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Strategic Business Models: Analysis of vertically integrated quick commerce business models operating in the grocery retail industry in Europe

Leonie Hiller – 48881

Analysis of vertically integrated quick commerce business models operating in the grocery retail industry in Europe: Evaluation of the efficiencies along the vertically integrated value chain and the analysis of the Key Resources and Key Activities in the Business Model Canvas

Work project carried out under the supervision of:

Ilya Okhmatovskiy

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Abstract

The grocery retail industry is a dynamic industry with new players constantly entering the market with the goal to meet the ever-changing demands of consumers. In the course of this paper, the Business Model Canvas has been used as a foundation for an in-depth analysis of the vertically integrated quick commerce business model as well as for the formulation of recommendations. In this regard, key activities and key resources are scrutinized which represent a crucial part of the business since they are distinctive from competitors. After examining the vertically integrated value chain, recommendations on how to enhance efficiencies are formulated.

Keywords

Strategic Business Models, Business Model Innovation, Grocery Retail Industry, Quick Commerce, Vertically Integrated Supply Chain

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List of Abbreviations

AI	Artificial Intelligence
App	Application
BMC	Business Model Canvas
BOPIS	Buy Online Pickup In Store
B2B	Business-to-Business
B2C	Business-to-Consumer
B2B2C	Business-to-Business-to-Consumer
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CEO	Chief Executive Officer
COGS	Costs of Goods Sold
CO_2	Carbon Dioxide
C2B	Consumer-to-Business
C2C	Consumer-to-Consumer
DTC	Direct-to-Consumer
E-Commerce	Electronic Commerce
ESG	Environmental, Social, Governance
EU	European Union
FAQ	Frequently Asked Questions
GDP	Gross Domestic Product
GfK	Growth from Knowledge
IT	Information Technology
KPI	Key Performance Indicator
MFC	Micro Fulfillment Center
ML	Machine Learning
NUF	New, Useful, Feasible
Q-Commerce	Quick Commerce
RBV	Resource-Based View
RPA	Robotic Process Automation
UK	United Kingdom
US	United States
VRIO	Valuable, Rare, Inimitable and Organized
3PLs	Third Party Logistics

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1. Introduction

As players in the grocery retail industry, quick commerce companies need to "constantly innovate and adapt […] and raise awareness for online grocery among customers" in order to be profitable in the long run (Devescovi and Foffano 2022).

As described in the quote by the category managers of the instant delivery provider *Glovo*, there is an urgency for quick commerce (q-commerce) businesses within the grocery retail industry to consider the changing dynamics in the consumer behavior in order to become profitable.

In general, due to the development of new technologies and the digitalization, business conditions are changing and are posing new challenges for almost all industries worldwide. Particularly, the grocery retail industry is undergoing a period of significant change, as consumers embrace new technology driven by increasing digitalization. For example, in 2022, the worldwide spending on digital transformation is expected to reach EUR 1.5 trillion and is predicted to reach EUR 3.3 trillion by 2026 (Sava 2022). Another crucial change is experienced due to the COVID-19 pandemic which shifted patterns in spending habits, demand, and consumer behavior. For instance, from February 2020 until April 2021, shopping volumes grew immensely on a global scale and the retail sector gained a 35% increase in the market (Mostaghel et al. 2022). Because of various lockdowns and social distancing, the grocery retail industry had to innovate itself. In order to do so, players had to address escalating customer expectations, technological adoption, supply chain integration, digital marketing and logistics needed to be altered (Mostaghel et al. 2022).

In this regard, new business models emerged. Besides click-and-collect services, the latest innovative development of q-commerce is driving this change. Analyzing the q-commerce sector is particularly interesting in this context since it is a relatively new industry that has shown rapid growth in terms of popularity and market share in the past two years. In addition,

the q-commerce sector is a very attractive market due to data generation opportunities and low barriers to entry. Nevertheless, the constant market growth led to high competition since players contest for attention in urban centers, compete on prices and try to achieve economies of scale to enhance logistics efficiencies. Consequently, discounts and minimum order fees were introduced to retain customers. Furthermore, q-commerce start-ups currently face capital cuts due to lacking profitability. For example, costly last-mile delivery, fluctuating driver utilization, immense marketing efforts and uncertainty as to overall market size raised fears among investors that q-commerce will never be more than a loss-making business (Grunwald et al. 2022). In this context, funding diminishes as investors become increasingly selective. These market developments resulted in q-commerce companies laying off employees, a drop in companies' evaluations, and consolidation plans.

Consequently, investigating the business model of q-commerce in times of digitalization, changing consumer behavior and restricted external capital yields great room for optimization and innovation. Also, limited financial reporting and analysis on the sector leaves great scope for investigation and makes it particularly interesting to analyze.

2. Methodology

Besides the introduction and conclusion, this paper is divided into four main sections. In order to analyze the potential impact on the grocery retail industry, it is essential to understand the industry, evolution, variety, and core characteristics of prevalent business models. Therefore, firstly, an introduction to the setting of the work and market data as well as a landscape overview of the key players in the grocery retail industry will be given to provide a comprehensive outline from which the preceding issue can be derived. After a theoretical derivation to the definition of business models, a description of the evolution and the variety of business models operating in the sector, divided into the categories brick and mortar, click-and-

collect as well as electronic commerce (e-commerce) will follow. In the next stage, the focus will be set on vertically integrated q-commerce business models. Due to its "stand-alone approach", it leaves ample potential for a detailed business model analysis. For an in-depth analysis, the Business Model Canvas (BMC) by Osterwalder and Pigneur will be used to examine the individual components and draw possible conclusions that aim for the improvement of the business model (Osterwalder and Pigneur 2010). This framework will help to assess the business model strategy and its nine key components to subsequently highlight key strengths and vulnerabilities of the business model (Score 2020). While analyzing the key resource building blocks, the VRIO framework will be applied to identify which key capabilities need to be adapted to the business' strategy (Knott 2015). By identifying gaps between the analyzed nine building blocks and understanding the key drivers of these business models in the context of the dynamic industry, recommendations will be provided on how vertically integrated q-commerce companies can improve operational efficiency, increase revenue, as well as their market share. Subsequently, associated and identified synergies between suggested recommendations are outlined in more detail. Since vertically integrated business models may only be able to implement a limited number of recommendations due to restricted resources and capacities, a narrowed selection of recommendations that are considered to have the greatest potential to improve the business model will be made. Therefore, the NUF analysis, a comprehensible ranking of the recommendations according to the aspects of their novelty, usefulness, and feasibility will be conducted (Stormz 2022). From this, the main conclusions will be drawn on how vertically integrated q-commerce business models can achieve financial as well as non-financial improvement, innovation, and market growth in the grocery retail industry.

The work is composed of a secondary as well as a primary source-based research part. Various data sources are used as part of the literature review. Academic literature and publications,

consulting, and analyst reports, company websites, blogs, interviews, and podcasts will be used and studied to obtain a variety of perspectives, such as a company and founder perspective, on the topic of the research. Furthermore, it will provide a wealth of information that can be used to support the findings and gain company-specific insights to derive further conclusions.

For the primary research part, various industry experts from the most innovative and popular on-demand grocery delivery sector were approached. Due to its multifaceted q-commerce business model in grocery retail, consisting of both partner relationships and directly operated activities, a semi-structural interview with *Glovo* was conducted that helped to gain insights into the two main variations of q-commerce. Through the interview with Mattia Devescovi and Beatrice Foffano, responsible for the category management of *Glovo* for the Italian market, it was possible to understand the revenue structure, procurement and inventory process, customer segments, and sustainability practices of the company (a transcript can be found in appendix 1). Therefore, a deeper understanding of the most relevant future success factors of q-commerce has been enabled.

Another semi-structural interview was conducted with Christian Böhler, retail supply chain analyst at *Accenture* (a transcript can be found in appendix 2). He has been working for several years in the field of food retailing and innovative store concepts as well as e-commerce, electronic food, and last-mile delivery (instant/flash/ultra-fast delivery). The expert interview provided great external insights into the industry. Through Böhler's expertise, a better understanding for the dynamics, trends, potentials as well as challenges of the European q-commerce market was acquired. Moreover, it was possible to consult data analyses conducted for company-internal purposes, which were of great importance for the recommendation decision. Finally, the insights generated from the conducted interviews will be incorporated into the conclusion.

3. Industry Overview

3.1. Scope of this paper

Initially, the global grocery retail market will be explored to provide a global overview of the sector and highlight various dimensions of the industry. However, to be able to deliver a detailed analysis and deal with the different implications and business models, limitations need to be set in the course of this work. A geographic specialization allows a deeper analysis of the business models operating in the market to identify distinctive features, advantages, and vulnerabilities and to draw implications for their competitiveness and the extent to which these business models are more likely to succeed in creating and capturing value. Therefore, in the further course of the research, only the European market will be considered and business models in this geographic scope will be analyzed. The focus on the European market allows a more consistent and precise analysis in terms of similarities, macro-environmental variables, and conditions regarding the competitive environment.

Besides the geographic specialization, the focus in terms of the content of this work will be on the grocery retail industry. In general, the market can be segmented into four broad categories – food, drinks, tobacco, and household products (Global Data 2021). In perspective, food makes up around 70%, while drinks account for 17%, tobacco for around 10% and household products present the smallest part with almost 3% of the total European grocery retail market as can be seen in appendix 3 (MarketLine 2020, 10).

The industry includes retail distribution channels including online as well as offline, purchase locations including mass merchandisers, supermarkets, bakeries, confectioneries, and shops that sell alcoholic beverages (Statista 2022a). Within the provided work, the paper focuses on prevalent business models operating in the outlined industry, first touching on the business model evolution and its variety. Subsequently, the focus will be on q-commerce in the context

of grocery e-commerce retail. This includes the delivery of groceries, in relation to the above-mentioned product groups. Thus, it does not include food delivery (such as *Uber Eats*), in the sense that pre-prepped or pre-made meals are delivered, typically in cooperation with a restaurant. Therefore, the defined term "q-commerce" in the context described above only includes the delivery of groceries in the conventional, non-prepared way.

3.2. Market Size, Allocation, and Trends

In the following, the size, trends, and drivers of the global and European grocery retail market are outlined to gain a holistic view of the grocery retail industry.

Global perspective. When analyzing the grocery retail industry from a global perspective, COVID-19 can be identified as the major driver for growth in the last few years. As of now, the global grocery retail market is valued at EUR 10.87 trillion and is forecasted to grow at a compound annual growth rate (CAGR) of 3.0% from 2022 to 2030 (Grand View Research 2021). The market growth can be primarily attributed to the COVID-19 lockdown-induced higher spending on groceries and an increased online-grocery sales volume. More specifically, the pandemic resulted in the emergence of consumer polarization where some consumers scaled up to purchase expensive products (Grand View Research 2021).

As shown in figure 1, *Walmart* is by far the largest and most well-known grocery retailer in the world, consuming over a fourth of the entire grocery industry's annual sales. However, the industry has a high number of other players that not only survive against Walmart but thrive due to their clever business models or the specific niches they occupy (Kolmar 2022). With an expected CAGR of 10.8% for the global online grocery delivery market from 2022 to 2028, the expansion of grocery delivery business models with significant integration of smart Artificial Intelligence (AI) and smart technology will lead to increases in online delivery adoption across the globe (Grand View Research 2022). In addition, technological innovations such as grocery

delivery by drones and robots are the latest technology trends in the online grocery delivery industry that are projected to propel market growth soon (Grand View Research 2022). With the rising number of smartphone and internet users globally, coupled with the growing trend towards food delivery mobile applications (app), consumers are driving the development and acceptance of new grocery delivery models to match their retail and service consumption patterns (Grand View Research 2022; 2021).

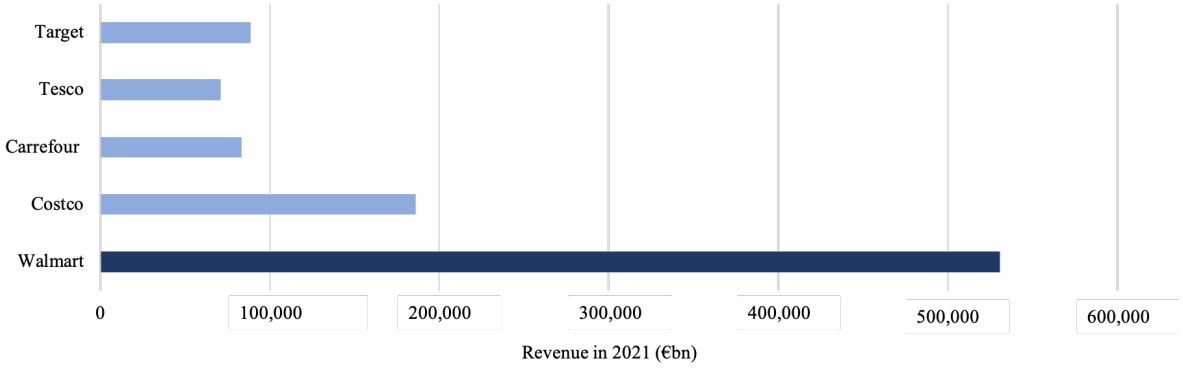


Figure 1: World's largest grocery retailer regarding revenue in 2021 (based on Kolmar 2022)

European perspective. However, as mentioned in the scope of this paper (s. chapter 3.1.), the focus of this thesis will be on the European grocery retail market. The European grocery retail market had total revenues of EUR 2.03 trillion in 2020, with a forecasted CAGR of above 2% between 2021 and 2025 (Global Data 2021). Within the grocery retail market in Europe, the food segment held more than EUR 1.4 trillion in value, whereas drinks held over EUR 340 billion. The tobacco segment is forecasted to register a higher growth among the segments with over 3% CAGR from 2021 to 2025. Overall, Russia, Germany, the United Kingdom (UK), France, and Italy are the top five countries to hold the major share of the European market in all the segments (Global Data 2021).

While growth in the grocery retail market has been moderate in recent years, there have been certain segments of the market enjoying stronger growth. Especially the organic food market is driving growth in the European grocery retail market (MarketLine 2020). In 2020, organic retail

sales in Europe reached a value of EUR 52 billion which represents an increase of 21% since 2017 (Statista 2022b). The largest markets include Switzerland and Denmark with a per capita spending of EUR 338 and 312 in 2019 for organic products (Statista 2022b).

Like the global market, the European grocery retail market was shaped by the ongoing effects of the COVID-19 pandemic in 2020, the emergence of instant-delivery players, and price inflation nationally in recent years (Chandra et al. 2022). After a negative Gross Domestic Product (GDP) in 2020, being the total value of all goods and services produced in a country within a year and an important indicator for the economic strength of a country, EUR 14.45 trillion in 2021 were reached, which is higher when compared to pre-COVID-19 levels (eurostat 2022a). Additionally, in response to the trepidation towards national finances and the fall in consumer confidence across Europe triggered by COVID-19, it has been no surprise that precautionary saving and buying has also dramatically increased over the preceding years (Savills Research 2021). Paired with an increased demand, driven by the spending shift from food service channels, the market value of the European grocery industry, grew by 6.7% in 2020 (Market Research 2021). Looking at this industry from a high-level perspective, some of the key themes that shape the market in 2022 include:

1) A rise in inflation combined with decreasing overall volumes and competitive markets: this leads to heightened price sensitivity among low-income consumers and makes it more difficult for retailers to pass on price increases. The European Union's (EU) annual inflation rate went up to 11.5% in October 2022 compared to 4.4% for the previous year. After energy, the highest contribution to the inflation rate came from food, alcohol, and tobacco (eurostat 2022b). Additionally, political controversy in recent years has led to Western sanctions being imposed on Russia, which in turn led to the country banning imports of certain products and to price hikes in this market (Chandra et al. 2022; MarketLine 2020).

2) Higher price sensitivity and more focus on health, premium, and sustainability: these attributes will be fueled primarily by high-income consumers, younger generations (particularly Gen Z), and larger households (> three people) (Chandra et al. 2022).
3) A slower online growth with more differentiated offers: in markets with mature online offerings, consumers declare they will further increase their spending at a slower pace. In the midterm, the growth is expected to continue, with grocery e-commerce expected to reach more than 20% of the share in 2030 depending on the country and scenario (Chandra et al. 2022).
4) Search for new profit pools: with their core business under pressure, many retailers are looking for new profit pools – either within their core business, through advanced analytics and AI, or outside of their core, by entering new revenue streams. This development is fueled by a rising number of investments in the food sector. The previous year, investments in supermarkets, hypermarkets, and food discount stores accounted for the first time for 21% of the total retail activity, up from a five-year average of 7% (Chandra et al. 2022; Savills Research 2021).
5) A shift in the people model: 39% of grocery Chief Executive Officers (CEO) see attracting the right talent as one of their key challenges. In addition to high employee attrition in grocery retail, demand for different skills, such as social-emotional skills and advanced analytical and technical skills, went up (Chandra et al. 2022).

As the industry outline above indicates, the European grocery retail sector is a dynamic market that has been shaped in recent years by various factors, such as the pandemic, inflation, but also customer behavior shifts. These constant changes led to tremendous innovations, making the grocery retail industry particularly interesting to investigate.

3.3. Key Player Landscape

The key player landscape in the European grocery retail industry can be divided into two main sectors. On the one hand, companies operate in the traditional grocery retail industry from which some additionally offer click-and-collect services as an online offer. On the other hand, there are e-commerce companies that exclusively sell their goods online. According to a study of *McKinsey & Company* (2022), physical stores remain the key channel for most grocery providers. However, during COVID-19, the online sector grew enormously and stronger than the traditional brick-and-mortar market (Simmons et al. 2022).

Regarding the **traditional offline grocery retail industry** in Europe, the following main players can be identified. The top ten key players in the industry comprise of *Lidl*, *Aldi*, *Carrefour*, *Tesco*, *Edeka*, *E. Leclerc*, *Intermarché*, *Spar*, *Kaufland*, and *Mercadona* (Retail Index 2022). In 2020, these companies together constituted more than 20% of market share (Ahrens 2022; Global Data 2021). The discounter *Lidl* and *Kaufland* both belong to the German family company *Schwarz Group* which is the leading food and beverage retail company in Europe (Die deutsche Wirtschaft 2022). In 2020, the *Schwarz Group* went one step further and implemented a click-and-collect pilot project in three *Kaufland* stores in Poland (Kaufland 2020). The second largest retailer in Europe, *Aldi*, is also German-based and sees its sales growing through its unique discounter concept (Sabanoglu 2022). Additionally, since September 2020, *Aldi* offers a click-and-collect service in England, Wales, and Scotland which enabled the company to continue its growth story in the UK market (Aldi UK 2022; Kolf 2022). Similarly, *Carrefour* and *E. Leclerc* offer click-and-collect services in their home country France where *E. Leclerc* is one of the most successful supermarket chains with more than 700 stores across the country (E. Leclerc 2022). *Intermarché* provides click-and-collect mainly in France and Portugal (Intermarché 2022). In the UK, *Tesco* is the market leader and offers click-and-collect services at more than 400 collection locations (Tesco 2022). Nevertheless, *Tesco* is

experiencing a decline in its market share since the German discounters are on the forerun (Sabanoglu 2022). The graph (s. appendix 4) shows the sales of the leading grocery retailers in 2020 with a forecast for the fiscal year 2021. It can be observed that the European market is dominated by German and French players. For example, according to the forecast, the *Schwarz Group* denotes Europe's top-selling grocery retailer in 2021. It is also evident that the players in France and the UK who also offer click-and-collect services are most successful since the acceptance of this business model is highest there (Serrano 2021). Summing up, in France, the main player is *E. Leclerc* and, in the UK *Tesco*, while in Germany the *Schwarz Gruppe* is a popular provider.

In general, it can be observed that the European grocery retail industry is highly competitive since established retailers who have been doing business for many decades are competing on prices and adequate services with innovative retailers and discounters such as *Lidl* (Retail Index 2022). Additionally, while brick-and-mortar stores traditionally have the purpose to serve all consumers and to balance competitive prices with a broad product assortment, it is evident that this strategy is no longer viable in recent times of individualization and changed consumer needs, for example for a quick and convenient shopping experience (Grunwald et al. 2022, 32). These changed consumer expectations combined with the growth of mobile shopping result in a radical transformation from traditional commerce to a more fluid and personalized online shopping journey (Kromer et al. 2022).

Concerning big players in this **online grocery retail industry**, the following companies can be identified. First, the start-up *Getir*, founded in 2015 in Turkey, is one of the most successful companies in providing ultra-fast grocery delivery. While offering more than 2,000 products every day, *Getir* is home-based in Istanbul but also operates in the UK, France, Germany, the Netherlands, Italy, Spain, Portugal, and the United States (US). Most recently, the company was valued at approximately EUR 11.52 billion (McKinsey 2022b). Secondly, also founded in

2015, the Spanish tech company *Glovo* is a fast-growing player in Europe and operates in 1,300 cities across 25 countries worldwide. The multi-category app provides on-demand services from restaurants, grocers, and supermarkets (Alcalde and Rennolds 2022; Glovo 2022). In 2021, *Glovo* experienced an annual organic growth rate of 80%. This giant success and future potential made the German company *Delivery Hero* acquire a majority stake for EUR 2.5 billion (CB Insights 2022). Thirdly, *Flink* was founded in 2020 and is a key player in the on-demand grocery delivery industry (O'Hear 2021). It operates in more than 90 cities in Germany, France, and the Netherlands and offers over 2,400 products (Flink 2022). In 2021, the company was valued at EUR 2.02 billion, which made the German retailer *Rewe* expand its shareholding. Thus, *Flink* became one of the largest delivery services in Europe (Kluge 2021). Lastly, another big player in Europe is the Berlin-based delivery service *Gorillas* which operates in Germany, Denmark, France, the Netherlands, Spain as well as in England. *Gorillas* was also founded in 2020 and quickly achieved unicorn status as it was valued by investors at more than EUR 1 billion. In October 2021, the firm was valued at EUR 2.98 billion (Curry 2022; Gorillas 2022a). Quite recently, in December 2022, *Getir* bought *Gorillas* which values the company at EUR 9.5 billion and results in the new company becoming the largest q-commerce provider in Germany (Kluge 2022). All in all, while in most European countries, *Getir* is most successful, in Germany, *Gorillas* which is now also owned by *Getir,* is the leading q-commerce provider (Curry 2022; Kluge 2022). Nonetheless, various other start-ups can be found in the European online grocery retail industry. For instance, *Mjam, Oda, Bring,* and *Knuspr* compete with the main q-commerce players. Another player worth mentioning is the subsidiary of the e-commerce giant *Amazon*, *Amazon Fresh*, which offers deliveries in diverse European countries such as Germany, Spain, UK, and Italy but is still most successful in the US (Schader 2022). However, new opportunities will be presented in the coming years and online commerce could account for up to 18% to 30% of the grocery retail market in some countries in the EU

(Simmons et al. 2022). A more in-depth overview of the business models will be given in the later course of this work (s. chapter 4.3.4.; s. table 2).

