	157.6	154.5	148.9	137.1	121.6	119.4	2.7%
Bulgaria	102.6	75.5	59.8	64.5	61.1	62.2	62.1	1.4%
Czechia	199.8	158.7	151.1	149.5	141.7	129.5	130.5	2.9%
Denmark	72.1	80.1	73.2	68.8	65.5	50.8	50.8	1.1%
Germany	1 263.2	1 138.1	1 064.7	1 016.5	967.0	931.8	936.0	20.9%
Estonia	40.5	20.3	17.4	19.3	21.3	18.3	21.1	0.5%
Ireland	56.5	60.3	70.3	72.0	63.4	61.7	63.8	1.4%
Greece	105.6	111.8	128.9	138.9	121.0	98.2	98.9	2.2%
Spain	293.3	335.3	397.1	452.6	370.1	351.8	357.3	8.0%
France	556.6	553.8	567.0	570.7	528.0	477.3	482.0	10.8%
Croatia	32.4	23.2	26.1	30.3	28.4	24.6	25.5	0.6%
Italy	522.1	538.3	562.1	589.2	514.7	443.7	439.0	9.8%
Cyprus	6.4	7.9	9.2	10.2	10.3	9.1	10.0	0.2%
Latvia	26.5	13.0	10.6	11.6	12.7	11.6	11.8	0.3%
Lithuania	48.6	22.5	19.6	23.0	20.9	20.5	20.7	0.5%
Luxembourg	13.1	10.7	10.6	14.3	13.4	11.6	11.9	0.3%
Hungary	94.2	75.9	73.9	76.2	65.7	61.3	64.5	1.4%
Malta	2.3	3.0	3.1	3.2	3.2	2.5	2.6	0.1%
Netherlands	226.4	239.3	229.8	225.8	224.1	207.5	205.8	4.6%
Austria	79.6	80.9	82.1	94.5	86.8	81.0	84.5	1.9%
Poland	475.0	445.7	396.3	404.3	413.1	392.3	416.3	9.3%
Portugal	60.8	70.8	84.3	88.1	71.7	71.1	74.6	1.7%
Romania	248.9	187.8	143.6	151.7	124.4	117.2	114.8	2.6%
Slovenia	18.7	18.8	19.1	20.6	19.7	16.9	17.5	0.4%
Slovakia	73.4	53.3	49.2	51.3	46.4	41.8	43.5	1.0%
Finland	72.3	72.8	71.3	71.2	77.4	57.2	57.5	1.3%
Sweden	72.7	74.7	70.4	68.6	66.4	55.7	55.5	1.2%
United Kingdom	809.9	767.6	741.9	726.2	642.1	541.5	505.4	11.3%
Iceland	3.8	3.7	4.4	4.4	5.2	5.4	5.9	0.1%
Lichtenstein	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.0%
Norway	51.9	51.8	55.7	56.3	56.8	56.1	54.4	1.2%
Switzerland	56.7	56.1	57.2	58.3	58.5	52.9	52.6	1.2%
Turkey	219.8	248.4	300.5	340.6	404.6	483.4	537.4	12.0%

*Share in EU-28 total in year 2017

Source: European Environment Agency (online data code: env_air_gge)

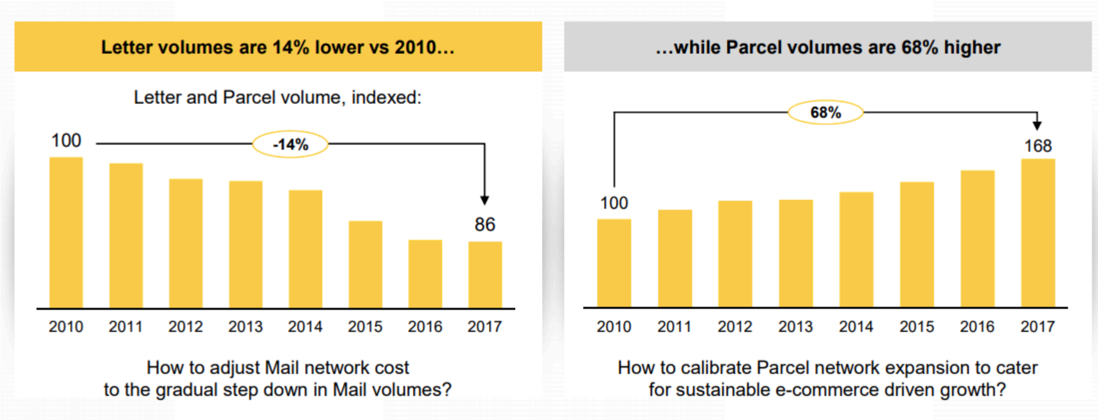
(Eurostat: European Environment Agency – Total greenhouse gas emissions by country, 2019)

PROBLEM

German post & parcel in DPDHL's PeP division

DPDHL is faced with a declining supply in its domestic post market. This decrease in volume had a negative effect on revenues in the PeP division. Mail communication volumes continued to decline from 7,964m to 7,707m between 2017 and 2018 (DPDHL, 2019). The firm indicated that this decrease correlates with the increase in electronic substitutions. The Bundestag election of 2017 played a role in increasing mail volumes, however, this would have to be considered a temporal anomaly rather than a reversal of trend. Table 2 shows the PeP division's revenue associated with the German post. Revenue from mail communications has been consistently decreasing over the years but remains a large portion of the total revenue associated with this sector. DPDHL's PeP division heavily depended on external activities for revenue. This reliance strongly supports the Resource Dependence Theory (Pfeffer & Salancik, 1978). This theory focuses on how external factors influence organizational behaviour and suggests that corporations can adjust their dependency and uncertainty through change. In DPDHL's case, their dependency currently lies in customer-supplier relationship. Described further in this paper is DPDHL's response to their dependence on a declining resource which involved organizational restructuring and adjustments to internal processes to optimize performance.

Figure 3: DPDHL's Letter mail and parcel volumes from 2010 to 2017.



(DPDHL: PeP Measures, June 2018)

Table 2: DPDHL's PeP division's revenue from the Post segment.

