TRANSITION CHALLENGES FOR THE DUTCH RETAIL SECTOR

EXPLORATION OF INVESTMENT NEEDS IN THE RETAIL SECTOR IN 2024

FACTSHEET

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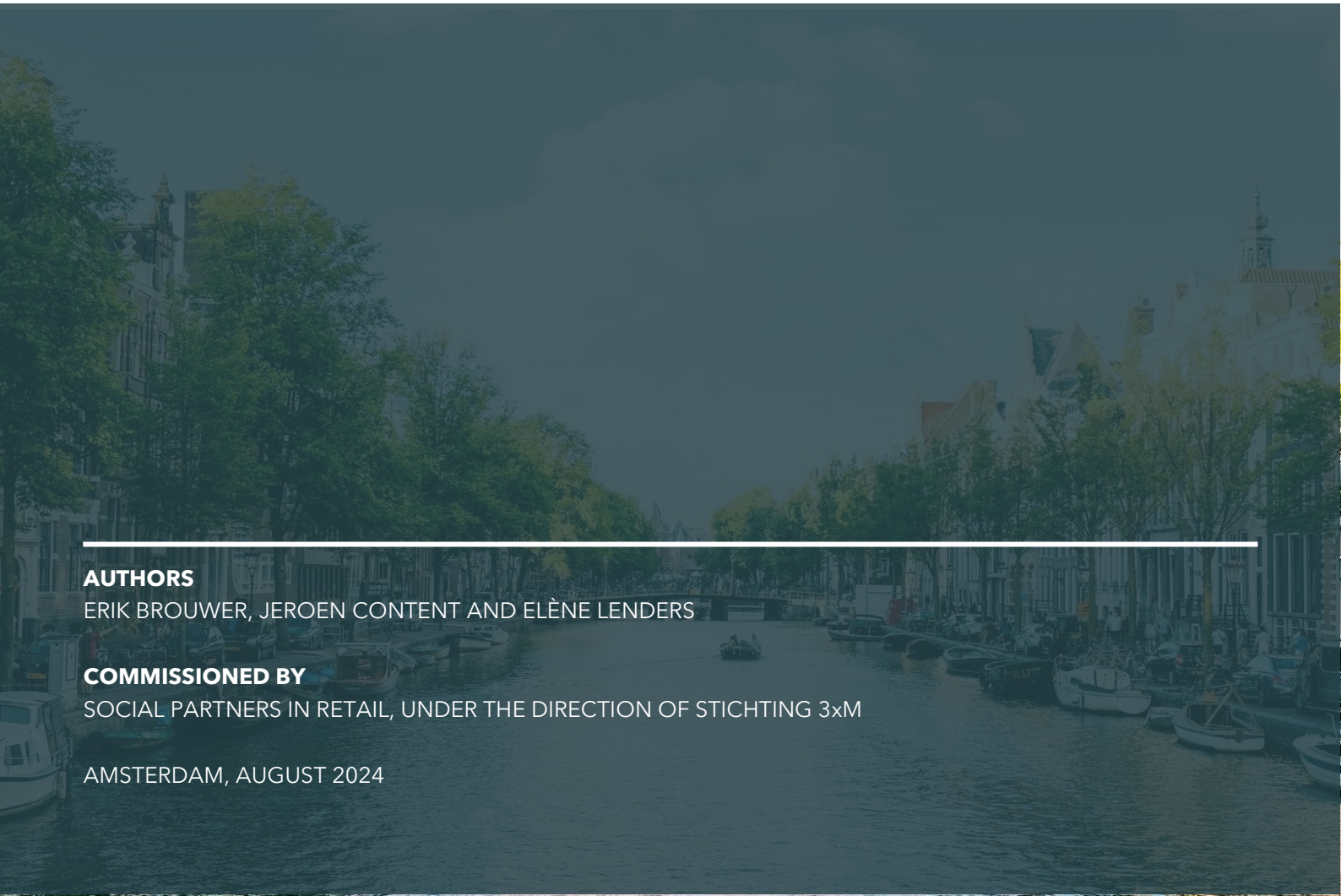

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Summary

The retail sector is the final link in the chain from raw materials to consumers, serving as a crucial connection between producing and trading businesses and the end consumer.