This rise in online commerce the growth of q-commerce companies in this industry displays the fierce competition for market share among those players. The increased demand for ordering groceries quickly and low barriers to entry resulted in numerous start-ups entering the market and rapid growth. In detail, q-commerce companies compete on prices, attention in urban areas, retention of clients, since their switching costs are low, and strategic partnerships with established supermarkets. For instance, *Flink* is partnering with the strong German retailer *Rewe* in order to "survive as a q-commerce player" (Böhler 2022). Consequently, attracting partners and investors becomes difficult since business conditions are getting tougher. Rising interest rates and the economic slowdown (s. chapter 3.2.) led to investors becoming more selective and demanding profitability instead of future vision (Grunwald et al. 2022; Böhler 2022; Browne 2022; Hale 2022; Ogoship 2021).

4.3. Business Model Variation

As chapter 4.2. shows, the business models operating in the grocery retail industry constantly change along with shifting customer needs and competitive forces in the market. Literature unveils that many business model variations have emerged involving changes in the way the businesses collect and process data, as well as adjusting its products, services, and pricing to stay ahead of the competition. Before analyzing one business model in greater depth, the prevalent business models operating in the grocery retail industry have been categorized and their variations are outlined below. In the following, business models are divided into the categories **brick-and-mortar stores**, **click-and-collect services**, and **e-commerce services**.

4.3.1. Brick-and-Mortar stores

A physical presence of a business that deals with consumers directly in a store is referred to as a brick-and-mortar business (CFI Team 2022; Murphy 2022). Figure 2 illustrates the supply chain process of this business model.

Since the introduction of electronic businesses, the brick-and-mortar store has been established as a contrasting term that is different from web-based businesses such as fully online stores (CFI Team 2022). By being physically approachable, brick-and-mortar businesses address customers who value a personal shopping experience that allows them to come, interact with staff, touch, and test the products, receive employees' consultancy, and make purchases directly in the store (CFI Team 2022). In order to compete with web-based businesses, many brick-and-mortar stores gradually began to introduce simultaneous, linked web-based hybrid options (CFI Team 2022; Murphy 2022). Over the years, several types of business models have been established in the brick-and-mortar sector, which will be discussed in more detail below.

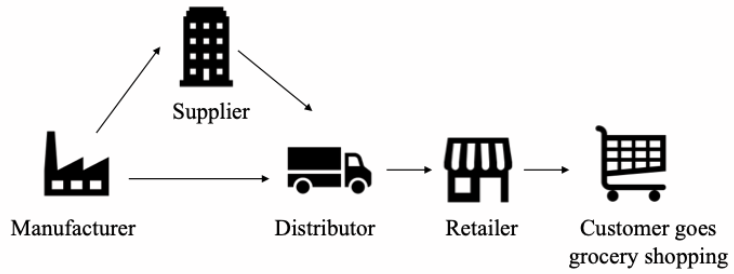


Figure 2: Supply chain process of brick-and-mortar business models (based on Palmer et al. 2000)

Supermarket. The term refers to a retail company offering a wide product range including groceries, fresh food, meat, bread, and dairy products, as well as a variety of nonfood items such as household products (Encyclopaedia Britannica 2014). The assortment is organized into sections and shelves and offered to the customer on a self-service basis (Lamb, Hair, and McDaniel 2011, 488). Supermarkets typically generate revenue through a combination of sales of goods and services, and through the sale of gift cards and other forms of payment. The

supermarkets operating in Europe include among others *Rewe* and *Billa* from the *Rewe Group* as well as *Edeka* (HarperCollins Publishers 2022).

Discounter. A business model that focuses its sales especially on a low-pricing strategy is considered a discounter (HarperCollins Publishers 2022). This type of retail store typically offers a relatively small selection of products or sells items in high quantities. It is a business that specializes in selling goods for extremely low prices targeting price-conscious customers. Low pricing, a rapid rate of turnover, and a large volume are means of competition and threaten the market share of the previous key industry players (HarperCollins Publishers 2022; Lamb 2011, 490; s. chapter 3.3.). The *Schwarz Group (Lidl, Kaufland)*, *Aldi, Penny (Rewe Group*), and *Netto* are among the leading discounters in Europe, serving the low-price segment with their product and price range (EHI Retail Institute 2022).

Convenience Store. Another business model that operates within the brick-and-mortar sector is the convenience store. The term describes a small store that solely carries common everyday goods including coffee, groceries, snack foods, candy, soft beverages, ice cream, and cigarette products. Doing exactly what the name implies, convenience stores are often located in urban areas, have extended opening hours, and offer only a small selection of convenience products. Oftentimes, convenience stores also include cashier-free concepts to make shopping even smoother and less complicated. Furthermore, many convenience stores feature fast food corners, where customers can take away ready-to-eat food (Lamb, Hair, and McDaniel 2011, 490). Convenience is one of the channels with rapid growth in many European nations, driven by factors such as rising prosperity, increasing urbanization, and smaller household sizes. The multinational retailer *Spar* from the Netherlands, which is meanwhile widely spread in other countries, operates with different stores in different locations but everything is geared toward convenience. Their store portfolio includes traditional supermarkets as well as smaller, more compact express formats that tend to be represented in urban areas. The format *Spar Gourmet*,

a store with a reduced product range of food and household products can be considered a convenience store and is mainly found around Vienna, Austria (SPAR International 2022). With the store format *Tesco Express*, the British supermarket chain *Tesco*, and *Carrefour* with their range of convenience formats *Carrefour Express*, *Carrefour City*, and *Carrefour Contact*, also serve local customers with long opening hours and a tailored product selection in urban areas (TESCO PLC 2022; Carrefour Group 2022a).

Hypermarket. This store format addresses the needs of consumers who look for a one-stop shop that offers a wide variety of products and services, by combining a grocery supermarket and department store. Therefore, it provides customers with all products under one roof. Hypermarkets are often very large establishments, the so called "big-box" and the product range includes a wide variety of products such as groceries, clothing, and appliances (Kenton 2020). Europe's leading hypermarket chain is the *Schwarz Group* (*Lidl, Kaufland)* with 1,300 *Kaufland* locations operating in eight European countries (Pay Space Magazine 2020), followed by the French retail brand *Carrefour* with a total of 703 hypermarket stores in Europe (Carrefour Group 2022a).

Specialty Store. This store format is a business that sells a deep variety of brands, designs, or products from a small range of product categories. This type of retailer does not necessarily have to contain groceries but can rather offer many other product categories. In the course of this work, however, the focus lies on grocery specialty stores. The motivation to visit a specialty store comes from the need of the customer for a specific product or expert opinion. The store retailer would be considered a product specialist because of the narrow product area. Due to their specialized knowledge, customers trust their advice and consultancy. Individual service and an outstanding shopping experience are prioritized to best attend the customer's requirements, and sometimes even provide suggestions based on previous purchases (O'Neill 2019). One example for a specialty store is *Maison Ladurée – Paris. Maison Ladurée* is a high-

end French pastry and bakery chain founded in 1862. It is known for its luxury products, including macarons, chocolates, and pastries. The sales concept of the business is based on selling luxury products at high prices. The company has many boutiques and cafés around the world and sells its products online (Maison Ladurée Paris 2022).

Zero-Waste Store. Due to increasing discussions about environmental issues and plastic consumption, zero-waste stores have gained great popularity (trvst LTD 2022). The underlying concept of this store is that the entire range is offered unpacked and loose which means, without containers, and thus free of packaging so that "zero waste" is generated when products are purchased and consumed. Often, the goods, such as grains or cereals, are stored in containers from which customers can fill the products in their own containers brought along. In most cases, biodegradable packaging or reusable containers are also offered for purchase or deposit in the store. The aim is to counteract the overproduction of food on the one hand and to consistently avoid packaging and plastic waste on the other (Endt 2014). A zero-waste shop's target group is people interested in reducing their waste output and using more sustainable products (Eunomia Research & Consulting Ltd. 2020). One example is the first zero-waste store *Original Unverpackt* in Berlin. It was founded in 2014 by Milena Glimbovski, who has been giving lectures on sustainability in retail and zero waste since then and therefore, raised great awareness on the business model (Original Unverpackt 2022).

4.3.2. Click-and-Collect services

By merging e-commerce and brick-and-mortar, the concept of click-and-collect enables customers to buy products online and subsequently pick them up in-store or other designated locations. The shopping experience is made more convenient for customers by placing an order from home and collecting the products whenever it is most suitable. Therefore, paying for a delivery or waiting for the shipment is avoided (Leach 2019). The supply chain of this business model is depicted in figure 3.

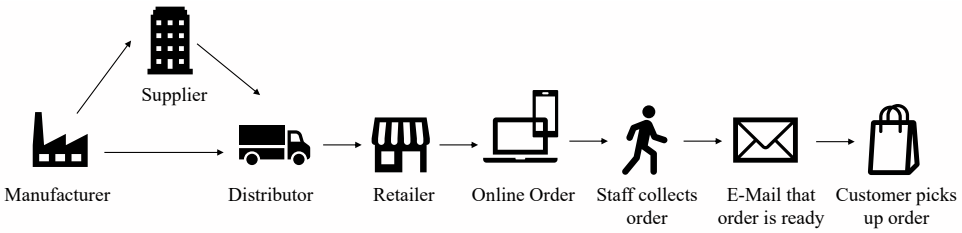


Figure 3: Supply chain and process of click-and-collect business models models (based on Palmer et al. 2000)

Click-and-collect services can be divided into the following sub-categories.

Buy Online Pickup In Store (BOPIS). This is the most traditional form of click-and-collect services. In this process, consumers choose their desired items on the store's website or mobile app. The staff in the supermarket is then gathering and preparing the products for pickup. Eventually, the buyer needs to stop by the retailer's shop, shows proof of the order confirmation and can pick up the products (Numerator Intelligence 2021). BOPIS experienced a 57% increase in Europe from before compared to during the COVID-19 pandemic (de Best 2022).

Click-and-Drive. The order of the click-and-drive process is the same to BOPIS but instead of getting out of the car to pick up the articles, the customer pulls up in a reserved parking lot and employees on-site put the order directly in the customer's car trunk (Nalbandian 2021; Retail Net Group 2015). The target customers are young couples with children. Time management is one of the main reasons why this model works well. Instead of spending 20 to 30 minutes in a brick-and-mortar store, customer can take more time to check product descriptions and prices. Nevertheless, due to purchasing online, customers are mostly buying the items that they are used to and do not try new products (Nalbandian 2021). In Europe, click-and-drive services experienced a growth in usage of 139% from before to during the COVID-19 pandemic in 2021 (de Best 2022). Especially in France, this business model is gaining more importance and acceptance. Since January 2020, the distribution network grew enormously and 185 new openings with more than 5,200 drive locations have been created (Nalbandian 2021). The most successful providers of click-and-drive services are *E. Leclerc*, *Carrefour*, *Auchan* and *Tesco* (Retail Net Group 2015).

Remote Pick-up. Particularly for time-pressed customers who do not have the time to visit a store or a click-and-drive location, the so-called "third-place" pick-up is advantageous since it enhances flexibility. These pick-up spots can be lockers, automated kiosks or hubs close to office buildings, hospitals, libraries or fueling stations. In Europe, more precisely in France, the pick-up concept and multi-brand network *Delipop* has been implemented (Wells 2021). As for BOPIS and click-and-drive, groceries can be ordered from multiple merchants using their respective app or website, for example *Carrefour* and *Monoprix plus,* but instead of collecting the order at the supermarket, the products are transported to the customer's most convenient pick-up point. The pick-up locations are open 24 hours a day and represent a more sustainable solution since the hub effect substantially improves the effectiveness of couriers and vans used. The start-up model requires less car rides and reduces carbon dioxide (CO_2) -emissions by 77% in comparison to home delivery service and by 92% compared to the hypermarket shopping model. Until the year 2025, the company plans to open 1,000 *Delipops* throughout France (Delipop 2022).

Comparing BOPIS, click-and-drive and remote pick-up, it can be observed that according to a study conducted in 2022, 63% of surveyed customers would use BOPIS whereas 31.5% are willed to stop at a designated pick-up point. Nonetheless, 52% say that they would most likely prefer a hybrid model with multiple pick-up and return points (Edge 2022).

Reserve-and-Collect. This model is solely used at airports and hence represents a niche market. Customers can choose from numerous categories and pre-order their preferred duty-free products online while they are still at home. The order is then collected at the respective terminal and ready to be picked up before the flight. If the customer picks up additional treats at the departure terminal, they can be easily added to the basket (Heathrow 2022; Dufry 2022; World Duty Free 2022). Therefore, flight passengers save time and money since they benefit from promotional prices offered online when the customer travels (Dufry 2022; Heathrow

2022). This airport shopping experience is currently offered in 15 countries in Europe. For example, in Germany, people can use this service only at the Düsseldorf airport while in the UK, 24 airports participate (Dufry 2022).

In conclusion, the click-and-collect services experienced a CAGR of 21.7% between 2013 and 2018, realizing a total turnover of EUR 26.7 billion in Europe. Until 2023, it is forecasted to further grow by 11%, reaching a total turnover of EUR 45.1 billion. This trend and prognosis are mainly due to the enormous growth in France and the UK (Dunn 2019; s. appendix 7)

4.3.3. E-Commerce Services

In general, the concept of e-commerce describes a business model that allows businesses and consumers to make purchases or sell things online. Customers can place an order on a website or an app, which will then be delivered to the customer's home (s. figure 4).

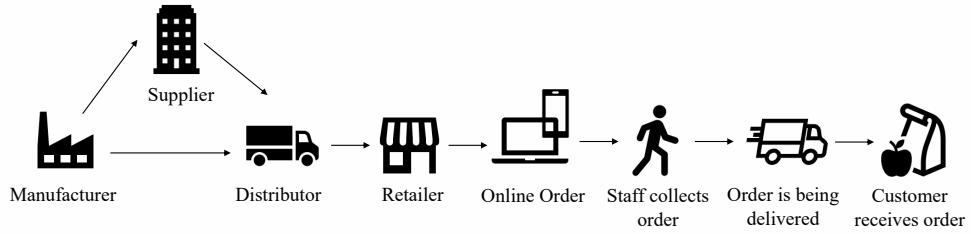


Figure 4: Supply chain and process of e-commerce business models models (based on Palmer et al. 2000)

In the last years, e-commerce was the major leaver to revolutionize the delivery landscape through online ordering of groceries (Nierynck 2020). During COVID-19, the main drivers of e-commerce growth within the grocery industry were safety and convenience, but it was found that consumers also value the channel's unique features – such as product comparisons, assortment, and personalized promotions (Chandra et al. 2022). In parallel, consumers increasingly preferred home delivery, which is reflected by a rise from 48% in December 2020 to 63% a year later. This translates to an approximately EUR 96.02 billion market today. Consumers appreciate the product and service enhancements, including speed, reliability, assortment breadth, and flexibility (Chandra et al. 2022). Next to changing customer buying

patterns, the development of e-commerce within the grocery retail industry was intensified by a massive inflow of capital. As of today, the online grocery business alone has collected around EUR 13.44 billion in venture capital since the start of the COVID-19 pandemic (Müller-Sarmiento 2021). In general, there are four main types of e-commerce business models that describe most transactions between customers and businesses: business-to-consumer (B2C), business-to-business (B2B), consumer-to-consumer (C2C) and consumer-to-business (C2B) business models (Hayes 2021). For further analyzes of business models within the grocery industry, the focus will be on B2C business models.

Major players in the e-commerce grocery landscape differentiate themselves by the types of products and services they offer, particularly by their method of order fulfillment and delivery, which is closely related to the types of goods sold, and the geographical markets in which they operate (Savills Research 2021). With an increased turnover in Europe and CAGR of 16.5% between the years 2013 and 2018, it can be concluded that the e-commerce industry will continue to shape and disrupt business models in the grocery retail industry. It is forecasted that the turnover will further grow by 14.4% until 2023 reaching a total turnover of EUR 1.180 trillion (Edgar, Dunn & Company 2019; s. appendix 8)

4.3.3.1. Q-Commerce

Q-Commerce. As a sub-model of e-commerce in the retail and food industry, the q-commerce business model brings small quantities of goods to customers almost instantly (Nierynck 2020). It targets fulfilling orders quickly and mostly prefers delivering varied foods and daily essentials in smaller quantities, such as everyday staples like kitchen items or medicines. While traditional e-commerce revolutionized the delivery landscape through online ordering, today's delivery times still average between three and five business days and larger orders are encouraged, for example through promotions for larger order volumes or deliveries free of charge (Nierynck 2020). Q-commerce, however, follows a super-fast delivery business model that streamlines

logistics operations and provides on-time, fast doorstep delivery within ten minutes to half an hour of ordering (Samsukha 2022). The evolution from traditional e-commerce to q-commerce is led by faster delivery times, delivery techniques, the selection available as well as the transportation means, which is displayed in appendix 9.

The key characteristics of q-commerce business models in which they differentiate themselves from other e-commerce business models include the delivery time, warehouse size and distribution among other things (Pahwa 2022; Samsukha 2022). The following table (s. table 1) depicts a detailed comparison of the three most relevant key characteristics, presented from both the customer and company perspective.

Customer side	Company side
Convenience and trust Convenience is the most important feature in q-commerce, which allows customers to shop at any time and place and to track their order; by featuring reputable brands, customers can be assured of the quality.	**Delivery time and technique** The focus of the business model lies on faster delivery and a time-saving process; Q-commerce enterprises typically use two-wheelers for item delivery, such as bicycles or scooters.
Anytime delivery Q-commerce gives customers the option of delivering their order at any time suitable to them. It does not limit customers to fixed business hours.	**Price List** Q-commerce price lists may vary at different points of sale (POS); inventory is bought in bulk, which reduces the average cost of each product and enables them to offer lucrative discounts.
"One stop shop" The q-commerce companies develop their own apps through which the users can order multiple products from one platform.	**Warehouse type** While e-commerce makes use of a central warehouse to stock goods, q-commerce utilizes physical stores.

Table 1: Comparison of customer side and company side of q-commerce

Within the q-commerce business models, there are three different variations of business models which are presented below.

Vertically integrated instant delivery model. Q-commerce companies, which operate according to such a business model, pick, and deliver shoppers' orders from the range of essential items they have in their micro fulfillment centers (MFC), typically within 10 to 30 minutes (Chaudry 2022). In this so-called "stand-alone approach", companies control their

entire value-added chain, which means that they do not rely on third party logistics (3PL) partners to execute their logistical operations. Next to their own first-party MFCs, typically one per neighborhood, they have their employees picking the goods from the MCFs after an order was placed and their delivery personnel or "riders" delivering the goods (Schu 2022b). Examples of this model include *Gorillas*, *Flink*, *Mjam* or *Getir*. *Gorillas*, for example, has established more than 230 MFCs in nine countries and *Getir* has over 115 dark stores in 20 cities (Nott 2022; Gorillas 2022e). A company that has adopted a similar approach as part of their diversification strategy is *Glovo*, which holds 96 MFCs in Europe (Apptunix 2022). Under this model, *Glovo* mostly purchases products from brands and wholesalers (Hendelmann 2022). Compared to previously mentioned brick-and-mortar and click-and-collect models, vertically integrated q-commerce companies particularly are in need of well-integrated software and information technology (IT) systems that can effectively track and manage inventory in their fulfillment centers to ensure on-time-delivery (Chaudry 2022).

Third-party delivery platforms. This model functions according to an "asset-light" approach. Unlike other on-demand delivery services, the third-party delivery model does not involve any warehousing component (Chaudry 2022). This means these companies do not require MFCs, inventories, or supplier relationships to be established before expanding to a new city. The supplier carries out the core tasks within the value-added chain but coordinates all other processes with partners. *Instacart* from the US and *Bring* from Germany are examples of this model. The grocery retailers, from whose shops the orders are picked from, are responsible for the storage and assortment policy (Schu 2022b). *Glovo* operates on such a platform as one part of their business model and generates revenue from order commissions of their retail partners, which fluctuate depending on the product (Chaudry 2022). The partnership agreement between *Glovo* and the respective partner determines the specific fee being charged (Apptunix 2022). After an order has been placed, a courier goes to the store or multiple stores, to pick up the

items, then delivers them to the doorstep (typically within an hour or two) in exchange for a specific delivery fee charged to the customer (Chaudry 2022). To expand network density, these delivery platforms simply add new retail partners. For example, as seen on their mobile app, *Glovo* added pharmacy and beauty delivery (*Wells*) and general merchandise (*FNAC*) as new categories to its portfolio to attract a more comprehensive set of audiences.

Instant delivery providers. By offering direct-to-consumer (DTC) q-commerce logistic solutions, instant delivery providers can enable DTC in the groceries retail industry to leverage micro-fulfillment with a robust technology platform (Chaudry 2022). In other industries, DTC businesses do not have own warehouses or order fulfillment capabilities. Instead, they traditionally rely on 3PL companies to fulfill orders (Chaudry 2022). With the rise of q-commerce companies in the last two years and the rise of instant delivery providers, such as *Ocado*, the grocery retail industry becomes more involved with this technology. This development is accelerated by capital investments by companies like *Softbank*, which has shown a growing interest in this industry and recently invested EUR 2.69 billion in the Norwegian micro-fulfillment company *AutoStore* (Ladd 2021). With the scaling of their logistical operations not only in Europe, but also globally, it becomes increasingly appealing for companies like *Gorillas* and *Glovo* to cooperate with a DTC-logistic provider, offering services like demand forecasting, inventory management, and an optimal last-mile delivery courier (Chaudry 2022).

4.3.3.2. Subscription

Subscription model. In subscription-based business models, consumers periodically pay a predetermined amount for a service or set of goods (Choi 2021). The subscription model has changed the traditional business-to-business-to-consumer (B2B2C) go-to-market model, in favor of a D2C approach, requiring companies to learn to master warehousing, last-mile delivery, customer relationship management, and digital marketing (Lazic 2021). The

subscription business model is characterized by operational advantages compared to on-demand D2C models in the grocery retail industry, including less inventory, and better predictability of demand due to a data-driven model (Lazic 2021).