Post: Revenue (€m)										
Fiscal Year	2014*		2015*		2016*		2017*		2018	
Total Revenue	10,014	100.0%	9,784	100.0%	9,741	100.0%	9,956	100.0%	9,709	100.0%
Mail Communications	**6,641**	**66.3%**	**6,537**	**66.8%**	**6,527**	**67.0%**	**6,401**	**64.3%**	**6,303**	**64.9%**
Dialogue Marketing	2,232	22.3%	2,200	22.5%	2,225	22.8%	2,333	23.4%	2,205	22.7%
Other	1,141	11.4%	1,047	10.7%	989	10.2%	1,222	12.3%	1,201	12.4%

*based on adjusted numbers

Information taken from DPDHL Annual Reports 2015-2018

International parcel & eCommerce in DPDHL's PeP division

Online retailers are increasing sales by 10% - 15% solely by reaching international markets (DPDHL, 2017). The group's global network reaches more than 220 countries and territories which provides it with an opportunity to become a leading eCommerce logistics company. In previous years under the PeP division, the group's international eCommerce and parcel business had performed well. The European parcel market is thriving, revenues increasing from 12% to close to 25% of total revenue for the division. Table 3 shows the revenues related to the PeP division's eCommerce and parcel activities (the remaining revenues for this division are related to the post sector (Table 2)). In contrast to the increasing revenues in this segment, an analysis of EBIT shows that profits have not achieved the same growth. Over the past four fiscal years, the PeP division has relied heavily on domestic post and parcel, as their international eCommerce activities have not been profitable (Table 4).

Table 3: DPDHL's PeP division's revenue from the eCommerce – Parcel segment.

eCommerce - Parcel: Revenue (€m)										
Fiscal Year	2014*		2015*		2016*		2017*		2018	
Total Revenue	5,672	100.0%	6,347	100.0%	7,337	100.0%	8,482	100.0%	9,073	100.0%
Parcel Germany	3,992	70.4%	4,372	68.9%	4,814	65.6%	5,190	61.2%	5,556	61.2%
Parcel Europe (excluding Germany)	**676**	**11.9%**	**744**	**11.7%**	**1,138**	**15.5%**	**2,004**	**23.6%**	**2,216**	**24.4%**
Consolidated Parcel	*not available*		*not available*		*not available*		(256)	-3.0%	(349)	-3.8%
DHL eCommerce (excluding Europe & Germany)	**1,004**	**17.7%**	**1,231**	**19.4%**	**1,385**	**18.9%**	**1,544**	**18.2%**	**1,650**	**18.2%**

*based on adjusted numbers

Information taken from DPDHL Annual Reports 2015-2018

Table 4: DPDHL's PeP Division's EBIT.

Post - eCommerce - Parcel: EBIT (€m)										
Fiscal Year	2014*		2015*		2016*		2017*		2018	
Total EBIT	1,298	100.0%	1,103	100.0%	1,446	100.0%	1,503	100.0%	656	100.0%
operations in Germany	*not available*		**1,089**	**98.7%**	**1,447**	**100.1%**	**1,495**	**99.5%**	**658**	**100.3%**
eCommerce & International Parcel	*not available*		**14**	**1.3%**	**(1)**	**-0.1%**	**8**	**0.5%**	**(2)**	**-0.3%**

*based on adjusted numbers

Information taken from DPDHL Annual Reports 2015-2018

Overview of the PeP division's problem

For DPDHL to shut down all post operations because of a declining trend would be harmful to its revenue and brand reputation. DPDHL accounts for 63.4% of the German business mail communications market and 12.3% of the international outbound mail market in Germany (DPDHL, 2019). Simply reducing post services in response to lower demand would be harmful to German businesses and individuals that still rely on post and could potentially be both socially and politically detrimental for DPDHL. Furthermore, reducing services in the German post division would put the company at risk of losing a substantial source of revenue and cash flow. In 2018, post revenue declined 2.5% but still represented over 15% of the group's revenue as a whole. As seen in Figure 3, letter mail volumes had decreased by 14% between 2010 and 2017. In addition to this decline, DPDHL has struggled with other external forces such as steady but low postage prices between 2016 and 2018 (The Local Europe, 2019), and an increase in transportation costs from higher crude oil prices (DPDHL, 2018, 2019).

International parcel and eCommerce, on the other hand, continues to thrive. Between 2014 and 2018, revenues for the international DHL services (Parcel Europe and DHL eCommerce) have increased by 130% (Table 3). Nevertheless, this also comes with its challenges. EBIT from eCommerce has not shown consistent growth (Table 4). DPDHL maintains that the reduced profits in the eCommerce sector have been from increased investments to expand its international parcel services. In addition to these investments, the company has to take into consideration the effect that individual eCommerce deliveries will have on the environment such as increased CO2 emissions due to a larger number of last-mile delivery routes. To reach their 2050 goal of zero emissions, the development of sustainable solutions will be essential (DHL, 2017).

When it came to the financial reports, the PeP division recorded its revenue in different categories than its EBIT. The division's revenue would be recorded based on the type of item; Post revenue would be segmented from eCommerce – Parcel revenue. The Post segment would include mail communications and dialogue marketing. The eCommerce – Parcel segment would include parcel Germany, parcel Europe, the remaining regions (mostly Asia and the USA) would be grouped into DHL eCommerce. However, when recording EBIT, the activities would be segmented based on geographic location; “operations in Germany” and “international parcel & eCommerce”.

The structure of the PeP division divided the focus between two very different businesses with individual operating conditions and challenges. The initiatives to improve productivity by reducing direct costs are different when working with domestic and international deliveries. For example, the replacement of fuel-based vehicles with cargo bikes and electric vehicles is beneficial when delivering products domestically, however international shipments require larger and faster transportation equipment that usually is not as sustainable. Additionally, German domestic post and parcel shipments are completed by one brand, Deutsche Post, while some international post and parcel require communication and collaboration between foreign post companies. Domestic post and parcel services include the sorting and delivery of products as they are received by a business or individual customer. However, with eCommerce logistics, it is often required to have more steps such as warehousing, inventory management, and packaging. Products sold by eCommerce have fluctuating orders and require much more advanced predictive software to analyse the demand for products that need to be stored and packaged for delivery (Atkins 2019; DPD Laser, 2014). In June 2018, the company highlighted two main issues related to the PeP division. The first being how to effectively adjust the operations associated with mail communications to deal with the declining market. The second, how to sustainably service customers in the growing eCommerce market. The company’s response to these identified problems will follow, however, to further understand the origins of the company’s problem, it is important to first consider what influenced the external behaviours to change.