The retail sector is the largest private employer in the Netherlands, with more than 800,000 employees, and serves as a significant driver of economic growth. The need for a more sustainable economy and shifting consumer behaviour will challenge existing business models in the retail sector in the coming years. Research (e.g. McKinsey, 2022; EC, 2024b; EuroCommerce, 2024) shows that significant additional investments are needed as a result, raising the question[1] of whether the retail sector will be able to realise these investments on its own.

Investment need Triple Transformation

The retail sector's turnover was 144 billion euros in 2021 and 159 billion euros in 2022. While the sector has grown over the past two decades, the rest of the Dutch economy has expanded at a faster rate, reducing the retail sector's share of the national economy. Assuming an additional investment requirement of 1.2 percent of turnover for the Triple Transformation (sustainability, digitalisation, and talent development), the retail sector will need to invest approximately 1.9 billion euros extra per year until 2030. Looking at the period 2025-2030, this results in an additional investment of more than 11 billion euros on top of the 3.6 percent already invested annually by the sector (McKinsey, 2022).

Scenarios and challenges

In a scenario in which the retail sector is unable to realise these additional investments, smaller businesses in particular experience pressure from a strongly internationally oriented market in which economies of scale are the norm. By neglecting sustainability or digitalisation, retailers miss the opportunity to improve efficiency and reduce necessary costs in the long term. In this scenario, retail entrepreneurs are therefore unable to contribute to promoting sustainability higher up the value chain. In addition, there is a threat of an uneven playing field due to unfair competition from the United States and Asia.

In a scenario where investments are made in the transformations, whether with or without support, this will also require an adjustment of existing (linear) business models. In the short term, this could lead to frictional unemployment and downsizing. In the long term, however, this can result in the preservation of jobs and economic growth. Despite existing SME measures, retailers will not be able to realise these investments without more accessible financing, an internationally level playing field, and centralised, harmonised regulations within the Netherlands and across Europe. The additional investment of 1.2 percent is divided over the three transformations of sustainability, digitalisation and skills and talent development; Triple Transformation.

Sustainability

Making the retail sector more sustainable is crucial to comply with international climate agreements and consumer expectations. However, there is a significant need for investment to enable the transition to more sustainable practices. To make the retail sector more sustainable, an additional 0.6 percent of turnover (with a range of 0.3 to 0.9 percent) must be invested annually to help the sector move towards net-zero emissions. This amounts to

[1] To answer this question, five sub-questions have been drawn up, which can be found in Appendix A.

approximately 950 million euros extra per year. Most emissions (90 to 95 percent) arise from the production and supply chains (scope 3). By working together and entering into partnerships with chain partners, significant progress can be made in the reduction of scope 3 emissions. The sector could also introduce more circular business models to reduce waste and costs, generate new revenue streams or attract additional visitors, provided revenue models are feasible.

Digitalisation

Digitalisation in the retail sector has increased significantly, partly due to the COVID-19 pandemic. To remain competitive in an internationally oriented market, it is essential that this development continues. To this end, the retail sector will need to invest in advanced technologies such as AI and omnichannel sales channels to increase efficiency and improve the consumer experience. While digitalisation will replace some traditional functions, staff can add value by providing personalised and interactive shopping experiences. For the digitalisation of the retail sector, an additional 0.5 percent of turnover (with a range of 0.4 to 0.6 percent) must be invested annually, which amounts to approximately 792 million euros extra per year.

Skills and talent development

For skills and talent development of the retail sector, an additional 0.1 percent of turnover must be invested annually, which amounts to approximately 158 million euros extra per year. Despite a tight labour market, the sector must offer more attractive career opportunities and invest in training and development to retain and attract skilled staff. Retail entrepreneurs could seek greater collaboration with the education sector to better highlight career opportunities in retail and attract talent skilled in emerging areas such as data analytics and process automation.