In the grocery retail industry, *HelloFresh* is one of the first companies that offered subscription-based, personalized and home-delivered meal solutions worldwide. Founded in 2011 in Berlin, *HelloFresh* has grown to become one of the most prominent players in the meal kit market regarding geographic coverage, revenue, and the number of active customers (Goel 2022). The key success factor of their business model lies in the value chain efficiency, as they operate on a low inventory basis for perishable products and follow a just-in-time delivery business model. By focusing on working upstream with a pull model, *HelloFresh* essentially eliminates the need for intermediaries such as distributors or wholesalers and captures a greater profit margin per box. This means that instead of acting on customer demand data from suppliers, early demand data from menu planning based on predictive algorithms are being used to manage *HelloFresh's* product assortment (S. Goel 2022; Hello Fresh 2021; s. appendix 10). Moreover, the subscription model enables *HelloFresh* to track and access customer data regularly, creating an opportunity to define customer profiles and develop products closer to market demand (S. Goel 2022; Lazic 2021). In sum, a subscription model enables companies to drive greater average spending, launch a virtuous cycle of using data to better serve consumer needs. This in turn increases loyalty since convenience, novelty, and curated experiences are valued by the consumers (Choi 2021).

4.3.3.3. Traditional delivery service

The concept of a traditional delivery service describes an extension to an existing business model, such as the own delivery service of brick-and-mortar players. Key Players of traditional brick-and-mortar grocery retailers moving online are *Tesco* and *Sainsbury's* in the UK, *E. Leclerc, Auchan* and *Carrefour* in France, *Albert Heijn* in the Netherlands, and *Rewe* in

Germany (Strategy& 2022, 8). Those retailers, which mostly have only served customers in offline brick-and-mortar markets, introduced an omni-channels strategy to offer an online shopping experience with delivery. This strategy implies that consumers stay with their grocery retailer of choice and solely change the sales channel (Badenhop and Frasquet 2021, 89). Such a business model is thus also called “bricks-and-clicks” or “click-and-mortar” (Doong et al. 2011, 210).

For the traditional delivery service, orders are mostly filled directly in the physical stores, instead of in an external warehouse, and therefore demand can be met easier as deliveries are made from stores that are located close to consumers (Günday et al. 2020). Moreover, brick-and-mortar grocery retailers usually price products in their online shops like products from stores from which the delivery is made. Nevertheless, as commissioning, packaging, and handling of logistics for orders within the delivery service result in higher costs for the grocery retailer, companies typically charge service fees for deliveries (van Droogenbroeck and van Hove 2022, 253–254). Apart from a few exceptions such as *Tesco*, which also offers instant deliveries within two hours, the groceries are being delivered within a time slot usually chosen a few days in advance (Strategy& 2022, 16–18).

Despite the growth in the market segment, online grocery retail still plays a minor role for some countries such as Germany and Turkey, as only 3 to 4% of grocery sales in 2022 came from e-commerce, respectively. (MarketLine 2020, 24–25; Strategy& 2022, 26–27) The countries with the highest share of online grocery retail sales in 2022 were the UK with just above 11% and France with roughly 9% of grocery sales coming from e-commerce respectively (Strategy& 2022, 26–27).

4.3.4. Overview Business Models

The following table (s. table 2) provides an overview of the preceding business model variations identified in the course of this master thesis. A separation is made into the different business

model types on the vertical column and into traditional providers, online supermarkets and niche and logistic players on the horizontal line. The above-named examples of key players are listed in the appropriate cell.

			Brick-and-Mortar stores	Pure Online Players	Supporting Delivery Providers
	Brick-and-Mortar stores	Supermarkets	Rewe, Billa, Edeka		
		Discounter	Lidl, Mega Cent, Aldi, Penny, Netto		
		Convenience Stores	Spar Gourmet, Tesco Express, Carrefour Express, Carrefour City, Carrefour Contact		
		Hypermarkets	Lidl, Kaufland, Carrefour		
		Specialty Stores	Maison Ladurée		
		Zero-Waste Stores	Original Unverpackt	Alpakas	
	Click-and-Collect Services	At stores (BOPIS, Click-and-Drive)	E. Leclerc, Carrefour, Auchan, Tesco		
		Remote Pick-up	Carrefour, Monoprix Plus		Delipop
		Reserve-and-Collect	Dufry at Airports		
E-Commerce	Q-Commerce	Vertically integrated instant delivery model		Flink, Gorillas, Getir, Mjam, Oda, Glovo	AutoStore, Ocado, Glocally, GetHenry
		Third-party delivery platforms		Instacart, Bring, Glovo	
	Subscription			Glovo Prime, Hello Fresh	
	Delivery Services		Tesco, Carrefour, Rewe, Sainsbury's, E. Leclerc, Auchan, Albert Hein	Amazon Fresh, Knuspr, Picnic	

Table 2: Overview of Business Model Variations with examples

5. Business Model Canvas of vertically integrated q-commerce

After various types of business models in grocery retail were examined in the previous chapter, the focus will be placed on q-commerce in the remainder of the thesis. As described above, the q-commerce sector can be divided into three segments: vertically integrated instant delivery models, third-party delivery platforms, and instant delivery providers. For further analysis, the focus will be on the first model, the vertically integrated instant delivery model.

This type of q-commerce delivery service represents the original and purest form of q-commerce delivery services, while third-party delivery platforms and instant delivery providers represent modified or hybrid solutions. This q-commerce business model provides a solid basis for a detailed assessment and holds great potential in terms of recommendations to be derived.

It has gained great interest and success especially during and after the COVID-19 pandemic, not only benefiting from regulatory rules, and changing consumer habits but also due to little dependency on 3PLs (Chandra et al. 2022). The objective of the following analysis is to highlight the individual components of the business model, identify gaps, and to finally elaborate on the strengths and vulnerabilities, considering internal and external influences. For this purpose, the BMC as an analysis framework is applied.

The BMC is a strategic management tool used to develop new business models or analyze and understand existing ones. It helps identify and assess the business model's strengths and weaknesses which are evaluated in the later course of this work to develop strategies for the improvement and growth of vertically integrated business models. Alexander Osterwalder first presented the BMC based on his earlier work on business model ontologies in 2004 and later enhanced his work with Pigneur, in which they define a business model by describing the reasoning of "how an organization develops, distributes, and captures value" (Osterwalder and Pigneur 2010). The nine building blocks representing the components of the business model are the **customer segments** that an organization serves, the **value proposition** that the company addresses to the needs of those customers, and the communication, distribution, and sales **channels** that the organization uses to deliver its value proposition. Furthermore, it contains the **customer relationships** that the business develops and maintains, and the **revenue streams** that the organization generates because of successfully delivering its value proposition to its customer target segment. **Key resources** are used to execute the above-mentioned elements, while the **key activities** are the activities that the business executes to successfully provide the value proposition. **Key partners** entail the business partners a company acts with, and lastly, **cost structure** forms the ninth block, and results from the above-mentioned components. It

represents the various costs associated with running the business (Steinhöfel, Kohl, and Orth 2016; Osterwalder and Pigneur 2010). An overview of all strengths and vulnerabilities of the

above-mentioned BMC parts that will be highlighted in the following course of this chapter can be found in appendix 11.

5.5. Key Activities

Being the most important actions a company must perform to operate successfully and make the business model work, key activities are critical for creating a value proposition, reaching markets, retaining customer relationships, and earning revenues. Because the business model of q-commerce is platform based, the key activities are mostly network-related (Osterwalder and Pigneur 2010, 36–37).

To ensure that customers receive their desired products as fast as possible, efficient inventory as well as warehouse management, is crucial. On the one hand, inventory management includes forecasting, ordering, receiving, and allocating stock. For making these forecasts as precise as possible, customer data such as seasonality and historical sales is used. On the other hand, warehouse management involves picking and packing activities in the warehouse. For example, based on demand trends and user data, the best-selling products are located close to the packing station. Also, products with the closest expiration date are located there and chosen to fill orders (Jenkins 2020).

Besides managing inventory and warehouse activities, the key activity of order fulfillment within the given timeframe is the most important but also the most difficult challenge to fulfill. The process of order fulfillment starts once the purchaser completes the order on the app and ends once the customer receives the products. Concerning q-commerce, the process of order fulfillment from the company perspective includes the following steps: 1) Receiving the order, 2) Picking and packing products, 3) Preparing the order for delivery and 4) Delivery to the customer. Fulfilling this key activity successfully is a must to avoid costly mistakes like unsatisfied customers writing negative reviews, earn customers' loyalty and stay competitive (Ogoship 2021). In this regard, the direct one-on-one interaction, and the practice of offering

support to customers are significant to improve customer satisfaction and brand loyalty (Grant 2022). Examples of possible inaccuracies are that delivered items are of poor product quality or condition, delivery issues or missing different items, courier issues or problems with the payment or usage of a promo code (*Glovo* App). Thus, offering immediate and uncomplicated support as well as reasonable solutions is critical to retain customers and encourage repeated orders (Grant 2022). This user engagement is essential because this metric correlates to the success or failure of an offered service – for instance, the frequency and length of the user's interaction with the app can be measured. More precisely, clicks, downloads, and shares are observed. Particularly in e-commerce apps, key performance indicators (KPIs) like the shopping cart abandonment rate or page view statistics are substantial. Other important KPIs in e-commerce and thus in q-commerce are the bounce rate, conversion rate, click-through rate, time on the app, and retention rate. By tracking such interaction KPIs, q-commerce businesses can assess how customer values the offers and services and if the customer is likely to purchase again or recommend to others. In this regard, the retention rate measures how many clients the company retains once they visit the app. This metric is critical since keeping existing customers is less costly than acquiring new ones in this competitive landscape (s. chapter 3.3. and 5.3.). If the customer is invested in service, the brand recognition and connection can be strengthened which leads to more monetization opportunities like increasing revenue (CodeFuel 2021).

This brand recognition is fostered by marketing and promotion measures which represent key activities that generate traffic on the app. Since competition in the q-commerce market grows, significant marketing budgets are needed. One of the highest marketing expenses represents discounts and promotions on delivery to attract consumers who usually buy from competing apps or platforms. *Gorillas* for example focuses on billboard advertising (s. appendix 12), social media campaigns, and push notifications (Woersdoerfer 2022). Nevertheless, in 2021 when *Gorillas* launched its business in Milano, Italy, the start-up introduced the so-called challenge

"spot the biker". This challenge demanded the public to take a photo of the discount code which was taped on the back of all *Gorillas* riders. This code changed each day and could be applied to the next order through the app. After five days of the challenge, 3,000 new app downloads have been done and orders increased by 20% (Ads of the World 2021). Compared to *Gorillas*, *Glovo* concentrates on TV spots rather than billboard advertising or social media campaigns (Devescovi and Foffano 2022).

The last key activity contains the IT operations of vertically integrated q-commerce companies, namely the steady improvements and the introduction of new features in the app by IT experts. To make the purchase and handling of the app as easy as possible for the customer, the mobile app user experience needs to be improved and maintained regularly. For instance, app push notifications need to be updated and sent as well as contact information and real-time tracking information of the delivery person should be provided for each order. Hence, Global Positioning System tracking using different providers like *Google Maps* or *MapKit* needs to be perfectioned. In addition, providing and having diverse simple payment methods is the bottom line for an uncomplicated customer experience since customers will not try again if there is any minor issue with the payment. Thus, partnering with payment processors, offering multiple payment options (s. chapter 5.4.), and ensuring their functioning is a must. Furthermore, a search filter on the app needs to be offered and updated so that customers can search easily for their preferred products. Lastly, providing easy profile customization and registration, a list of the order history as well as in-app messaging opportunities with customer support represent important features and improvements to be successful in the market (Idea Usher 2022).

Nevertheless, the above-described key activities have strengths and vulnerabilities. Beginning with the strengths, the fact that q-commerce companies progressively improve the app signifies technological advance. For example, new products and special offerings are listed very quickly in the app and easy navigation and payment are ensured. Thus, ordering online is especially

popular among digital natives. Furthermore, having trustworthy and reliable customer service and offering suitable compensation for delivery mistakes is a key activity and strength which is highly valued by clients. Lastly, gathering data from app users and using them to improve operations can be considered a key advantage for future development and progress. Continuing with vulnerabilities, first of all, regarding inventory and warehouse management, it is challenging to make accurate forecasts concerning the demand and order quantity of customers. This is especially problematic for the locally organized MFCs which are also very restricted in space. Additionally, implementing new technologies in inventory management that could replace employees would need to be tested and organized. Also, setting up these improvements for better warehouse coordination represent asset heavy investments and should be maintained regularly (Böhler 2022). Secondly, order fulfillment in the given timeframe cannot always be guaranteed since unexpected externalities like traffic jams or accidents can happen while driving which will lead to belated delivery and decreased customer satisfaction. Thirdly, marketing campaigns and offering promotions are very costly measurements. As the industry players have a similar value proposition, it is challenging to create distinguished and unique marketing campaigns which effectively contribute to a strong brand positioning. Fourthly, app users might fear credit card fraud or payment problems since payment is designed as easily and user-friendly as possible. In addition, especially elder customers could feel overwhelmed by all the features and services the app offers.

5.6. Key Resources

The following part focuses on the most important assets and resources a company requires to make the business model work and that are needed to create, provide, and fulfill a value proposition, reach markets, preserve relationships with customer segments and make revenues (Osterwalder and Pigneur 2010). Key resources can be directly linked to key activities and represent a crucial part of the business since they are distinctive from competitors. The quality

of key resources affects how sustainable and profitable a company is (Belyh 2020). Depending on the business model, different key resources are required. They can be distinguished into physical-, human-, intellectual and financial resources (Belyh 2020; Osterwalder and Pigneur 2010). In the case of q-commerce, companies rely heavily on physical and human resources.

Dark stores, which are the MFCs for online purchases, can be considered a physical resource (Shapiro 2022). These warehouses represent tangible resources that q-commerce companies use to fulfill their value proposition and that are based in strategically clever locations in the city as part of their competitive advantage. Dark stores contain equipment, inventory, and a picking and packing network on-site (Belyh 2020). This concept gained popularity, especially during the COVID-19 pandemic. For instance, in 2020 *Glovo* opened its first MFC in Milan just before COVID-19 hit. During the pandemic, this concept became highly successful and in 2021 *Glovo* opened 14 more dark shops in eight cities throughout Italy. Consequently, *Glovo* "covers the cities which are most important for *Glovo's* business and in which *Glovo* is one of the strongest players" (Devescovi and Foffano 2022). In general, opening dark stores enabled retailers and delivery services to create a logistical advantage in comparison to other players since faster order fulfillment was achieved. Especially minimizing the gap between online purchases and delivery is what investors appeal to the most (Shapiro 2022).

To appeal to consumers in today's digital world, brand awareness is a key resource and hence, substantial in the e-commerce business and critical to a business's success. Brand awareness can be defined as the ability of the customer to "recollect and recognize a brand and associate it with a particular product or service" (Bmediagroup 2022). Since there is a growing number of q-commerce players in Europe, it is key to enhance trust and loyalty to the brand and build brand awareness to gain market share. In the year 2022, in Germany for example, 44% of 1,042 respondents who were in the age group between 18 and 64 were aware of *Gorillas* (Kunst 2022b) whereas *Flink's* brand awareness is at 42% (Kunst 2022a). The non-German company

Getir holds a brand awareness of 25% in Germany (Kunst 2022a). For this brand awareness, an easy and convenient app process with steady improvements is essential. For this key activity (see chapter 5.5.), the key resource of having the app and the system that makes the app work is vital. Employing IT specialists who have expertise about hardware, software, network components, the operating system, and data storage is fundamental. Also, protection from hackers and viruses is an essential ability. Following this aspect, the key resource of user data is essential for q-commerce companies to identify pain points in the customer journey and hence, improve them. Therefore, data is primarily collected along the journey from the customers. Tools like *Google Analytics* can be used to gain valuable insights, for instance, pageviews, bounce rates, and the average time a client stays online on the app (Sattler 2022). With the help of user data, the ordering and delivery process can be made as smooth and uncomplicated as possible for the customers. This is the bottom line because "just two or three negative interactions" between consumers and the platform results in the potential client abandoning the process and brand (Taylor 2021). Eventually, to be able to earn revenue, q-commerce companies require active users and riders. For example, *Glovo* is offering the subscription *Glovo Prime* for its active users. In this regard, active users can be described as customers who order regularly and hence, increase revenue. Serving all these customers and meeting the orders requires a high number of active riders who deliver the products. Thus, having active users and couriers who participate in the app represent a key resource without the business model would not work.

However, key resources of vertically integrated q-commerce companies hold the following strengths and vulnerabilities. Regarding strengths, gathering, and using the already generated consumer data helps to improve the customer experience. For instance, by using the data and

observing important KPIs like the retention rate, conversion rate, or bounce rate, strategic pain points in the customer journey can be identified and enhanced in the next step.

Nevertheless, several vulnerabilities can be identified. Beginning with dark stores, finding, renting, or buying a MFC in city centers or local hubs is time-consuming and expensive. Additional to these high set-up costs, equipping and organizing these dark shops requires high organizational effort and expenses such as the hiring of trained employees, the implementation of technologies, and the purchase of groceries and bags. Moreover, having active and reliable couriers are connected to some difficulties since employees need to be hired and trained in order to guarantee a reliable and seamless order delivery. Also, there have been public controversies about laying off numerous employees and additionally paying bad salaries. These facts hurt the public image, brand awareness and do not characterize q-commerce companies as attractive employers and hence, make it challenging to find staff. Ultimately, collecting and using customer data as resources to improve operations data rises concerns of clients. It is commonly known that various companies are selling their data anonymized to third parties which is highly questionable regarding data privacy.

In the next step, the previously described key resources are allocated according to the four parts, valuable, rare, inimitable, and organized (VRIO) of the framework. The VRIO analysis helps to understand which resources are valuable to a company and what makes them rare, how vulnerable they are to imitation and how the firm can exploit and organize them sustainably. Therefore, the practical strategic analysis of this work is done according to the resource-based view (RBV) (Knott 2015). In essence, the RBV scrutinizes the connection between a company's internal characteristics and its business performance. Rather than the external factors, the internal capabilities represent sources of competitive advantage (Barney 1991) Those resources can be transformed into a competitive advantage by using the VRIO analysis which answers

the following questions: Does the capability or resource add value by enabling the company to exploit opportunities or neutralize threats? Is the resource unusual? Can competitors imitate, acquire, or substitute a resource? Is the company able to efficiently use a capability through its organization? (Barney 1991; 1995).

After evaluating the resources according to the VRIO framework (s. table 3), it is evident that all capabilities can be considered valuable since they improve efficiency. However, no resource fulfills all four criteria. For example, dark stores are valuable because they mitigate threats since companies do not rely on partner warehouses or supermarkets but rather handle inventory 100% by themselves. Nonetheless, numerous players in the industry own dark stores and exploit this resource in the same way. Therefore, this situation is regarded as competitive parity which means that none of the current players achieves a competitive advantage by exploiting that resource. This situation is also called competitive equality, meaning the company does neither have an advantage nor a disadvantage in the market (Barney 1991). This concept of competitive parity can also be applied to the app and the system, customer data, an active user and courier network. These are required to make the business work and are leveraged by all companies operating in this industry and cannot be considered rare. For instance, customer data can be considered valuable because having this data and insights about customer enables the great scope to improve operations and add value for consumers. However, this internal capability is used by many players in the same way and aims to sustain competition in the industry. Lastly, a unique brand positioning, that leads to a competitive advantage, is a scarce resource that is hard to find yet among q-commerce companies. Most of the big players in q-commerce (s. chapter 3.3.) rely on similar marketing measures such as in-app promotions, billboards, and TV commercials with the goal to create a unique brand positioning. Those measures are not hard to imitate and aim on building a strong brand awareness. Thus, this resource is valuable and rare since not all players in the market profit from an established and unique brand positioning.

However, other players can easily imitate these marketing measures and pursue to succeed in this resource too which gives the main players only a temporary competitive advantage since it is not difficult to imitate and not organized in a way to capture value (Barney 1991; 1995). Consequently, it is evident that there is great room for distinction and development. In the further progress of this master thesis, the VRIO framework acts as a basis for the formulation of recommendations (s. chapter 6.). The analysis helps to better allocate recognized or even unrecognized resources and set the future course. By identifying and assessing the capabilities which need to be adapted to the business model's strategy, the goal of q-commerce companies, to become profitable in the long run and build a sustained competitive advantage, can be achieved.

	V Valuable	R Rare	I Inimitable	O Organized	Assessment
Dark Stores	YES	NO	NO	NO	Competitive Parity
Brand Awareness	YES	YES	NO	NO	Temporary Competitive Advantage
App and the system that makes it work	YES	NO	NO	NO	Competitive Parity
Customer Data	YES	NO	NO	NO	Competitive Parity
Active users and riders	YES	NO	NO	NO	Competitive Parity

Table 3: VRIO-Analysis (based on Barney 1995; 1991*)*

5.9. Channels

This building block of the BMC describes how a company communicates with and reaches the desired customer segments to deliver the value proposition. Channels can be divided into **communication, distribution, and sales channels** which form the interfaces between a company and its clients. Within these channels, a further distinction can be made into owned direct channels and partner's indirect channels. Channels can be considered important touch points since they play a vital role in the customer experience. For instance, channels draw the customers' attention to the company's services and enable them to purchase specific products and services (Osterwalder and Pigneur 2010, 36–37).

Regarding vertically integrated q-commerce companies, the **communication channels** are direct channels and mainly focus on the app, social media platforms and the website. The app represents a direct channel since it is operated by the q-commerce company itself and enables online sales. All q-commerce companies hold apps as the main channel which covers five phases. Firstly, the "attention" stage describes how the company draws attention to its services. For example, apps of companies such as *Gorillas*, *Glovo* and *Flink* create the need of people to buy thousands of products at retail prices (A. Goel 2022). Secondly, there is "evaluation" which describes how the company helps the clients to evaluate the value proposition. For example, products or services are evaluated against alternatives based on multiple factors like quality, price, popularity, and reviews. Thirdly, the step "purchase" explains how the app enables customers to buy specific products. By offering comfortable user side apps, showing the items in stock, and enabling easy navigation, customer can clearly evaluate if they like the service or not. Moreover, providing multiple payment methods fulfills the phase of "purchase". Fourthly, "mediation" defines how the q-commerce company can convey the value proposition to the customers. For instance, the perceived benefits of the product or service like a convenient delivery to the customer's home need to be highlighted. Lastly, the phase "after the purchase"

outlines how the firm can support the clients after the purchase has been done (A. Goel 2022). In addition, by being transparent and enabling order tracking, clients value the service. If something went wrong with the delivery, the app offers customer service and opportunities to compensate for delivery problems (Manev 2022).

For example, apps of companies such as *Gorillas*, *Glovo* and *Flink* that promise to deliver super-fast create the need of people to buy thousands of products at retail prices and thus "attention" (A. Goel 2022). By offering comfortable user side apps, showing the items in stock, and enabling easy navigation, customer can clearly "evaluate" if they like and use the service or decide to buy from alternative providers. Moreover, providing multiple and uncomplicated payment methods fulfills the phase of "purchase". In addition, by being transparent and enabling order tracking, a superior value proposition is "mediated" to the clients. Finally, if something went wrong with the delivery, the app offers customer service and opportunities to compensate for delivery problems "after the purchase" (Manev 2022). An app that customers can easily navigate and use wherever they want is the main channel for q-commerce companies. Besides having an app, q-commerce companies also focus on their presence on social media. For instance, *Gorillas* and *Flink* both have accounts on *Instagram*, *TikTok* and *LinkedIn*. Especially for the phase "attention", "evaluation" and "mediation" these accounts are critical since product novelties or other news are shared on the platforms. Lastly, the website as an additional channel of q-commerce companies provides information on where to download the app, on the delivery areas, on the order process and shows vacancies or how people can become a rider. Also, customer service and a FAQ area are given (Gorillas 2022a). Therefore, the phases "evaluation", "mediation" and "after the purchase" are also covered by the website.

In q-commerce, **distribution channels** are very similar to **sales channels** and are therefore viewed together (Gisclard-Biondi 2021). A distribution channel can be described as the route used to get a product from the manufacturer to the end consumer (Shopify 2022). Distribution

and sales channels can be distinguished into two types. On the one hand, direct channels include selling goods directly to the consumer through stationary brick-and-mortar stores or online shops. On the other hand, indirect channels contain intermediaries such as wholesalers, retailers or online marketplaces like *Amazon* who then offer the products to consumers (Daoud 2022; Gisclard-Biondi 2021). Vertically integrated q-commerce companies mostly do not produce or create the products they sell. These companies rather act as a middleman or value-added retailers for the product manufacturer and can therefore be considered B2C companies (Daoud 2022). The mobile app represents the main B2C sales channel for q-commerce (Gisclard-Biondi 2021). The subsequent distribution from the MFC to the customer is conducted directly since the drivers are employed by the q-commerce company and deliver straight from the MFC to the customer.

Concluding, the used communication channels by vertically integrated q-commerce companies can be regarded as advantageous since almost every person in the world owns a mobile phone or mobile device on which the app can be easily downloaded and used. On the one hand, especially Gen Z and digital natives feel comfortable with being addressed by social media channels like *Instagram* and *Tik Tok*. On the other hand, it is questionable for how long the social media platforms like *Instagram* and *Tik Tok* will be successful and accepted by young people. As soon as there is a new media channel, q-commerce companies must adapt quickly

in order to stay competitive and effectively address the target group. This uncertainty can be considered a vulnerability in today's fast moving and digital world. Regarding the distribution and sales channel, having a direct distribution network with own couriers brings various advantages with it. For instance, it can be avoided to share profits with outsourcing partners like *Glocally* which offers sustainable last-mile logistics. Moreover, selling directly from the warehouse to clients in record time represents a key strength. Thus, customer relationships are built, and consumers are becoming loyal to the brand (Daoud 2022). However, hiring reliable couriers and building a consistent driver network is a challenging task. Not having the time or financial means to set up this network and train the employees might require finding key partners to become profitable.

6. Recommendations for vertically integrated q-commerce firms

The preceding analysis of the BMC enabled a detailed assessment of vertically integrated business models, where strengths, vulnerabilities, and gaps were identified. Based on these insights, recommendations are developed to address issues and exploit the identified potential of the business model. The recommendations as well as associated risks are discussed in more detail below.

6.1. Enhance efficiencies along the vertically integrated value chain

Nowadays, accessibility of technology, growing competition, and delivery-time pressures make the urge to enhance efficiency ubiquitously. By becoming more efficient, brand awareness, customer loyalty and revenue can be increased in the long run which can eventually lead to higher profit margins for q-commerce companies. The following recommendations concentrate on procurement and inventory management, as well as delivery and distribution of orders and, are suggested in order to become profitable and increase market share.

Automated and optimized processes. To become more efficient in procurement and inventory management, robotic process automation (RPA), which mimics human activities, should be implemented. According to Christian Böhler, those measures "are unavoidable because all of the competitors in the future and also nowadays will have it" (2022). Reasons for realizing this measure are, on the one hand, to reduce personnel costs since repetitive and simple tasks are done automatically. On the other hand, the key activity of inventory and warehouse management is accomplished more efficiently and eventually ensures order fulfillment within a given timeframe. By adding RPA to the dark store such as wages on the warehouse shelves, efficiency can be increased. By introducing smart shelves, an automated waging process can be enabled, and the software can steadily report the number of remaining products to the inventory system of the MFC. Hence, the inventory manager knows exactly when and how many products he or she needs to order without having an employee take the inventory and count the remaining items on a regular basis. Besides reporting the number of products, technological innovation can go even further by implementing a ML algorithm. This software can identify patterns in demand and stock ordering and can be leveraged for prediction and sourcing decision (Sievo 2022). For example, by tracking the fulfilment automation through a network of MFCs, the procurement and MFC organization process can be amended. Thus, a more viable matching of stock and user demanded products can be enabled and consequently, spillage due to a short expiration period or due to faulty products can be reduced or even prevented. By improving the operations and organization of dark stores, procurement and inventory management becomes more efficient and unit costs of goods sold (COGS) can be reduced. These unit costs include the procurement and cost of labor such as the number of staff in the MFCs which can be reduced and personnel costs like health insurance which can be saved (Fernando 2022). According to a study of the Boston Consulting Group, using RPA and ML enables a reduction of conversion costs by up to 20%. This decrease is mainly due to cost reduction coming from higher workforce

productivity (Main 2022). This cost saving of 20% seamlessly corresponds to the calculation of the operational margin contribution after business model improvements. In more detail, expenditures for picking and delivery labor can be decreased by 20% from EUR 7.25 to EUR 5.80 by increasing the efficiency of picking the orders while keeping the hourly wage the same (s. appendix 13). Besides increasing the basket size, this recommendation helps to increase the contribution margin in order to result in q-commerce companies becoming profitable in the long term. Since almost "all of the competitors (for example *Oda, Ocado, Picnic* and the *Rohlik Group* with its subsidiary *Knuspr*) are working with high process automation and achieving high efficiency improvements with it then it will be difficult in the future if q-commerce players […] are working with mostly manual processes. Maybe no full optimization is needed but there are also intra-logistic providers who are offering partly automation, which will also bring significant process enhancements" which are unavoidable to invest in (Böhler 2022). In comparison to q-commerce companies, *Walmart* is already disrupting the supply chain game by using AI in the form of automated grocery picking robots to forecast demand, oversee stock-levels, and free up time for employees so that they can serve customers (Abbu, Gopalakrishna, and Fleischmann 2021).

Furthermore, to enhance efficiency in the delivery and distribution segment, it is recommended to consolidate the rider network and use a route-planning software to ensure a more efficient last-mile delivery process. This step should be done by revising the key resources and to eventually decrease costs. A route-planning software combines a powerful route optimization with a superior and high-quality delivery experience since local delivery routes are planned effortless. An algorithm enables fast and profitable delivery routes and cost-per-delivery can be reduced by up to 40%. Not only costs can be decreased but also customer experience can be improved since the software also provides customer notifications and photo capture of orders. Lastly, the estimated time of arrival is automatically updated, and notifications are sent which

gives the client the opportunity to make last-minute changes and be always informed (Routific 2022). Moreover, having multiple orders delivered by one rider decreases fleet costs and saves time. However, it should be guaranteed that none of the deliveries is compromised in terms of time or quality. For instance, if perishable goods or fresh vegetables are ordered and quickly needed, a superior and fast customer service needs to be ensured anyway.

Besides reducing costs, this proposal brings various risks with it. First, regarding the time frame, digital transformation takes time to be implemented and does not happen quickly. Aspects such as deciding on a suitable software, system, and provider need to be well thought through and the type of software is contingent on the scale of the warehouse and transport operations. Since vertically integrated q-commerce companies aim to manage the whole supply chain process by themselves, a software for integrated fleets is necessary. Therefore, putting multiple warehouses, riders, vehicles, and operators in one integrated transportation resource is time intensive (Rovnaya 2022). Not only the organizational dynamics will be changed but also the company's leadership, culture, organization, and strategy need to be adapted. For instance, getting all riders on the same page regarding their knowledge and ease of usage of the app is a time intensive task. Additionally, digital capabilities are becoming better and smarter as time goes by and therefore, need constant maintenance and adaption.

Regarding non-financial risks, the existing employees who are required nonetheless need to accept the changes in procurement and inventory management. Employees could feel less valued when complemented or even replaced by RPA and ML and might leave the company. Also, the further development of the pandemic and its impacts on demand and the European economy does not allow explicit decision-making. In terms of delivery, there are unpredictable conditions and risks. For example, weather forecasting is not always 100% reliable and vehicle crashes can happen unexpectedly. Both incidents can lead to delays in delivery.

Concerning financial risks, huge investments in digitalization and automation are required. For example, the world largest retailer *Walmart* invested 72% of its strategic capital expenditure in supply chain infrastructure (Banker 2021; Goldman 2022). However, "the problem is that these are very asset-heavy investments and especially for the smaller players, it is hard at the moment to finance them" (Böhler 2022). Since q-commerce companies are currently not profitable, it poses a financial threat to those as these expenditures need be offset by cost savings in personnel, reduced COGS in accordance to higher basket sizes, a positive contribution margin, and higher revenues (s. appendix 13). Moreover, the price range for introducing a full-scale route planning software for integrated fleets is very broad. For instance, the high-ranked software *OnFleet* offers a basic plan for EUR 335 per month. Another provider *RoadWarrior* offers an app version for EUR 9.6 per month per driver (Novak, Main, and Watts 2022). Whether such high investments are possible and worthwhile for vertically integrated q-commerce firms is highly questionable and risky.

New distribution and sales channel. Another approach to enhance efficiency is by implementing a new distribution and sales channel and thus enabling a multichannel strategy. In essence, providing click-and-collect services at the MFCs would on the one hand, result in saving resources since the rider does not need to deliver the products and thus, time and costs can be saved. Additionally, the driver can use this opportunity to fulfil other tasks. On the other hand, by offering this alternative channel, another revenue stream is enabled which in the long run can increase revenue. This is since bigger basket sizes are possible when the customer picks the order up by using a car. Furthermore, the popularity and demand of click-and-collect services is steadily rising (s. appendix 7). Hence, this click-and-collect offering yields high revenue potential and does not require enormous set up costs since the MFCs with its employees already exist. By implementing this new distribution and sales channel, vertically integrated

companies can stand out from the strong competition in this industry and exploit sales potential especially in France and the UK where click-and-collect services have growing popularity (s. chapter 3.3. and 4.3.2.).

However, some risks go along with its implementation. In temporal regard, introducing click-and-collect services at the dark shop can be completed in the medium term. Following aspects need to be considered. Firstly, the option to choose to click-and-collect in the app needs to be implemented. Secondly, depending on the space in front of the MFC, parking lots need to be provided. Therefore, the number of possible click-and-collect locations will automatically be limited since not all local shops will have enough space. Thirdly, dependent on the willingness to use this service, demand and size of the warehouse, more staff needs to be hired and trained. In conclusion, these three factors can be completed in the medium term and have the potential to add value in the long term. Nevertheless, they require effort and time for evaluation which represents a risk.

In non-financial respect, by offering click-and-collect at the dark shop, the q-commerce company publishes its warehouse locations throughout the cities. Thus, competitors who operate in the same city could adapt its operations and hence, competition will intensify.

Concerning financial risks, offering this added service is connected to high expenses and effort since employees need to assess and test the opportunity to make use of this offer. After having done this research, warehouse employees need to be hired and trained which also represents a costly measure. In sum, providing this service represents added value for the customer and a competitive advantage. However, calculations should be done to forecast in what period this added service could become profitable

6.5. Overview and Evaluation of interrelations of recommendations

In this chapter, nine recommendations were derived, which address several vulnerabilities of vertically integrated q-commerce business models. The following illustration (s. figure 5) demonstrates the translation from the in-depth analysis of the business model to the vulnerabilities identified and eventually to the recommendations based on the results.

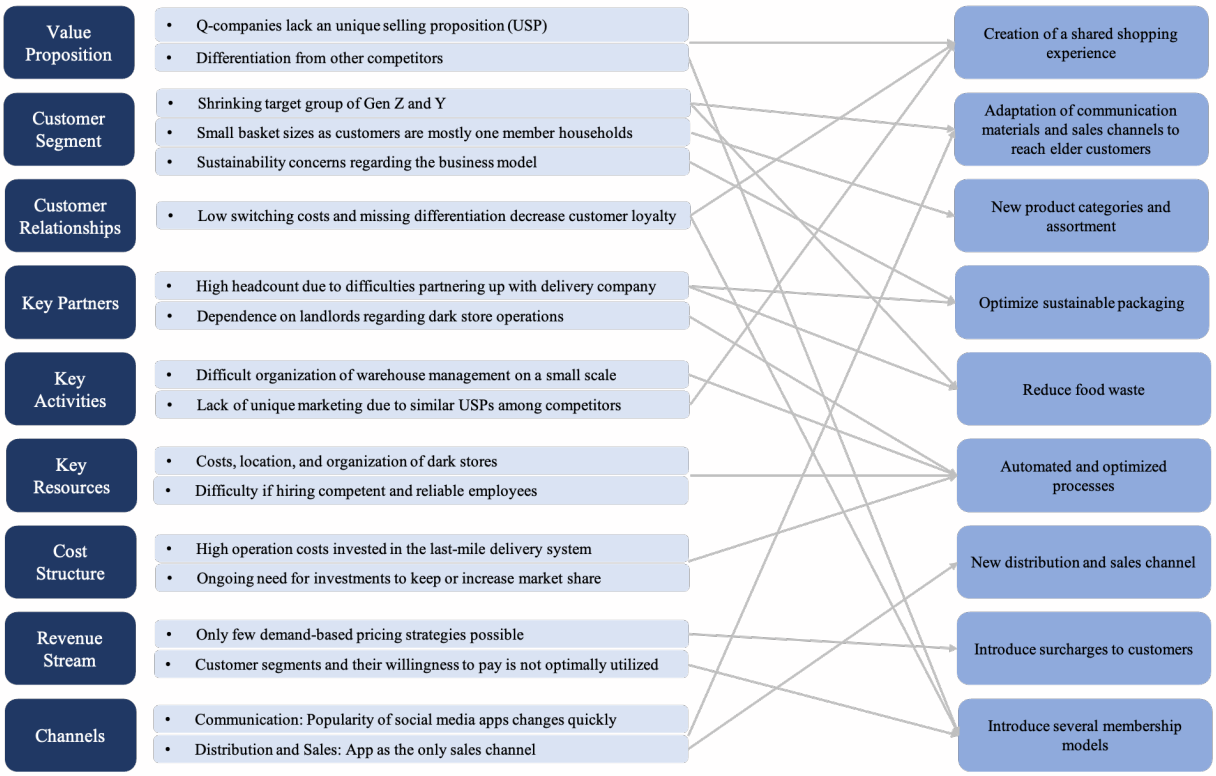


Figure 5: Translation of identified key vulnerabilities into recommendations

Considering the recommendations mentioned, some proposals are mutually reinforcing, and it is evident that synergies can be identified. In essence, a synergy describes the interaction of two or more elements that produce a combined impact that is larger than the sum of their individual effects (Dictionary 2022).

First, the recommendation to implement automated and optimized processes creates synergies with the recommendation to introduce click-and-collect services at the MFCs as an additional distribution and sales channel and vice-versa (s. chapter 6.1.). In detail, both recommendations take place directly at the dark shop and efficiency will be enhanced more than if solely one

recommendation will be implemented. For instance, less staff is needed in the warehouse when an inventory management software is implemented to sort products. Similarly, less drivers are needed when click-and-collect services are implemented. This results in higher overall personnel savings than when implemented individually at different points in time. Nevertheless, a few employees are required to be present at the MFCs to interact with the click-and-collect customers. Summing up, these two recommendations combined can positively influence each other and create synergies. Consequently, higher staff savings are generated which offset investments in AI and technological advances. Hence, this proposal is not considered an asset-heavy implementation and additional revenue is generated.

Secondly, synergies can be created by implementing shared accounts to address broader customer segments and by simultaneously introducing new product categories and a broader assortment. By expanding the product range, both in depth and width, a higher number of diverse customer preferences can be met. This increases the chance that, for instance, each family member or roommate who is part of the shared account will find something appealing on the platform that matches their preferences. This in turn increases the basket size, which has a positive effect on the revenue of the vertical business model.

Thirdly, it is recommended to establish automated and optimized processes to enhance efficiencies along the value chain. When simultaneously sustainability practices to reduce food waste are pursued, these two recommendations can also enrich each other. One possibility to approach this is to use AI-optimized software, that enables to identify products in the inventory that are about to expire. Based on this information, those articles can be displayed in the app and either ranked prioritized at the top of the app or at a reduced price to avoid food waste. An example for this would be a surprise package which is offered to the client at a reduced price.

Lastly, the recommendations to adapt the communication materials and sales channels and to introduce additional membership models can enhance each other and thus, improve the overall

result. One possibility could be to introduce a subscription model, which would be particularly beneficial for the elderly target group. For example, household essentials such as toilet paper or detergent would be sent to the person on a regular, personalized basis. This service could be utilized by the elderly because of the convenient door delivery and the increasing health concerns, such as the risk of COVID-19, associated with visiting a supermarket in person.

In sum, these synergies indicate that vertically integrated q-commerce businesses should approach several recommendations simultaneously to achieve the desired synergy effects.

7. NUF-Analysis

Within five areas of overarching objectives, a total of nine recommendations were given in order to improve the business model of vertically integrated q-commerce in the grocery retail industry in Europe (s. table 5). These recommendations were elaborated based on the BMC and derived from strengths and vulnerabilities which were previously conducted. Since vertically integrated q-commerce companies are likely not to be able to implement all recommendations due to limited resources and capacities, those need to be prioritized to their relevance in order to determine the focus of the implementation to the most relevant ones. Therefore, a NUF (New, Useful, Feasible) analysis, a decision-making method, is being conducted in order to evaluate and prioritize the recommendations mentioned. The approach taken in the NUF analysis is to assign points to each business model recommendation on a scale of zero (being not new/useful/feasible) to ten (being very new/useful/feasible), along to the three criteria of novelty, usefulness, and feasibility. In the first dimension, it is evaluated if the idea is new and innovative (0: has been already done; 10: has never been done before). In terms of usability, it is identified, if the recommendation solves a certain problem or satisfies a need (0: does not solve the problem or need and creates new problems; 10: perfectly solves the problem or need, without creating new problems). In the last dimension, the recommendation is assessed for its

feasibility, namely what resources and how much capital, time, and effort is required (0: requires great effort such as skills, money, or time to put into practice; 10: very easy, simple, and fast to put into practice). Subsequently, an overall score per feature is determined. The recommendations with the highest scores are considered the most relevant and prioritized regarding the implementation (Abdelnour-Nocera et al. 2015, 4:89; Stormz 2022).

Recommendation		New	Useful	Feasible	Sum
Enhance efficiencies along the vertically integrated value chain	Automated and optimized processes	6	4	1	11
	New distribution and sales channel	6	8	5	**19**
Integrate sustainability practices in operations	Optimize sustainable packaging	3	8	6	17
	Reduce food waste	3	9	7	**19**
Capture extra market share by expanding customer segments	Adaptation of communication materials and sales channels to reach elder customers	4	6	4	14
	Creation of a shared shopping experience	7	7	5	**19**
Boost revenue through surcharges, assortment, and subscription models	New product categories and assortment	5	5	4	14
	Introduce several membership models	8	7	5	**20**
	Introduce surcharges to customers	8	5	4	17

Table 4: NUF-Analysis

After conducting the NUF analysis, the following four recommendations were selected based on their aggregated sums as those that should be implemented with a particularly high priority. The recommendation of **introducing a new distribution and sales channel** reaches 19 points in total. In terms of novelty, this recommendation scores six points. Since there is hardly any data about the locations of dark stores and no example of key players offering click-and-collect services at MFCs, this proposed recommendation is considered quite new. In terms of usefulness, this added service scores eight. It helps to enhance efficiency and does not create substantial problems since the required employees are already working in the dark shop. Thus, it does not make a big difference if the order is given to a rider or picked up directly by the customer. Eventually, in terms of feasibility, five points are attributed to this recommendation

because the establishment of this service is considered intense in terms of resources and time but nevertheless, can be implemented and put into practice in the medium run.

The recommendation to **reduce food waste** receives a total of 19 points according to the NUF analysis. Partnerships with food waste prevention initiatives such as *Too Good To Go* become more common in the grocery retail industry and therefore gains three points for novelty. Nine points were attributed to usefulness because it fosters the sale of food products at risk of expiration. Nevertheless, it requires effort in cultivating close partnerships with vendors. In terms of feasibility, the recommendation is rated a seven, as it requires financial investments to set up the option in the app, train staff, and establish the partnership. However, these expenses are very manageable.

Another recommendation to be prioritized is the **creation of a shared shopping experience** which resulted in 19 points total. Seven points were attributed to novelty, as there are already some forms of shared accounts in the industry of streaming providers (for example *Netflix*), but it has not been done before in the field of online grocery retail. In terms of usefulness, the recommendation receives seven points as well, as awareness could be further increased, and household members are usually friends or family. Hence, the proposal of household members to use a shared account for grocery q-commerce is likely to be adopted. However, as an incentive to increase adoption rates, promotional strategies might be necessary. In terms of feasibility, the recommendation receives five points, as it requires a moderate amount of financial and IT resources to be implemented.

Lastly, the recommendation to **introduce several membership models** receives 20 points in total. Eight points are attributed to novelty, because there are no membership models available when looking at the q-commerce landscape, except *Glovo Prime* as *Glovo's* sole membership model (Devescovi, 2022). Furthermore, there is no variation in the membership models, which is why this recommendation scores quite high. In terms of usefulness, the proposal has the

potential to solve the problem of creating a constant and increasing revenue stream. However, with creating new subscription models, risks may occur in terms of customer adaptation and retention, which is why this recommendation scores seven out of ten points. Lastly, regarding feasibility, this recommendation scores five points since the implementation of subscription models requires technical investments, a growing customer base and given time to launch it with the appropriate subscription model(s) chosen. An explanation why the five remaining recommendations scored their respective points can be found in the appendix (s. appendix 14).

8. Limitations, Extensions, and Outlook

Limitations. During the elaboration of the paper, some limitations have been identified. The limitations will be mentioned below to show how those affected the findings. Overall, the limitations are related to the scope of the industry as well as the authors' abilities.

Since q-commerce business models within the online grocery retail industry are relatively new, academic references, empirical studies, and high-ranked journal papers based on long-term analysis are rarely available. Therefore, this thesis was complemented with recent consultancy and analyst reports, q-commerce company webpages, newspaper articles and existing interviews and podcasts with founders. Next to the novelty of the described business models and precisely for that reason, access to data such as financial reports including cost and revenue structures was limited as most q-commerce businesses do not release annual reports. This led using consultancy data from reports as secondary data to provide insights in the cost and revenue structure of q-commerce businesses. Furthermore, the grocery retail industry has been stable for preceding decades and has changed greatly in last two years due to the COVID-19 pandemic. As the given recommendations relate only to the present status it is unclear whether further business models will form, which will continue to prevail and how the given

recommendations need to be adapted to those. Therefore, newly evolved dynamics of the industry require ongoing adjustments to the recommendations.

Concerning limitations resulting from the authors, coming from a business-shaped background, deeper technical understanding is missing, whereupon the paper relies upon external expertise. Moreover, two expert interviews which have provided as a primary data source were carried out. These were selected to get insights both from an external analyst view and from an internal company view, were *Glovo* provided as an insightful example by combining a partner approach and a vertically integrated direct approach within its business model. However, further interviews and thus more diverse answers would have led to broader, more objective insights. Lastly, the time frame of the work does not allow for observations of the implementation of the recommendations for vertically integrated q-commerce business models which is why only assumptions can be made about the effects of these.

Extensions and Outlook. The derived limitations of the work present open questions that could be clarified by follow-up research and show possible future developments in the industry that must be considered. Firstly, the scope of the paper, which focuses on grocery delivery and vertically integrated business models, could be enlarged. A broader scope could include restaurant further research of food delivery and a possible consolidation of q-commerce players within grocery retail as some prevailing players of these industries are already in the process of converging. Looking into future developments, consolidation is likely to happen within companies using the vertically integrated business model. Reasons for this are the lack of differentiation of value propositions among q-commerce businesses, which recently led to a price war regarding discounts and rebates between *Gorillas* and *Flink* (Schu 2022a, 37). Additionally, the lack of profitability leads to investors being increasingly reluctant to invest and therefore participations through company mergers gain relevance. For example, *Delivery*

Hero acquired a majority stake in *Glovo* in 2022 and *Getir* just recently bought *Gorillas,* which previously withdrew from some countries due to lack of profitability. Both companies' valuations have decreased (Bradshaw 2022).

Another development in the market shows that q-commerce players tend to withdraw from the international market and expansions in general. For example, *Flink's* Austrian subsidiary just discontinued their operational activities, as it had to file for bankruptcy (Vienna Online 2022). In this regard, Böhler stated that "q-commerce never showed that it can work, although they expanded to all countries" and he emphasized the fact that q-commerce companies should focus on their respective home markets to first gain profitability there. Moreover, it is uncertain whether the business model of q-commerce as presented in this thesis will still exist in the future. In this context Böhler commented that "you could fill the whole city with hubs and drivers, but the demand at the moment isn't there" (Böhler 2022). Moreover, traditional grocery retailers have only limited alternatives to prevent losing affluent customers in urban areas if q-commerce prevails and one of them is setting up own offerings that can compete with q-commerce services (Grunwald et al. 2022). In this regard, the established brick-and-mortar player *Aldi Süd* already has started to plan an online offensive with a respectively high budget (Kolf 2022). These examples have implications on the current industry state as competitiveness increases and the market is likely to become more concentrated in the future.

Lastly, another development likely to happen in the future is the further optimization of deliveries, for example by drones or autonomous delivery. This is predominately enabled by automations being more technically sophisticated. As deliveries are currently still made by combustors and sustainability is an increasingly important topic for customers, drones among others might be a valid alternative to increase efficiency in the delivery process. However, for this to happen, other solutions for data protection policies must be found and a safe landing of the commodities must be ensured. Regarding autonomous delivery, *Carrefour* has recently

launched a trial project of an autonomous click-and-collect shuttle that delivers grocery orders to a set location where the shuttle itself serves as a click and collect locker (Carrefour 2022). Depending on the outcome of this trial, autonomous deliveries could play an even greater role in grocery retailers' supply chains in the future.

9. Conclusion

The grocery retail industry can be considered a constantly changing sector, not at least driven by increasing digitalization, changing customer attitudes and the impacts of the COVID-19 pandemic. While additional disruptions such as continued inflation or global political conflicts are difficult to predict, the analysis of this work showed that e-commerce and digital services in grocery retail will continue to grow and pose a serious threat to existing players and traditional sales channels. Particularly within the online grocery retail industry, innovative business models have emerged, such as the vertically integrated q-commerce business model, that led to disruptions among existing players in the industry. However, businesses within the vertically integrated q-commerce grocery retail industry lack differentiation from competition and mostly share a common underlying value proposition. The most well-known q-commerce providers here are *Gorillas, Flink* and *Getir*.

In sum, it can be concluded that it is crucial for q-commerce companies to take the changing external environment in terms of customer's shifting purchasing patterns and competitor's actions into consideration for future decisions. Reinforced by growing environmental concerns and the competitive socio-economic environment, the implementation of sustainable measures, such as offering organic products and improved packaging, is indispensable. Due to limited financial capacities, the reduction of food waste should be prioritized. In addition, q-commerce companies so far mainly attract customers that are part of younger generations, and the success

of current q-commerce businesses illustrates the consumers' inherent need for more convenience in everyday life. To capture a larger share of the market, increase basket sizes and ultimately decrease complexity for customers, shared membership accounts should be introduced. When looking at identified cost-specific hurdles, automated process and a route optimizing software need to be carefully evaluated in terms of set-up costs and investments. From a revenue-specific perspective, click-and-collect services at dark shops represent a new distribution opportunity which should be focused on first in this area. In addition to that, the implementation of revenue levers in the form of surcharges, new product categories or demand-based subscriptions should be considered. To date, profitability has been extremely dependent on external factors such as COVID-19 and resulting lockdowns, but stable profitability should be ensured regardless of this. Due to the variety of implementation and pricing options, the demand-based subscriptions as regular recurring revenue streams should be prioritized.

In personal regard, several interesting insights emerged during the Field Lab project. First, it was surprising to see that numerous players still operate in this q-commerce industry, although they are not profitable. While q-commerce is considered and cited the future of grocery retail, investors are pulling back their funding, although the grocery market yields great potential for further growth. In addition, it was unexpectedly difficult to gather data about the number of dark shops and active riders. Formulating recommendations for companies that do not report about the supply chain and process technologies they use, and hence coming up with concrete improvements, was challenging. Therefore, conducting interviews with *Govo* employees and an analyst from *Accenture* was very helpful to gather otherwise not obtained company insights. Lastly, working on strategic business models of companies whose services the members of this Field Lab regularly use and are interested to pursue a career in, enabled the group to gain an all-encompassing understanding of the benefits and challenges of this business model.

References

Abbu, Haroon R, Pradeep Gopalakrishna, and David Fleischmann. 2021. "The Digital Transformation of the Grocery Business - Driven by Consumers, Powered by Technology, and Accelerated by the COVID-19 Pandemic." In *Trends and Applications in Information Systems and Technologies* , 329–39.

Abdelnour-Nocera, José, Rita Barbara Baricelli, Arminda Lopes, Pedro Campos, and Torkil Clemmensen. 2015. *Human Work Interaction Design: Analysis and Interaction Design Methods for Pervasive and Smart Workplaces*. Edited by José Abdelnour-Nocera, Rita Baricelli Barbara, Arminda Lopes, Pedro Campos, and Torkil Clemmensen. Vol. 4. London: Springer.

Ads of the World. 2021. "Gorillas - Spot the Bikers." Ads of the World . 2021. https://www.adsoftheworld.com/campaigns/spot-the-bikers.

Ahrens, Sandra. 2022. "Umsatz Der Führenden Unternehmen Im Lebensmittelhandel in Europa in Den Jahren 2020 Und 2021." Statista . August 29, 2022.

Alcalde, Lucas Gª, and Nathan Rennolds. 2022. "How Glovo Co-Founder Oscar Pierre Helped Build a Startup Worth $2.6 Billion." *Business Insider España* , March 4, 2022. https://www.businessinsider.com/glovo-founder-oscar-pierre-path-idea-2-billion-dollar-company-2022-3.

Aldi UK. 2022. "Aldi Value – Now Only a Click & Collect Away." 2022. https://groceries.aldi.co.uk/en-GB/About-Click--Collect.

Apptunix. 2022. "Glovo Business Model: How Does Glovo Work And Make Money?" 2022. https://www.apptunix.com/blog/glovo-business-model-how-does-glovo-work-and-make-money/.

Badenhop, Anna, and Marta Frasquet. 2021. “Online Grocery Shopping at Multichannel Supermarkets: The Impact of Retailer Brand Equity.” *Journal of Food Products Marketing* 27 (2): 89–104. https://doi.org/10.1080/10454446.2021.1894296.

Banker, Steve. 2021. “Walmart’s Massive Investment In A Supply Chain Transformation.” *Forbes*, April 23, 2021. https://www.forbes.com/sites/stevebanker/2021/04/23/walmarts-massive-investment-in-a-supply-chain-transformation/?sh=26fac02e340e.

Barney, Jay. 1991. “Firm Resources and Sustained Competitive Advantage.” *Journal of Management* 17 (1): 99–120.

———. 1995. “Looking inside for Competitive Advantage .” *Academy of Management Executive* 9 (4): 49–61. https://journals.aom.org/doi/abs/10.5465/AME.1995.9512032192.

Belyh, Anastasia. 2020. “Key Resources Building Block in Business Model Canvas.” Cleverism. September 16, 2020. https://www.cleverism.com/key-resources-building-block-in-business-model-canvas/.

Best, Raynor de. 2022. “Change in the Use of Curbside Pickup, BOPIS, and BNPL from before to during the COVID-19 Pandemic in Selected Regions Worldwide in 2021.” Statista . August 11, 2022. https://www-statista-com.eu1.proxy.openathens.net/statistics/1277000/change-online-shopping-services-worldwide-region/.

Bmediagroup. 2022. “Why Is Brand Awareness Important? .” Bmediagroup. February 16, 2022. https://www.bmediagroup.com/news/why-is-brand-awareness-important/.

Böhler, Christian. 2022. “Interview with Christian Böhler, Accenture.” December 7.

Bradshaw, Tim. 2022. “Getir Acquires Grocery App Rival Gorillas in $1.2bn Deal.” *Financial Times*, December.

Browne, Ryan. 2022. “Rapid Grocery Delivery Boom Comes to a Grinding Halt as Getir, Gorillas Slash Jobs.” CBNC. May 2022. https://www.cnbc.com/2022/05/26/rapid-grocery-delivery-start-ups-getir-gorillas-slash-jobs.html.

Carrefour. 2022. “Carrefour and Goggo Network Join Forces to Create the Future of Autonomous Delivery.” December 5, 2022. https://www.carrefour.com/en/news/2022/carrefour-et-goggo-network-sassocient.

Carrefour Group. 2022a. “All Our Store Formats.” All Our Store Formats. 2022. https://www.carrefour.com/en/group/stores.

CB Insights. 2022. “Delivery Hero Acquires Glovo For $2.6B — A 6.4x Trailing Price/Revenue Valuation Multiple.” CB Insights. January 5, 2022. https://www.cbinsights.com/research/delivery-hero-acquires-glovo/.

CFI Team. 2022. “Brick and Mortar.” Corporate Finance Institute. October 17, 2022. https://corporatefinanceinstitute.com/resources/management/brick-and-mortar/.

Chandra, Vishwa, Prabh Gill, Sajal Kohli, Varun Mathur, Kumar Venkataraman, and Janice Yoshimura. 2022. “The next Horizon for Grocery E-Commerce: Beyond the Pandemic Bump.” https://www.mckinsey.com/industries/retail/our-insights/the-next-horizon-for-grocery-ecommerce-beyond-the-pandemic-bump.

Chaudry, Aiza. 2022. “Quick Commerce 101: What Is Quick Commerce & Key Considerations.” 2022. https://ohi.com/blog/what-is-quick-commerce-and-key-considerations/.

Choi, Michele. 2021. “Sign up Now: Creating Consumer—and Business—Value with Subscriptions.” https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/sign-up-now-creating-consumer-and-business-value-with-subscriptions.

CodeFuel. 2021. “What Is User Engagement? – The Ultimate Guide.” CodeFuel. November 16, 2021. https://www.codefuel.com/blog/what-is-user-engagement/.

Coresight Research. 2021. “From Quick Commerce to Instant Needs: Exploring Business Models in Rapid Delivery.” https://coresight.com/research/from-quick-commerce-to-instant-needs-exploring-business-models-in-rapid-delivery/.

Curry, David. 2022. “Gorillas Revenue and Usage Statistics (2022).” Business of Apps . September 13, 2022. https://www.businessofapps.com/data/gorillas-statistics/.

Daoud, Mostafa. 2022. “E-Commerce Distribution Channels Explained (With Examples) .” FigPii. August 19, 2022. https://www.figpii.com/blog/e-commerce-distribution-channels-explained-with-examples/.

Delipop. 2022. “Be Part of a Revolution in E-Grocery Delivery.” Delipop. 2022. https://delipop.com/for-partners/.

Devescovi, Mattia, and Beatrice Foffano. 2022. “Interview with Mattia Devescovi and Beatrice Foffano, Glovo.” November 16.

Dictionary. 2022. “Synergy.” 2022. https://www.dictionary.com/browse/synergy.

Die deutsche Wirtschaft. 2022. “Die 1000 Größten Familienunternehmen Deutschlands .” Die Deutsche Wirtschaft. August 1, 2022. https://die-deutsche-wirtschaft.de/famu_top/schwarz-gruppe-neckarsulm-umsatz-mitarbeiterzahl/.

Doong, Her sen, Hui Chih Wang, and Gordon R. Foxall. 2011. “An Investigation of Consumers’ Webstore Shopping: A View of Click-and-Mortar Company.” *International Journal of Information Management* 31 (3): 210–16. https://doi.org/10.1016/j.ijinfomgt.2010.06.006.

Droogenbroeck, Ellen van, and Leo van Hove. 2022. “Are the Time-Poor Willing to Pay More for Online Grocery Services? When ‘No’ Means ‘Yes.’” *Journal of Theoretical and Applied Electronic Commerce Research* 17 (1): 253–90. https://doi.org/10.3390/jtaer17010013.

Dufry. 2022. “Reserve & Collect.” Dufry. 2022. https://www.dufry.com/en/shopping/reserve-collect-service.

Dunn, Edgar. 2019. “Growth of Click & Collect in Europe.” *Edgar, Dunn & Company*, January, 1–22. https://www-statista-com.eu1.proxy.openathens.net/study/62103/edgar-dunn-and-company-white-paper-growth-of-click-and-collect-in-europe-2018/.

Edge, Sarah. 2022. “Hybrid Retail: Delivery, Click and Collect, or Curbside Pickup? Which Option Works Best for You?”

EHI Retail Institute. 2022. “Lebensmitteldiscounter.” Handelsdaten. 2022. https://www.handelsdaten.de/branchen/lebensmitteldiscounter.

E.Leclerc. 2022. “Click & Collect E.Leclerc .” 2022. https://www.clickandcollect.leclerc.

Encyclopedia Britannica. 2014. “Supermarket.” In https://www.britannica.com/topic/supermarket.

Endt, Christian. 2014. “Verpackungsfrei Einkaufen.” *Zeit Online*, April 7, 2014. https://www.zeit.de/wirtschaft/unternehmen/2014-04/lebensmittel-einzelhandel-konsum-nachhaltig?utm_referrer=https%3A%2F%2Fwww.google.com%2F.

Eunomia Research & Consulting Ltd. 2020. “Packaging Free Shops in Europe an Initial Report.” https://zerowasteeurope.eu/wp-content/uploads/2020/06/2020_06_30_zwe_pfs_executive_study.pdf.

eurostat. 2022a. “Gross Domestic Product of the European Union (EU27) from 1995 to 2021.” April 5, 2022. https://www.statista.com/statistics/279447/gross-domestic-product-gdp-in-the-european-union-eu/.

———. 2022b. “Inflation Rates (%) Measured by the HICP.” November 17, 2022. https://ec.europa.eu/eurostat/web/hicp.

Fernando, Jason. 2022. “Cost of Goods Sold (COGS) Explained With Methods to Calculate It.” Investopedia . August 22, 2022. https://www.investopedia.com/terms/c/cogs.asp.

Flink. 2022. “Groceries Delivered in Minutes.” Flink. 2022. https://www.goflink.com/en/.

Gisclard-Biondi, Henri. 2021. “The Different Sales Channels: How to Sell Your Product?” Appvizer. September 14, 2021. https://www.appvizer.com/magazine/customer/sales-mgt/sales-channel.

Global Data. 2021. “Europe Food and Grocery Retailing Market Size, Category Analytics, Competitive Landscape and Forecast, 2020-2025.” https://www.globaldata.com/store/report/europe-food-and-grocery-retail-market-analysis/.

Glovo. 2022. “Food Delivery and More.” Glovo. 2022. https://glovoapp.com.

Goel, Abhishek. 2022. “Gorillas Business Model: How Does Gorillas Work & Make Money.” Jungle Works . February 18, 2022. https://jungleworks.com/gorillas-business-model-how-does-gorillas-work-make-money/.

Goel, Shikhar. 2022. “Healthy Business Model & Marketing Strategy of HelloFresh.” September 17, 2022. https://thestrategystory.com/2022/09/17/hellofresh-business-model-marketing-strategy/.

Goldman, Sharon. 2022. “AI Is Embedded Everywhere at Walmart.” Venture Beat. June 9, 2022. https://venturebeat.com/ai/ai-is-embedded-everywhere-at-walmart/.

Gorillas. 2022a. “Schneller Als Du.” 2022. https://gorillas.io/de.

———. 2022e. “Gorillas Lists Alnatura Products in Germany.” May 31, 2022. https://gorillas.io/en/blog/gorillas-lists-alnatura-products-in-germany.

Grand View Research. 2021. “Food & Grocery Retail Market Size, Share & Trends Analysis Report By Product (Food Cupboard, Beverages), By Distribution Channel (Supermarkets & Hypermarkets, Online), By Region (APAC, Europe), And Segment Forecasts, 2022 - 2030.” https://www.grandviewresearch.com/industry-analysis/food-grocery-retail-market.

———. 2022. “Online Food Delivery Market Size, Share & Trends Analysis Report By Type (Platform To Consumer Delivery, Restaurant To Consumer Delivery), By Region, And Segment Forecasts, 2022 - 2028.” https://www.grandviewresearch.com/industry-analysis/online-food-delivery-market-report#:~.

Grant, Mitchell. 2022. “What Is Customer Service, and What Makes It Excellent?” Investopedia. April 7, 2022. https://www.investopedia.com/terms/c/customer-service.asp.

Grunwald, Alexander, Rabea Schrage, Peter Rinnebach, Michael Kahle, Marc Knuff, and Thomas Steiner. 2022. "Grocery Insights 2022: Final Call for German E-Grocery." https://www.accenture.com/_acnmedia/PDF-179/Accenture-Grocery-Insights-2022-Final-Call-German-E-Grocery.pdf.

Günday, Gizem, Stijn Kooij, Jessica Moulton, Marek Karabon, and Jorge Omeñaca. 2020. "How European Shoppers Will Buy Groceries in the next Normal." https://www.mckinsey.com/industries/retail/our-insights/how-european-shoppers-will-buy-groceries-in-the-next-normal.

Hale, Lucas. 2022. "Die Vorteile Und Risiken Der Vertikalen Integration." ANCA. CNC Machines. February 8, 2022. https://machines.anca.com/News/Technology/The-benefits-and-risks-of-vertical-integration?lang=de-DE.

HarperCollins Publishers. 2022. "Definition of 'Discounter.'" In *Collins COBUILD Advanced Learner's Dictionary*. https://www.collinsdictionary.com/dictionary/english/discounter.

Hayes, Mark. 2021. "8 Types of Ecommerce Business Models That Work in 2022." March 27, 2021. https://www.shopify.com/blog/business-model.

Heathrow. 2022. "Reserve & Collect." 2022. https://www.heathrow.com/at-the-airport/shopping/reserve-and-collect.

Hello Fresh. 2021. "10 Years HelloFresh: From Start-up to Scale-Up," November. https://www.hellofreshgroup.com/en/newsroom/stories/10-years-hellofresh-from-start-up-to-scale-up/.

Hendelmann, Viktor. 2022. "The Glovo Business Model – How Does Glovo Make Money?" 2022. https://productmint.com/glovo-business-model-how-does-glovo-make-money/.

Idea Usher. 2022. "15 Essential Features of Food Delivery Apps." Idea Usher. 2022. https://ideausher.com/blog/food-delivery/features-of-food-delivery-app/.

Intermarché. 2022. “Les Courses En Ligne, Par Intermarché.” 2022. https://www.intermarche.com/enseigne/services/courses-en-ligne.

Jenkins, Abby. 2020. “Inventory Management vs. Warehouse Management: What’s the Difference?” Oracle Net Suite. September 3, 2020. https://www.netsuite.com/portal/resource/articles/inventory-management/inventory-management-warehouse-management.shtml.

Kaufland. 2020. “Kaufland Testet Digitalen Reservierungsservice Click & Collect in Polen.” May 27, 2020. https://unternehmen.kaufland.de/presse/pressemitteilungen/pressemitteilungen-detail.y=2020.m=05.n=reservierungsservice-polen.html.

Kenton, Will. 2020. “What Is a Hypermarket? Definition, Advantages, and Example.” Hypermarket. July 5, 2020. https://www.investopedia.com/terms/h/hypermarket.asp.

Kluge, Christoph. 2021. “Mehr Nutzer Als Gorillas:Berliner Lieferdienst Flink Bekommt 750 Millionen Dollar von Investoren.” *Tagesspiegel* , December 10, 2021. https://www.tagesspiegel.de/wirtschaft/berliner-lieferdienst-flink-bekommt-750-millionen-dollar-von-investoren-4296139.html.

———. 2022. “Milliarden-Deal Bei Schnell-Lieferdiensten: Getir Kauft Berliner Konkurrenten Gorillas – Und Wird Marktführer.” *Tagesspiegel*, December 9, 2022. https://www.tagesspiegel.de/berlin/milliarden-deal-bei-schnell-lieferdiensten-getir-kauft-berliner-konkurrenten-gorillas--und-wird-marktfuhrer-9005014.html.

Knott, Paul J. 2015. “Does VRIO Help Managers Evaluate a Firm’s Resources?” *Management Decision* 53 (8): 1806–22. https://www.emerald.com/insight/content/doi/10.1108/MD-08-2014-0525/full/html.

Kolf, Florian. 2022. “Aldi Süd Plant Online-Shop Für Frische Lebensmittel.” *Handelsblatt* , November 7, 2022. https://nachrichten.handelsblatt.com/5dba4a2baa1df05bae373aa41607d2e742f404383af6af91

985e3e6d73f1c87c3a314c310be9867542e6e6dd776166af028778964?product=hb&&utm_source=app.

Kolmar, Chris. 2022. “The 15 Largest Food Retailers in the World.” June 2022. https://www.zippia.com/advice/largest-food-retailers/.

Kromer, Sven, Alexander Grunwald, Housni el Nassabi, and Christian Böhler. 2022. “Keeping up the Pace: The New Face of Last Mile Delivery.”

Kunst, Alexander. 2022a. “Flink Brand Awareness, Usage, Popularity, Loyalty, and Buzz among Online Grocery Delivery Users in Germany in 2022.” Statista . October 4, 2022. https://www.statista.com/forecasts/1097772/flink-online-grocery-delivery-brand-profile-in-germany.

———. 2022b. “Getir Brand Awareness, Usage, Popularity, Loyalty, and Buzz among Online Grocery Delivery Users in Germany in 2022.” Statista . October 4, 2022. https://www.statista.com/forecasts/1097774/getir-online-grocery-delivery-brand-profile-in-germany.

———. 2022c. “Gorillas Brand Awareness, Usage, Popularity, Loyalty, and Buzz among Online Grocery Delivery Users in Germany in 2022.” Statista . October 4, 2022. https://www.statista.com/forecasts/1097775/gorillas-online-grocery-delivery-brand-profile-in-germany.

Ladd, Brittain. 2021. “How Grocery Retailers Can Leverage Micro-Fulfillment To Streamline Their Operations.” *Forbes*, September 22, 2021. https://www.forbes.com/sites/forbescommunicationscouncil/2021/09/22/how-grocery-retailers-can-leverage-micro-fulfillment-to-streamline-their-operations/?sh=16e3652c6530.

Lamb, Charles W., Joe F. Hair, and Carl McDaniel. 2011. *Marketing*. 11th ed. South-Western Cengage Learning.

Lazic, Miroslav. 2021. “Subscribe Now! The Value of Subscriptions for Consumer Goods.” January 11, 2021. https://www.kearney.com/consumer-retail/article/-/insights/subscribe-now-the-value-of-subscriptions-for-consumer-goods.

Leach, Lauren. 2019. “A Deep Dive into the Click and Collect Concept.” Retail Customer Experience . September 12, 2019. https://www.retailcustomerexperience.com/blogs/a-deep-dive-into-the-click-and-collect-concept/.

Main, Kelly. 2022. “How a Brilliant Artificial Intelligence-Inspired Solution Can Cut Your Company’s Costs by 20 Percent.” Inc. . June 15, 2022. https://www.inc.com/kelly-main/artificial-intelligence-efficiency-productivity.html.

Maison Ladurée Paris. 2022. “Maison Ladurée Paris.” Maison Ladurée Paris. 2022. https://www.laduree.fr.

Manev, Patel. 2022. “Understand the Gorilla Business Model and Develop a Dark Grocery Delivery App Of Your Own- Have a Look at The Insights.” Kody Technolab. January 7, 2022. https://kodytechnolab.com/blog/develop-dark-grocery-app-like-gorillas/.

Market Research. 2021. “Food and Grocery Retail in Europe - Market Summary, Competitive Analysis and Forecast to 2025.” https://www.marketresearch.com/MarketLine-v3883/Food-Grocery-Retail-Europe-Summary-30130825/.

MarketLine. 2020. “Industry Profile Food & Grocery Retail in Europe.”

McKinsey. 2022b. “Quick Commerce Pushes the Limits on Grocery Delivery.” *McKinsey Insights*. July 18. https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/quick-commerce-pushes-the-limits-on-grocery-delivery.

Mostaghel, Rana, Pejvak Oghazi, Vinit Parida, and Vahid Sohrabpour. 2022. “Digitalization Driven Retail Business Model Innovation: Evaluation of Past and Avenues for Future Research Trends.” *Journal of Business Research* 146 (July): 134–45. https://www.sciencedirect.com/science/article/pii/S0148296322003095.

Müller-Sarmiento, Patrick. 2021. “The Convenience Megatrend Accelerates Quick Commerce.” Roland Berger. 2021. https://www.rolandberger.com/en/Insights/Publications/The-convenience-megatrend-accelerates-quick-commerce.html.

Murphy, Chris B. 2022. “Brick and Mortar Stores.” September 18, 2022. https://www.investopedia.com/terms/b/brickandmortar.asp.

Nalbandian, Gary. 2021. “Click & Drive: Are French Drives the next French Fries?” Shalion. August 20, 2021. https://www.shalion.com/blog-posts/french-click-drives-supermarkets.

Nierynck, Robin. 2020. “Quick Commerce: Pioneering the next Generation of Delivery.” Delivery Hero. April 29, 2020. https://www.deliveryhero.com/blog/quick-commerce/.

Nott, George. 2022. “Rapid Grocery Dark Stores in UK Set to Number 1,500 by 2030,” February 24, 2022. https://www.thegrocer.co.uk/technology-and-supply-chain/rapid-grocery-dark-stores-in-uk-set-to-number-1500-by-2030/664831.article.

Novak, Janette, Kelly Main, and Robert Watts. 2022. “The Best Route Optimization Software Of 2022.” *Forbes*, October 23, 2022. https://www.forbes.com/advisor/business/best-route-optimization-software/.

Numerator Intelligence. 2021. “Click & Collect 101: What Is It and How Does It Work?” Numerator . February 3, 2021. https://www.numerator.com/resources/blog/click-and-collect.

Ogoship. 2021. “Your Ultimate Guide to E-Commerce Order Fulfillment.” Ogoship. 2021. https://www.ogoship.com/e-commerce-order-fulfillment.

O’Hear, Steve. 2021. “Flink, the Berlin-Based Grocery Delivery Startup That Operates Its Own ‘Dark Stores’, Raises $52M.” TechCrunch. March 2, 2021. https://techcrunch.com/2021/03/02/flink/?guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAABwFeXTxqaYd2ncv5eSju5MgYRPsezVbWFlBW2yF-XBtVgCUDB_4qa-I8tbndlHKaiOnfZBQCu7Vhi0aeSkGpxeMZ32IfTl-

aygYQN9eiGAk6jqC1uq0vTgTrEo5tsZZMUh6cUKH7n6P5BTu689z2taQq6ehuLUktlYBHyGvynNW&guccounter=2.

O'Neill. 2019. "What Is Specialty Retail?" IQmetrix. February 7, 2019. https://www.iqmetrix.com/blog/what-is-specialty-retail.

Original Unverpackt. 2022. "Über Original Unverpackt." Original Unverpackt. 2022. https://original-unverpackt.de/ueber-original-unverpackt/.

Osterwalder, Alexander, and Yves Pigneur. 2010. *Business Model Generation : A Handbook for Visionaries, Game Changers, and Challengers*. Hoboken, NJ: Wiley. https://www.ebsco.com/terms-of-use.

Pahwa, Aashish. 2022. "What Is Q-Commerce? – Quick Commerce Business Model Explained." January 24, 2022. https://www.feedough.com/q-commerce-quick-commerce-business-model/.

Pay Space Magazine. 2020. "Top 7 Supermarket Chains in Europe," November 3, 2020. https://payspacemagazine.com/retail/top-7-supermarket-chains-in-europe/.

Retail Index. 2022. "Food Retailers in Europe and Worldwide." 2022. https://www.retail-index.com/sectors/foodretailersineuropeandworldwide.aspx.

RetailNet Group. 2015. " Online Grocery Business Models Click & Collect and Drive." *International Dairy·Deli·Bakery Association*. https://www.iddba.org/training-materials/pdfs/iddba-click-collect-drive.

Routific. 2022. "Delight Your Customers With Fast Deliveries & Accurate ETAs." Routific. 2022. https://routific.com.

Rovnaya, Alina. 2022. "How to Master Route Optimization Software to Get the Most of It. ." Cleverroad . November 10, 2022. https://www.cleveroad.com/blog/route-optimization-software/.

Sabanoglu, Tugba. 2022. “Leading Food and Beverage Retailers of Europe in 2020, Based on Retail Revenue.” Statista. May 2, 2022. https://www.statista.com/statistics/666886/leading-food-retailers-of-europe-based-on-sales/.

Samsukha, Amit. 2022. “Quick Commerce: An Ever-Changing E-Commerce Prospect.” *Forbes*, April 22, 2022. https://www.forbes.com/sites/forbestechcouncil/2022/04/22/quick-commerce-an-ever-changing-e-commerce-prospect/.

Sattler, Tawni. 2022. “4 Practical Ways to Improve Your Ecommerce Customer Journey.” Hotjar . August 18, 2022. https://www.hotjar.com/blog/ecommerce-customer-journey/.

Sava, Alexandra Justina. 2022. “Spending on Digital Transformation Technologies and Services Worldwide from 2017 to 2026.” November 14, 2022. https://www.statista.com/statistics/870924/worldwide-digital-transformation-market-size/.

Savills Research. 2021. “European Food and Groceries Sector.” https://pdf.euro.savills.co.uk/european/europe-retail-markets/spotlight---european-food-and-groceries-sector---2021.pdf.

Schader, Peer. 2022. “Die Fresh-Falle: Amazons Unterlegenes Modell Zur Lieferung Frischer Lebensmittel.” Supermarktblog. May 30, 2022. https://www.supermarktblog.com/2022/05/30/die-fresh-falle-amazons-unterlegenes-modell-zur-lieferung-frischer-lebensmittel/.

Schu, Matthias. 2022a. “Der Quick Commerce Report.” https://www.matthiasschu.ch/produkt/der-quick-commerce-report/.

———. 2022b. “Quick Commerce: Is It Quick? Yes! Is It Profitable? No!” August 30, 2022. https://www.tgw-group.com/en/news/press-releases/2022/quick-commerce-is-it-quick-yes!-is-it-profitable-no.

Score. 2020. “Benefits of Using the Business Model Canvas.” December 19, 2020. https://philadelphia.score.org/blog/benefits-using-business-model-canvas-2.

Serrano, Stephan. 2021. “Click and Collect Strategies: How Target +273% Sales Same Day Fulfillment.” Barilliance . January 24, 2021. https://www.barilliance.com/click-collect/.

Shapiro, Aaron. 2022. “Platform Urbanism in a Pandemic: Dark Stores, Ghost Kitchens, and the Logistical-Urban Frontier.” *Journal of Consumer Culture* 0 (0): 1–20. https://journals.sagepub.com/doi/pdf/10.1177/14695405211069983?casa_token=0LcpcfZCaX4AAAAA:w7JD225DjEkwBC6RzVh_D1tmEg8BJ2k9ugQy9GFQKlPBlfHbiiGI-S-cSyoJNuN24P4EhScYi8ODOw.

Shopify. 2022. “What Is a Distribution Channel? Definition and Guide.” August 23, 2022. https://www.shopify.com/blog/what-is-a-distribution-channel.

Sievo. 2022. “AI in Procurement.” November 15, 2022. https://sievo.com/resources/ai-in-procurement.

Simmons, Virginia, Julia Spielvogel, Björn Timelin, and Madeleine Tjon Pian Gi. 2022. “The next S-Curve of Growth: Online Grocery to 2030.” https://www.mckinsey.com/industries/retail/our-insights/the-next-s-curve-of-growth-online-grocery-to-2030.

SPAR International. 2022. “Store Formats.” https://spar-international.com/aboutus/store-formats/.

Statista. 2022a. “Food & Beverage.” 2022. https://www.statista.com/markets/423/topic/451/food-beverage/#overview.

———. 2022b. “Organic Retail Sales Value in the European Union and Europe from 2004 to 2020.” February 17, 2022. https://www.statista.com/statistics/541536/organic-retail-sales-value-european-union-europe-statistic/.

Steinhöfel, Erik, Holger Kohl, and Ronald Orth. 2016. “Business Model Innovation: A Comparative Analysis.” *Proceedings of the 11Th European Conference on Innovation and Entrepreneurship*, September. https://www.researchgate.net/publication/308723631_Business_Model_Innovation_A_Comparative_Analysis.

Stormz. 2022. “New, Useful, Feasible - Evaluate Ideas, Prototypes or Strategies.” 2022. https://stormz.me/en/templates/nuf.

Strategy&. 2022. “The Future of Grocery Shopping.” https://www.strategyand.pwc.com/de/en/industries/consumer-markets/future-of-grocery-shopping.html.

Taylor, Louise. 2021. “Customer Experience Is Everything in the Online Grocery Retail Sector. .” Northfork. February 5, 2021. https://northfork.ai/experience-is-everything-in-the-online-grocery-retail-sector/.

Tesco. 2022. “Tesco Click+Collect and Home Delivery.” 2022. https://www.tesco.com/groceries/en-GB/zone/tesco-delivery.

TESCO PLC. 2022. “About Us.” 2022. https://www.tescoplc.com/about/.

trvst LTD. 2022. “The Growing Popularity of Zero Waste Supermarkets.” February 11, 2022. https://www.trvst.world/sustainable-living/eco-friendly/the-growing-popularity-of-zero-waste-supermarkets/.

Vienna Online. 2022. “Flink Austria Ist Insolvent: Konkursverfahren Am Wiener Handelsgericht.” *Vienna Online*, December 7, 2022. https://www.vienna.at/flink-austria-ist-insolvent-konkursverfahren-am-wiener-handelsgericht/7788100.

Wells, Jeff. 2021. “Pardon the Disruption: Could Remote Pickup Become a Third e-Commerce Channel?” Grocery Dive. August 16, 2021. https://www.grocerydive.com/news/pardon-the-disruption-could-remote-pickup-become-a-third-e-commerce-channe/604933/.

Woersdoerfer, Sophie. 2022. “Gorillas – In 10 Minuten Zum Multi-Channel-Champion?” Web Spotting . January 26, 2022. https://www.webspotting.de/e-commerce/gorillas-mutli-channel-champion/.

World Duty Free. 2022. “Reserve & Collect UK.” Dufry. 2022. https://worlddutyfree.com/en/reserve-and-collect.

Appendices

Hedy: Thank you for joining our quick interview and so Sophie, Leonie, Carlotta, and I, we are currently writing on our master thesis at Nova SBE in Lisbon, and we are currently analyzing business models within the quick commerce industry. So, we are super, super happy to talk to you and to probably gain some insights about the chances and challenges, especially facing *Glovo* in this case. Would you quickly tell us something about yourself and maybe about your position at *Glovo*?

Mattia: Yeah, sure. So, first of all, I invited another guest. Both of us work in the category management which is a team that basically focuses on making sure that we have the right assortment for the customers. So that whenever they go inside the app, they find what they are looking for and they convert. This is kind of the category management umbrella and the business model here splits in two, one is the direct store business model and the other one is the partner business model.

I take care of the partner side. With partner I mean like grocery shops, from big chains to small chains. And then she takes care more of the direct stores part, which is a completely different type of business model.

Beatrice: Yes, hi girls. As Mattia said, I work in the position of buyer and category management analyst, so both the commercial part to insert new suppliers for the dark store part of the business and then all the category part to make sure that we have the right assortment, and we have the right positioning of products inside the app.

Mattia: Yeah, exactly. I mean we can talk about many things. That's the general presentation of us. And we're both junior analyst and she does both buyer and category and I just do category. Which in my case, I cannot really control the assortment of the partner. I just adapt to the assortment. Like let's say *Carrefour* they have their own assortment, and we just show on the app what they have, and we try to mimic what they have. When probably we are going to be in the future a very powerful channel, maybe we can even control what they are buying and what they should have in the assortment, but that's a different topic for the future needs. So yeah, that's it and we are happy to answer the questions you have.

Sophie: Okay, perfect. My name is Sophie as Hedy has already introduced me and I would start with the first question. So *Glovo* has introduced *Glovo Prime* in 2018 and it's interesting that you just talked about the product assortment, and we believe that

Glovo Prime is also a big factor in retaining the customers and giving them the products that they want and need. It would be great if you could tell us a bit more about why you chose that option of a subscription and how the introduction of a monthly subscription model helped you in gaining and retaining customers and also with your overall profitability.

Beatrice: I mean, just to say this is a really specific question and I think it's not really focusing on the quick commerce part, but it's more like a general tool to retain customers, basically.

Mattia Yeah. Because if you think about the story of *Glovo*, just to give you a little bit of a timeline and what happened. *Glovo* started in 2015 in Italy and when they started it was mainly food. And the strategic vision was mostly to acquire customers. In order to acquire customers, you have to have content. It means all the restaurants that the people are looking for. Because if for example, let's take two competitors like *Just Eat* and *Glovo*. If *Glovo* has *McDonalds* and *Just Eat* doesn't, *Glovo* is going to acquire a lot of customers. And that was at the beginning the way we actually acquired most of our customers and the growth was mainly driven by actually *McDonalds* as a partner.

Then *Glovo Prime* was introduced and for food, *Glovo Prime* gives you access to specific discounts on products. But as far as I know, at least for partners, but I guess also for dark stories, we don't have like specific offers for prime users.

Beatrice: No exactly. With the prime option you have the free delivery on each order.

Mattia: Yeah, exactly. You have the free delivery, which is a good incentive because mostly even considering myself as a as a consumer and other friends of mine that use *Glovo*. When I was overhearing my friends talking about *Glovo Prime*, they were always saying they are doing ten orders per month and it's more worth having *Glovo Prime* instead of not having it. But this depends on the consumer behavior. So, if you're the type of person hat works five times a week and you finish working at 19h and then you have to go back and cook food and buy groceries, some people then say I'm just going to order. If you order a lot, then it's more worth having *Glovo Prime*. So, it's only about free delivery and ordering more times so it’s more worth having *Glovo Prime* and not paying the delivery instead of paying the delivery fee every time.

Sophie: So, did you answer to a need of customers? Were they like okay, I am not happy with the delivery fee, so you said okay let's have this subscription model? Or was it also in terms of profitability that you were hoping to have the stable income?

Beatrice: It was more about retaining the customer.

Mattia: Retaining and also because having a fee and the fee sometimes is perceived as too high and it's an answer to that for sure.

Sophie: Okay perfect. Also, in regard to increasing revenue, did you ever think about adding extra charges for for example extremely fast delivery or did you think about adding any new revenue streams to get the revenue from that fast delivery?

Mattia: Oh yeah, that's actually a very hot topic. In theory, that's the direction every player would want to go because also you have to consider that nowadays considering the environment we're living in, every startup, if they're not profitable, they're going to have problems finding investors and funds investing in them. So, they need to have profitability and in order to have profitability one of the main tools and features we can play with is the delivery fee and the commissions. But the commissions at least for partners, since right now q-commerce is developing, and it's been in Italy for probably two years now. It's still not mature enough and the volumes are still too low to be profitable with commissions, because commissions are very low when we close a new partner. So, this won't help us in being profitable. So, the profitability comes from mostly the delivery fee.

The idea would be probably if you want to have the super-fast delivery, it would be a higher fee and if you want to have it like in more time it would be a lower fee. Operationally wise, it's very complicated to develop.

Leonie: In the beginning you mentioned that you have your partner network but also your own stores and dark shops. So, to what extent are there plans to expand these operations and what challenges do you see with this concept of having an own dark shop network?

Beatrice: Okay, yes. The project of micro fulfillment centers, that's how we call the dark stores, started back in Italy in 2020 right before the COVID situations. We started with just one store in Milano. And of course, thanks also to the COVID situation, it was a huge success. That's in the year after, in 2021, we opened up 14 more dark stores and now we are covering eight cities. Which are Milan, Turin, Rome,

Florence, Bologna, Naples, Bari, and Palermo in Sicily. So, we are live with these stores, and we cover the cities which are the most important for *Glovo's* business and in which *Glovo* is one of the strongest players.

And for the moment we are not planning on expanding in new cities because the cities in which we have the most potential from this point of view and so we are more focusing on the user experience that we can offer in these cities.

This means extending the assortment so that customers can have a wide choice and they can perceive this grocery mode not just as an emergency grocery that they need because they're running out of milk in the morning and need it for their breakfast and then order from the MFC and it arrives in 20 minutes. But instead, if we have a bigger assortment that it can be perceived as their main mode in which they do groceries. So instead of going to the supermarket they can order from the MFC.

So yes, right now this is the situation, not expanding from a territory point of view, but trying to gain new clients and widen the client pool.

Mattia: The thing is if you think about the differences between the partners model and the dark store model is that for partners you can have an easier access to larger bases. Let's say if you want to open a new dark store, you need to invest money and invest in the structure like finding the building, having the building, finding people working inside, so it's harder to expand and it requires more money.

While for partners you just sign a contract with the partner and then you start the rolling out of the whole point of sales. The only thing you need is to train them on how to pick up the stuff from their store and put them in a bag and then give it to the rider and then to the customer. So, you can reach even smaller cities because one main point for *Glovo* in general is that it really depends on how the geography and the population is distributed throughout the country. Italy for example is a very tough environment because we have not a good amount of bigger cities, but we have a lot of people living in smaller cities. And to reach smaller cities you need to have the riders and it's harder. While taking Spain as an example, Spain has a lot of big cities and then only a small part of the population in the smaller cities.

So, in Italy, a way to crack the difficulty of expanding is to use the partner model to reach smaller cities and the dark store model to having a better service.

Because also a big difference between dark stores and partners is that the service and the quality is that if I if as a customer order ten products in the dark store, most likely I am going to have the ten of them and I am not going to have mistakes in the bags.

Beatrice: Because you have power over the assortment, because you choose the assortment, and you make sure that you have the assortment in the dark store. While in the supermarket, we are not sure 100% that they have all the products that are shown in the app.

Mattia: Because on the dark store, we have 100% control over stock, stock-in and stock-out. When the things enter, you have it in the dark store and when you sell it there's going to be a -1 on the product. And then when you reach 0, the product is not going to be on app. While on the partner side, we need to have an integration between us as *Glovo* and the app and the grocery shop and they need to communicate to us the stock. And this is an information that is super hard to have because every supermarket needs to do the inventory every day and every morning a *Carrefour* opens, it sends a file to our app listing the inventory. And this needs to happen very frequently because if it doesn't happen, they sell out an item and we still have it on the app and we don't have it in the in the store. And so, at this point, you're going to have this metric that we measure a lot, which is PNA, product not available. They're going to have a huge percentage of product not available that from a user perspective is very bad, because you order something, and you receive something else which is not what you're looking for.

So that's why both business models have their own advantages on one side and disadvantages on the other side.

Carlotta: Then I will continue with one question about your customer segments. So, as you just mentioned that you want to increase your client pool, how would you define the target segment? Or which other segments would you want to reach and how are you planning to reach other customer segments and increase the basket sizes despite extending the product assortment?

Beatrice: First of all, I would say that the biggest client segment is young people from 20 until 45 years old.

Mattia: Also consider the prices are higher and the customer needs to do groceries. Usually if people don't live alone and if they live with the family, the family is going to do the groceries. And I hope that they're going to do it with *Glovo* at some point, but most likely they're going to go to the supermarket. So, it's mostly students and people that work but to be honest, we don't have specific data and I think this is something lacking.

Beatrice: Anyway, one thing is that we have a large pool of clients from the food segment, because *Glovo* is still mostly used to buy food from restaurants. Most of the people that use *Glovo* still see *Glovo* as the app in which you can order your favorite food from the restaurant, and you receive it at home. Just a small percentage of people do the groceries on *Glovo.*

So, one strategy we are trying to implement is to deliver part of the food clients to the grocery. We are doing this with for example mailing tools. People that already use the app, receive an e-mail saying that they can also do their groceries on *Glovo*. And we also use push notifications inside the app.

Mattia: And lately we also introduced this thing, which is once you, order food like a burger, at the end of the shopping you receive a "Do you also want to add a coke and ice?".

Beatrice: So, this is like a huge potential part of clients that we are trying to bring up.

Mattia: Yes, consider that less than 10% of our customers order q-commerce, so groceries, to give you a size. This shows you how much is the potential still within *Glovo* customers, because still q-commerce is small. And because most of the time, people don't even know they can do groceries online. That's the main thing that we're fighting because we have a good service and at least for partners, prices are the same as retail most of the time. So, you have to just pay a delivery fee below three euros to get groceries at the same prices of the retail. That's a good service and we're struggling to show customers that they can also do groceries online, so it's about awareness within *Glovo.*

Beatrice: Then regarding external clients not yet in *Glovo*. For example, *Glovo* does advertisement through television, we have a TV spot, and the spot is trying to implement all the information what *Glovo* can give you. So, food, groceries, shops, pharmacy, because in the q-commerce part are also included the pharmacies or

other shops like a perfume shop or clothes shop and stuff like that. We're not very present in social media.

Mattia: To be fair considering the times being right now and the super constraint in terms of budgeting, marketing is the last to be allocated. Budget in advertising, influencers even, there's no budget in it. But TV spots, they introduced finally in the spot the grocery part because they were only showing the burgers and the pizza. And now they put some grocery parts in the spot, like someone receiving from *Carrefour.*

Hedy: I just have one more question regarding sustainability. We know that *Glovo* has many ambitions to become more sustainable and also commits to a lot of initiatives. Do you have some partnerships to avoid food waste, for example, do you know *Too Good To Go* or other partnerships? What are you doing when you have overstock in dark stores?

Beatrice: We know *Too Good To Go*, we are not working with them, we were in touch, but in the end, it didn't work out.

Mattia: I think the main reason why it didn't work out is because if you have to add a delivery fee to the box price, then you reduce the convenience of doing that and then they're going to lose some customers.

Beatrice: We developed an internal strategy very similar to *Too Good To Go*. When our store managers and people that work inside the MFC do the inventory of different categories and the products that are about to expire, they put it on the side, and they create packs composed of different products. There is always something fresh, some vegetables or something sweet to create a surprise box with products that are about to expire, and we sell them in in this way. Of course, at a lower price, the price is 4.99€ but the actual value of what's inside the box, is at least 13€. “Save the food” category we call it.

Mattia: Honestly in *Glovo*, sustainability happens in two ways. One is the direct store one, creating these boxes of products that are about to expire and the other one is for food for example, we try to incentivize restaurants to give us the ingredients that are about to expire and we offer them to bring them to associations that give food to poor people. Also, a third way, *Glovo* positively impacts the environment is that

we use riders instead of cars mostly and so no fuel. But it doesn't apply to all the countries.

Hedy: I have one more question. You were talking about your partner model but also your vertically integrated model so that you have kind of this *Glovo* express, in Portugal it's called "*Glovo supermercado*" and where you have your MFCs, and your partnerships, how would you say you have a competitive advantage over for Getir or a business model which is only concentrated on MFCs? Or how would you say have they a competitive advantage of you?

Beatrice: One big strength is that, thanks to the food part, we have a parachute in case things are not going super well. I mean, we're still not profitable.

Mattia: There's the food always having our back. because when you work in a startup, investors started being super tough in giving money and we've been very lucky because we've been acquired by *Delivery Hero*. That saved us because if we were not, probably right now we were struggling to find the money. Food was already a good business model working and being profitable and then they started moving because you need to innovate and to adapt in q-commerce, they're putting a lot of effort but as of now, they need more awareness that they can do groceries online.

I think the main advantage that I was mentioning before was that the partner side is easier to spread and expand while the dark store side needs a big investment. And that's why *Getir* for example closed in many countries. Also, *Getir* does huge investments in discounts. That's a strategy that can work at the beginning, but it's a very dangerous one because if in the mind of the consumer you are the company that gives money, then you're going to keep staying that way and when you stop doing that, people are not going to buy anymore from you. And that's why the policy of *Glovo* is "do more with less". Don't give discounts, just work hard, have content, and show people that you have a good quality service, but don't just be the one that gives free money because in the long term this is not going to pay off.

So that's why the dark store model is now at the beginning a little bit stuck in terms of expansion, but we're focusing a lot more on the partner side because it's easier to spread.

Sophie: I would have a quick follow-up question here. Did you ever think about increasing prices because some other quick commerce companies as their value proposition

that they offer retail prices and you said as well you would, but in order to be more profitable in the future, is this something you would consider, or is it something you would never do regarding the price sensitivity of customers and then switching to other brands?

Beatrice: From the darker point of view, we kind of do that, because if you go to the supermarket, you probably will find the same product at a cheaper price. We are not completely out of the market with the prices. We're still affordable, but our customers also understand the added value that they have done the groceries through a dark store. We are not finding this a blocker for the business, but it's easier in the north of Italy because the willingness to pay of customers is higher. In the South, things are different, and because of this difference, we try to adapt the prices to the willingness to pay of the customers. So, if you go to Naples, you will find the same product for a lower price compared to the one that you find in Milan.

Mattia: Even the value proposition of the two is different because it's in the naming, *Glovo Express* gives you an idea you're going to have everything super-fast while doing grocery from the partner side, you're going to wait longer, but the price is probably going to be lower.

The picking inside is a key factor because, in terms of dark stores, we control them, even the device that they use is very well connected and everything is perfectly smoothly going. This increases efficiency decreases peaking time and increases delivery. A customer should be willing to pay more because it's a faster service and a better-quality service. With the partners, it's maybe better prices, but the service is going to be a little bit different.

Hedy: This was our interview and thank you so much. Your answers are really helpful for our master thesis.

Mattia: Thank you and good luck for your master's thesis.

All: Goodbye.

Appendix 1: Transcript of Interview with Mattia Devescovi and Beatrice Foffano

Sophie: So, hi, Christian. Thank you for joining our interview. Could you please introduce yourself and your current position at *Accenture*?

Christian: Sure. Thanks, Sophie, for having me. My name is Christian Böhler. I am a Strategy and Consulting analyst within *Accenture* since two years and mainly in the retail strategy consulting team and we are specialized in the fashion and food retail industry. And in the last weeks, months, and years we also made some studies and about q-commerce and the online food industry.

Leonie: I will start with a question about the supply chain and efficiency. Currently there are players in the retail industry like *Walmart* who use process automation in the supply chain management for example, they have robots in the warehouse management. Those measures are very costly and steadily evolving. In how far do you think are these implementations suitable for vertically integrated quick commerce companies and in this regard is supply chain efficiency critical for becoming profitable in the long-term? And are there other suggestions to reduce costs in this in the supply chain management?

Christian: Honestly, I think that they are unavoidable because all of your competitors in the future and also nowadays will have it. As an example, yesterday, *Oda*, the Norwegian e-grocery player announced the new funding round of about (EUR) 150 million. And you also have *Ocado* from Britain, the *Rohlik Group* from the Czech Republic, *Knuspr* in Germany, and also *Picnic* from the Netherlands. They all heavily rely on these automatic or partly automatic huge assortment centers. And I think if all of your competitors are working with the high process automation and achieving high efficiency improvements with it then it will be difficult in the future if you as a q-commerce or vertical q-commerce player are working with mostly manual processes. Because you cannot compete in terms of supply chain costs with them. So, I think it is unavoidable.

But as you already know, the problem is that these are very asset-heavy investments and especially for the smaller players it's hard at the moment to finance them, but I think you have to find a way. Maybe you don't need full optimization, but I think there are also intra-logistic providers who are offering partly automation, which will also bring significant process enhancements. In my opinion it's unavoidable to invest in these assets.

Sophie: I would move on to next question. It is known that in the quick commerce industry most companies struggle to generate sustainable profit. How do you evaluate the option for companies to impose surcharges to customers to increase profit, for example in the form of extra charges for extremely fast delivery or other premium services?

Christian: In case of additional revenue streams there are some standard levels, on how to increase revenue streams and as you said higher delivery fees or higher minimum order values are one of them. Besides, something like trying to reach higher shopping baskets and trying to provide your technology to third party suppliers and also leverage your retail media business.

We made a study where we compared bricks-and-clicks, so normal supermarket and retailers who are offering online grocery, then online pure players, and quick commerce and we realized that the delivery fee, among q-commerce players are one of the lowest. The pure players mostly charge a higher value, something around two to four euros. The quick commerce players, for delivery fees, could increase it for one or two euros. Because also if you look at meal deliveries, if you look at *Wolt*, they sometimes even charge three euros for delivery, which is more than all of the q-commerce players. I think they could raise the delivery fee. What is difficult is to increase the basket size. I heard a new interview from *Gorillas'* manager. He said that they were able to increase the basket size now to EUR 30 from EUR 25. Within one year they achieved EUR 5 rates on average. But many founders of these delivery services say that it's really hard to increase the basket size in the long term.

We made a study where you can see that q-commerce per each delivery can be profitable if you have a EUR 30 basket size, you have a 30% gross margin, and you have a drop rate of three deliveries per hour. If you can achieve these three factors it would be realistic or achievable to avoid a loss per delivery.

Sophie: The next question is I know you have consulted several retail companies and their supply chain. What do you think will be the key levers to generate sustainable revenue in the future taking into consideration the current socioeconomic environment, maybe you have some personal insights?

Christian: I think what a smart way could be is what *Wolt* now did some weeks ago. They offered a white label delivery solution. They are not delivering their *Wolt* assortment, but you just can book them to finalize your delivery. I think the model still has to prove but offering a white label delivery could make sense.

Then, putting additional services in your delivery portfolio. So funny example could be I think *Wolt* is delivering your Christmas tree this Christmas. They deliver it to you and then you can also return it there. These are some everyday examples, which might make your life easier and where customers could already get used to the app. Also, an additional service could be to bring parcels to your door. I think there was a trial from *Flaschenpost* who cooperated with *Aboutyou*, but then they stopped this, but it could be another option. And then also parcel returns and bottle deposits. You have the everyday service of grocery delivery, and also adding on top some other everyday services to reach as many possible touch points with the app or the service could be a way.

I think for assortment, what they in my point of view could and should do is to on board even more local food. They are trying it, but I think they could do more. Because you have to imagine how normal supermarket retailers act. If they want to list new products. The products always have to be in a high amount so that they could list it country-wide and this makes it hard for new brands to get listed by supermarket chains. I think q-commerce players have an advantage here because they can quickly change and adapt their assortment. This could be a chance for new brands also in the vegan, vegetarian or protein assortment there is happening much. This could be a way for q-commerce players to have a more diverse assortment than their competitors. A good example is *Beyond Meat*. They are listed on *Gorillas* and sometimes I'm just ordering there because they have *Beyond Meat* and my local retailer doesn't have it. What I also observed but it’s not working very well is that they want to get in the field of more prepared meals.

This is in terms of assortment, what I would try to achieve if I was in a management position there.

Hedy: We already saw that vertically integrated players such as *Gorillas* are increasingly establishing more sustainable options into their product assortment and also there are new players in the market for example *Alpakas*, a zero-waste on demand service which is focused on sustainable options. What do you think how will sustainability

play a role in the quick commerce industry in the future, or could this be even a competitive advantage?

Christian: What is nice is that you can combine the sustainability part with your delivery cost part. *Knuspr* and some other players offer you cheaper slots if there is already taking place a delivery nearby within an hour. This is something which combines sustainability and the bundling of your delivery.

In the case of *Alpakas*, it's a niche within a niche. Q-commerce is a niche itself and within this niche is *Alpakas*. I think it's good and necessary to provide some of these sustainability options into the delivery, but I think it's hard to base your whole business model on it at the moment.

Sophie: Coming to the future outlook, maybe you have some insights on where you see the major challenges and changes in the future of quick commerce. In the next five years and as this model is moving on a monthly basis and changing dynamically, maybe you have some insights there?

Christian: The main risk I see is that you already have players today, again the example of *Knuspr, Rewe* and some others, which are offering the delivery within three hours, sometimes even within two hours. At the moment, q-commerce doesn't charge high delivery fees, but they have the highest product price, because they have to cross-subsidize their costs. At the moment there are players who can offer a two- or three-hour delivery, but to supermarket prices and without markup. Customers have the choice to receive it in one hour but then with a high markup or to receive it in two or three hours but without markup. I think if they are today able to deliver in three hours or two hours, then in the future they probably also can get faster if they want. The main thing I want to say is and this is the risk to many business models, is if it's more an additional option or feature or is it really a business model? I think this q-commerce or one hour delivery is more an additional option than a whole business model offered by pure online players.

I don't know if the whole industry would survive, but I think if you want to survive as a q-commerce player you need a strong retail partner in the background. An example would be *Flink* and *Rewe*. But that's the problem because most of the q-commerce and online food players don't find a really strong partner in the background. I think it's an advantage if you have a strong partner in the background.

For *Getir* it seems to work at the moment, they are franchising all of their delivery hubs, also in Turkey. 75% of all of their delivery hubs are franchised and I'm not sure if it will work, but it seems like *Getir* found a way how it works for them.

You sometimes have within q-commerce the discussion of asset-light versus asset heavy-model. Is it really worth or necessary to have your own warehouses? Or do you just utilize or leverage the existing retailers and just go there and deliver from there? I think it's at the moment hard to answer which is the better model.

Sophie: Can you maybe give an insight onto if you think market consolidation will happen for vertically integrated q-commerce and if you think that new players even have a chance to gain market share in this market in the next years?

Christian: Absolutely, we will have market consolidation for two reasons. First reason, many of the players will not survive because they will fall to bankruptcy or insolvency.

Second, at the moment Europe-wide you will end up maybe with two or three big players. But I think the question is really, is it? Are there, economies of scales? You can have thousands of drivers, thousands of warehouses, but at the end you have to increase your drop rate of every driver. The question is does adding up more warehouses really increase the average efficiency of every driver?

I think we have seen that it didn't make sense to expand into further countries because expanding to a new country at the beginning will slow down your average efficiency for the drivers and that's why they all stopped it now and try to focus on their core markets. This is what *Picnic* was doing very wisely. They worked so long on their model just within one city or small area and improved so long, so that the model was working for one city or one small area.

Q-commerce never showed that it can work, although they expanded to all countries. I think you have to work on the model and show that it's profitable in one city and then you should expand. That's why I'm not sure if pure scale or pure consolidation, now also the merger of *Gorillas* and *Getir* is making sense, because you have to improve the efficiency on the lowest level, on hub level and on driver utilization level. Therefore, it doesn't matter how many cities, hubs, and drivers you have in total.

You have chances with all the levers and options we discussed. But this would also be interesting for the investors if you could show in small areas or cities that the model can work and then then let's say raise more money to expand.

At these times, so one or two years ago they were all playing this landgrab game. Everybody wanted to be the first in every city or every country. I think now the most sustainable ways to just start a second warehouse if the first warehouse is profitable and then start a third warehouse if the second is profitable and so on. That's easier said than done but that would be my recommendation.

Hedy: Just a question about this because they have so many warehouses because they want to deliver within ten minutes, and I think they are not able to deliver within ten minutes if they only have one warehouse. So, it's not the typical quick commerce as we know it, right?

Christian: You are right. Yes, they wanted to offer a ten-minute delivery, but it showed within the last one or two years that even if they are able, the demand isn't there. The frequency of orders is not high enough. You could fill the whole city with hubs and drivers, but the demand at the moment isn't there. It would be interesting to check how many orders per hub or per city they are receiving at a day and looking on growth and fall of the orderings per day.

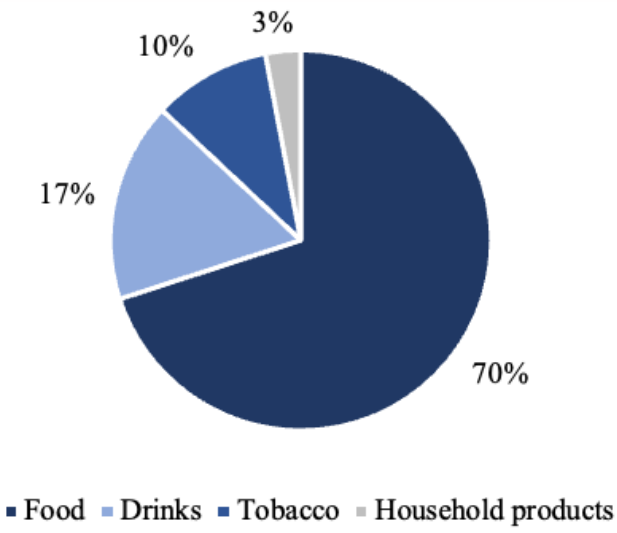
Sophie: I just have one follow-up question where I had a bit of a question mark. As one of the risks would be that many quick commerce companies don't have a strong retail partner in the background. When we think about vertically integrated companies, they have their own dark stores. In what sense did you mean retail partner, did you think more of a *Glovo* kind of company that have corporations with supermarkets?

Christian: What I meant is if you take the example of *Flink* and *Rewe*, what is nice for *Flink* now because they have *Rewe* as a partner is that they can also offer the private label of *Rewe*, and not only the pricey one, but also the cheap ones. If you really have a strong partner, you could also offer something like delivery from the *Rewe* markets, so you could somehow combine it.

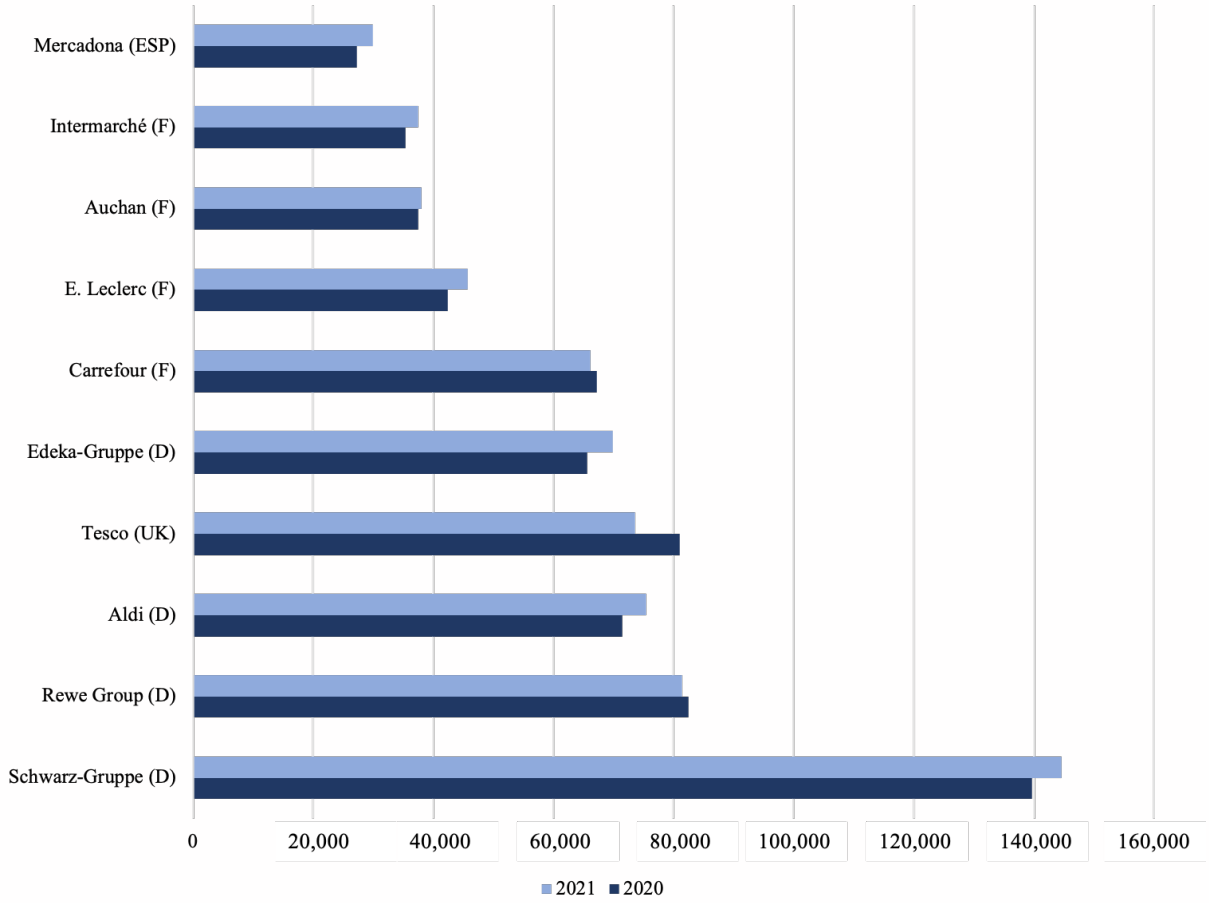
Of course, you also have the cost advantage. Because, and this is the same for *Edeka* and *Picnic*, in terms of procurement and purchasing, you have way better conditions and that's why I think on average *Flink* is cheaper than *Gorillas* because of the purchasing power. Probably that's the main advantage. And then it depends how

close the partnership is. But you could also use the resources of IT resources or also construction resources. The biggest advantage is purchasing power and private label usage.

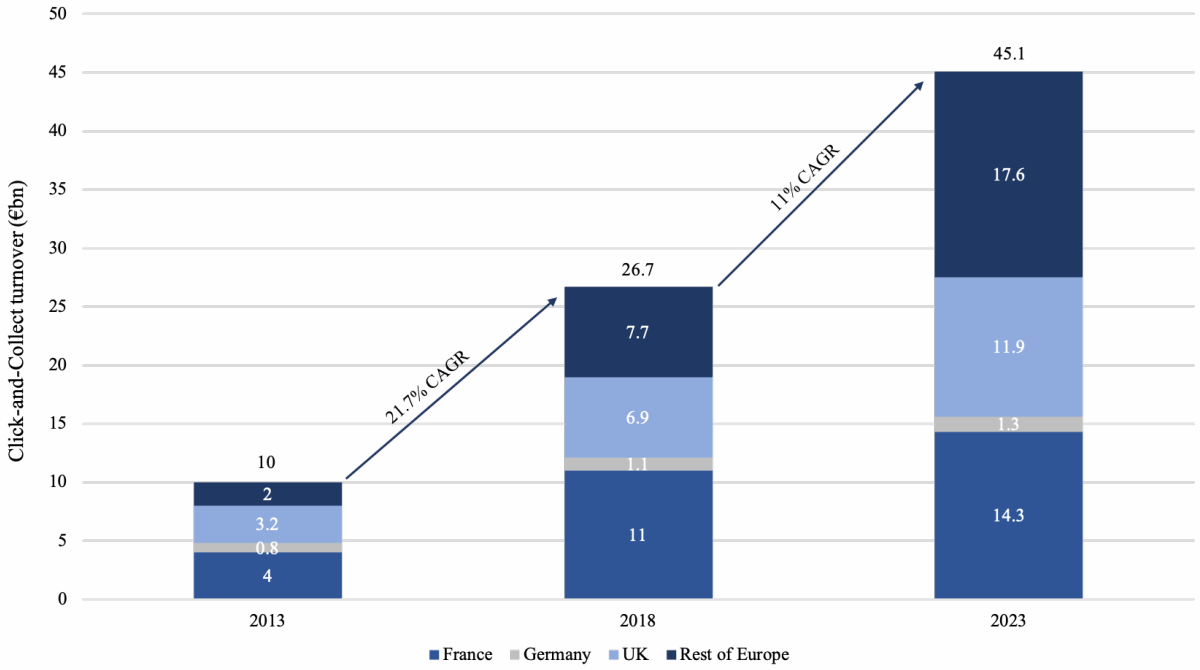
Appendix 2: Transcript of Interview with Christian Böhler



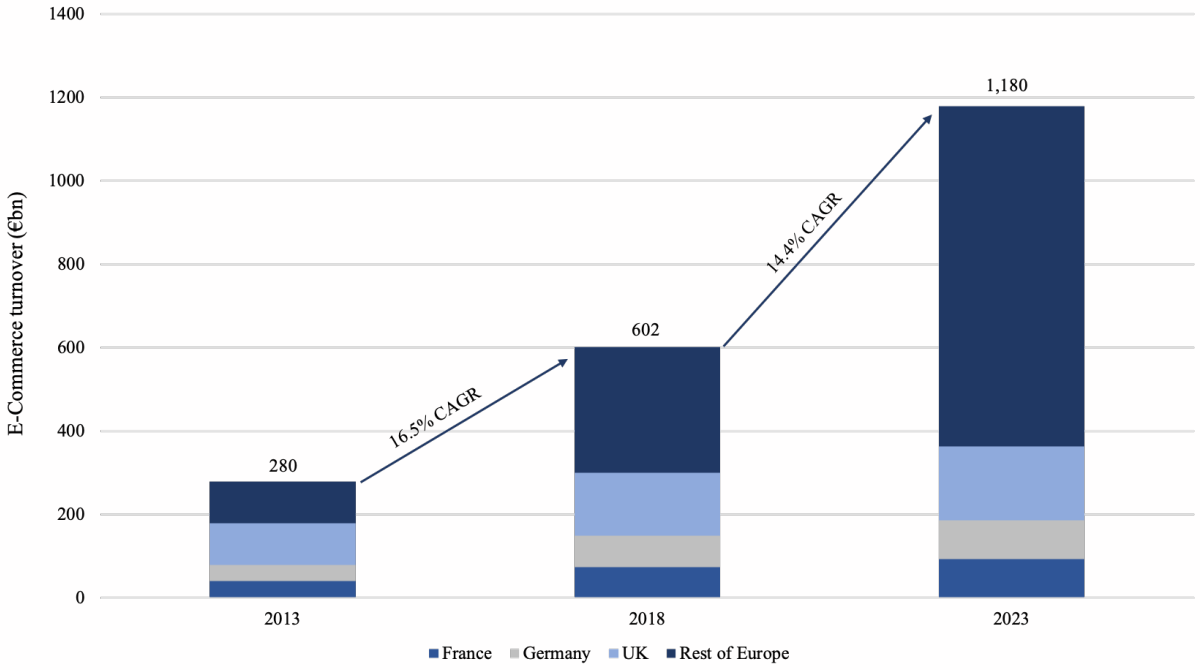
Appendix 3: Market share of segments within the groceries retail industry in Europe (based on Global Data 2021)



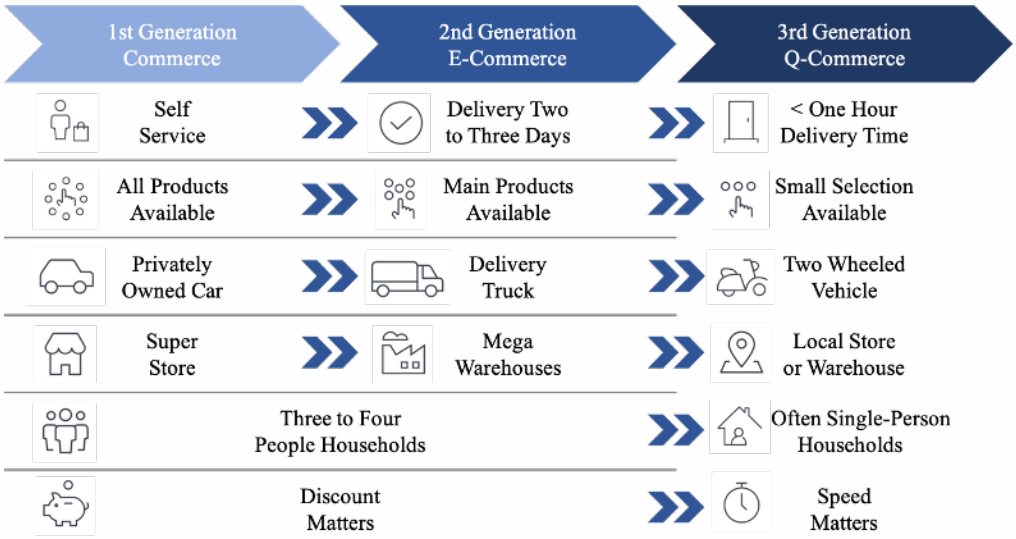
Appendix 4: Sales of the leading companies in the grocery retail sector in Europe in 2020 and 2021 (based on Sabanoglu 2022)



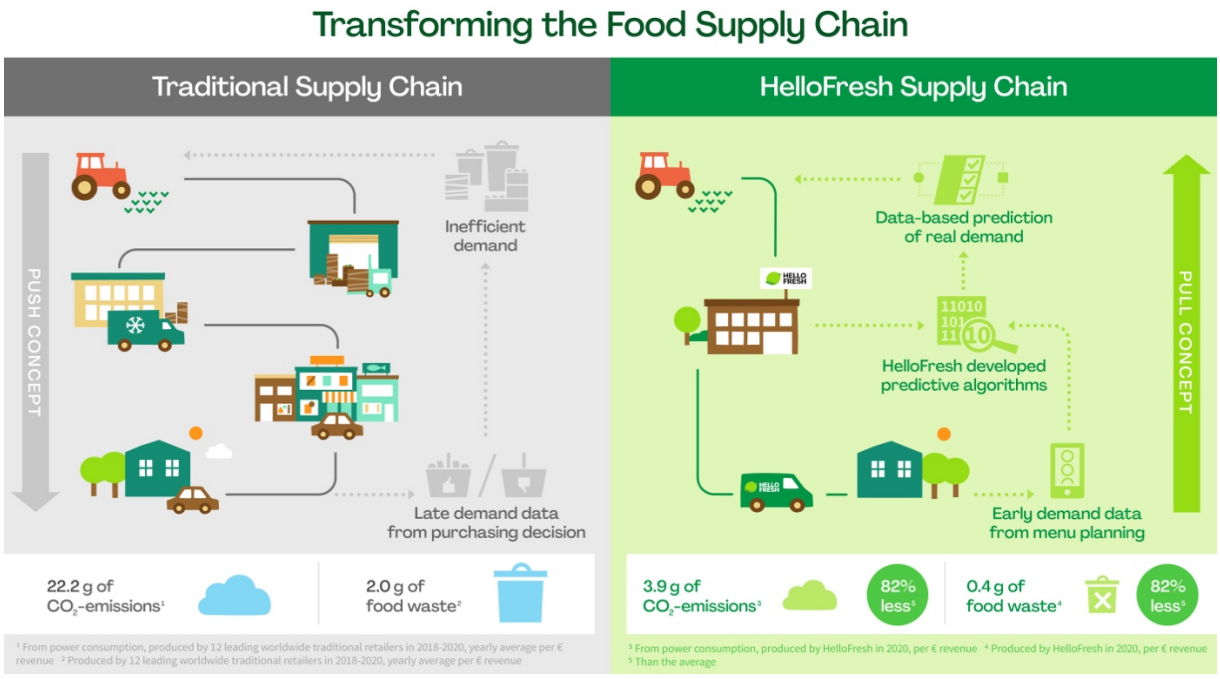
Appendix 5: Click-and-Collect turnover in Europe (based on Edgar, Dunn & Company 2019)



Appendix 6: E-Commerce turnover in Europe (based on Edgar, Dunn & Company 2019)



Appendix 7: The evolution of Q-Commerce (based on Delivery Hero 2020)

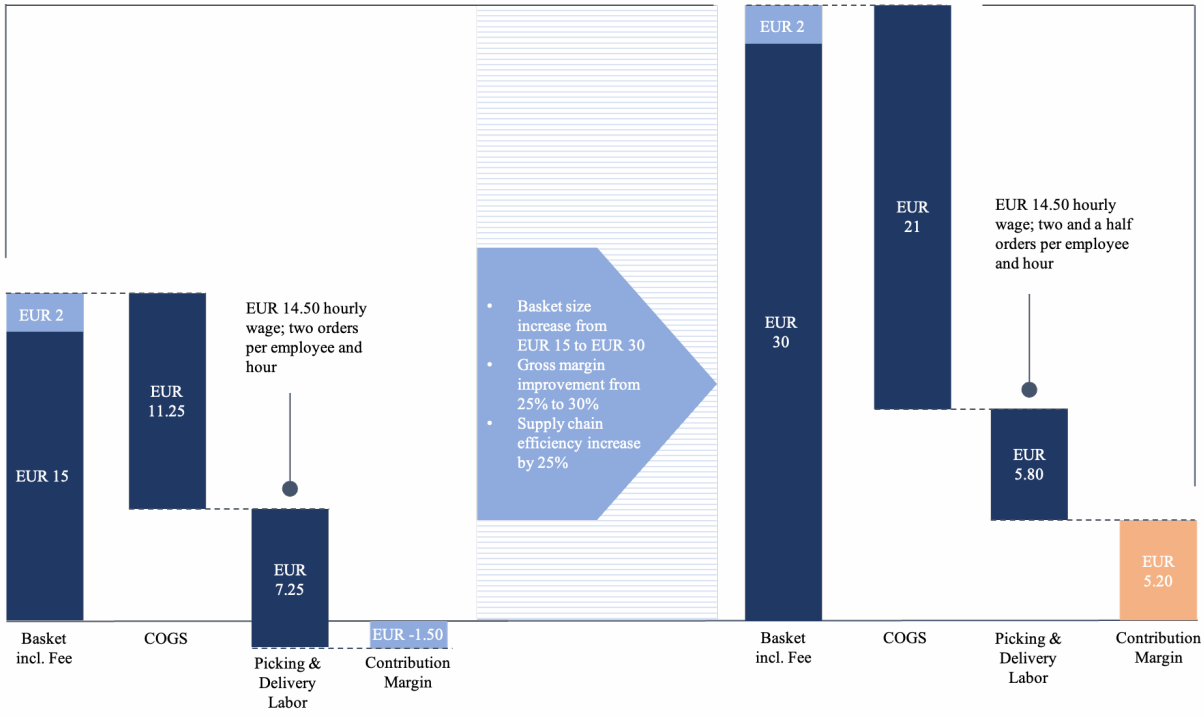


Appendix 8: Transformation of the value chain in a subscription model (Hello Fresh 2021)

BMC Block	Strengths	Vulnerabilities
Value Proposition	• Addressing changing customer behaviors valuing more convenience and time efficiency, especially post-COVID-19 pandemic	• Difficult to differentiate from other competitors • High imitable value proposition • Many companies are lacking a unique selling proposition
Customer Segment	• Changed working attitudes within customer segment that underline additional use of q-commerce • Operation in city centers reinforced by urbanization	• Aging population and thus shrinking target group (of Gen Y and Z) • Relatively small basket sizes as customers are mostly one member households • Customer demand for q-commerce dependent on externalities • Customers concerned about sustainability of the business model
Customer Relationships	• Vertical Integration improves support system • Use of data to customize relationships	• Low switching costs and differentiation decrease customer loyalty and retention rates • User interfaces not adjusted to more traditional customers
Key Partners	• Due to stand-alone approach: less dependency on suppliers • Control of operations and quality, potential of cost reduction through managing the value chain • More flexible to deal with unexpected market circumstances, new customer demands • Allows a quick solution determination • Arising synergy effects by leveraging customer bases, cost advantages and purchasing power • Access to a range of resources	• High headcount due to difficulties partnering up with delivery company, as hardly any company can meet the delivery speed • The dependence on landlords has implications for companies' operations • Operating in a very capital-intensive market: investors as partners become very selective and support only a small hand of companies in the market with capital
Key Activities	• Steady improvement of app, technological advance (new products are quickly listed and shown in the app, easy payment methods and navigation etc.) • Good customer service and suitable compensation for delivery mistakes • Data gathering of app usage	• Difficult organization and coordination of warehouse and inventory management on a small scale • Traffic jam or accident on the delivery route can lead to belated delivery • Due to high number of competitors and similar value propositions, it is difficult to have distinguished and unique marketing campaigns • Fear of credit card fraud or payment problems or feeling overwhelmed by lots of app features
Key Resources	• Use already generated consumer data to find strategic pain points and for example, improve customer experience • Strong brand awareness and positioning since they are early mover in the industry	• Costs, location, and organization of dark stores • Difficulty of finding employees, competent and reliable couriers, controversies of laying off employees or image of giving bad salaries • Data concerns (data can be sold anonymized)
Cost Structure	• Economies of scale in the warehouses, securing more advantageous prices from supplier • Potentially high procurement cost savings due to established supplier relationships	• High initial investments in dark store operations and personnel • High operational costs invested in the last-mile delivery system • With increased competition, need for investments to keep or increase market share
Revenue Stream	• High potential profitability in the future with to a growing customer size, due low markups on prices and focus on customer retention • Offers opportunity to expand to secondary income streams that can be integrated into platform	• Only few demand-based pricing strategies possible due to competitive landscape • Customer segments and their willingness to pay is not optimally utilized, missing out on extra charging opportunities
Channels	**Communication Channels:** • Easy usage of app because almost every person in the world owns a mobile phone • Addressing Gen Z and digital natives with social media **Distribution and Sales Channels:** • No shared profits with partners • Customer relationships and loyalty are built • Selling online reaches a wider audience and high conversion rate (seamless checkout process)	**Communication Channels:** • Popularity of social media apps changes quickly. Need to adapt fast to current trends. Right now: *Instagram* and *Tik Tok* but which platforms are on the rise in the future? **Distribution and Sales Channels:** • App represents the only sales channel • Hiring drivers and setting up a reliable courier network is time consuming and challenging • Products cannot be seen and touched by the customer before the purchase. Thus, clients might have less trust in the product selection • Sustainability aspect of distribution (bikes, scooters etc.)

Appendix 9: Overview of key vulnerabilities and strengths of the BMC

Appendix 10: Billboard in Italy (Ads of the World 2021)



Appendix 11: Typical q-commerce operational margin contribution and potential after business model improvements (based on Grunwald et al. 2022)

The recommendation of **implementing automated and optimized processes** achieves a total score of eleven and a score of six in the dimension of novelty. The measure of implementing RPA and ML in the warehouses has been done successfully by the global player *Walmart* and functions very well since user demand is better matched with inventory (Abbu, Gopalakrishna, and Fleischmann 2021). Furthermore, "*Oda*, the Norwegian e-grocery player announced the new funding round of about EUR 150 million. And you also have *Ocado* from Britain, the *Rohlik Group* from Czech Republic, [its subsidiary] *Knuspr* in Germany, and also *Picnic* from the Netherlands. They all heavily rely on these automatic or partly automatic huge assortment centers" (Böhler 2022). Also, other q-commerce companies already use a route-planning software, some more basic and some more professional (Novak, Main, and Watts 2022; Routific 2022). This fact highlights that it is not a fundamentally new measure but rarely any q-commerce provider has completely integrated a route optimization system in its vertically integrated value chain. Therefore, this recommendation can be considered new and achieves a slightly higher denotation regarding novelty. In terms of usefulness, this proposal scores four points since automated processes are dependent on the fact that the software of RPA and ML needs to function properly without any disturbances in order to match stock with user demand. In comparison to that, by having numerous providers of route-optimizing services on the market, it can be assumed that realizing this recommendation does not create new problems but rather solves existing problems of belated deliveries due to wrong route decisions. Nevertheless, technology is constantly improving which requires steady updates and maintenance which represent new needs. Concerning the score of feasibility, the recommendation is assessed with a number of one because it requires great effort in terms of skills, money, and time to introduce automated processes and a route-optimizing software and successfully put them into practice. Although there are several software providers to choose from, realizing this measure is time intensive and connected to high costs. For instance,

choosing the right software and buying option for the specific company needs thorough consideration. Also, the costs of buying the license and perhaps new smartphones and software systems can become skyrocketing.

Another recommendation that contributes to integrating sustainability practices into the operations is the **improvement of packaging**. It scores 17 points in total. The approach to improving the packaging of both carry-on bags and item packaging is not very new and therefore, scores three points in this dimension, as many companies, both in the q-commerce industry as well as in traditional grocery retail, are not only trying to reduce the packaging materials in general but to use sustainable materials by for example replacing plastic elements with recycled paper. In terms of usefulness, the recommendation receives eight points, since it solves the problem to a large extent, but does not eliminate it. Setting up a recycling program, for instance, brings new challenges. Realizing this measure is rather time and cost-intensive and requires an amount of maintenance. Feasibility-wise, this approach requires a lot of resources and effort, but it can be implemented relatively straightforwardly, as already shown by many companies that recycle their packaging materials or make them more sustainable. Therefore, it gets six points in this dimension.

The recommendation of **adapting communication materials and sales channels to reach elder customers** scores 14 points in total. It is not new to adapt communication materials according to target segments and customer groups, elderly customers however have not been addressed yet. Therefore, four points are attributed to this dimension. Furthermore, introducing a website-based sales channel is the traditional mean of e-commerce and therefore, going a step back, but is new for the business model of vertically integrated q-commerce. In terms of usefulness, the recommendation receives six points as it could substantially increase awareness and customer segments with possible interface problems as the only concern. It scores four points in terms of feasibility, as both the adaptation of communication means, and the

programming of a web sales channels take up financial and IT resources. Another approach to increase the revenue is to **demand extra charges from customers**, which scores 17 points in total. It receives eight points for novelty, as it is not in use for any vertically integrated q-commerce company analyzed for this thesis. For usefulness, the recommendation scores only five points, because it implicates that customers will be charged more which increases the risk of switching the platform. In terms of feasibility, the recommendation needs to be thoroughly strategically evaluated and implemented with technical app adjustments. Therefore, the recommendation scores four points in this dimension. Finally, 14 points are attributed to the recommendation of **expanding product categories**. Five points are attributed to novelty, as only a low number of vertically integrated q-commerce companies, for instance *Arive*, have already integrated new product categories besides groceries. However, companies are increasingly seeking to increase product depth in terms of sustainable products, such as *Gorillas'* partnership with the organic brand *Alnatura* last year in order to address sustainable consumers. Moreover, for usefulness, the recommendation scores five points as it creates new financial and non-financial tasks, for example, scouting (sustainable) suppliers with reasonable pricing, evaluating the demand for non-food items for customers and creating capacity in dark stores. Lastly, in terms of feasibility, high financial investments are required for the partnership agreements, as well as the technical set-up and logistics. Particularly, the implementation is considered time intensive. Therefore, it only scores four points in this dimension.

Appendix 12: NUF-Analysis for the other recommendations