LOGISTICS & TECHNOLOGY

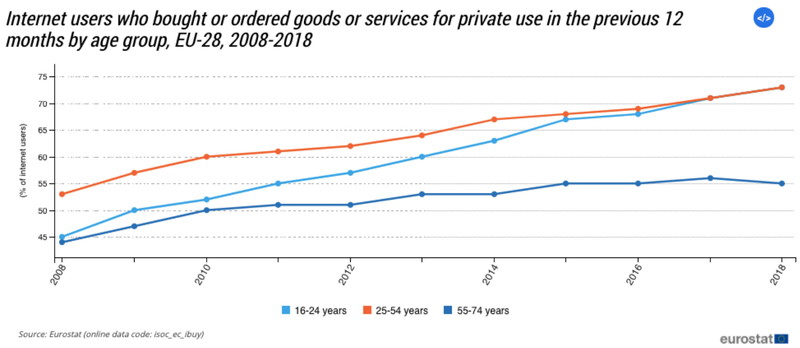
Improvements of modern-day logistics stimulated by technology

Before the disruptive advances in technology, logistics involved a larger amount of paper documents, manual data inputs into multiple information technology (IT) systems, and slower deliveries (Bento, 2019). Advances in technology have allowed for modern logistics to improve efficiencies and reduce costs such as material expenses. Radio Frequency Identification (RFID) systems have improved accuracy in inventory management allowing for a reduction in inventory (Milić D. C. & Zorić B., 2017). The Electronic Data Interchange (EDI) process has cut costs due to the elimination of paperwork which has also improved the efficiency of exchanging information between channel members. RFDI and EDI are just a few examples of how IT can improve logistics operations in the supply chain. Additionally, this implementation positively corresponds with creating “green supply chains” which is attractive to businesses looking to outsource their logistics services.

Advances in technology have transformed customer preferences and communication habits (Copenhagen Institute for Future Studies, n.d.). The way people communicate with friends, read the news, and even conduct business meetings has all changed due to technology allowing customers to utilize preferred modern methods of communication. The biggest online communication platform, Facebook, has recorded 2.45b users in 2019 (Statistica, 2019), 1.3b of which communicate through Facebook Messenger daily (West, 2019). This behavioural change to a more efficient way of communication has led to reductions in the use of physical means of communication such as letter mail. For logistics companies who rely on the demand for physical communication to generate revenue, this shift to technological interaction poses a threat.

While customer preferences worldwide have resulted in a decrease of letter mail, there is an opportunity for logistics firms to utilize another change in customer preferences to their advantage. As technology develops, people generally become reliant on its functionality for their day-to-day activities. Younger generations will most often be "early -adopters". This is certainly true in the case of eCommerce transactions (Rainie & Anderson, 2017).

Figure 4: Internet users who bought or ordered goods or services for private use in the previous 12 months by age group, EU-28, 2008-2018.



(Eurostat, E-Commerce statistics for individuals, 2018).

As younger generations attain more disposable income it can be assumed that eCommerce revenues will continue to increase as customers build on a preference for utilizing online channels of distribution. This represents a departure from the traditional distribution channels of manufacturer-wholesaler-retail-customer. Supply chains now rely less on retailers and wholesalers and allow manufacturers to sell directly to their customers. This has started the seemingly revolutionary Retail Apocalypse, resulting in many retail store closures and bankruptcies (Bhattarai, 2019). Although this is harmful to those channel members, it is a new opportunity for logistics firms. They can provide their expertise on shipping, warehousing, and inventory management, to manufacturers who may lack this knowledge or prefer to concentrate on their corporate strengths.

eCommerce and how it instigates change in logistics services

Electronic commerce, or eCommerce, is the purchase and sale of products and services online. Retail eCommerce sales in 2018 amounted to an estimated amount of US$2,982b and are forecasted to rise to US$6,542b by 2023 (Statistica, 2019). According to the eCommerce platform Shopify, the number of online shoppers on their platform was recorded at 218m in 2018 (Shopify, 2019). A recent survey has found that millennials (ages 22 – 37) transact 60% of their shopping online (Melton, 2019). The customer demand from younger generations for convenient online access to goods and services and the expected growth in revenue has made eCommerce an attractive market. There are many benefits to companies that implement eCommerce channels. They have the opportunity to reach a broad customer base by expanding internationally. To illustrate, the online consumer shopping trends in Brazil, Indonesia, and Thailand suggest greater use of international websites than domestic ones (Deloitte, 2014). Additionally, there is the advantage of omitting retailers which can allow companies to have more control over their marketing and brand. However, a challenge arises for manufacturers when internal logistics can no longer keep up with domestic or international demand. Outsourcing a logistics provider who can effectively package, and transport products is essential in the success of an eCommerce business and can allow manufacturers to focus and reinvest in their core business.

A manufacturer who implements an eCommerce platform but does not keep up with modern logistic IT trends will find it difficult to compete. This means implementing newer warehousing and inventory management technologies such as smart glasses, drones, and augmented reality to increase the efficiency of the supply chain (Atkins, 2019). Big Data Analytics (BDA) can be implemented to improve storage, recognizing patterns, and interpretation of information (Yu, Wang, Zhong, & Huang, 2017). Cloud Computing can improve efficiency by allowing on-demand access to documents and data to all relevant channel members.

The modification of technological logistics services to support a specific industry, product, and vision is essential. However, the investment in automated equipment can be costly, and the development of effective logistics strategies needs certain expertise. This is why companies often outsource their logistics to third parties. Successful logistics firms understand how to provide unique, timely services and will have the extensive domestic and global infrastructure and equipment that will increase the value and efficiency for all customers. Successful logistics firms will also understand the importance of last-mile delivery, showcasing the delivered brand in a way the manufacturer desires.

DPDHL's previous efforts to enter market for eCommerce logistics

DPDHL strives towards building eCommerce services that benefit the individual needs of their e-customers. In 2009, one of their retailers, Ben Sherman, launched its online eCommerce platform to reach a broader customer base (DPDHL, 2009). The retail brand produces fashionable men's clothing and appropriate delivery to preserve the quality of their items is essential. DPDHL considered this while developing their eCommerce delivery system. They utilized the combined expertise of eCommerce and fashion experts to develop a structure that best worked for Ben Sherman. Alan Higgins, the Global Logistics Director for Ben Sherman in 2009, stated the implementation of DPDHL's eCommerce services was "smooth" and had "consistently high levels of service". Ben Sherman is said to have had saved money, time, and space with DPDHL's services, allowing them to concentrate on what they do well – design and manufacturing of men's clothing.

After the success of Ben Sherman's online platform, DPDHL took another step towards building eCommerce expertise. In 2010, the company began the development of its online marketplace; MainPaket.de, later renamed Allyouneed.com. The company sold the platform to Delticom AG in 2018 and recorded a €10m impairment loss associated with the sale (DPDHL, 2019). Some outside sources view this initiative as a waste of company resources, having spent 8 years developing the platform and receive no financial return (Weidemann, 2018). With established eCommerce platforms such as Amazon beginning to develop their own logistics services (Yu, et al. 2017), DPDHL must stay competitive with this rising trend. According to DPDHL, the Allyouneed.com initiative provided the firm with the opportunity to understand online commerce from the point of view of their customers.

DPDHL'S PREVIOUS RESPONSE TO CHANGE

DHL Express has not always been one of the group's top performing divisions. After 2006, the division did not see an operating profit until 2010. They recorded an adjusted operating loss of €272m in 2007 and further losses of €2,194m in 2008 (DPDHL, 2019). The main reasoning behind why the division was underperforming was related to the DHL – Deutsche Post merge in 2002. Before the acquisition, DHL was an American company with international presence but had focused a lot of their operations on intra-US deliveries. When acquired by cross-border experts Deutsche Post, there were challenges associated with managing profits as the US Express division required high volumes with small margins (Allen, 2019). One problem mentioned by DHL Express CEO, Ken Allen, was that the company did not take advantage of partnerships with other post services in domestic areas to reduce their costs (Machatschke, 2010). Allen emphasizes the problem the Express division faced in 2007 was the result of DPDHL focusing too much on the US domestic market and not on what it had been good at for decades – cross-border trade. Allen proposed moving away from unprofitable activities in domestic markets to focus on international express delivery as it offered a higher return. Unfortunately, the future success of this division also meant the company had to terminate 10,000 of its employees as their positions became redundant.

Allen focused his strategy on his remaining employees and the important role they had in redefining the direction of the division. The biggest challenge faced by employees was the shift in duties. Employees that were accustomed to domestic operations had to learn different processes that included difficult routing, customs approvals, sanction compliance and more. Allen saw the future success of this division was reliant on the development of a workforce that would accept change and be motivated to provide quality services. To convey his message to the 88,000 worldwide employees, Allen and his management team generated videos to span across the organization and communicate this new initiative. Singing songs like "What the World Needs Now Is Love" and "Ain't No Mountain High Enough" Allen and other management staff conveyed the desired customer loyalty and motivation they would need employees to demonstrate. Allen connected his workforce with music they all recognized and understood. This was a positive method to encourage an underperforming division (Heryati R., n.d.; Square, n.d.). Allen continued his efforts to integrate employees into the company by developing the Certified International Specialists (CIS) program. This 2-day program allowed DHL Express employees to develop their knowledge of international shipping and familiarize themselves with the company's strategy. Since its implementation, results from Employee Opinion Surveys have seen an increase in employee engagement which can be associated with the success of the CIS program.

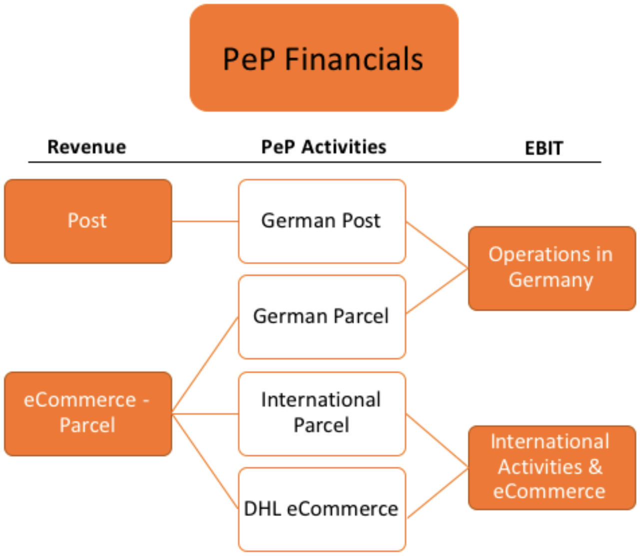
Allen has demonstrated his ability to innovatively turn an underperforming division into a profitable and motivational workplace. To this day, the CIS program is still active, providing a resource for employees to learn international trade processes and to ensure worldwide consensus towards a corporate goal. In 2018, Fortune partner Great Place To Work conducted a survey that resulted in DHL Express achieving sixth place for the World's Best Workplaces (Fortune, n.d.).

DPDHL'S 2019 CHANGE STRATEGY

Overview

Faced with different problems and challenges in their PeP division, the company decided it best to focus on the future of both divisions separately. In January 2019, the company executed plans to separate all DHL activities, international post and eCommerce, from Deutsche Post's post and parcel activities (Figure 2). The new divisions were created in correlation with the EBIT categories in the old PeP division. EBIT from "Operations in Germany" now has its own division, where revenues are segmented as Post Germany and Parcel Germany. International activities which were "International Post and eCommerce" are now a stand-alone division which includes detailed segments based on geographical regions (Figure 5).

Figure 5: Visual of how the PeP division grouped activities for revenue and EBIT calculations.



The implementation of new business divisions in 2019

1) German Post & Parcel (2019 -)

   a. Structure and Services: The P&P division continues the transport, sorting, and delivery of mail communication and dialogue marketing (Post) and parceled goods to individual and business customers in Germany (Parcel Germany), in addition to exports. This division runs under the Deutsche Post brand.

   b. 2019 Revenue: In Germany, the division holds the number one market position in both post and parcel. The revenue mix consists of 62% business post and 38% parcel (DPDHL, October 2019). Volumes, like before, are increasing for parcel (between 5% and 7%) due to eCommerce trends and decreasing for post (between 2 and 3%) due to an increase in electronic alternatives. By the company's third quarter (Q3), they reported a 2.5% increase in revenue from the Q3 in 2018.

2) DHL eCommerce Solutions (2019 -)

   a. Structure and Services: The DeCS division provides last-mile delivery service outside of Germany in selected countries, services eCommerce platforms, and constructs unique processes for new eCommerce businesses. The division combines the previously separated Parcel Europe and DHL eCommerce services (from the PeP division) to effectively assess the opportunities and performance of international eCommerce. This division runs under the DHL brand.

   b. 2019 Revenue: The profitable core of this division is the delivery of domestic last-mile parcel in America, Europe and Asia, with emphasis on the growing market in Europe. In the first nine months (9M) of 2019, DeCS revenue increased by 6.8% since the 9M2018. All of the division's operating regions contributed to the 9M2019 revenue increase, 9.7% increase in the Americas, 5.5% in Europe, 5.4% in Asia. In correlation with previous reporting periods, the region generating the most parcel revenue (excluding Germany) continued to be Europe. In 2019, revenue from Europe consisted of 56% of the DeCS total revenue.

New management

The restructure also saw a change in division CEOs. The former PeP division CEO, Jürgen Gerdes, is no longer with the firm because of a difference in opinion on the company's strategic focus. The domestic P&P division is now run by Tobias Meyer, a DPDHL employee since 2013 and a newly appointed board member. The international DeCS division was taken over by previous Express division CEO, Ken Allen, whose appointment is exciting for the group as his cross-border expertise will help the division develop its profitable core in international markets, specifically within Europe.

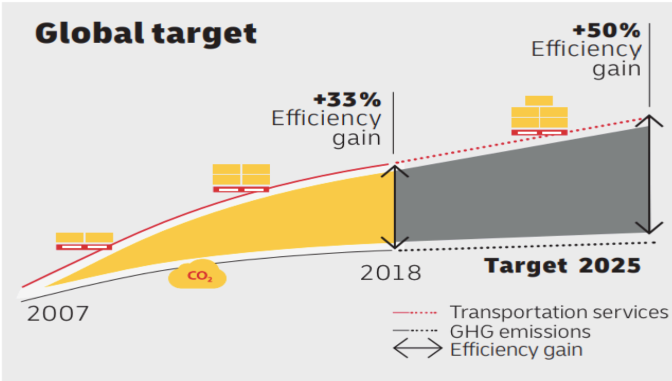
Restructuring costs

The restructuring came at a substantial cost. An early retirement program was introduced to reduce the number of domestic employees in redundant positions who were not hireable elsewhere. This initiative will reduce overhead in new divisions but cost the PeP division €400m in 2018. Further DeCS restructuring costs in 2019 resulted in a total write-down of €502m, mostly from portfolio optimization costs associated with their Austrian Post contract agreement and staff cuts (DPDHL, 2019).

DPDHL's sustainable activities and innovations

The popularity of online shopping has resulted in the growth of residential parcel shipping and a subsequent increase in carbon emissions. The group has taken its initiatives towards developing solutions and improving industry trends by establishing DHL Innovation Centers in Singapore, Troisdorf, and Chicago. One of the company's main areas of focus is the reduction in fuel-based vehicles used for transport. A recent development in DPDHL's innovation centers is its electric vehicle produced by its subsidiary, StreetScooter. In 2016, the group's efforts to collaborate with third-party conventional van manufacturers did not succeed, which resulted in the company taking initiative to produce the vehicles in house (King, 2016). In 2018, the production of the vehicles cost the company €257m. These regular sized vehicles are said to save three tonnes of diesel per year and hold up to 720kg of goods each. In August 2019, the group announced the operation of its 10,000th StreetScooter vehicle. The company also operates around 12,000 electric bikes and trikes (DPDHL, 2019). The company's entire e-transport endeavours are estimated to save 36,000 tonnes of CO2 a year and reduce greenhouse gas emissions as transportation increases (Figure 6). eCommerce is also challenging the company's other sustainability efforts as the smaller, more numerous shipments are producing more waste from packaging. DPDHL conducted a survey in October 2019 that showed there is a popular trend among customers in demand for sustainable packaging and reduced waste (DPDHL, 2019). The group highlighted that reducing packaging waste and finding environmentally friendly solutions is an important responsibility in the logistics industry. Their initiatives include the OptiCarton packaging optimization tool, for example, maximizes pallet space by analysing the size and weight of packages which decreases product damage and reduces environmental impact. Many innovations have an additional benefit of allowing companies to relay information towards their customers easier and faster, improving the customer experience (Hyken, 2018). For example, DPDHL's ProView service allows customers to track the status of their shipments as it moves through the DHL network.

Figure 6: DPDHL's previous performance and global target for efficient GHG emissions related to transportation activities.



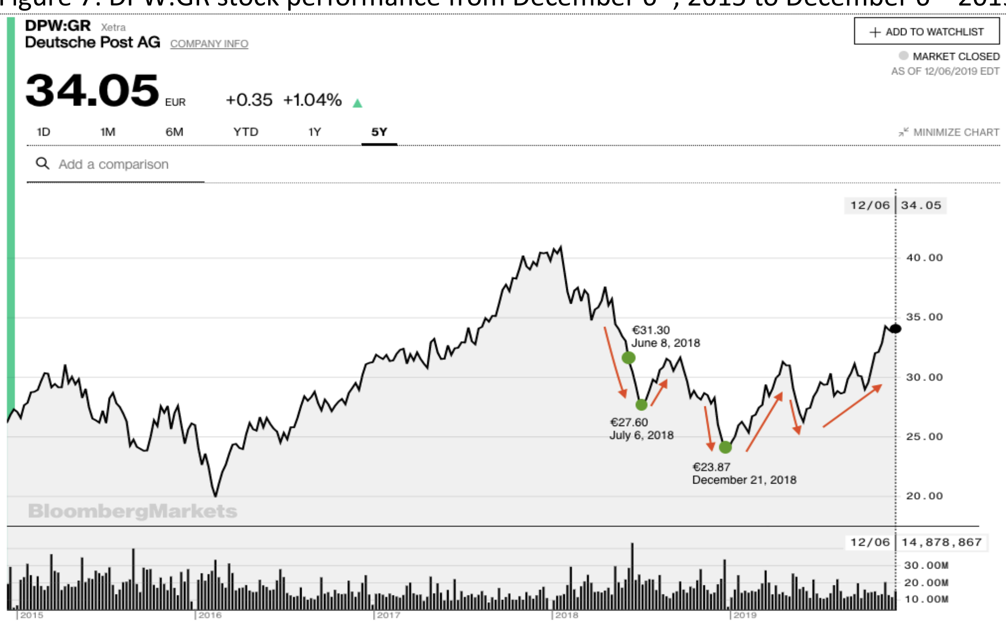
(DPDHL, 2019)

PERFORMANCE ANALYSIS

Stock performance

The company's stock suffered a decline of 12% (€31.30 to €27.60) a month after the release of the company's planned restructuring (Bloomberg, 2019). The stock recovered slightly in mid-July 2018 only to decline again right before the company implemented its structural change in January 2019. The company began 2019 with a stock price of €24.04, one of the lowest prices since the beginning of 2016. The stock began increasing again at the beginning of June, possibly due to the release of information regarding an increase in postage prices (Bundesnetzagentur, 2019; The Local Europe, 2019). Basic earnings per share (EPS) decreased in 2018 from 2017 which can be highly correlated with a reduction in EBIT due to increased restructuring expenses. The 9M2019 EPS increased by €0.4 from the EPS in 9M2018.

Figure 7: DPW:GR stock performance from December 6th, 2015 to December 6th, 2019.



(Bloomberg, 2019)

Internal key performance indicators

DPDHL has a wide range of performance measures for the whole corporation. Financial performance is measured by profit from operating activities (EBIT), earnings after asset charge (EAC) and free cash flow (FCF). Non-financial performance indicators mainly include outcomes of EOS, Customer Satisfaction Surveys, and calculation of the carbon efficiency index (CEX).

1) EOS: DPDHL strives towards creating a workplace that enhances the lives of its employees. The group conducts annual Employee Opinion Surveys (EOS) and uses the results as management performance indicators to help gauge employee satisfaction. Bonuses for executives are highly leveraged on the results from the EOS which conveys how employees rate their opportunities for engagement and leadership behaviour. In 2018, DPDHL recorded a positive rating of 76% in active leadership and employee engagement (DPDHL, 2019). The 2018 target for improving this score by 1% was met, and the same goal has been set for 2019.

2) CEX: DPDHL critically focuses on its CEX as a performance indicator towards its environmental impact. The CEX target was met for 2018, having improved its CEX by one point since 2017. The improvement can be correlated with the use of renewable resources mostly in its SC and Express divisions. In 2017, the company recorded 6.34m tonnes of CO_2 emissions (direct and indirect), which accounted for 0.7% of Germany's total CO_2 emissions (Table 1) (DPDHL, 2018). The group works with the Aviation Initiative for Renewable Energy in Germany to work towards developing renewably fueled aircraft (29% of the group's 2018 fuel consumption was due to air transport). In 2018, the amount of CO_2 emissions had increased by 3.6%, however, other statistics show promising increases in sustainability such as a 14% increase in green electricity use. DPDHL's corporate goal to operate with zero emissions by 2050 benefits the EU's 'Green Deal' initiative towards keeping the global temperature increase by 2050 below 2°C (European Commission, 2018). Cooperation from large corporations such as DPDHL will hopefully reduce Germany's contribution to EU carbon emissions and support the Union's 2050 goal.

Performance of the P&P Germany division

The company has stated that its goals for the German P&P division lie in recovering and sustaining earnings in the division. They have highlighted digitalization as a key focus, expected to lead them to efficient operations that will yield greater profits and reduce environmental impact (DPDHL, 2019). In 2019, the division deemed itself successful in digitalizing procedures. For example, the company's use of Optical Character Recognition (OCR) technology has improved the read rate in its domestic mail sorting operations. OCR technology can establish patterns to help with recognizing items that belong to specific customers, delivery points, etc. (Cook, n.d.).

At the end of 2018, the 2019 EBIT targets for the P&P division were set between €1b and €1.3b. In a more recent presentation, the company adjusted the target to between €1.1b and €1.3b This restatement is attributed to a positive development of internal operations from restructuring and increased control on costs (DPDHL, 2019). Figure 14 shows the company's adjusted targets as of October 1, 2019.

Figure 8: DPDHL's EBIT guidance for 2019 and 2020 fiscal year ends.

Guidance 2019 / 2020 reiterated

In € bn

	2019	2020
Group EBIT	4.0-4.3	>5.0
P&P Germany	1.1-1.3	>1.6
DHL	3.4-3.5	>3.7
Corporate Functions	-0.5	-0.35

DPDHL GROUP CAPITAL MARKETS DAY | 1 OCTOBER 2019 | CFO PRESENTATION

(DPDHL. 2025 Strategy Presentation, October 2019)

The performance of the division at 9M2019 reported an accumulative EBIT of €708m, meaning a profit from operating activities of €392m is needed in Q4 for the company to reach their adjusted 2019 target. To predict the attainability of 2019 targets, a comparison between previous Q4 figures associated with this sector is needed. Historically, the business unit will experience a higher demand for post and parcel services during the holiday season. Based on Q4 from 2016 and 2017, Table 5 suggests that the P&P Division will likely exceed the Q42019 target. 2018 EBIT was not used for the prediction as the restructuring expenses had a significant irregular effect on the outcome.

Table 5: Projections for Post & Parcel Germany 2019 EBIT.

2019 Target Calculations	
2019 Target	1,100
2019 9M EBIT	708
2019 Q4 Target	392

Post & Parcel Germany: EBIT (€m)								
Fiscal Year	2016*		2017*		2018		2019 Targets	
Total EBIT	1,447	100%	1,495	100%	658	100%	1,100	100%
Q4	496	34%	505	34%	364	55%	392	36%

EBIT from years before 2019 were calculated from 'EBIT from Germany' in the PeP department

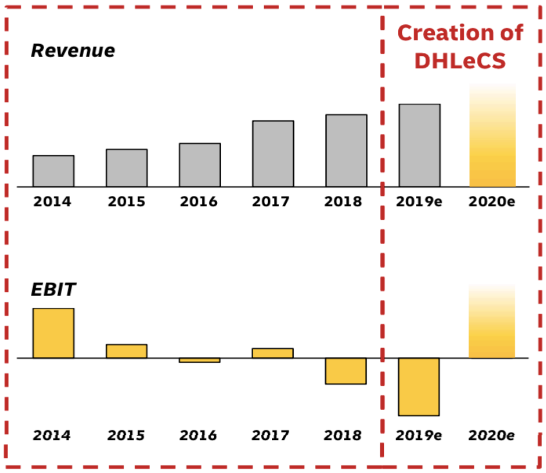
*based on adjusted numbers

Performance of the eCommerce Solutions division

The company's 2019 EBIT targets for this division have been included in the DHL targets set between €3.4b and €3.5b (Figure 8). The DHL targets include all international divisions: SC, GFF, Express, and DeCS. With all divisions grouped together, it is difficult to see what financial targets were set for DeCS and assess whether they are on track to achieve those targets. Figure 9 shows a rough estimate of the DeCS division's performance for the upcoming fiscal year ends. The loss in 2019 mostly due to €60m restructuring expenses but an expected profitable EBIT in 2020. The majority of these costs were incurred for portfolio developments, reductions in overhead and loss allowances as mentioned above. The 2019 interim reports show the DeCS division began its Q1 at a loss of €28m. Q2 performed better at a loss of €18m and Q3 showed a profit of €6m. The Q3 profit reflected the good performance of the division's core business and the success of the restructuring processes.

The focus has been set on improving the profitable core in countries such as the Netherlands, Poland, Czech Republic, and Sweden, as well as the domestic and cross-border business in the USA (DPDHL, 2019). The division has challenged itself to look at other European Post Offices as partners instead of competitors. As previously mentioned, in 2019 Allen and his DeCS team were successful in signing the collaboration agreement with Austrian Post which services Austria, Czech Republic, and Slovakia. This partnership will allow Austrian Post to deliver products sent by DPDHL customers and brings DPDHL closer to optimizing their cross-border deliveries. It is also thought that the relationship with Austrian Post will demonstrate how DPDHL can expand further into international partnerships and broaden the scope of their eCommerce business.

Figure 9: Revenue and EBIT projections for eCommerce Solutions division.



(DPDHL, June 2018)

CONCULSION

DPDHL's problem initially stated at the beginning of the paper highlighted two issues: how to optimize operations in a decreasing market and how to effectively and sustainably offer services in the eCommerce logistics industry. The two separate problems led to a decision to separate the focus on each division as they require different activities. Domestic post was refocused to enhance last-mile deliveries in short distances, improve sustainability which reduced operating costs, and apply IT to allow for efficient processes. The DeCS division was highly invested in to improve international relations and develop an improved gateway into profitable regions. As the group's restructuring has only been implemented recently, it is not completely certain whether it will solve the problems previously stated. However, the recent performances of the new divisions in the first three quarters of 2019 are promising.

In every industry, companies struggle to deal with changes in their external environments. Frequently, when business resources are scarce, companies must accept that change is the solution to support the business and industry in the long-term. In today's modern society, it is becoming more apparent that external change is due to technology. Technology is changing consumer behaviour and multiple business operations, making it necessary for many companies to shape their business into a new desired service with cooperative intra-business functions that suit their stakeholders. Embracing IT is the first step to becoming more accessible to today's society. A few takeaways from DPDHL's recent endeavors is using IT to change internal operations can increase profitability by reducing costs, strengthen brand reputation by creating sustainable services, and open doors to new and highly demanded services which could potentially lead to becoming a leading service provider in a new market.

REFERENCES

Deutsche Post DHL Group (DPDHL) Web Site. (2019). Retrieved in 2019 from https://www.dpdhl.com/en.html.

DPDHL. (2019). 2018 Annual Report of Deutsche Post DHL Group. Retrieved on October 29, 2019 from https://www.dpdhl.com/content/dam/dpdhl/en/media-center/investors/documents/annual-reports/DPDHL-2018-Annual-Report.pdf.

DPDHL. (2018). 2017 Annual Report of Deutsche Post DHL Group. Retrieved on October 29, 2019 from https://www.dpdhl.com/content/dam/dpdhl/en/media-center/investors/documents/annual-reports/DPDHL_2017_Annual_Report.pdf.

DPDHL. (2017). 2016 Annual Report of Deutsche Post DHL Group. Retrieved on October 29, 2019 from https://www.dpdhl.com/content/dam/dpdhl/en/media-center/investors/documents/annual-reports/DPDHL_2016_Annual_Report.pdf.

DPDHL. (2016). 2015 Annual Report of Deutsche Post DHL Group. Retrieved on October 29, 2019 from https://www.dpdhl.com/content/dam/dpdhl/en/media-center/investors/documents/annual-reports/DPDHL_2015_Annual_Report.pdf.

Brand Finance. (May 2018). Retrieved Brand Finance Germany 100: The annual report on the most valuable German brands. Retrieved on November 29, 2019 from https://brandfinance.com/images/upload/germany_100_locked.pdf.

The World Bank. (2018). The Aggregated LPI. Retrieved on December 12, 2019 from https://lpi.worldbank.org/international/aggregated-ranking.

Organization for Economic Co-operation and Development. (2017). Infrastructure investment. Retrieved on December 12, 2019 from https://data.oecd.org/transport/infrastructure-investment.htm.

Eurostat. (2019). Greenhouse gas emission statistics – emission inventories. Retrieved on December 11, 2019 from https://data.oecd.org/transport/infrastructure-investment.htm.

EffizienzCluster LogistikRuhr. (n.d.). Retrieved on December 13 from https://www.effizienzcluster.de/en/spitzencluster_wettbewerb/projekt.php?proPid=17.

European Commission. (July 29, 2019). Domestic postal traffic, letter mail and parcel services. Retrieved on December 2, 2019 from https://webgate.ec.europa.eu/grow/redisstat/databrowser /view/POST_CUBE1_X$POST_DTR_1/default/table?category=GROW_CURRENT

Pfeffer, J., & Salancik, G. R. 2003. The external control of organizations: A resource dependence perspective. Retrieved from https://books.google.co.uk/books?hl=en&lr=&id=iZv79yE--_AC&oi=fnd&pg=PR9&dq=resource+dependence+theory+external+control&ots=VktqPy7mvO&sig=2OrP6YfPcZ5LFuvWs1wkhUkB2Fg#v=onepage&q=resource%20dependence%20theory%20external%20control&f=false.

DPDH. (February 2017). Cross-border e-commerce is one of the fastest growth opportunities in retail, according to DHL report. Retrieved November 13, 2019 from https://www.dpdhl.com/en/media-relations/press-releases/2017/cross-border-e-commerce-growth-opportunities-etail-dhl-report.html.

DPDHL. (June 2018). PeP Measures presentation. Retrieved on November 13, 2019 from https://www.dpdhl.com/content/dam/dpdhl/en/media-center/investors/documents/shares/DPDHL_PeP_measures_2018-05-08.pdf.

McKinsey & Co. (September 2016). Parcel Delivery: The future of last mile. Retrieved from https://www.mckinsey.com/~/media/mckinsey/industries/travel%20transport%20and%20logistics/our%20insights/how%20customer%20demands%20are%20reshaping%20last%20mile%20delivery/parcel_delivery_the_future_of_last_mile.ashx

The Local Europe. (June 2019). Postage costs set to Spike in Germany. Retrieved on November 5, 2019 from https://www.thelocal.de/20190604/this-is-how-much-it-will-cost-to-send-a-letter-in-germany.

DHL Delivered. (February 2017). Zero emissions by 2050: DHL announces ambitious new environmental protection target. Retrieved November 3 from http://www.delivered.dhl.com/en/articles/2017/05/zero-emissions-by-2050.html.

DPD Laser. (April 2014). Traditional Logistics Versus eCommerce Logistics. Retrieved on December 12 from http://www.dpdlaser.co.za/traditional-logistics-versus-ecommerce-logistics-serious-post/.

Atkins, B. (May 2019). Logistics In The eCommerce Era. Retrieved on December 12 from https://www.forbes.com/sites/betsyatkins/2019/05/06/logistics-in-the-e-commerce-era/#7e82adc1574d.

Bento, N. (2019, July 22). What is the difference between digital and traditional logistics? [Web blog post]. Message posted to https://www.mixmove.io/blog/what-is-the-difference-between-digital-and-traditional-logistics.

Milić D. C. & Zorić B. (2017). Trends in the use of information technology in logistics systems management. Retrieved from https://www.semanticscholar.org/paper/TRENDS-IN-THE-USE-OF-INFORMATION-TECHNOLOGY-IN-Mili%C4%87-Zori%C4%87/8f7487f2a7acdee1f169ad80782fe0c431ecf006.

Statistica. (2019). Social Media & User-Generated Content: Number of monthly active Facebook users worldwide as of 3rd quarter 2019. Retrieved from https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/

West, C. (February 2019). Social media demographics to drive your brand's online presence. [Web blog post]. Retrieved from https://sproutsocial.com/insights/new-social-media-demographics/.

Shopify. (2019). 2018 Year in Review. Retrieved on December 10, 2019 from https://s2.q4cdn.com/024715446/files/doc_downloads/year_in_review/2018/Shopify-Year-in-Review-2018.pdf.

Copenhagen Institute for Future Studies. (n.d.). Communication trends and the role of mail. Retrieved from https://www.ipc.be/-/media/documents/public/cifs_communications.pdf.

Rainie, L. & Anderson, J. (June 2017). The internet of things connectivity binge: What are the implications? Retrieved from https://www.pewresearch.org/internet/2017/06/06/theme-1-people-crave-connection-and-convenience-and-a-tech-linked-world-serves-both-goals-well/.

Bhattarai, A. (April 2019). 'Retail apocalypse' now: Analysts say 75,000 more U.S. stores could be doomed. Retrieved from https://www.washingtonpost.com/business/2019/04/10/retail-apocalypse-now-analysts-say-more-us-stores-could-be-doomed/.

Statistica. (2019). Retail e-commerce sales worldwide from 2014 to 2023. Retrieved from https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/.

Melton, J. (March 2019). Millennials now do 60% of their shopping online. Retrieved from https://www.digitalcommerce360.com/2019/03/26/millennials-online-shopping/.

Deloitte. (2014). From bricks to clicks: Generating global growth through ecommerce expansion. Retrieved from https://www2.deloitte.com/content/dam/Deloitte/za/Documents/consumer-business/za_generating_growth_through_ecommerce_24112014.pdf.

Yu, Y., Wang, X., Zhong, R., & Huang, G. (2017). E-commerce logistics in supply chain management. Industrial Management & Data Systems, 117(10), 2263-2286. doi: 10.1108/imds-09-2016-0398

DPDHL. (2009). Trusted partnership creates total multi-channel solution for Ben Sherman. Retrieved from https://www.mydhl.dhl.com/content/dam/downloads/g0/logistics/case_studies/ben_sherman_case_study_final1.pdf.

Weidemann, T. (2018). DHL schleißt Online-Marktplatz Allyouneed. Retrieved from https://t3n.de/news/dhl-schliesst-online-marktplatz-allyouneed-1098011/.

Allen, K. (2019). The Former CEO of DHL Express on Leading the Company Through an Existential Crisis. Retrieved from https://hbr.org/2019/03/the-former-ceo-of-dhl-express-on-leading-the-company-through-an-existential-crisis.

Machatschke, M. (2010). Customer instead of chaos. Retrieved from https://www.manager-magazin.de/magazin/artikel/a-708038-4.html.

Square. (n.d.). 10 Scientifically Proven Ways to Motivate Employees. [Web Blog Post]. Retrieved from https://squareup.com/us/en/townsquare/how-to-motivate-your-employees.

Heryati R. (n.d.). How to Motivate your Employees in 12 Easy Steps. [Web Blog Post]. Retrieved from https://inside.6q.io/how-to-motivate-your-employees-in-12-easy-steps/.

Fortune. (n.d.). World's Best Workplaces. Retrieved from https://fortune.com/2018/10/15/worlds-best-workplaces-2018/.

King, G. (2016). VW not happy with DHL for building its own EV van. Retrieved from https://www.motor1.com/news/101143/vw-not-happy-with-dhl/.

Suberg, T. (2018). The Future of Logistics Tech: Sustainability Impossible? [Web Blog Post]. Retrieved from https://medium.com/predict/the-future-of-logistics-tech-sustainability-impossible-2de427e3a73.

DPDHL. (2019). Milestone on the way to the "green zero": 10,000 climate-protecting StreetScooters are now in service. Retrieved from https://www.dpdhl.com/en/media-relations/press-releases/2019/milestone-on-the-way-to-the-green-zero.html.

DPDHL. (2019). Rethinking Packaging: DHL Trend Report discovers how e-commerce era drives wave of sustainability and efficiency. Retrieved from https://www.dpdhl.com/en/media-relations/press-releases/2019/rethinking-packaging-dhl-trend-report-discovers-how-e-commerce-era-drives-wave-of-sustainability-and-efficiency.html.

Hyken, S. (2018). Customer Experience Is The New Brand. Retrieved from https://www.forbes.com/sites/shephyken/2018/07/15/customer-experience-is-the-new-brand/#e5902787f528.

DPDHL. (October 2019). Capital Markets Day: Strategy 2025. Retrieved from https://www.dpdhl.com/content/dam/dpdhl/en/media-center/investors/documents/capital-markets-days/DPDHL-Capital-Markets-Day-2019.pdf.

Bloomberg. (2019). Deutsche Post AG. Retrieved on December 6th, 2019 from https://www.bloomberg.com/quote/DPW:GR.

Bundesnetzagentur. (2019). Bundesnetzagentur veröffentlicht Price-Cap-Entscheidung im Postbereich. Retrieved from https://www.bundesnetzagentur.de/SharedDocs/Pressemitteilungen/DE/2019/20190603_PriceCap.html.

DPDHL. (June 2018). Post – eCommerce – Parcel Measures. Retrieved from https://www.dpdhl.com/content/dam/dpdhl/en/media-center/investors/documents/shares/DPDHL_PeP_measures_2018-05-08.pdf.

European Commission. (2018). 2050 Long-Term Strategy. Retrieved December 18 from https://ec.europa.eu/clima/policies/strategies/2050_en.

Cook, M. (n.d.). 3 Practical Applications of OCR Technology that make Business Easier. Retrieved from https://supplychainminded.com/3-practical-applications-ocr-technology-business-easier/.

DPDHL. (2019). Deutsche Post DHL Group and Austrian Post enter into a long-term partnership to accelerate parcel business. Retrieved from https://www.dpdhl.com/en/media-relations/press-releases/2019/deutsche-post-dhl-group-austrian-post-enter-long-term-partnership-to-accelerate-parcel-business.html.