1 The social value of the Dutch retail sector

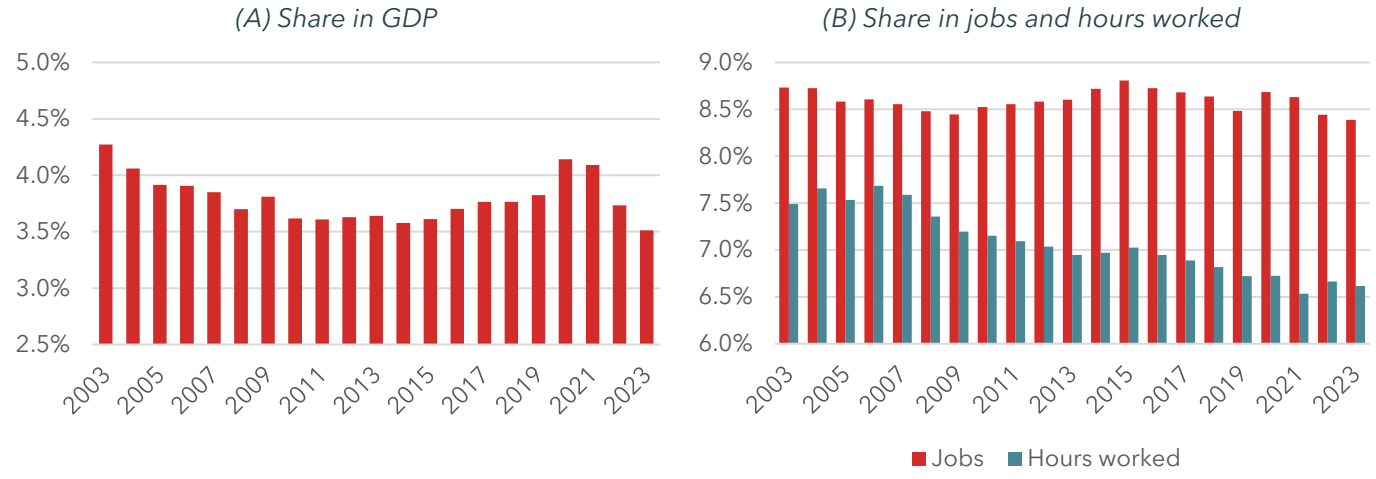
Despite fluctuating turnover and costs, the retail sector makes a significant contribution to the national economy, with profit margins varying across different branches of the sector.

The social value of the retail sector is evident: a good range of shops and services in the neighbourhood strengthens social ties and the cohesion of a community. In other words, the proximity of shops is important for social cohesion in society. Therefore, the sector makes an important contribution to the quality of life (Desjardins et al., 2022; Council of Europe, 2022). In addition, the retail sector also makes an economic contribution to the Dutch economy, which is reflected in Figure 1.1.

The left panel of Figure 1.1 shows the development of the added value of the retail sector as a share in the added value of the entire Dutch economy. This shows that the share of the retail sector in the gross domestic product (GDP) of the Netherlands varies between 4.5 and 3.5 percent. It should be noted that the share decreases slightly over the period from 2002 to 2023. This picture is not fully reflected by the share of the number of jobs in the retail sector (shown in the right panel of Figure 1.1). That share is higher, fluctuating around 8.5 percent of the working population. A relatively high number of people in the retail sector work part-time, resulting in the share of hours worked being lower than the share of total jobs in the sector. Over the period 2007 to 2023, the share of hours worked in the retail sector in the total hours worked in the Netherlands decreases from around 7.5 percent to around 6.5 percent.

The retail sector is the largest private employer in the Netherlands, with more than 800,000 jobs. The sector also offers flexibility by facilitating part-time work, making it possible to combine work with family responsibilities, caregiving responsibilities or training. Which also matches the preferences of employees working in the retail sector (SEO, 2023).

Figure 1.1 Share of the retail sector in the Dutch economy in recent decades

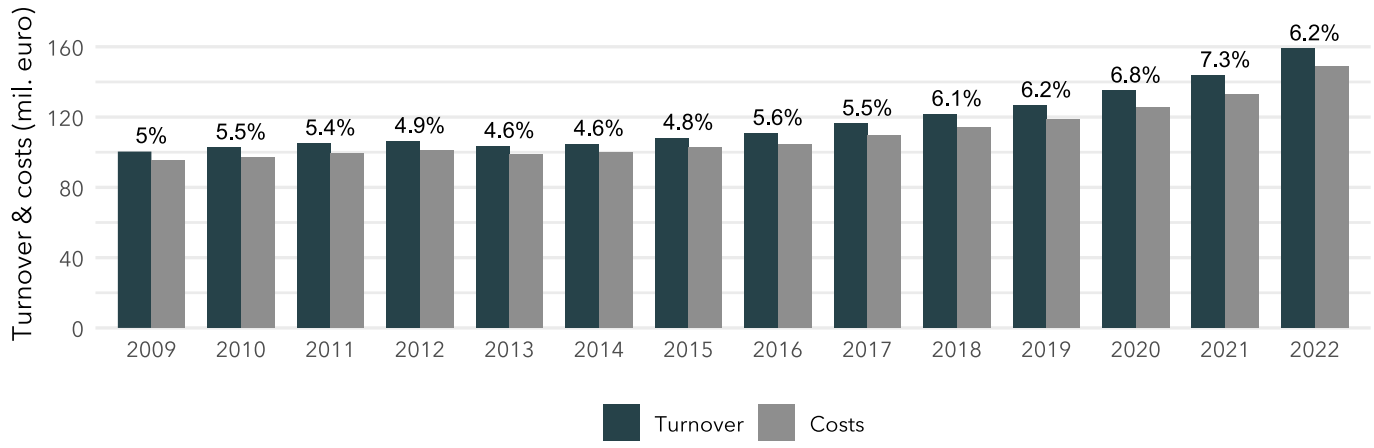


Source: CBS Statline (2024), edited by SEO

Figure 1.2 provides an overview of the development of total turnover and total costs incurred in the entire retail sector over the period 2011 to 2022. The blue bars show the turnover, and the grey bars show the costs. Based on this, the net profit margins over the years can also be determined. It shows that the average profit margin of the retail sector as a whole has increased from 4.6 percent in 2014 to 6.2 percent in 2022. Although the turnover and profit margin of the retail sector as a whole are increasing, this does not translate into an increase in the share of the retail sector in the Dutch economy (Figure 1.1). This indicates that the rest of the Dutch economy grew faster over the period from 2002 to 2022.

The profit margins reported in Figure 1.2 are an average across the sector. It is likely that profit margins will look different for specific groups of entrepreneurs. For example, small compared to large entrepreneurs, entrepreneurs in inner cities compared to entrepreneurs in suburbs, entrepreneurs in large cities compared to entrepreneurs in villages or entrepreneurs in border regions compared to the rest of the Netherlands. In addition, a different picture could emerge if distinctions are made based on the region where entrepreneurs are located, such as by provinces or municipalities. Large cities such as Amsterdam, Rotterdam or The Hague differ in many ways from smaller villages outside the Randstad.

Figure 1.2 Rising turnover, costs and net profit margins in the Dutch retail sector



Source: CBS Statline (2024), edited by SEO

It should also be noted that a large proportion of entrepreneurs in the retail sector operate as natural legal entities, such as partners in a general partnership. At the beginning of 2024, this number was around 85 percent, while across the entire economy it was a lot less, at 75 percent (CBS Statline, 2024). A partner in a general partnership does not receive a normal salary like a major shareholder in a private limited liability company. This means that the total costs that a general partnership incurs do not include the wage costs of the partner(s); the profit that the company makes is also the salary of the entrepreneur(s). The profit margins in Figure 1.2 do not take this into account. Even though the figure suggests that the sector as a whole is profitable (even when we look at the average profit per entrepreneur of around 55 thousand euros in 2021), there is the possibility that individual retailers who do business as a partner in a general partnership may find it difficult to earn a living wage through the company.

When we zoom in further by distinguishing between different branches within the retail sector, a different picture emerges. Figure 1.3 illustrates this by using figures of the turnover development of various branches. Not every branch appears to have grown over the period 2009 to 2021. In particular, shoe stores, toy stores, clothing stores, and to a lesser extent electronics stores and white and brown goods stores, have shrunk in turnover. On the other hand, there has been an increase in turnover from DIY stores, drugstores, supermarkets, department stores and

shops selling leisure goods. Particularly striking is the strong increase in the turnover of online stores, which increased more than fivefold over the period 2011 to 2022. To illustrate: in 2022, the turnover of online stores is more than half of that of supermarkets (the largest branch within the retail sector). The shift to more online purchases by consumers makes small independent retailers vulnerable, as they are not always able to set up an additional online sales channel, often due to a lack of time or capacity.

Figure 1.3 Turnover in various branches of the retail sector

Source: CBS Statline (2024), edited by SEO

When we examine the development of the profit margins of the various branches, as in Figure 1.4, they also appear to vary greatly. Particularly striking are the higher profit margins of craft industries such as bakers, delicatessens[2], jewellers, opticians, butchers and sweet shops[3] that, in addition to 'trading', add value with their labour. The profit margins of these branches vary between 10 and 20 percent. In other branches where the labour factor is more focused on trade, we observe fairly low profit margins, such as at electronics stores and supermarkets, and in some cases even negative profit margins, such as at toy stores and department stores.

It is also notable that the COVID pandemic has a varying effect on the turnover and profit margins of different branches. The turnover of clothing and shoe stores has suffered greatly, but we see the opposite for DIY stores, for example. The COVID pandemic has also had an inconclusive effect on profit margins. Profit margins were relatively low for book stores, fashion stores, shoe stores, and perfumeries. On the other hand, drugstores, supermarkets and electronics stores are showing a small positive in the COVID period. Rising energy prices can also have (had) a varying effect on different branches within the retail sector.

[2] Including cheese shops
[3] Including chocolate shops

In addition to the COVID pandemic, rising inflation in recent years has played a role in the profitability of retail entrepreneurs. Rising costs, including higher expenditure on personnel, energy and raw materials, are putting pressure on profit margins. Due to rising inflation, the central bank has raised interest rates, leading to higher borrowing and credit costs. For retail entrepreneurs, this means higher costs for business loans, which affects their investment options and liquidity position.

Figure 1.4 Profit margin in various branches of the retail sector

Source: Retail Insiders (2024), edited by SEO

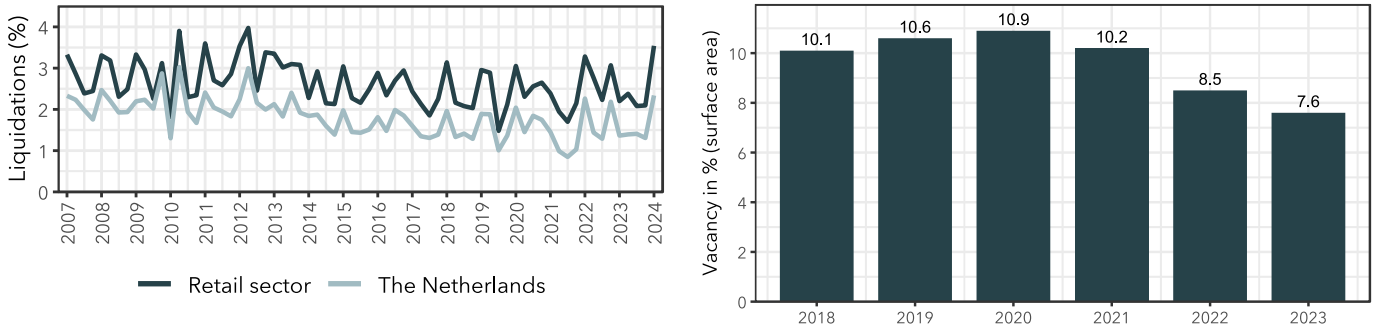
Note: While some branches show relatively high profit margins, the branches can differ greatly in size, as shown in Figure 1.3. Some of the branches with high profit margins in this figure are limited in size.

Figure 1.5 shows the percentage of business liquidations and vacancy rates in the retail sector. Business liquidations often concern bankruptcies, but can also be the result of, for example, a business closure, takeover or merger. The left panel of the figure shows the percentage of business liquidations for the period from the first quarter of 2007 to the first quarter of 2024. That is, the percentage of businesses that cease to exist in that quarter compared to the total population of businesses, in the Netherlands and the retail sector. Over the entire period, the liquidation percentage of the retail sector shows a similar trend to the Netherlands, although the percentage in the retail sector is approximately one percentage point higher. It is also striking that in the last observed quarters the liquidation percentage increased, after a period of several quarters of relatively low liquidation percentages.

The right panel shows the average vacancy rate by store surface area. Here we see a downward trend from 2020 to 2023. It should be noted that this is the average of the entire retail sector in the Netherlands. It is likely that

differences will occur when the figures are broken down into different branches or regions. In addition, the number of physical stores in the Netherlands has decreased; almost 24,000 non-food stores and approximately 1.3 million square meters of store surface area have disappeared since 2010. Many of these former shop buildings have been converted into homes, catering establishments or offices (Rabobank, 2024).

Figure 1.5 Liquidations and vacancy rates in the retail sector over the years



Source: CBS Statline (2024), edited by SEO

2 Transformations in the retail sector

The retail sector is in a period of accelerated transformation. In a business-as-usual scenario, smaller businesses in particular experience pressure from a strongly internationally oriented market and global economies of scale. Additional investment in transformations requires an adjustment of existing business models, which in the short term can lead to the disappearance of existing companies, making room for new companies with different business models. In the long term this can result in the preservation of jobs and economic growth.

In addition to the need to become more resilient in the future (EC, 2024), the retail sector is currently on the eve of three important transformations (McKinsey, 2022). Sustainability, digitalisation and talent development form the pillars of strategic shifts that are necessary to meet the ever-changing demands of both consumers and a competitive market. McKinsey (2022) identifies a significant investment gap within the sector required to keep pace with a dynamic and competitive global market. The additional investment requirement mentioned in this report is 1.2 percent of turnover, with a range of 0.8 to 1.6 percent. This is the investment requirement for the three transformations and is in addition to the existing investments that are being made. Based on the most recent year for which Statistics Netherlands (CBS) has turnover figures for the retail sector, this means an additional investment need of approximately 1.9 billion euros per year, with a range of 1.3 to 2.5 billion euros. Based on the period 2025 to 2030, this means an additional investment of 11.4 billion euros.

Sustainability

CO2 emissions and excessive use of raw materials endanger the ability of future generations to meet their own needs. The Paris Climate Agreement therefore states, among other things, that global warming must be limited to well below 2 degrees Celsius. Specific targets include a 55 percent emissions reduction by 2030 and net zero emissions by 2050. For the retail sector, of the 1.2 percent that needs to be invested extra in the Triple Transformation, 0.6 percent (with a range of 0.3 to 0.9 percent) must be invested in sustainability. This means an additional investment of around 950 million euros per year for sustainability.

The environmental impact of all production steps in previous chains is reflected in the end product sold by the retail sector. For example, 90 to 95 percent of the retail sector's emissions can be attributed to scope 3 emissions (McKinsey, 2022; ING, 2023); emissions resulting from all previous production steps and emissions resulting from use of products by consumers. For example, textile consumption in the EU requires an average of 400m^2 of land area, 9m^3 of water and 391kg of raw materials per person (European Environment Agency, 2023). Only five percent comes from direct emissions from retailers themselves. However, responsibility and transparency towards consumers are placed with the retail sector, the last link of the value chain.

There is a need to simplify permitting procedures for green installations such as solar panels, electric vehicle charging points and wind energy, as well as improvements in waste sorting and recycling infrastructure. Investments in the eco-renovation of stores are also essential, where thermal insulation and sustainable heating systems are important and can be supported by subsidies, for example. In addition, a reduced VAT rate on second-hand products and support for the repair market can promote the development of repair and reuse markets, contributing to making circular business models more profitable.

Digitalisation

Although the integration and applications of digitalisation in the retail sector have increased significantly in recent years, it remains essential for the sector to continue investing in this. To remain competitive in an internationally oriented market and amid changing consumer behaviour, investments in advanced technologies such as AI and omnichannel sales channels will be necessary. Of the 1.2 percent that needs to be invested extra in the Triple Transformation, 0.5 percent (with a range of 0.4 to 0.6 percent) must be invested in digitalisation. This means an additional investment of around 792 million euros per year in digitalisation.

Digitalisation in the retail sector has been accelerating for some time, with internet sales growing by ten percent from 2019 to 2020 (EuroCommerce, 2021) and accelerated investments in online and omnichannel sales channels during this period. In the Netherlands, more than half of retailer entrepreneurs now use an omnichannel strategy (KvK, 2022). The European Commission (EC) has set a target that by 2030, 75 percent of European businesses will use cloud technology, artificial intelligence (AI) and big data. In addition, the EC has set the target that more than 90 percent of SMEs achieve a basic level of digitalisation. The investments required to remain relevant online are large, which often makes economies of scale or collaboration (for example within a franchise partnership) a necessity. This not only concerns investments in webshop technology, algorithms or AI, but also in automation and robotisation of logistics processes.

Skills and talent development

In the fourth quarter of 2023, there were 114 vacancies per 100 unemployed people in the Netherlands (CBS Statline, 2024). The tight labour market also has an impact on the retail sector, where 84 percent of entrepreneurs experience a staff shortage (Fashion United, 2023). Retail sectors with a relatively high number of employed people and few self-employed individuals include supermarkets, department stores, drugstores and shops for household or recreational items. Stores with a relatively large number of self-employed people are mainly in branches such as non-food online stores or street trading (Retail Insiders, 2023). Larger physical stores in particular are affected by the staff shortage, while smaller retailers regularly experience problems with business succession. EuroCommerce and Uni Europa have established a partnership in 2022 to promote further skills development in the retail sector. A characteristic of the retail sector is the large number of people with MBO-1 or MBO-2 education, as well as those without a starting qualification (Retail Insiders, 2023). The sector is therefore an important source of jobs for practically trained (MBO 1, 2) employees and people without a starting qualification. The number of people in the Netherlands with VMBO and potentially subsequent MBO education is not expected to decrease in the coming years (Min. OCW, 2024).

There is a significant need to develop new skills in the workforce, including technical, analytical and sustainability skills. To make the retail sector more attractive as an employer, especially for young people, awareness campaigns and the promotion of various career opportunities within the sector are possible. In addition, facilitating access to tailor-made training programs for SMEs, including mentoring programs and digital entrepreneurship skills, is important for supporting entrepreneurship. Of the 1.2 percent that needs to be invested extra in the Triple Transformation, 0.1 percent must be invested in talent development. This means an additional investment of around 159 million euros per year.

2.1 Scenario 1: Business-as-usual

In the retail sector, an average of 3.6 percent of turnover is currently invested in investments in transformations for sustainability, digitalisation and talent development (McKinsey, 2022). Based on the last year (2022) for which

Statistics Netherlands has turnover statistics for the retail sector, this amounts to approximately 5.7 billion euros per year. The research also estimates that an additional investment of 1.2 percent of turnover is needed to ensure the success of the transformations. In this scenario, the retail sector continues in the same way and no additional investments are made. