# How Digital Platforms Transform Existing Industries: The case of Oda and Online Grocery Retail in Norway

Othea Vikse



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Faculty of Social Sciences, University of Oslo

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# Abstract

Digital transformation is a dominant topic globally. The rise of digital firms, the "born digitals" benefit from technological affordances, and threatens the survival of successful existing firms. Traditionally, the literature on digital transformation in existing industries focuses on companies from large economies, such as the US and China that take over local markets.

However, there is limited research on how local platform entrants from smaller economies emerge. With this research gap in mind, this thesis examines the case of Oda, an online grocery retailer in Norway. Oda demonstrates relative success and occupied ~70% market share of the online grocery market in Norway in 2022.

Based on in-depth expert interviews in the Norwegian grocery market and document analysis, I investigate the development of Oda and how it navigated the competitive environment in the existing grocery retailer market, which consists of few actors with nearduopololy tendencies, which raises barriers for new entrants. Traditional grocery retailers in Norway have not succeeded in the online grocery market yet because they focus on the existing market in which they operate.

This thesis shows that a local platform company can emerge and transform existing domestic industry. Oda benefits from early mover advantage and demonstrates how a platform business is in fact more efficient than existing businesses. By leveraging new partnerships, combining technology and business model, Oda is slowly digitizing the old industry.

The thesis opens up how a digital local entrant challenges a traditional market. Further research is needed to understand the scope of digital transformation in industries, the limits of digital transformations, and the possibilities that arise at the intersection of physical infrastructure and digital innovations.

# Acknowledgments

It has always been technology-driven ideas that interest me. Therefore, studying a topic that merges my interests in innovation, technology, entrepreneurship, and digitalization has been a blast.

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Othea Vikse, May 2023

# List of Abbreviations

AI	Artificial intelligence
B2B	Business to business
B2C	Business to consumer
FBA	Fulfillment by Amazon
GAMAM	Google, Amazon, Meta, Apple, Microsoft
ΙΟΤ	Internet of Things

# **Table of Contents**

1.	Intro	Introduction7				
2. Theoretical Framework						
	2.1.	Platform Businesses and Network Effects	15			
	2.2.	How Platforms Transform Traditional Industries: the case of Amazon	22			
3.	Met	hodology and Research Design	28			
	3.1.	Qualitative Research and Case Study Research Design	28			
	3.2.	Data Sources	29			
	3.3.	Data Analysis Strategy	32			
	3.4.	Research Reliability and Validity	34			
	3.5.	Research Ethics	35			
	3.6.	Limitations of Thesis	35			
4.	Emp	irical Results	37			
	4.1.	The Emerging Online Grocery Market in Norway: Early Market Entrants and Od 37	a			
	4.2.	Attracting Users in Norway	42			
	4.3.	Oda's Infrastructure: Warehouses, Logistics, and Delivery	51			
	4.4.	Oda Navigating Competitive Market	59			
5.	Disc	ussion	70			
	5.1.	Competitive Advantage of a Digital Platform Business	70			
	5.2.	Barriers for Digital Transformations	74			
6.	Cond	clusion	76			
7.	7. Reference List					

# 1. Introduction

Traditional<sup>1</sup> industries are being transformed because of the nature of what they bring. These novelties are new business models, processes, and ways of innovating, their shift towards collaboration and partnerships and the use of data analytics and artificial intelligence (AI), — all these bring competitive advantage to digital technologies (Nambisan et al., 2019). The rise of digital firms, the "born digitals" that benefit from technological affordances and the technological embodiment of their being, was the result of their ability to utilize these technologies better (Monaghan et al., 2020). This threatens the survival of successful existing firms, which are often outcompeted by digital entrants because existing firms nurture the strategies that made them successful in the first place and focus on existing customers and markets rather than innovating (Christensen & Bower, 1996). For incumbents to survive the digitalization of traditional industry, it may be important to take risks and invest in new technologies and business models, even if it means sacrificing short-term profitability or cannibalizing existing products and services (Christensen & Bower, 1996).

One of the most recent phenomena in digitalization is the emergence of internet firms that apply internet technology to connect different sides that did not interact before. Digital platforms use a platform business model (Rysman, 2009) and create value out of network effects. Network effects are an externality that results from an increasing number of users on a platform, making it more valuable for everyone (Rysman, 2009; Srnicek, 2017). Platform ecosystems replace traditional models of organising economic activities (Gawer, 2022) and are driven by the digitalization of products, services, and business

<sup>&</sup>lt;sup>1</sup> In this dissertation, I use the term "traditional industry" about existing, non-digitized offline industry, in contrast to digital platforms.

processes (Tiwana, 2013). And because they eliminate mediators, platform businesses can reduce transaction costs, not just in a monetary sense, but any cost incurred in making an exchange, including time, effort, and attention (Moazed & Johnson, 2016). Platform businesses exhibit a "compressed evolution" and change faster than traditional industries. The platform industry shows the same dynamics that most other industries can only exhibit after 30 to 40 years (Tiwana, 2013). There is a shift in competition from products and services to platform based. The digital transformation on a global scale and "digital born" billion-dollar companies, such as Google, Amazon, and Alibaba, have led to a common belief that digital transformation "changes everything" and incumbents must "disrupt or be disrupted" (Furr et al., 2022, p. 596). However, the story is more complex than this. Even in industries that are digital forerunners with a transformed market, traditional and platform firms thrive and co-exist (Furr et al., 2022).

Digital platform businesses differ from traditional businesses in various ways. A platform company facilitates transactions between different actors and operates as a market intermediary. On the other hand, a traditional business has a linear business model, producing a service or product and selling it to a customer. This makes platforms more efficient by creating an ecosystem of value because they can leverage network effects (Moazed & Johnson, 2016). Being the intermediary between various actors makes platforms data hubs and data aggregators. This data, gathered by platforms, is the core of data-driven services and the data economy in this digital era (Kenney & Zysman, 2020b). With this, they are "altering barriers of entry and changing the dynamics of economic value-creating, delivery and capture" (Kenney et al., 2019). Platforms are built on and are creating value around technology. They are the leaders in using AI to optimize their services or create new revenue streams. Their operations are based on a combination of human decisions and algorithm-driven processes (Kenney & Zysman, 2020b). Platforms reduce 'friction' hindering interactions and permit new business or market interactions to emerge, giving them an economic benefit (Kenney et al., 2019). This enables connections that were not possible before, like connecting users that were previously unable to make transactions or under high transaction costs. This creates new markets and transforms existing ones.

Though platforms have become more important companies and have been studied on how they organize the economy and society (Kenney & Zysman, 2020a, 2020b; Plantin & de Seta, 2019), little evidence exists on how exactly the digitalization of traditional industries happens in local markets. Existing cases are mainly based on firms originating from big markets like the US and China (Kenney & Zysman, 2020a; Paik et al., 2019; Plantin & Punathambekar, 2019; van der Vlist et al., 2021; Zhang et al., 2021), or about how these international firms are entering local markets (Chang & Sokol, 2022; Hermes et al., 2020). Although there is emerging literature with a focus on European markets (Lehdonvirta, 2020), there is still limited research on national markets. Smaller economies such as Norway may have a piece of interesting evidence to add to the discussion of digitalization emerging by local entrants.

This dissertation analyzes the digitalization of the grocery retail market in Norway, particularly the emergence and development of the online grocery delivery platform Oda. Online grocery retail has many similarities to e-commerce platforms, as they both have material and digital aspects. The physical infrastructure is a success criterion for both segments and therefore draws a correlation between the two types of platforms in this thesis. As a platform business, Oda matches different sides. On the one side, consumers who want to purchase goods via its website and app, and on the other side, grocery- and retail suppliers supply the goods (Figure 1). They are connecting through Oda's platform, a new-generation supermarket, and Oda delivers the goods to its customers.



Oda was founded in 2013 and has since become a successful business in Norway. According to the company's own estimates, in 2022, Oda occupied ~70% market share of the online grocery market in Norway (Interview 4)<sup>2</sup>. Oda demonstrates relative success as it has steadily increased revenue in recent years. The COVID pandemic facilitated its further development when Oda showed exceptional growth, and in 2021 Oda became one of Norway's first unicorn companies, valued at 6,5 billion NOK (Furuseth, 2021). That said, similar to other platform companies, Oda struggles to generate profits and relies on investor funding.

Online grocery retail remains to be a small part of the large grocery retail industry. Online grocery retail in the United States equaled 13% of the total market in 2021 (Redman, 2022). In Europe, the leading countries are showing a high and increasing percentage of grocery retail emerging online. A report from McKinsey shows that the United Kingdom has the highest market penetration in 2021, with 12% online. France, the Netherlands, and Sweden are behind and have between 7-8,5% online market share of the total grocery market (Delberghe et al., 2022). The pandemic has significantly affected this growth, particularly in attracting customer groups beyond urban centers. Online grocery retail is

 $<sup>^{2}</sup>$  A complete list of interviews conducted for this study is in section 3.2.

expected to occupy a substantial part of this market in the future, McKinsey forecasting online to account for 18-30% in the leading European markets in 2030 (Delberghe et al., 2022). In Norway, the total market for grocery retail was 224 billion NOK in 2022, where traditional offline grocery shopping accounted for 90% while online grocery shopping equals only 2% of the market (Nielsen IQ, 2023). This is very low compared to the leading European markets, but similar to the 2021 numbers of some other countries like Poland (1,5%), Spain and Italy (at around 3% each), and Germany (4%) in 2021 (Delberghe et al., 2022).

The case of Oda is interesting to study as a case of digitalization in a traditional market for several reasons. First, the grocery retail market in Norway has a particular market structure that creates barriers for both international and local market entrants (Konkurransetilsynet, 2022). The industry has a limited number of retailers and contains primarily three Norwegian companies that occupy 95% of the market (Konkurransetilsynet, 2022, p. 4). These companies are NorgesGruppen, the largest player in Norway with 1800 stores over four chain concepts<sup>3</sup> and 43,5% market share, Coop Norge, the second largest with six chain concepts and 1100 stores with 29,6% market share, and Rema 1000, the third largest player, but with a single store concept, is the largest grocery store with 600 stores and a total 23,5% market share (Nielsen IQ, 2023). The high concentration in the grocery market has increased significantly over several years, especially after Swedish retailer Ica Gruppen divested their Norwegian operations in 2015, and the last international competitor exited the segment (Sundberg, 2014). The relatively small number of retailers in the national grocery market is not a Norwegian phenomenon. Still, Norway has fewer retailers than most

<sup>&</sup>lt;sup>3</sup> Chain concepts are brands of grocery stores with different value propositions. See Figure 2 for division.

other countries (Oslo Economics, 2017). Figure 2 illustrates the Norwegian grocery market retailers by market share and ownership as of 2022.

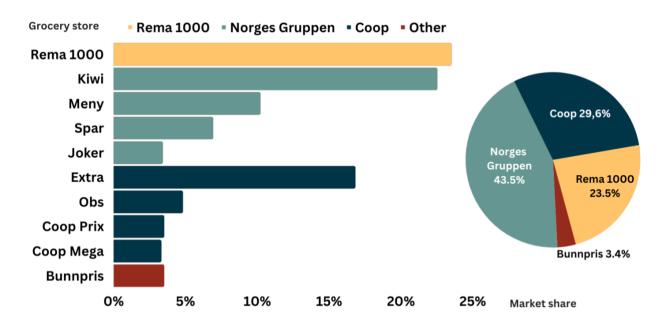


Figure 2. Norwegian grocery market retailers by market share and ownership as of 2022

Secondly, there are significant market entry obstacles for new entrants since Norwegians have highly distinct purchasing preferences. According to Forbrukerrådet (2016), 75% of Norwegians shop several times each week, and 7% go shopping every day. Norwegians also value low pricing for groceries. There are three distinct competitive categories of stores in the Norwegian grocery industry. 'Discount' is the largest, with over 60% of the market share, demonstrating that the Norwegian consumer market has the highest demand in this segment, as seen in Figure 3. Other store categories include 'wide assortment' and 'local store'. Discount stores in Norway are what is called 'soft discount', which are grocery stores with a broader portfolio of products, but also with products from

Source: Nielsen IQ (2023)

known brand names. Norway has no 'hard discount' stores, which are grocery stores with a limited selection of products with mostly private product brands, that are not available anywhere else. However, the focus on price is very much present in Norway (Lilleås & Molland, 2023).



#### Figure 3: Norwegian grocery market retailers by market segment as of 2022

Source: Nielsen IQ (2023)

This makes the case of Oda interesting as, despite these challenges, Oda managed to enroll users in Norway and establish partnerships with local grocery retailers and such a manner to create and occupy a market space. This dissertation analyzes Oda's strategy and development and aims to understand *how a new local market entrant with digital capabilities emerged in a traditional market*.

To meet this research objective, I will answer the following research questions:

- 1. How has Oda's digital business evolved, and what is Oda's competitive advantage?
- 2. How do traditional firms respond to Oda as a digital actor entering the market?

The research questions will be answered through existing platform literature and qualitative research with expert interviews and secondary data sources.

This dissertation is structured in the following way. Section 2 describes the theoretical framework within theoretical aspects of platforms, how they function, and how traditional industries have been transformed. Section 3 describes the methodological framework and research design of this case study. Following section 4, outlines the empirical results, starting with a historical understanding of the market and the development of Oda and how they have gained customers and positioned themself in the physical and logistical aspects. Section 5 is the discussion that outlines why it was possible that a new player entered the grocery market in Norway and what the success factors for Oda have been. Lastly, the conclusion summarizes the findings.

## 2. Theoretical Framework

In this chapter, I will first explain what platform businesses are and their main characteristics of network effects. The second part overviews the drivers of why a digital transition is possible in the industry with examples of how Amazon's e-commerce platform transformed commerce in the late 1990s.

#### 2.1. Platform Businesses and Network Effects

Platforms are internet companies that facilitate interactions between various sides, such as customers, advertisers, service providers, suppliers, and physical objects, fostering an environment for cooperation (Srnicek, 2017, p. 31). A platform creates and organizes a marketplace in which transactions between different sides take place, and platforms facilitate both technical infrastructure and organizational elements of the marketplace (Gawer, 2014). Platforms create value by generating network effects, which are positive feedback loops that result from an increasing number of users on a platform, making it more valuable for everyone (Gawer & Cusumano, 2014; Rysman, 2009; Srnicek, 2017).

However, a platform business model is not a "new" phenomenon. Multi-sided markets, which platforms are often called, have existed long before the internet, connecting buyers and sellers (Stallkamp & Schotter, 2021; Tiwana, 2013). For example, the old marketplaces (bazaars), where merchants pay for a stall, sell products to a large customer base, and attract customers, who receive access to goods from several vendors in the same location, can also be considered a platform. When the internet became widely adopted, online marketplaces emerged, transforming many industries (Cusumano et al., 2019) and gaining exponential growth. A website can reach a larger audience regardless of its visitors' location. This revolutionized e-commerce; there is a wide range of platforms, and all platforms, not just e-commerce, are marketplaces. Many are entirely digital; Google Search users meet advertisers, Instagram connects users and shares user information with advertisers, Uber connects drivers and riders, and Netflix provides customers with online streaming.

We can categorize platforms into different business models based on how they create network effects (Cusumano et al., 2019; Gawer, 2022). Transaction platforms earn money on each transaction and are often seen as "matchmakers" (Evans & Schmalensee, 2016), while innovation platforms allow others to develop complementary innovations on the platform that they are hosting (Gawer & Cusumano, 2014). The platform owner has a central position that controls the pricing between the different sides or parties (Hagiu, 2009; Rochet & Tirole, 2003) and controls user traffic and data exchange (Cusumano et al., 2019). Some companies are adopting a hybrid strategy of both transaction and innovation, which is often a natural tendency for successful companies that grow and expand. The big five in tech, GAMAM (Google, Amazon, Meta, Apple, Microsoft), are all examples of hybrid platforms.

E-commerce marketplaces, in particular, have transformed the way we do commerce. Compared to a physical store, e-commerce has a bigger selection of products and increased user convenience to shop online. To give an example, consider Amazon's expansion in the US since 1995. It began as an e-commerce website for new books, providing users with access to a wider range than was offered elsewhere and lower pricing due to its higher volume and more efficient operations than a single bookstore. Amazon expanded into various other product categories — a marketplace with third-party sellers, a logistics and fulfillment center, a cloud computing service platform, various subscription services like Amazon Prime, and advertising (Aversa et al., 2021). Amazon became the largest online retailer overall globally and had in 2021 almost 40% of online sales in the United States (Statista, 2022b). This 'one-stop shop' gives users increased convenience, cheaper products with fast delivery, and better selections of goods, which is why we shop online now, compared to a physical store or bazaar.

However, not all e-commerce websites are necessary platforms. Some companies sell products online and use the internet as a distribution channel (Cusumano et al., 2019). In the same way, a storefront is a distribution channel, which means that a company needs

a network effects dynamics to become a platform that emerges between multiple sides. In the case of e-commerce platforms, these transactions are between buyers and sellers.

Even though a platform has several sides, a platform business can execute two strategies (Rysman, 2009). For example, Amazon's online book sales, and later other products, are products bought at wholesale prices and sold directly to consumers, which is a one-sided strategy. On the other hand, Amazon connects independent sellers and buyers through its marketplace, and this interaction generates network effects, which is a two-sided strategy. Selling strategies are often dependent on the decision of the platform and not the technical limitations of the market. In the case of Amazon, one-sided and two-sided selling strategies co-exist (Rysman, 2009).

#### **Network effects**

To achieve success, platforms need to establish an ecosystem that attracts participants. When the users are on the platform, it starts to generate network effects. There are two types of network effects, direct or indirect (Tiwana, 2013). Direct or same-side network effects refer to the impact of additional users on the same side, creating network effects. To illustrate, with the dating app Tinder, users join because they expect to have a match, and if the network is big enough, the more likely they will find a date. This creates a positive feedback loop where more users attract even more users (Gawer & Cusumano, 2014). Indirect or cross-side network effects refer to additional users on one side of the platform, generating a positive feedback loop for the other side. For example, the ridesharing platform Uber, where the more users are on either rider or driver's side, the more value they bring to each other. The more riders use Uber to request rides, the more income possibilities it brings to the drivers, attracting them to the app. Again, this can give users shorter waiting times and more reliable service, attracting more users.

Network effects can originate at local or global levels, which means platforms may create within-country and cross-country network effects (Stallkamp & Schotter, 2021).

Companies operating within one location, like food delivery or ride-hailing, have locationbound network effects. This means that the existing user base in the local market is not transferable to other countries (Stallkamp & Schotter, 2021). Cross-country networks effect, by contrast, are when a platform's existing user base is non-location-bound, which helps digital platforms to scale globally, as, for example, operating systems or online travel booking platforms demonstrate (Stallkamp & Schotter, 2021). Even though a platform itself can scale globally, it cannot leverage network effects from the existing user base, and therefore network effects are stronger locally (Moazed & Johnson, 2016). For example, Uber is physically present locally, and more drivers in Stockholm will not bring network effects to the users in Oslo, they are location bound. This can also be true for fully digital platforms, such as LinkedIn, a career-oriented social network that creates network effects between professionals in addition to job-seekers with employers. The direct and indirect network effects in LinkedIn are strong locally (Stallkamp & Schotter, 2021) because both sides the employers and professional network is still highly location-bound, even in a global economy. If most Norwegians are on LinkedIn, it will attract employers to list jobs there and vice versa. For digital platform companies, like LinkedIn and Uber - or grocery and food delivery companies, the business model and platform can scale and travel across borders. This can generate similar network effects locally in several geographical locations. However, the network effects will still be strongest when they are local because the users are unique in each location.

Because of the network effects, digital platforms often emerge as monopolies within the market segments and beyond and have become big economic powers (Kenney & Zysman, 2016; Srnicek, 2017). A frequent platform strategy is to get big fast, as there are "winner-takes-all-or-most" tendencies (Rysman, 2009). Winner-takes-all-or-most means that one platform can dominate the market instead of multiple platforms co-existing (Tiwana, 2013). In the past 30 years, digital platforms have quickly gained market dominance, often capturing around 70 percent or more of the market share of the markets in which they operate (Cusumano et al., 2019). For example, Google Search is a market leader in search engines; the Microsoft Windows operating system dominates computer operating systems; Uber is the most popular ride-sharing platform.

Companies often feel like they have to be the "first mover" to secure new areas, exploit network effects and raise entry barriers for new entrants (Cusumano et al., 2019, p. 107). Some early movers have turned into powerful businesses, such as Amazon in e-commerce or Apple and its new generation smartphone in the apps and smartphone markets (Kenney & Pon, 2011; Pon et al., 2015). Early market entry can bring growth opportunities and a large user base. Also, platforms can make their services incompatible with other systems (Adner et al., 2015) and in such a way to avoid "multihoming" of its users (Tiwana, 2013). A platform strategy is to create a lock-in for users, a situation when users do not want to migrate to competing platforms (Cusumano et al., 2019). However, a winner-takes-all outcome often depends not only on early entry but also "on the strength of network effects, the difficulty of multi-homing lack of opportunities for competitor differentiation and niche competition and the strength of entry barriers" (Cusumano et al., 2019, p. 49).

#### What do platforms do to attract users?

Having a user base is important for a platform business. Onboarding multiple sides to a new platform can be challenging, and many platforms stumble upon the "chicken or egg problem" deciding which side to onboard the first because neither will join before the other side has a critical mass of users on another side (Cusumano et al., 2019; Tiwana, 2013). Often, they need to be onboarded simultaneously, which could involve that platforms initially needing to subsidize or under-charge at least one side of the market, to attract a large user base on the other side (Kenney et al., 2019). For example, Uber has subsidizing programs for drivers, including sign-up bonuses, referral programs, and guaranteed earnings (He et al., 2022), to attract drivers and then riders.

A platform enables value creation by facilitating transactions. The *core transaction* is the set of actions users must complete in order to exchange value on a platform (Moazed

& Johnson, 2016). When the users are matched on the platform, there are added support activities to the core transaction, which engage the users to participate (Moazed & Johnson, 2016). Platforms can form partnerships to build a network around their core transactions. For instance, a study on Tripadvisor (Alaimo et al., 2020), shows how they transformed from the core B2C (business-to-consumer) model, where travelers could share opinions and experiences with a wider audience, into a combined B2C and B2B (business-to-business) platform. Tripadvisor has built an ecosystem around this, connecting the data Tripadvisor is generating, services third parties are offering, and an ecosystem of booking engines, advertisers, and social media platforms, to support the core transaction of a 'one-stop travel shop' (Alaimo et al., 2020).

#### What do platforms do to expand?

To gain further network effects, a platform can expand into new bordering markets (horizontally) or bordering parts of the ecosystem's value chain (vertically) (Tiwana, 2013). Both vertical and horizontal expansion can, in addition to in-house development, be done through making acquisitions with or conducting mergers of smaller companies and competitors or building partnerships with third parties (Srnicek, 2017). Horizontal expansion is the most common, which primarily includes offering new services or products that support the core transactions to existing customers (Tiwana, 2013). In this approach, the platform leverages the existing user base, technical infrastructure, and industry knowledge to introduce new products. This could be new products or services that the endusers of the platform value and that could be profitably bundled into the platform (Tiwana, 2013), for example, Uber introducing Uber Eats; The same people who would order a ride on the app might also want to order a meal. Another example of horizontal expansion is the convergence of markets that were previously independent (Tiwana, 2013). Convergence is driven primarily by the packetization and digitalization of products or services. Indirect competitors can also exploit convergence and enter into the platforms segment.

Another way for platforms to expand is vertically by taking over a different link in their value chain, which includes taking over a functionality either upstream or downstream in the value chain (Tiwana, 2013). Upstream could involve external services the platform uses, and suppliers of software. For example, Apple introduced iCloud as a cloud service, which a service provider like Dropbox previously covered. Another example is Amazon, that in 2012 acquired Kiva Systems, a provider of automated warehousing systems, to gain greater control of fulfillment operations. On the other end of the supply chain, a downstream expansion could include taking over an existing app or functionality (Tiwana, 2013), which could be a strategic or gap-filling functionality. For instance, when Apple developed Apple Maps to compete with Google Maps in 2012.

Both horizontal and vertical expansion can be through cross-feeding customer data and creating synergies by drawing on the same user bases. For example, Google Ads utilizes users' search history, location, and preferences to allow businesses to target ads to particular audiences.

# 2.2. How Platforms Transform Traditional Industries: the case of Amazon

This thesis is specifically focused on e-commerce platforms, which have both material and digital components to their business. In this section, I will examine how and why traditional industries change because of new digital platform businesses. Digital platforms are threatening old intermediaries in the markets they enter by "altering barriers to entry and changing the dynamics of economic value creation, delivery and capture" (Kenney et al., 2019). E-commerce is benefitting from data, software, and AI in every step of the value chain of logistics (Mashalah et al., 2022). This example will be illustrated with evidence from the case of Amazon.

Even though "digital born" platforms can reach a bigger audience independent of geography, there are still some aspects of e-commerce that have a physical aspect that needs to be merged with the digital. The physical infrastructure of warehousing, logistics, and delivery requires high investments. When Amazon started, it first did so using local distributors and existing domestic logistics infrastructure, but quickly built its own distribution system with warehouses and delivery (Kenney & Zysman, 2020b). With the increased volume of sales, also came an increased need to store physical products, have a system to handle orders, and harvest data on inventory. Because of Amazon's high volumes in sales, "it has more supply chain data than any other retailer or logistics provider, giving it enormous insights into the physical and virtual dimensions of the logistics chain" (Kenney & Zysman, 2020b). More recently, they have started to apply AI and machine learning to all their activities and the data it collects (Kenney & Zysman, 2020b).

E-commerce transformed the existing infrastructure within retail, which had previously gone through a revolution in logistics when big-box retailers, like Walmart, gained power in the 1960s and 1970s with large operations, discounted prices, and centralized logistics (Alimahomed-Wilson, 2023). E-commerce, mainly driven by Amazon, has been making the existing supply chains extinct and increasing competition among retailers and third-party logistics providers for rapid delivery from the late 1990s and onwards (Alimahomed-Wilson, 2023). It involves organizing warehouses, trucking, and last-mile logistics, in addition to altering the physical location of warehouses (Alimahomed-Wilson, 2023). Amazon's users have an increased demand for smaller shipments with nextday or same-day delivery, bringing the warehouses back into urban areas to be as close to the consumers as possible after they were moved out when big-box retailers entered in the 1960s (Alimahomed-Wilson, 2023). This was Amazon's strategic measure to lower the costs of logistics, which had become a high-cost driver. With increased volume over time, expansion was necessary, and changing locations of distribution centers, to outside major population centers, instead of shipping from gigantic hubs, making it more streamlined (Kenney & Zysman, 2020b). This is what the literature calls last-mile delivery. The logistics system is built on two-day or same-day delivery, giving Amazon a competitive advantage over competitors like Walmart and eBay (Kenney & Zysman, 2020b).

Mashalah et al (Mashalah et al., 2022) found that e-commerce logistics activity has broadly benefited from digital transformation in all three aspects of the supply chain, first, middle, and 'last mile'. In the 'first mile', getting goods from sources to national distribution centers has benefited through smart factories (Mashalah et al., 2022). The 'middle mile' is the fulfillment centers where sorting, picking, and packing happen, which benefit from the use of data, AI, and robots and has generated efficiency and effectiveness in forecasting, planning, and learning (Zhang et al., 2021). The 'last mile' is where the product is delivered from the fulfillment center to the customer, where the customer interacts through the ecommerce website and has been facilitated digital transformation through customer relationship management and collaboration (Mashalah et al., 2022).

#### What makes traditional industries transform into digital industries?

This digital transformation is challenging traditional industries in various ways, where a driver is digital firms' advantage of harvesting data and calculating their operations better. To change traditional industries into software-based platforms that create opportunities for ecosystems to thrive, new technology is necessary (Tiwana, 2013). "Major technological advances, exponential growth in computing power, greater ubiquity of connectivity and big data are creating a web of technologies that underlie digital transformation" (Furr et al., 2022). Incorporating a combination of new developments from general technology, into traditional industries, is creating new opportunities for digital transformation.

To illustrate why platform companies are emerging in a traditional market, I will briefly introduce five drivers, developed by Tiwana (Tiwana, 2013) (Figure 3). They can be seen as a prerequisite to why platforms emerge in the industry.

#### These five drivers are

1) the "packetization" of products, processes, activities, and services;

"Packetization is the ability to digitize "something" – an activity, a process, a product, or service – that was previously not digitized" (Tiwana, 2013, p. 13). Anything can be digitized, a product or service, how it is delivered, and how it is purchased. These aspects can be broken into data "packets" and transported cheaply and instantly across the internet. A consequence of packetization is removing location-dependent work, where small aspects of a job or task can be moved to a different location to optimize further. For example, drive-thru orders at Mcdonald's, where the customer is ordering and the person in the restaurant is placing the kitchen order. This data is now packaged to a call center where they have specialized order-keepers and can optimize this process further (Tiwana, 2013). Alternatively, in the case of Amazon, which has digitalized inventory management, both for

themself, but also independent sellers on the marketplace through fulfillment by Amazon (FBA) (Kenney & Zysman, 2020b).

2) the increased need for deepening specialization in industries;

Packetization leads to an additional outcome, which is an increased focus on specialized knowledge and skills (Tiwana, 2013). Deepening specialization is simply an increased need for deep expertise due to the increased complexity of products and services. Information and skill-intensive transition require a new division of labor – and often a transition between machines and humans (Tiwana, 2013). Deepening digitalization is restructuring the whole ICT industry, pushing dominant firms in telecommunications, equipment providers, and legacy software companies into cloud computing and being challenged by digital entrants (Kenney et al., 2015). This does challenge not only the incumbents in these industries but also policy-makers to support and nurture the changes while protecting the local economy (Kenney et al., 2015).

#### 3) the process of incorporating standard business activities into software;

Software embedding involves incorporating a routine business activity into software (Tiwana, 2013). This often involves a transformation from product to service, which shapes construction, delivery, and end-user experience. Digitizing a routine and regularly automizing it often leads to the morphing of digital and physical boundaries. It can also lead to convergence across industries (Tiwana, 2013). Amazon has transformed its core product of physical sales into a service that brings value beyond the physical product itself, through Amazon Prime, which is a subscription-based service, that bundles free shipping and streaming as a value for the customers (Kenney & Zysman, 2020b).

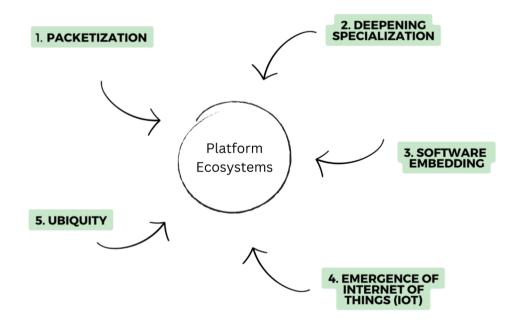
#### 4) the emergence of the Internet of Things (IoT)

The emergence of the Internet of Things (IoT), is allowing everyday objects to collect and exchange data, and directly communicate using the internet (Tiwana, 2013). This allows for real-time monitoring and control of processes and systems and brings data on objects we could not automatically control before (Tiwana, 2013). For Amazon to further integrate and bring last-mile delivery under algorithmic control, they are monitoring delivery driver's activities in real-time, allowing Amazon to optimize the supply chain, but is challenging many aspects of organizing labor (Kenney & Zysman, 2020b).

5) the growing ubiquity of cheap and fast wireless internet data networks;

Ubiquity is "the growing omnipresence of cheap and fast wireless Internet data networks" (Tiwana, 2013). Things that were not possible before because it was expensive and slow, are now possible due to data processing. Packetization would not be worth much if it was an expensive and complex process to send and receive data. The primary consequence is allowing smaller companies to use distributed resources to create products and services as efficiently as large companies (Tiwana, 2013). "Platforms have benefited from faster, cheaper, more scalable and more diffused computing and connectivity available on demand via commercial cloud computing services" (Kenney et al., 2019).

Some drivers can change a non-information-intensive industry with low-skilled jobs into an information and skill-intensive industry that functions like any other platformcentric industry. When these drivers exist together, their influence is stronger, and their combined impact is often greater than the sum of their individual effects (Tiwana, 2013).



Source: Adapted from Tiwana (2013 p. 10)

# 3. Methodology and Research Design

This chapter outlines the research design and methodology. Firstly, the qualitative research and case study will be described. This will be followed by a description of the data collection strategy, including both desk research and interviews. Thirdly, a presentation of the strategy used for analyzing empirical data. Lastly, the chapter concludes that validity and ethical considerations are accounted for.

## 3.1. Qualitative Research and Case Study Research Design

This dissertation is a qualitative research project. Qualitative research uses empirical material to understand human behavior, experiences, and perspectives to provide contextual explanations for the phenomena under study, as opposed to quantitative studies, which use numeric materials (Hay & Cope, 2021).

A case study is a research method that studies "a contemporary phenomenon within its real-world context" (Yin, 2018). It is used to provide an in-depth analysis of a specific case that is used to describe a larger context.

This dissertation is a descriptive research contribution to describe the phenomenon of digital transformations in industries through the single case study of Oda in Norway. The research has a big empirical drive to it and is based on specific theoretical aspects of platform companies and similar case studies of how digital entrants enter traditional markets.

The results of the case can be generalized to other similar cases of the digital transition of traditional industries. To identify similar cases, it is essential to consider the characteristics of the case and obtain it in an environment with similar challenges. This could be similar economies, such as other European countries, or similar industries in Norway.

## **3.2.** Data Sources

#### **Document Analysis**

This case study is based on several data sources that provide contextual information and background for the study (Yin, 2018). It began with desk research by collecting and analyzing secondary data sources such as press releases, companies' publications from social media, statistics, financial data, and media publications about Oda and the market.

To develop a timeline for Oda's development, I scraped 620 tweets from the official Oda account and 360 tweets from Oda's CEO Karl Munthe-Kaas. Both accounts were active from 2014-2022 before they stopped publishing. In the early days of Oda, Twitter was the main social media channel where Oda posted company news and announced newspaper publications and new features. Since 2019, Oda has actively used the blog platform Medium to post in-depth information in blog posts about what they call "Oda Product and Tech" (Oda, 2023c), giving background information on how they have organized agile processes, developed certain technical aspects of the product or other "product or tech" related aspects.

Another data source is Oda's 38 press releases published in the period 2016-2023 (NTB, 2022) and former versions of Oda's website. These older snapshots of Oda's website were found through the Internet Archive's Wayback Machine, and show how the website looked like at certain times in the past. This data source was helpful in tracing the development of Oda, for example, when certain partnerships and features were launched. Also, Oda's old version of the website was used for fact-checking information from interviews, or the information was mentioned in newspaper articles.

To map out the grocery market in Norway, I have analyzed 10 reports in total, among them two reports from the Norwegian Competition Authority, statistics reports from Nielsen IQ, an independent data analyst in the retail sector, and the 2022-2023 Trade report from Virke, the Federation of Norwegian Enterprise. I analyzed 60 news articles from various Norwegian newspapers. I used Retriever, a newspaper archive, to gain access to newspaper articles from particular years. This was useful for identifying industry development from older articles, the 1990s and early 2000s, in addition to when Oda launched its business in 2013-2015.

All these sources gave valuable insights into the Norwegian grocery market and how Oda has worked, which was useful when writing out assumptions for the interview guide and the analysis. Digital documents are heterogeneous and can be challenging to handle. The documents and searches were therefore collected and archived systematically, to be retrieved later (Asdal & Reinertsen, 2021), by building a timeline in Excel and storing links in Endnote groups.

#### **Expert Interviews**

Another data source was 9 expert interviews conducted both online and offline from January to March 2023.

As a preliminary data collection, I also did ethnographic research by attending two events. The first was when Oda and Posten presented keynotes on how they work with data to optimize distribution and estimate delivery times from a technical standpoint. The second was part of Oslo Innovation Week, where several companies presented under the topic "How to stay innovative at scale", Oda being among them.

Before selecting participants, it is important to consider the sample (Stratford & Bradshaw, 2021). For this study, I was looking for participants, who have expert knowledge at a managerial level about the business, partnerships, and market segment of Oda, or the general grocery retail market in Norway.

To gain access to participants within Oda, I utilized my personal network and got the first interview through an acquaintance. Through this informant, the snowball sampling method was used to identify other cases of interest, based on people they know (Stratford & Bradshaw, 2021). The first informant gave me an introduction to other informants that had relevant experience for this research project. Through the systematic desk research, several market experts were identified, with a broad field of expertise within digitalization in the grocery market, transport and logistics, major grocery retailers in Norway, and Oda's sub-suppliers. The expert informants were contacted over email and LinkedIn to schedule interviews.

An interview guide was developed for the semi-structured interviews, with preidentified topics, while still maintaining the flexibility of addressing issues from the informant (Dunn, 2021, p. 151). These topics include Oda's overall strategy, collaboration and partnerships, and competitive market. The interview guide (Appendix 1) was on the same topics, but changed angles from interview to interview, depending on whom I was talking to, to reflect the different aspects of the experts' knowledge.

The interviews were a mix of empirical interviews from the case, experts within their field from Oda employees and Oda partners, in addition to industry experts.

Most interviews were conducted in Norwegian, as this was the interviewees' native language. One interview was held in English. All interviews were recorded, and transcribed using Autotekst, an AI-transcript tool developed by the University of Oslo. In the dissertation, I used English translations of the interviews in Norwegian, citations from interviews held in Norwegian have been translated by me. All interviews are summarized in Table 1.

#	Informant	Topic discussed	Duration	Interview format
1	Oda employee 1	Pilot interview: Overarching about Oda	35 min	online
2	Oda employee 2	Oda's strategy	65 min	in person
3	Oda sub-supplier 1	Partnership with Oda	61 min	in person
4	Oda employee 3	About Oda's history and development, and strategy	45 min	in person
5	Academic expert	Digitalization in Norway	36 min	online
6	Expert in transportation	Logistics, infrastructure e- commerce in Norway	63 min	in person
7	Major Norwegian grocery retailer 1	Strategy for digitalization	61 min	in person
8	Data processing expert in logistics and retail	Use of data. Difference between traditional and digital players.	35 min	online
9	Major Norwegian grocery retailer 2	Strategy for digitalization	35 min	online

#### Table 1. Overview of conducted interviews

## 3.3. Data Analysis Strategy

In this thesis, the general analytical strategy is relying on theoretical propositions from the platform literature (Yin, 2018). I started with a deductive approach, where I created initial categories with topics within platform literature (Cope, 2021), which included how platform businesses emerge in traditional markets, how they attract users, expand and grow, and in particular, how they collaborate with incumbents and digital firms to do this.

I used digital documents mentioned in the previous section, to put together a sequence of events, underlying the development of Oda's emergence in the Norwegian market. This was useful to get a deep understanding of the case and identify any data gaps.

I started to build a timeline in Excel categorizing partnerships by type and other events, which was based on the Twitter threads, as this was constant publishing for most of the period of Oda. I could then search for additional sources, based on the threads, which is how I got to most news articles and opinion pieces. Oda has been a very public company in Norway, held many interviews, and podcast episodes, and shared 'insider information' through *Medium*. This was used to frame research questions and interview guides in the first round. Secondly, documents were used to support the interview analysis, to find context, and support facts. Industry reports were used to cross-reference information from the interviews and get a better understanding of market dynamics, after tracing those patterns in the interview analysis.

The first interview worked like a pilot interview and gave further insight into areas and patterns that were discovered in the desk research. In particular, the early assumption was that Oda, as a platform company, had very strategic decisions regarding building partnerships and collaborations. Thus, I realized after the first interview, that Oda has spent a longer time focusing on the development of physical infrastructure and attracting users. These were useful insights, that helped to adjust the interview guide and revise the list of potential informants to get a broader set of data collection, where collaborations and partnerships were seen as supporting activities. The categories were therefore changed also to include topics such as building physical infrastructure, regulatory challenges, and market dynamics from existing players with high market share. This is the point where I started combining the theoretical data with building the data from the ground up and entered more into an inductive approach.

The interviews have been the primary data source for this project. When analyzing the interview transcripts, I started tracing patterns from the theoretical aspect and the preliminary analysis. I outlined sections from these patterns and with the timeline as a basis, building the storyline of Oda's development and the market dynamics. I have, throughout the analysis, revisited highlighted transcripts to support claims and build arguments. Since most interviews were held in Norwegian, I have re-written many citations, instead of direct

quotes. I found that a direct translation would lose the essence or change the tone of the citation.

When doing the analysis, I reflected on which knowledge I got from the data sources that I had chosen for my research design. By getting data directly from Oda through interviews, press releases, social media, and keynotes, I got insider knowledge, but it was presented in a certain way. This information can be biased and reflect that Oda has shareholders to answer to or use as marketing material. Oda's early "small wins" were shared freely with the public, and frequently updated. As the company grew, it has been more limited information available, which could reflect more caution about which information that has been shared. Another explanation is that Oda has used more traditional advertising channels to build their brand as they grew, and had less need to share small information with the public. The same goes for the interviews with traditional retailers that are competitors of Oda. By talking to experts within various areas in the case landscape, I get access to third parties with an external view, but with less awareness of details of the case. They are experts in a certain segment and aware of market dynamics and often theoretical aspects as well.

#### **3.4.** Research Reliability and Validity

To ensure results and research procedures are reliable, I made a research design based on known methods, following the steps of a single case study, and collected data following methods in digital document analysis and semi-structured interviews. All interviews were recorded and transcribed, to ensure that the information could be accurately described as the informants presented it. Having a research design, and trying to build each step on each other, helps to ensure rigor (Stratford & Bradshaw, 2021).

I have throughout this study implemented several checking procedures to improve the trustworthiness of this research project. I have used different data sources from both documents and interviews, I gain a broader information base. This information has been tracked throughout the project by using work logs. I have used systematic routines to ensure my 'memory work', with findings and questions I have answered at different stages of the research process and kept them written in work logs throughout, so things are not lost or forgotten until the final analysis is complete (Asdal & Reinertsen, 2021, p. 287). The participants in the study have been carefully selected based on their expert backgrounds. To ensure validity, I followed the concept of triangulation (Stratford & Bradshaw, 2021), by basing my research on literature in the field, having multiple sources, and checking the knowledge gathered from each source against each other.

## **3.5. Research Ethics**

This study has followed ethical principles and guidelines. I have used existing ethics guidelines from The Norwegian National Research Ethics Committee (NESH) to ensure my research is conducted responsibly and under broadly accepted principles (Catungal & Dowling, 2021, p. 31). This project was approved by the Norwegian Center for Research Data (NSD). In this case study, informed consent was obtained from all participants, giving them information about the study and their rights, including the right to withdraw their consent at any time. The confidentiality of all participants has been protected by anonymizing names, companies (except for interviews with Oda's managers and employees), and positions, so they are not recognized in the text, including citations. This was done to promote honest responses because the nature of the research project is to discover strategic advantages and the competitive market. Audio files were transcribed, and personal data like informants' names or positions were removed from the transcript.

## **3.6.** Limitations of Thesis

The data material collected for this case study of Oda's operations in Norway, has limitations related how it can say something about a local entrant transform a traditional market. There are few retailers in the Norwegian market, which can make it difficult to get honest responses on this, as it is strategic and difficult to anonymize in a market with few players.

It could also be interesting to focus on the international expansion of Oda, to look at a case where a local entrant from a small economy expands internationally.

An interesting *quantitative* research design on this topic could be to look at several firms like Oda, in various markets, to understand if there are any correlations between how local entrants emerge in national markets, and not only Norway.

# 4. Empirical Results

Today, we know Oda as the biggest online grocery provider in Norway that home delivers groceries. However, the company has made many changes over the past decade that have positioned them where they are today, which are important to understand the research questions:

- 1. How has Oda's digital business evolved, and what is Oda's competitive advantage?
- 2. How do traditional firms respond to Oda as a digital actor entering the market?

In this chapter, I will first describe the context of the emerging online grocery market in Norway and explain why early market entrants, who entered before Oda, failed. Then, I examine the development of Oda's business which is Oda's strategy to attract users, invest heavily in physical infrastructure, and conduct partnerships with key players. Lastly, present the traditional competitors' response to Oda entering the market.

# 4.1. The Emerging Online Grocery Market in Norway: Early Market Entrants and Oda

Online grocery shopping was first introduced in Norway in 1996 when Rema 1000, one of the biggest traditional grocery retailers in Norway within the 'discount segment', decided to open an online store. The management of Rema 1000 was convinced that the market was evolving in this direction, expecting "15-20% of grocery shopping being done online in a few years", CEO Odd Retain claimed in 1998 (Digi, 1998). Rema 1000 offered several services such as "click and collect," when customers could order from the website and collect in-store and later with home delivery. Both services were quickly discontinued

as they could not generate customer interest. Ole Robert Reitan, responsible for the offshoot at Rema 1000 in 1996, now CEO of the company, described investments into this business direction as a "total fiasco" (Valvik, 2015) costing about 100 employees their jobs and around 20 million NOK when it failed (Riseng, 2022). When Reitan was interviewed about a potential online grocery strategy later in 2013, when the market started to emerge again, he responded: "My fingers are as burnt as they can be, so we won't be launching anything in the near future" (Valvik, 2013a).

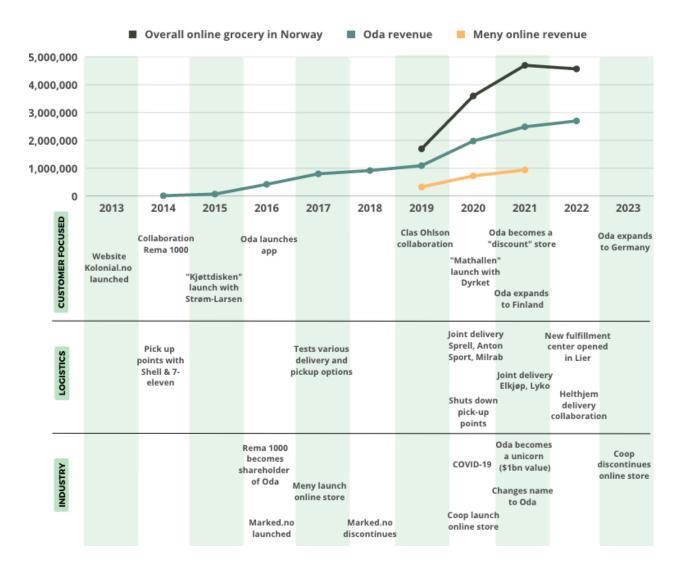
The reason why Rema 1000's attempted market expansion failed was perhaps that the 1990s was too early for online grocery shopping, "at least 20 years" ahead of its time, Reitan laughs about it today (Riseng, 2022). At that time, in 1997, only 9% of Norwegians used the internet weekly (Statistisk sentralbyrå, 2023), and e-commerce was not widespread in Norway or globally. Rema 1000 "online" orders were actually only ordered over the internet 20% of the time, the remaining 80% were done over the phone or telefax (Digi, 1998).

Another early online market entrant was Ica, a traditional Swedish supermarket that had been present in Norway since the 1990s. Ica's online grocery shopping and home delivery lasted from 1998 until 2004, before it was discontinued, affecting around 400 employees, as it did not attract enough customers (Rønning, 2004). In 2013, Ica Gruppen had proposed and agreed to a cooperation agreement with NorgesGruppen on purchasing agreements and distribution, after not having been profitable in Norway for a while. The Norwegian Competition Authority would not allow this collaboration and rejected the agreement, due to Ica and NorgesGruppen together would make a market share so high, it would threaten the competitiveness of the grocery market (Solberg et al., 2014). Based on this, Ica sold its 550 stores to Coop in 2014 and exited the Norwegian market the following year. Ica later stated that the purchasing agreement would have helped them to be profitable in Norway (Solberg et al., 2014). Oda was perhaps the first company to gain a foothold in online grocery delivery in Norway. In 2013, Oda entered the Norwegian grocery market as Kolonial.no<sup>4</sup>, which means a 'corner store', when Karl Munthe-Kaas founded the startup together with nine other "business developers, programmers, and designers that met on a Twitter thread" (Halvorsen, 2021). As a pilot project, Oda started to sell groceries online and had a pickup point "under some stairs in a business building at Aker Solutions", where the employees at the pilot company, as Munthe-Kaas says, "could pick up their online orders on the way to the car" (Valvik, 2013b).

Oda entered the market with the business proposition of a more convenient and timesaving shopping experience for customers, "to save time and hassle-free complete the hurdle of grocery shopping", and the goal was to create pick-up points all around Oslo shortly after the pilot launch (Valvik, 2013b). At that time, e-commerce was more widespread in Norway than in the late 1990s - early 2000s, with 90% of the population being weekly internet users, compared to 9% in 1997 (Statistisk sentralbyrå, 2023). The founders' motivation for launching the business of Oda was to jump on the global trend of growing e-commerce popularity. In 2013, 5% of the revenue in the grocery market was already coming from the Internet in the UK. With there being more e-commerce happening in Norway, CEO Munthe-Kaas thought all conditions were in place for Oda's entry (Valvik, 2013b). In 2013, home delivery of meal delivery kits or 'food boxes', from several vendors had already gained popularity in Norway (Strøm, 2015). This was indicating that the environment and customer demand in Norway had developed since the last time and that the timing was right for groceries to be ordered online.

<sup>&</sup>lt;sup>4</sup> The company was called Kolonial.no from 2013-2021, after they changed the name to Oda.

In the following years, Oda had to expand their user base, establish logistics and delivery infrastructure and attract vendors from the Norwegian grocery market. Figure 4 illustrates a timeline for the development of Oda, highlighting market changes, where new competitors such as Marked.no, Meny and Coop enters the market, collaboration that Oda made with various actors in other industries, such as electronics retailer, home utilities and childrens store, in addition to food selection through Mathallen ('food court') and Kjøttdisken ('Meat deli'), in addition to Oda's organizational development. The next sections describe in detail how Oda started to attract users, build physical infrastructure and collaborate with other companies.



## Figure 4: Timeline of the development of Oda

Source: Oda press releases, annual reports 2014-2021, Oda social media posts, news articles 2013-2023 from retriever, NielsenIQ, Meny.no. The figure is made using available statistics, the numbers are the overall revenue of online grocery retail in Norway, the revenue of Oda, and its main competitor in Norway, Meny.

## 4.2. Attracting Users in Norway

When Oda first launched in 2013, their target audience was families with young kids that live in the central area of Oslo, affected by the Norwegian term 'time crunch' ('tidsklemma'), which describes a situation when "it is difficult to find enough time to fulfill all commitments and is particularly used to describe the challenges faced by parents with young children in combining work and family life" (SNL, 2021). Today, Oda's mission is to "provide space for life" and to simplify people's everyday life, "both through a wide selection of goods and making the shopping experience personalized, efficient and pleasant" (Interview 4). The primary target group is still families with young kids but has expanded beyond this group to reach a broader audience.

Once Oda attracted early adopters, that were eager to try the new service, it faced several barriers in onboarding new customers and expanding its user base (Interview 2). Over the years, Oda experimented with various strategies to attract customers and, more importantly, to change their habits from shopping in traditional grocery stores to online shopping. In the following paragraphs, I will examine the strategies that Oda used to overcome these barriers.

## **Adapting Grocery Prices**

The first one was adapting its pricing strategy and attracting customers with low prices. In a national market where 60% of the market share was in the discount segment, Oda's relatively high prices were creating a barrier to attracting price-sensitive customers. In 2013, Oda positioned itself on a mid-range of the pricing scale (Valvik, 2013b). Oda's goods were a little more expensive than in Kiwi, Rema, or Extra, which are discount stores, but cheaper than Meny or Coop Mega, which are wide-assortment stores. Even though Oda offered goods at a mid-range price level, it attracted customers with free pick-up sites or delivery fees that could "buy time" and was more convenient than other stores.

In 2021, Oda announced that they are reducing their prices, to compete within the discount segment (Brunborg, 2021). CEO, Karl Munthe-Kaas, describes the strategic change: "Instead of being a premium service, where you buy yourself time, you now get that for free. That has been the dream behind Oda. However, technology and scale have been necessary. Now we have both" (Brunborg, 2021). The price drop includes a guarantee that the groceries you can find at Rema 1000, will be the same price at Oda.

Oda is also operating with dynamic pricing, where the same product can vary in price, depending on the address the customers are ordering to (Oda, 2023a). This is a standard practice from physical stores, where prices vary locally in the same retail chain, based on local competitors, in particular on fruit and vegetables. However, the dynamics are different with an online retailer, where these things can be updated instantly and automated. A test conducted by Nettavisen discovered that a packet of rocket salad varied 10 NOK between two neighboring addresses in Bærum outside Oslo, which made experts react. Oda defended the practice with that they are matching the local competition in each location (Lorvik, 2022).

Another pricing strategy is introducing a threshold offer, making users buy more at once, to avoid paying a fee for a 'small order' and increasing the average purchased amount and thus lowering the cost per order. The average order in grocery retail includes many low-margin products such as milk, bread, and frozen pizza. For a traditional store, this does not matter as much because they do not have any additional transaction costs for small baskets, compared to Oda, which has picking and delivery costs on every order. In the online segment, volume is key for each 'basket' to be profitable. Thus, Oda has added some features, or "nudges," to make customers order more. One of them was introducing an incentive to purchase larger orders by having a surcharge for smaller orders that will get waivered as the order gets bigger. There is a fee for small orders under 600 NOK (99 NOK), under 800 NOK (59 NOK), and free for orders above 1000 NOK (Oda, 2023d). This makes it attractive for customers to pursue large orders, so they do not have to pay the fee. This strategy allows Oda to charge for the extra costs per order without averaging the cost on

each product and still compete in the discount segment. At the same time, this can limit the frequency that customers shop at Oda. On average, Oda's customers have orders for 1200 NOK (Brunborg, 2021) and *"on average 2,4 times a month"* (Interview 4).

Typically, prices for online groceries are higher than in offline stores. In many countries, they can be "10-20%" higher online than in-store, and becoming a discount competitor is "necessary for mass penetration" (Interview 2). Prior to the price reduction in 2021, Oda had also expanded their selection to be more than just a 'corner store' or discount store. On their website, Oda is now describing itself as "an online grocery store with better quality and selection than a supermarket, and with prices as low as a discount store" (Oda, 2023b). Oda is trying to attract a larger audience by being both a fancy supermarket with a great selection and special products and at the same time, democratizing the 'premium service' that is now available to everyone. All these strategies help Oda attract new customers and increase user retention.

## **Changing User Habits**

Norway has the same number of stores as Sweden and the Netherlands, but a much smaller population size, which results in a much higher density of stores and the number of stores per capita (Alfnes et al., 2019). The distance to stores is short, and Norwegians shop more frequently than in other countries. Norwegians tend to stop by the same corner store every day and use a grocery store as *"an extended pantry"* (Interview 6). In contrast to the UK, where 43% of the population grocery shop weekly, only 17% of Norwegians do the same (Statista, 2022a). When the average Oda customer shops at Oda 2,4 times a month, they shop at traditional grocery stores in addition to online purchasing.

The way Oda is addressing the problem of shopping in traditional stores is by simplifying the planning aspect through the app. In 2016, a few years after the takeoff, Oda invested substantial efforts into launching the mobile app, which allowed customers to order 'on the go'. Oda invested "*a lot of UX development and customer insights*" (Interview 4)

to build an app with categories, search functions, and pictures of all products. The app contains features of recipes for inspiration, allowing customers to place all ingredients right in the basket. The app also makes the shopping experience highly customized, offering features that cannot be available in a physical store, for instance, suggestions based on previous transactions or the ability to make personalized pre-made shopping baskets for all needs, for instance, a *"taco basket"* or *"breakfast"* based on your frequent purchases. This makes it easy for customers to automize their shopping process (Interview 2).

The goal is to make grocery shopping convenient and fast, with a focus on the complete customer journey that is continuously communicated to the users in a good way. Since 2018, the majority of Oda's orders have been placed through the mobile app (Sundve, 2018). The app is user-friendly and valued by the customers as the main point of Oda's interaction. Oda as a company was voted by the customers in 'Kundebarometeret', a cross-sectorial national survey regarding customer satisfaction, the best overall by all grocery retailers in both 2021 and 2022. Oda also has a high rating overall in the survey and landed 14th place in 2022, where the next grocery retailer on the list was Kiwi in 39th place (Norsk kundebarometer, 2022).

## **Expanding the Product Line and Partnerships with Local Stores**

Oda has been expanding to a broader selection of complementary goods, from local food like meat and flour to light bulbs and coat hangers – products that it makes sense to get delivered with groceries in order to create a *"more coherent customer journey"* (Interview 1). Providing more goods in one place than you would at the physical store has been a strategic move of Oda to attract more customers, in addition to the core business of groceries (Interview 2). Oda gets the basic assortment of groceries through a purchasing

agreement with Rema 1000<sup>5</sup> and has gradually expanded to include more Norwegian and organic food from farmers and niche players (Interview 4), in addition to retail products. Today, around a third of the orders at Oda contain retail products, where the collaboration with Clas Ohlson, the popular home utilities store, has been the most popular among customers (Clas Ohlson, 2019). Oda also has partnerships with the bookstore Ark, kids' store Sprell and other smaller retailers (Oda, 2023d). The products that are available on Oda, are selected after long shelf life and are bought with high frequency, where Oda stores approximately the 100 most popular items at their fulfillment center (Interview 2).

Local and niche foods attract customers who might go to a specialty store to buy certain products, particularly Oslo customers who are used to accessing such a selection (Interview 1). In 2015, Oda expanded their website to include 'Kjøttdisken' 'The Meat deli', through a partnership with Strøm-Larsen, which offers a range of local high-quality meat. Strøm-Larsen is considered 'the local butcher in Torshov', a suburb in Oslo, even though they have grown to become a significant producer (Interview 1). This has been important to bring in new customers. A lot of customers are drawn to Oda by particular local goods and might *start* shopping at Oda because they started shelving their preferred local products, which might be difficult to get elsewhere (Interview 3). For example, many people in Oslo have a tradition of getting their pork belly ('juleribbe') from Strøm-Larsen every Christmas, and "having this in Oda has been really good for us" (Interview 1). Another example of delicacy food is when Oda introduced 'Mathallen', the 'Food Court' in 2020. This is a broader variety of local, organic, niche food, and started as a partnership with Dyrket, an online farmers market that connects local farmers and producers (Oda, 2021b), and has later expanded. The launch of Mathallen was very early in the COVID pandemic, when restaurants shut down, which increased sales for Oda drastically because people wanted to spend the money they could not spend at restaurants on the delicacy food at home (Interview

<sup>&</sup>lt;sup>5</sup> This agreement will be covered in section 4.4.

3). Additionally, goods in Mathallen give a cost advantage for Oda. These goods are not available in other grocery chains, which means they are not visible on industry pricing tests. This allows Oda to add higher margins on these products, which contributes to making 'each basket profitable' for Oda. *"We have seen that a lot of these products have increased a lot to the customer"* (Interview 3).

This trend of increased sales from niche vendors during the pandemic has, however, dropped substantially in the past year, which could be explained by several reasons. Increased inflation and general price increase make people buy less expensive goods. At the same time, after Oda became a 'discount' store, they have been marketing primarily on price, which might not attract customers that are looking for local and more expensive foods (Interview 3).

Partner agreements vary, on retail it is primarily that Oda acts as a distributor, shelving the goods, and agrees on product margins and sales price. On food, agreements are made both directly with a producer or through third-party providers. When Oda is not a distributor, they purchase a guaranteed volume and add a margin on top (Interview 2). Here Oda can decide the price to the customers, but the risk of sales lies entirely on Oda. As a distributor, on the other hand, the retailer still owns the products, and Oda can push back products if they are not selling as expected, which is sharing the risk (Interview 2). However, the majority of retail products do not have an expiration date, reducing the risk substantially (Interview 2). Retail products generally have a higher margin than basic groceries (Interview 2), which contributes to Oda getting profitable baskets.

Bread is one of the things Norwegians buy most frequently, and is important to have a good selection of (Interview 2). Typically this is a product that has high margins in a bakery (Interview 2), where it is expensive to buy from suppliers. To increase their own margins, Oda has therefore made a bakery in-house, where they can bake to order. This reduces costs for Oda, by only baking breads that are ordered, reducing food waste close to zero, and giving customers better products. It is also making bread a high-margin product by eliminating the producer, which is more profitable for Oda, in particular on highfrequency products (Interview 2).

### **Joint Last-mile Delivery**

As highly frequent goods are stocked at Oda's warehouse and fully integrated into their value chain, Oda has a separate solution for including low frequent goods, which is done through 'joint delivery', where Oda offers free delivery for additional products from external e-commerce partner sites (Oda, 2023e). For this, Oda has a partnership with Elkjøp (electronics giant) Lyko (beauty brand), Sprell (kids' store), and Clas Ohlson (home utilities). The customers can get goods from the partnership companies delivered for free with their next Oda delivery. It is a way to get new customers in, triggered by an external online shop when they see the delivery option of Oda for buying another product (Interview 4).

Some of these already have the most frequent goods stored at Oda, but joint delivery is a B2B on logistics and is competing with traditional third parties on last-mile delivery. Since the customers already pay for the transport, it allows Oda to be competitive in their pricing compared to other logistics companies. The retailers "get a very low price for that service because the customer has to buy groceries, so that pays for the parcel delivery. They save money on this" (Interview 4). This allows Oda to reduce their costs even more and have an extra revenue source. The service of joint delivery also works to increase user retention and get customers to shop more frequently at Oda. Being exposed to the option at an external site's checkout can trigger the placement of a new order at Oda, to get free shipping on the other order (Interview 4).

The partnership with Helthjem also includes parcels getting a ride with Oda's orders, but since they are a third-party logistics competitor, this is a little different. Oda highlights the strengths of both Helthjem and Oda that contribute to areas they are strong. Helthjem has a few hundred retailers as customers and a great system for collecting packages from them, and their delivery service is a doormat or in-store pickup. While Oda has built strong logistics around precise and personal home delivery (Interview 4). The partnership is practically divided, where Helthjem collects the parcels from retailers and gets some cost recovery for this from Oda (interview 4). All parcels for Oda are sorted by Helthjem and delivered in one car to Oda's central warehouse, where Oda adds it to their delivery route. This partnership benefits both Oda and Helthjem. It is an advantage for Helthjem to have a complete product range and offer when competing against retailers, including personal home delivery to their existing doormat or in-store delivery (Interview 4). Oda avoids the sales process towards the retailers and is a part of Helhjem's portfolio. Oda gets more customers and does not have to build an infrastructure collecting from retailers (Interview 4).

What helps Oda to run the network effects, is that having both a physical and digital infrastructure to facilitate transactions, they can expand both vertically and horizontally. The first horizontal expansion was to introduce relevant retail products both on the platform, but also as a last-mile delivery. This connects a new side on the platform, third-party retailers, which is leveraging cross-feeding data and indirect network effects to attract more users. It is also creating direct network effects to attract more third-party retailers if they are seeing successful partnerships. At the same time, Oda is cutting costs by taking core products, like bread, with high margins and frequency, into their value chain, to control profitable aspects of the product range. This contributes to a profitable shopping basket. Oda's competitive advantage is that its core product can be supported both by physical last-mile delivery or expanded product selection, which will increase sales to the same transaction.

## The Effect of the COVID Pandemic

Oda became a national success story in Norway, especially during the COVID pandemic in 2020. It gave Oda early user adaption and high growth, even though the company has been around since 2013. When the pandemic hit Norway in March 2020, with lockdowns and restrictions, Norwegians could not use the grocery store at the convenience and frequency they had been used to. Necessary social distancing and restrictions from restaurants led to a lot of the costs transferred from the service industry to groceries, and consumers spend more on everyday shopping (Virke, 2023). The pandemic gave many customers the incentive to try online grocery shopping for the first time. The revenue of the entire Norwegian grocery retail increased in 2020. The total market revenue grew by 18% from 2019 to 2020, and online grocery retail more than doubled in revenue with a 112% increase (Nielsen IQ, 2023), which matches the global trends (Verdon, 2022). The user growth during the pandemic has played a big role for Oda, as it led to the first year of marginal profitability in 2021. Oda also reached profitability briefly in 2021, but that did not last as after they reduced the price level to compete in the discount segment (Jordheim & Hjardar, 2022).

After the initial hit of the pandemic in 2021, Kolonial.no announced a global expansion plan to Germany and Finland, and at the same time, changed their name to Oda (Hopland, 2021). As Oda's CEO Munthe-Kaas commented in an interview, everything about the business was ready for a global expansion, "except the name". This implied negative connotations of colonial times, and Oda's CEO was "tired of starting international presentations emphasizing they are not colonists" (Hopland, 2021). Also, he admitted that Oda had outgrown the name locally, as the brand has gone beyond a 'corner shop' into a supermarket, broader partner collaborations, and needed a universal name (Hopland, 2021).

Shortly after the expansion announcement, in 2022 and 2023, Oda, similarly to other companies, had trouble getting capital from investors. This resulted in a quick break on the announced expansion and an increased focus on profitability. This included reducing the global team by 20% of the staff and postponing the planned launch in Berlin till early 2023

(Jordheim, 2022). Despite a setback in growth plans and a tough financial market, Oda has not only been able to retain the post-pandemic user base in Norway, but also got an 8% increase in revenue and volume in 2022 from 2021. The second largest online grocery store, Meny, had growth during the pandemic too, but in 2022, had a reduction of 22,5% from 2021 revenue (Jordheim, 2023a). This made the gap between the competitors even bigger.

## 4.3. Oda's Infrastructure: Warehouses, Logistics, and Delivery

Material infrastructure is an important part of an e-commerce business. This is why Oda invested in building two large automated warehouses and a truck fleet for delivery. In the following paragraphs, I explain Oda's physical infrastructure and why this has been important for them.

Oda started in 2013 with a website where customers selected groceries and picked them up in central locations for free, or home delivered for an extra fee either the same day or scheduled for later (Valvik, 2013b). To attract customers, Oda focused the first 1,5 years of its operation on establishing the physical infrastructure for pick-up points in Oslo, to make it convenient enough for a broad audience. Oda made agreements with Shell, Statoil, and 7-Eleven, to have self-serviced pickup points outside gas stations in addition to their own sites (Flæten, 2014). They also experimented with new ways to make pickup points even more available. An autonomous car, drone delivery, an indoor playground, and a coffee bar "shop" were all various pickup points that were tested, but discontinued (NTB, 2022). Home delivery with their own trucks quickly became popular, and at the end of 2019, "only 10% of the customers used pick-up points" (Interview 4). All pickup points were closed down at the beginning of the COVID pandemic. However, Oda planned to close them even earlier because it was a completely different value chain, which was complicated to do this process in parallel with home delivery. The Oda management decided to put its efforts into home delivery (Interview 4). Another reason the pickup points were not a

success, was that Oda could not control the customer experience to the full extent. Now Oda delivery lives by the mantra *"flexible, punctual and pleasant"* (Interview 4).

## **Fulfillment Centers and Oda's Technology**

Last-mile delivery is notoriously expensive and often solved in the industry by bringing the fulfillment centers closer to the customer. Formats like 'dark stores' are emerging, which are smaller distribution centers or dark supermarkets that either work as fulfillment centers or click and collect, that are close to the customer (Pearson, 2022). This last-mile delivery supply chain normally consists of four sections, where the goods travel; From the supplier to the distribution center, then onwards to the store (or dark store) before being delivered to the customers. Oda, instead of moving the goods closer to the customer, is reducing the last-mile cost by decreasing the supply chain by one component. Oda's supply chain is from supplier to fulfillment center, and directly delivered to the customer (Sentance, 2022). Today, Oda has two fulfillment centers, both located outside Oslo, that home delivers orders to selected geographies, to cut down the link of physical grocery stores in the value chain. The business case is simple, with few central warehouses that cover large geographies, the fixed operating costs are spread across all orders. With high enough volumes, Oda believes this is more profitable than the existing model with physical grocery stores (Interview 4).

Since 2015, Oda has spent a lot of time and effort building large and effective warehouses (Interview 2). The newest fulfillment center at Lier was finished in 2022 and can handle annual revenue of 3,5 billion NOK, which corresponds to 70 grocery stores (Oda, 2022b). "It is our efficiency that has allowed us to compete with the grocery giants for the lowest price. With all the improvements we have made in our proprietary system at Lier, we will break all our records when it comes to efficiency going forward", Kristin Thornes Woldsdal, Managing director in Oda Norway states in a press release (Oda, 2022b). The

new fulfillment center will handle all production in the coming year, to upgrade the former fulfillment center to the same standard (Oda, 2022b).

Oda has built a technological platform for internal logistic systems, that includes receiving goods, picking goods, and warehouse control (Sundve, 2018). When Oda started, "there was no off-the-shelf product for picking groceries" (Interview 4). Grocery retail differentiates from traditional retail e-commerce, where few items are picked one by one. "We are picking 30-50 products with very small margins, and need a completely different picking and fulfillment system that does this in a much more efficient way than these existing one and one product systems" (Interview 4).

In parallel with Oda's development of fulfillment centers, the competition in the grocery logistics segment has also developed. Online grocery giant Ocado in the UK built a warehouse for online groceries that is also sold to grocery retailers worldwide (B2B), in addition to their own grocery operations in the UK. According to Occado's website, 12 global retail chains use their system today (Ocado Group, 2023). Another system is developed by the Norwegian unicorn logistics company Autostore, which is a pure logistics company, selling automated warehouse solutions to businesses (B2B), which is built on a grid system, stacked boxes, and robots. Autostore has two case studies of grocery customers on its website (Autostore, 2023). Ocado and Autostore's systems are built on similar concepts, which is a court case on patent infringements in several countries (Nilsen, 2022). Oda is only using their logistics for its own operations and has kept details of the efficiency from the public.

Building the system from scratch has its advantages: "This means that we are extremely quick to adjust it" (Interview 4). "A core discipline for us is that data and insights are embedded in all teams, and AI, machine learning, and customer insights are constantly being worked on" (Interview 4). According to Oda, this is very successful: "We save so much upstream and in the warehouse operation itself, that it is enough to cover the cost of delivery. That is why we are past the point where online had a higher cost than retail" says Karl Munthe-Kaas (Brunborg, 2021). Efficiency was also the reason for the global expansion, in 2020 Oda reached 200 units per hour<sup>6</sup> (UPH), whereas Ocado reached the same milestone at the beginning of 2022, Munthe-Kaas says in an interview with e-commerce magazine Econcultancy in 2022 (Sentance, 2022).

Oda's logistics model also enables collaboration with suppliers with lower volumes than traditional stores can offer. A local product can be stocked in a few fulfillment centers, compared to having high enough volumes to fill 400 local stores, which is a problem in the industry for smaller brands (Interview 3). It is, however, important that local producers can offer goods throughout the entire year, that are not seasonal. It takes a long time to build loyalty to products, in particular niche products, which makes it important that they are in stock (Interview 3). Oda also has a very high turnover, which is around 5 days from all the goods being switched out. Compared to Rema 1000, which maybe has a turnover of 20 days (Interview 2), *"It gives fresher goods, especially in fruit and vegetables, which is an advantage with our model"* (Interview 2).

## Delivery

Over the last decade, there has been much improvement in home delivery logistics, and Oda was one of the first players to introduce a better user experience in home delivery in Norway. When Oda was launched in 2013, customers in Norway were not unaccustomed to an estimated delivery time of several days ("delivery between Wednesday and Friday"), or at best long windows in a day ("ETA between 08-21"). Oda began with an estimated delivery time with longer windows, but with that was communicated to the customer. The delivery options have gradually been replaced by more precise windows of delivery. The

<sup>&</sup>lt;sup>6</sup> Units per hour measure efficiency and productivity of warehouses

popularity of Oda's home delivery grew as they were able to deliver to a larger geographic area and the options between *"more days and narrower time slots"* (Interview 4).

Today, Oda's customers can choose between 21 delivery windows per day, ranging from two-hour to six-hour windows. Delivery fees are a variating cost for Oda, ranging from free and up to 69 NOK, depending on the slot you pick (Oda, 2023d). The larger delivery windows are most often cheaper, or free, and shorter or popular ones are more expensive. This model attracts different customers, where price-sensitive customers can get free or cheap bigger slots, while a payment option for quicker or more precise deliveries. Compared to competitor Meny which has a fixed cost of 59 NOK regardless for home delivery (Meny, 2023), Oda's model is more dynamic, and often cheaper for the customer. Oda has its own trucks and a baseload of drivers hired internally and uses external drivers to control the demand peaks, where half drivers are employed at Oda, and half are gig-workers (Interview 2).

This development was possible due to the use of data that was not available before, and that needs to be utilized in a new way. For Oda to reduce costs on delivery, they want as short a time between each stop as possible (Interview 2). They are using artificial intelligence (AI) to plan delivery routes, which optimizes deliveries, but also use this data to improve the delivery as a service and communicate to the customer that is waiting for the order. This gives a better user experience for the customer.

To grow the user base, Oda has been expanding the geography of its delivery locally in Norway. In 2013, Oda was only available in parts of Oslo. The geographical availability has slowly expanded, and as the business grew, the operations have been scaling. In the middle of 2022, Oda expanded to Kristiansand, a city located approximately four hours' drive south of Oslo. In total, Oda now covers large parts of eastern and southern Norway, up to Lillehammer, two hours north of Oslo, from the two warehouses outside Oslo.

Oda's geographical growth depends on a high density of central fulfillment centers. "The fulfillment center in Lier can cover about 2,5 million people. Of these, about 90 000 people shop at Oda, on various frequencies" (Interview 2). Oda employees add that there are still great opportunities to penetrate a bigger share of Oslo and that expanding geographically is a great way to attract early adopters (Interview 2).

To build all this infrastructure that Oda has, in addition to being ten years on the market without profitability, Oda has needed money to build this. Similar to other e-commerce and online delivery companies, Oda has made significant investments in material infrastructure and employed over 1000 people by the end of 2021 (Oda, 2022a). This requires a lot of capital, and over the years, Oda received investments of over 7,3 billion NOK (approx. 690 million USD) (Crunchbase, 2023). At first, Oda received funding from local Norwegian investors and smaller funds, in addition to the Norwegian traditional grocery retailer Rema 1000. As the company matured and became attractive to investors, Oda received funding from various tech investors, including Swedish investor Kinnevik, which is the owner of the e-commerce platform Zalando and is now the biggest Oda shareholder. The other investors are Softbank Vision Fund, the biggest technology fund in the world, and Prosus, the biggest owner of platform company Tencent and a lot of other e-commerce companies (Jordheim, 2022).

Year	Money raised	Investors	Type of funding
2014		Skyfall Ventures	Seed round
2015	11.5 M NOK	Alliance Ventures	Seed round
2015		Verdane	Venture round
2016		Rema 1000	
2016	150 M NOK	Rasmussen Gruppen, Stenshangen Invest, Varner family, Astrups Pactum	Venture round
2017	150 M NOK	Rasmussen Gruppen	Venture round
2018	300 M NOK	Kinnevik	Venture round
2019	300 M NOK	Kinnevik	Convertible note
2021	2.23 BN NOK	Softbank Vision Fund, Prosus Ventures, Rema 1000, Kinnevik	Venture round
2022	600 M NOK	Kinnesvik, Rasmussen Group	Convertible note
2022	1.5 BN NOK	Kinnesvik, Verdane, Summa Equity	Venture round

## Table 2. Investments in Oda from 2014-2022<sup>7</sup>

Source: Crunchbase (2023), available news articles from e24, Shifter, and DN.

<sup>&</sup>lt;sup>7</sup> Table 2 is based on available public information and is meant for illustrative purposes. Oda is a privately held company and there can be inaccuracies in this table, as all information is not public.

## **Utilizing Extra Capacity**

As Oda's logistics infrastructure evolved, they started looking at how it could be used for something more, as Oda has *"a lot of extra capacity on the vehicles"* (Interview 1). They started with a return service for plastic bottles, 'pant', that in Norway is brought back to the supermarket for cash back. Oda has also introduced a last-mile 'joint' delivery for products ordered at e-commerce partners' websites. Joint delivery is done first and foremost as retail partner delivery for products that are stored at the partner's warehouses and not Oda's. The value proposition to the customers is that an external parcel gets a free "hitchhike with Oda" on the next grocery delivery. When a customer shops at an Oda retail partner site, they will get an option at checkout to have Joint home delivery with Oda (Oda, 2023e).

Oda has also done a similar partnership with Helthjem. The collaboration is a little different from the retail partners because Helthjem is a package delivery service and is a portfolio company of the media house Shibsted. Helthjem is built on the newspaper distribution network and delivers parcels on the doormat or in a mailbox before 06.00 in the morning (Helthjem, 2021). Oda and Helthjem have been collaborating since 2021 where Oda is a part of Helthjem's portfolio and delivers packages the same way as retail partners (Oda, 2021a).

There are some logistical challenges when all products are not dispatched from the same warehouse. "If you have independent players and independent merchants, you need to collect goods from all of them to deliver them in one place and then dispatch it simultaneously" (Interview 8). In the past, technology has been setting limitations for this type of collaboration, not just on the delivery side, but also from the merchants. The logistical sites have not been able to handle the logistics, and the merchant was not ready to pack goods and dispatch them as quickly. With more mature technology, it is much easier to integrate new merchants (Interview 8).

Oda's competitive advantage is that its core product, the transaction of purchasing groceries online, can be supported both by physical last-mile delivery or expanded product selection, which will increase sales to the same transaction. This is due to Oda primarily offering support services as a joint delivery on groceries, and not as a separate third-party logistics. This is contributing to Oda reducing the overall operational cost per order, by getting multiple sides to pay for the same transaction. This is done on top of nudges that Oda does to incentivize customers to purchase larger baskets. These support activities are enabled by technological advancement and ubiquity, where Oda connects sides on their platform, which was not possible earlier.

## 4.4. Oda Navigating Competitive Market

## High Entry Barriers and Goods Pricing in a Market

Attracting users and creating a well-developed national delivery infrastructure and logistics are important factors for Oda. For the core transaction to happen, it is important to have access to groceries from suppliers, at a competitive price range.

The grocery market in Norway is close to a duopoly, where the three biggest firms, NorgesGruppen, Coop, and Rema 1000, hold 95% of the market share. At the beginning of Oda's operations as a new market entrant, they struggled with the poor pricing conditions in their purchasing agreements with traditional suppliers. Oda claimed to get "20% higher prices than NorgesGruppen" from suppliers (Halvorsen, 2021). This is a known entry barrier in the industry, where chains that purchase large volumes from suppliers, pay lower average unit prices compared to chains that purchase smaller volumes. A report ordered by the Norwegian Ministry of Trade, Industry, and Fisheries claims that there are relative differences in purchasing terms and categorize this as the most significant entry barrier for

new entrants. Highlighting economies of scale in purchasing as the major driver for this (Oslo Economics, 2017).

The Norwegian grocery market has a slim selection of goods (Konkurransetilsynet, 2022). Most grocery stores, regardless of retailer, hold pretty much the same product brands. In a survey done by the Norwegian Competition Authority, it was stated that 16 selected suppliers, which all hold strong brands, represent an extensive and important part of the grocery chains' purchases, and are estimated at 30% of the chains' total purchases in 2021 (Konkurransetilsynet, 2022). Norwegians like known brands, and want to do dishes with Zalo soap, eat meat from Gilde and drink milk from Tine (Interview 1; Interview 5). Parallels can be drawn back to when Lidl, the German discount grocery retailer, both entered and exited Norway in the 2000s. Norway was the first market Lidl pulled fully out of after less than four years, in 2008 (Hagen, 2008). Experts highlighted the fact that Lidl almost exclusively had private brands, as a contribution to which contributed to their failure in Norway (Hagen, 2008) Another factor of wholesalers, that mainly supply fruit and vegetables, is that "the established chains in Norway are vertically integrated, i.e., there are no independent wholesalers" (Oslo Economics, 2017). This means that the grocery retailers control large parts of the supply chain. This is seen as a less important barrier to entry, but it does give increased power and advantages to existing players in the Norwegian market.

## **Purchasing Agreement with Rema 1000**

Within the first year, in 2014, Oda made a cooperation agreement with Rema 1000 on the supply of goods with lower prices (Rema 1000, 2014). For Rema 1000, this was a way to take part in the transition towards online grocery shopping and start a collaboration with a digital entrant. For Oda, a collaboration with Rema 1000 was the quickest, and perhaps the only way to have competitive prices at this time. Alternatively, Oda could have gotten a similar agreement with NorgesGruppen or Coop, which are the only two other grocery retailers with high enough volumes to get good prices from suppliers.

At the end of 2016, Oda extended the collaboration further, where Rema 1000 purchased 10% of Oda's stock, at a discounted price, in return for a more long-term agreement in regard to purchasing (Mikalsen, 2016). According to Oda, this agreement was *"absolutely critical"* (Interview 2) at the beginning of Oda's operations in the Norwegian market. Rema 1000 investing in Oda early, can be seen as an alternative strategy to launching a competitive online segment, which Oda thinks was a mutually beneficial deal (Interview 2).

However, in the past few years, Oda has scaled a lot and has larger volumes on their own, which makes this agreement less important for today's operations because they are able to purchase a large enough stock of goods from suppliers. Any new retailer can make agreements with suppliers in the Norwegian grocery market, but the entry barrier is high prices if you do not purchase quantities, which new entrants most often cannot. Oda has now reached that level, after 10 years: "*Now we can get many of the same conditions without Rema 1000*" (Interview 2). Rema 1000 also invested later in 2021 fundraising round and owned approximately 4% of Oda after the round (Proff, 2023), which indicates this collaboration is beneficial also for Rema, beyond a purchasing agreement.

## **Support of the National Regulators**

In parallel to doing partnerships to work around the existing structures and dynamics in the Norwegian market, Oda's CEO, Munthe-Kaas, has taken up the public debate about "unjustified price discrimination" in the Norwegian grocery market and asked for regulatory support, first in 2017 in an opinion piece in Aftenposten (Munthe-Kaas, 2017). In particular, the CEO of Oda has been verbal in media about how the largest retailer, NorgesGruppen, gets better purchasing agreements than its competitors, and he thinks this is the main reason why there are monopoly tendencies in the Norwegian grocery market (Jordheim, 2023b). NorgesGruppen has not made a public comment on these statements. In 2019, the Norwegian Competition Authority got additional funding to examine the national grocery market. 'Project Grocery Retail' (Prosjekt Dagligvare) was established to gain further insights into how the competition in the market works and to have a better basis for decision-making (Konkurransetilsynet, 2022).

The Competition Authority has further ordered several reports to understand the competitive situation of the Norwegian grocery market. The findings identified high entry barriers for new market entrants and highlighted that differences in purchasing prices were the most significant. They also found that access to desirable physical stores for new retail entrants is a problem (Konkurransetilsynet, 2022).

On the basis of the results of the investigation, the parliament, led by Jan Christian Vestre, the Minister of Trade and Industry, has taken action to "protect consumers' interest in a broader selection and lower prices, and increase competition in the Norwegian grocery sector" (Nærings og fiskeri departementet, 2023). The Ministry of Trade, Industry, and Fisheries has, as a part of this, developed a 10-point plan, where "prohibit illegal price discrimination", is one of the points. The parliament is expected to have concluded the case on illegal price discrimination before the summer of 2023.

However, the Oda founder is not pleased with what the Norwegian Competitive Authority sees as 'illegal price discrimination'. The problem, Munthe-Kaas expresses, is that NorgesGruppen has the possibility to offer compensation ('motytelse'), which a retailer can give the supplier in return for lower prices, like the placement of the products or campaigns. This is not something all other retailers have the possibility to offer (Jordheim, 2023b).

This case is ongoing, making it unknown how this will affect the dynamics between competitors in the market. Legislation against illegal price discrimination is not necessarily a benefit for Oda. The Norwegian Competitive Authority disagrees with Oda, on the purchasing conditions Oda thinks should be illegal, where NorgesGruppen gets better conditions. This is something the Competitive Authority thinks is within the law.

62

## **Competitive Landscape**

Following Oda, several digital marketplaces entered the Norwegian market with home delivery of online groceries. Most of the actors did not succeed, but Marked.no, created in 2016, became the second-largest or most popular online grocery store after Oda (Hopland, 2018). Marked was founded by Stein Erik Hagen, a Norwegian entrepreneur who created Rimi, a successful discount chain of supermarkets and a competitor to Rema 1000 in particular, in the 1980s. Rimi held about 20% of the market share in grocery retail in the 1990s, but Hagen eventually sold the chain to Ica Gruppen. Hagen continued his involvement in the Norwegian grocery market after his Rimi-exit, by becoming an investor and the majority shareholder in Orkla, the biggest branded consumer goods supplier in Norway (Midtsjø, 2015). Marked no had a similar value proposition and business strategy as Oda but only made fractions of the volumes that Oda did, which in 2017 was 114 million, compared to Oda's 800 million in revenue (Hopland, 2018). In 2018, after 1,5 years, Marked.no closed down after losing 200 million NOK. The chairman of Marked.no, Ole Vinje, states: "The grocery market in Norway is one of the toughest markets to start up in as a new and small player – it is particularly difficult to get competitive purchase payments" (Høgseth, 2018).

In addition to the traditional grocery retailers, there are emerging new platform companies that are not necessarily in the grocery segment, but bordering segments, both from traditional companies and new digital entrants. Foodora Markets launched in Oslo in 2023 and is challenging Oda on grocery delivery but as an instant delivery service (Alsberg, 2023). Instant delivery is a global concept, with express delivery of groceries, with premium prices – similar to food delivery. The market is emerging, but only expected to take a minor market share in the online grocery segment (Delberghe et al., 2022). It is also emerging indirect competitors, that do not deliver groceries, but on many of the same products Oda has expanded their store with. To illustrate a few examples: Morgenlevering delivers breakfast goods and is a part of Schibsted (Morgenlevering, 2023), Amoi does home delivery of specialized food and fresh baked goods, which is a part of Posten (Amoi, 2023),

and Slowly, which is a subscription on basic grocery goods, delivered monthly (Slowly, 2023), and is a new digital entrant and similar to Amazons "subscribe and save" model, where customers "subscribe" to a service of essential goods that gets frequently delivered.

# Response of Traditional Retailers to Oda's Operations: Competitors Going Online

The three major grocery retailers in Norway had different reactions to the establishment and development of Oda and has been more reluctant to expand into the online segment. Rema 1000 was very early on a collaboration strategy with Oda, as described previously. NorgesGruppen went into direct competition in 2017, launching online service for three of their chains, Spar, Joker, and Meny as the first traditional retailer, four years after Oda (Meny, 2023). Coop did launch a competitive strategy in April 2020, as a temporary "contribution to the COVID pandemic", to allow customers to get food when they should not be in stores (Hopland, 2020). Coop's online store was quietly discontinued in January 2023 (Coop, 2023), after only two years, and Coop is now focusing on their existing markets. Coop, however, has an e-commerce solution for retail products from their 'wide assortment' store Coop Obs.

The online grocery segment in Norway in 2023 primarily consists of two players, Oda and Meny, which operates today as the second largest online grocery retailer (Jordheim, 2023a). NorgesGruppen has store concepts in all three categories, discount, local and wide assortment. The biggest online investment has been in their concept Meny, which is a premium supermarket in the 'wide assortment' category, where the target audience is *"quality conscious 50+"*. However, families with kids are the ones shopping online at Meny (Interview 7), which is the primary target audience for their discount store Kiwi.

Both NorgesGruppen and Coop incorporated the online segment into their existing value chain (Interview 7). This gives the major grocery retailers the ability to launch quickly and test without much change in existing infrastructure. NorgesGruppen's online service is

built from the infrastructure of the 185 Meny-stores they already have nationally, and the goods are manually picked from selected local stores (Meny, 2023). Meny started first as a 'click and collect' where customers could order online and collect in different Meny-stores. Based on tests done by the retailer, the major grocery retailers expected that customers wanted to collect in-store (Interview 7). It seems logical to have items picked in-store if expectations are that customers will pick them up there, as this connects it to the existing value chain. However, adding a delivery in addition to the already existing value chain, only makes it more expensive than selling it in-store.

Similar to Oda's findings, both Coop and NorgesGruppen noticed that the most popular service was home delivery. The major grocery retailers have large trucks in their value chain, that usually deliver goods from warehouses to stores, but these trucks are not suitable for home delivery (Interview 7). To solve this, both Coop and NorgesGruppen had a third-party distribution partner for the home delivery of groceries. Meny partnered with Schibsted (Risnes, 2021) and Coop had a collaboration with Posten before they discontinued their online store (Engebretsen, 2023). One of the major grocery retailers believes that the future of last-mile delivery in Norway will change and is expecting regulations in the future. *"It will force us to collaborate more on joint delivery home to customers"* (Interview 7).

To compete with Oda, traditional retailers, including the largest ones, are investing in warehouse infrastructure. This will allow them to automate the process of handling goods, get away from manual picking in the stores and increase capacity. Until the warehouses are ready, the traditional retailers are still relying on manual picking of goods in store, which is currently at maximum capacity, even though orders are being picked day and night. This makes it hard to keep up with Oda's data-driven and automated fulfillment center and delivery service. The competitors are looking at Oda as *"a challenger"* (Interview 7), and *"not as strong a competitor as the other major grocery retailers"* (Interview 9).

## **Competitive Advantage of Grocery Retailers**

In the industry of grocery retail, the business model is based on many low-margin products that users purchase on a high frequency. The selection of goods is a combination of low-margin goods and high-margin goods to make profitability, and prices may vary locally, to compete with local competitors. The retailers also have personal brands in stores, where retailers are creating their own brands, either premium or discount products, for example, Jacobs (NorgesGruppen), First Price (NorgesGruppen), Kolonihagen (Rema 1000) or Änglamark (Coop). These brands have a higher margin for the retailer and in 2021, this consisted of 18% of the total revenue (Nielsen IQ, 2023). There is also an increased convergence of retail products from grocery stores to emerging stores called 'value stores', which are specialized in certain retail products, such as soaps, cleaning products, or other products (for example, 'Normal' is an emerging store chain in this market). These products usually have high margins, which is profit *"lost"* for the retailers (Interview 7).

The value chain is the strength of major grocery retailers, where they control their operations, from products and suppliers to their own stores. A report ordered by the Norwegian Competition Authority finds that "the established chains in Norway are vertically integrated, i.e., there are no independent wholesalers" (Oslo Economics, 2017). Each retail chain (ie. NorgesGruppen, Coop, and Rema 1000) has its own wholesaler, controlling most of its supply chain either directly or through purchasing agreements with independent suppliers. The rest of the products are from other large suppliers that serve the entire market. Like previously mentioned, the Norwegian grocery market has a slim selection of goods with strong product brands. The major grocery retailers have the best prices with the main suppliers because they can offer counter offers.

The major grocery retailers are organized differently. Some own separate entities that do their technical development, while others have technical development in the main organization (Interview 7; Interview 9). Regardless of organizational structure, there has been a focus on digitalizing systems to prepare for future innovations. "*Our core systems are relatively old, and we need a technical upgrade*" (Interview 9). The physical

infrastructure has been through an upgrade in the last decade, both in the automation of warehouses and digitalizing of stores (Interview 9). The goal is to "have a seamless solution across all channels, both physical and digital" (Interview 7).

The competitive segments in the grocery market in Norway between the three largest retailers have traditionally been focused on price, marketing campaigns, and establishing new stores (Interview 5; Interview 7; Interview 9). New establishments are still considered to be the most important area for capturing new market share. *"The main competition in recent years has not necessarily been digitalization and technology, but an extremely large number of establishments that are taking a lot of market share"* (Interview 9). This is how traditional grocery retailers create lock-in. Customers are 'stuck' with the grocery store on the corner, which defines where local customers decide to shop. From 2019 to 2022, the amount of physical 'discount' stores has increased, with almost 150 physical stores across all competitors (Nielsen IQ, 2023). Many of these are rebranding of stores from 'local stores' to 'discount stores'. 'Local stores' has had a reduction in the number of stores in the market, showing the shift towards more price-cautious consumers. This shows how traditional grocery retailers' focus is still obtained in the same way, more physical grocery stores, in the competition to gain further market share in Norway.

Other than the physical attributes of grocery stores, the way that traditional retailers enroll and retain users is through loyalty programs. This is how the offline retailers get data on their customers, so they can know what they are purchasing and offer personalized offers, by registering at check-out. *"The development of loyalty programs has been in focus in the past years"* (Interview 9). This is true for all three major grocery retailers, which all have apps. NorgesGruppen has an overall loyalty program, Trumf, that goes across all their grocery stores, and external partners like for example petrol stations, a pharmacy chain, and a flower retailer. In Trumf, customers get a bonus on purchases into their accounts and special members offer. Trumf is also developing a digital wallet, 'TrumfPay' which will be launched later this year (Interview 7). Coop is a cooperative, which means all members are shareholders in the company. This is beneficial because the users get dividens on their

purchases, in addition to discounts. Coop's loyalty program is also partnered with external partners, like petrol stations and hotels. In 2019, Coop launched their digital wallet, Coopay, which allows you to pay in the app at checkout. Rema 1000 was the last one to introduce its loyalty program in 2017, launching the 'E'-app, giving a cash discount at checkout. All the different apps have increased personalization, offering customers personal discounts based on previous purchases. Customers are also having a more natural expectation of personalization. By 'giving away' personal data through loyalty programs, where the retailer knows "who they are and what they buy", customers have an increased expectation to get a more personalized shopping experience in return (Interview 7).

In the big picture, Oda is a very small fish in the sea against monopolists, with 43% and 29% market share (NorgesGruppen and Coop). Oda is not a national competitor, only locally, and the online segment in Norway is still only 2% of the revenue of the total market.

### **Summary Empirical Results**

Oda has entered the grocery retail market with a digital solution that is increasing the convenience for customers and was the first digital company that was able to solve the chicken or egg problem when attracting customers. Oda managed to build infrastructure at the same time they enrolled customers. 95% of the traditional grocery market is controlled by the three main retailers: NorgesGruppen, Coop, and Rema 1000. There is also a high density of physical stores and Norwegian customers shop very frequently at the store, making it hard to change the habits to start shopping online.

Oda is attracting customers by adapting grocery prices, having a convenient app to simplify purchases and have been expanding the product line to attract customers into a 'one-stop shop'. At the same time, Oda is cutting costs by taking core products, like bread, with high margins and frequency, into their value chain, to control profitable aspects of the product range. This contributes to a profitable shopping basket.

Oda has overall invested in optimizing physical infrastructure. Oda has altered the 'middle mile', which is the fulfillment centers where sorting, picking, and packing happens, and the 'last mile' – delivery. Oda's competitive advantage is that its core product can be supported both by physical last-mile delivery or expanded product selection, which will increase sales to the same transaction. This is also the infrastructure of the supply chain the traditional retailers lack.

The traditional retailers had different responses to the online grocery market emerging. NorgesGruppen's Meny is currently the only big competitor on the market, but after the pandemic, Oda has taken an even bigger market share, around 70%. Coop has discontinued the online grocery offer. Rema 1000's partnership with Oda, got Oda access to competitive purchasing prices at the same time Rema got a foot in the door on the online market they did not make it in the 1990s themselves.

# 5. Discussion

How is it possible that a national digital company is emerging in a near-duopoly environment? What is the competitive advantage of a new digital entrant? In the following section, I argue that the main advantage of Oda is the early market entrance, use of data, optimization operations, and scalability. I will further discuss these points in the section, before addressing the barriers of digital transformation, and discuss how Oda has transformed the industry.

## 5.1. Competitive Advantage of a Digital Platform Business

As a digital platform, Oda has several capabilities compared to traditional businesses. These capabilities gave Oda a competitive advantage in the new emerging online market.

## **Digital Abilities and Early Mover Advantage**

One of the key advantages of Oda as a digital business is that it was an early digital business that entered grocery delivery and evolved together with the national market in 2013. Oda's platform was a more convenient service than the others at that time. Oda was the first mover to figure out the chicken or egg problem, by being able to attract customers. In 2013, users already knew how to use the internet and were accustomed to ordering retail products online. Oda benefited from gaining an early user base and quickly became the biggest online grocery retailer and the dominant platform in a market that has been growing slowly.

Oda did several strategic moves to attract users through low customer fees, expanding its product line, improved delivery options, and last-mile delivery. Oda as a

digital business scaled better than competitors, which enabled Oda to retain the massive growth of customers gained during the COVID pandemic.

The more users Oda acquires, the more beneficial it is for the existing users, creating indirect network effects. The value proposition of online versus offline grocery shopping is for Oda to simplify the core transaction, the action of getting groceries to the customer. Increased data on user behaviors are creating indirect positive network effects for other users, as the personalization and automation of the shopping experience get better for each transaction. More users also lead to increased order volume, which often leads to better delivery service, which again brings indirect network effects to attract more customers. Once Oda attracted a sufficiently large user base on one side, they could better negotiate to attract third-party retailers in the food, retail, and logistics segment, gaining partnerships with the biggest retailers in the market.

All operations that Oda is establishing in Norway, are locally bound. As a local market leader, Oda has gathered valuable partnerships that bring network effects together with the inceasing number of users. Because of the nature of Oda's operation as a physical service, these are all local network effects that are not scalable for cross-country network effects. However, Oda's business model can be set up in other locations, without leveraging existing user base or partnerships.

#### Use of data

The second advantage of Oda, a digital business in a traditional market, is the use of data. E-commerce, in general, is benefiting from increased data, software, and AI in every step of the value chain of logistics, giving it enormous insights into the physical and digital aspects of the logistics chain. Oda now holds more data in all parts of inventory, warehousing, delivery, and the customer's patterns when shopping online, compared to traditional retailers.

Oda has redefined the supply chain by digitalizing different "packets" in inventory, logistics, delivery, and picking of a high volume of goods, which has contributed to small operational efficiencies over the entire value chain. Without ubiquity and the emergence of IoT, Oda would not have been able to optimize the supply chain enough for this business model to work.

#### **Efficient Operations**

Third, Oda was more efficient in optimizing its operations for online grocery delivery than traditional businesses. Unlike Amazon, for example, which started as an early business partnering with external distributors, Oda built its own distribution system with fulfillment centers and delivery from the very start. Oda's increased control over its operations and processes gives Oda the ability to optimize a larger part of its logistic chain and is making the business model a success in reducing operational costs. As an online grocery retailer, the physical infrastructure consisting of warehouses, the system to process and handle orders, harvest data on inventory, and delivery are key elements to reducing operational costs. Oda's strategic decision regarding the placement of fulfillment centers, their alteration of the 'middle mile' (fulfillment centers), and the in-house handling of the 'last mile' (delivery) give Oda a strong competitive advantage over the major grocery retailers, as traditional retailers lack this "part" of the value chain in their portfolio. Oda recently claimed they got profitability per order, making the business sustainable, which would allow them to survive without investor funding.

As a result of Oda's efficient operations, they are increasing the competition in home delivery by making it cheaper and more precise, which is attracting customers. Oda has created network effects that make it hard for direct competitors to generate a market share. Compared with Oda, a traditional grocery retailer in the Norwegian market is better positioned to enter the online market because they already have an established value chain with suppliers, brand recognition among customers, and financial resources to extend its operations. These traditional businesses can easily be connected to a digital marketplace and digitize this value chain and use a third-party provider to get the goods delivered. This is the model both Coop and NorgesGruppen utilized when launching online grocery shopping. However, it is not equally easy for utilization of the existing infrastructure without change, to be a profitable operation. Similar to how Amazon outcompeted Walmart in e-commerce, the infrastructure of traditional grocery retailers in Norway is built around nationwide physical stores, and not optimized home deliveries.

Traditional retailers have not succeeded in the online grocery market yet, because they focus on the existing market in which they operate. Digital business is not the traditional retailers primary interest. Between the major grocery retailers, there is still a strong focus on establishing new physical stores and gaining a bigger market share in the Norwegian grocery market.

Oda was able to get a foothold in the market by running without a profit for over a decade while optimizing the supply chain and the purchasing agreements. The business model of Oda is based on high volumes, meaning it is only profitable when there are enough orders, and then gets marginally better for each order. The strategy is highly efficient, because it gives Oda control over operational costs. However, it is giving Oda control over operational costs, it is, however, an investment-heavy strategy. Oda has relied heavily on investors and still does.

## 5.2. Barriers for Digital Transformations

The empirical data in this case study also shows that there are barriers that may slow down the digital transformation of traditional markets.

Compared with a new digital entrant, traditional grocery retailers have a competitive advantage of a very optimized 'first mile' in getting goods into their warehouses, through suppliers or their own vertical operations. Attracting suppliers is not a problem in the grocery industry in Norway, but pricing agreements are strongly volume-driven, creating large barriers for new entrants, including Oda. To pay 20% more than traditional retailers for the same goods, which Oda claims to have paid in the beginning, makes it hard to compete on price. This makes local purchasing agreements crucial and can explain why all the digital competitors that launched around the same time as Oda, failed.

Oda solved this barrier of entry by making collaborations with the major grocery retailer, Rema 1000, to attain both sides of the market on their platform, at a sustainable pricing level. Forming a partnership was a way to get around the existing market practice and it was a prerequisite for Oda to survive. The partnership also entailed Oda selling discounted equity to Rema 1000, which is not an uncommon platform strategy for new entrants. This partnership is a way for Oda to gain the benefits of an incumbent, without being one.

National regulators are responding to these market practices that are creating barriers, as the market has gotten more and more monopolized. The Competition Authority and Parliament in Norway are now more interested in this case after barriers to entry have been highlighted, where Oda has played a noticeable role. It is interesting to note that the Competition Authority previously declined a similar purchasing agreement that Ica, the Swedish retailer, wanted to have with NorgesGruppen, where Ica would get access to NorgesGruppens purchasing agreements, because it would hinder the competitive landscape in Norwegian grocery. This shows that the current dynamics are favoring large grocery retailers, allowing small entrants by approving partnerships but declining medium-sized entrants, due to the combined market size through partnerships being too substantial in collaboration with the major grocery retailers. This could create further barriers for a small entrant to scale, before the volumes hit the critical level.

Another hinder for digital transformation in the Norwegian grocery industry is perhaps the established infrastructure and habits of Norwegian customers. The high density of Norwegian grocery stores is creating a lock-in for customers, which is strong. Norwegian customers are still accustomed to shopping offline in physical stores. This makes it hard for Oda to attract customers because the habits of Norwegian customers are formed around this. This creates barriers for Oda and other online businesses.

## 6. Conclusion

Digitalization is an ongoing process that affects society and the economy. As more and more industries embrace digital technology, it becomes increasingly important to understand how it affects and develops the industry. This makes studies of the digitalization of traditional industries an important topic.

This thesis sets to expand on the literature gap of how digital platform entrants emerge in traditional industries. The case of Oda has illustrated that digitalization implies smaller innovations and does not happen as one movement but by utilizing technological advancements in society overall. Combining technological advancement in new ways can make strategic improvements in an emerging market that is occupied by traditional industry companies. Oda has established a large user base, a physical infrastructure, and a digital platform that can scale and give Norwegian consumers a digitalized way to purchase groceries. Oda benefits from early mover advantage and demonstrates how a platform business is in fact more efficient than existing businesses. By leveraging new partnerships, combining technology and business model, Oda is slowly digitizing the old industry.

For some industries, digitalization is inevitable. Digital companies from the US and China are expanding globally and taking over local markets, by utilizing the scalability of digital business models and network effects. The case of Oda demonstrates that a local platform company can emerge and transform existing domestic industry.

In Oda's case, emerging in a smaller economy, Norway, suggests some barriers to digital transition, as local market dynamics hinder new entrants. Traditional businesses rely upon existing resources like a strong physical infrastructure and supplier purchasing agreements. This is also the case for the new entrant, as they only transform a part of the value chain and need existing industrial settings. Further research is needed to understand the scope of digital transformation in industries, the limits of digital transformations, and the possibilities that arise at the intersection of physical infrastructure and digital innovations.

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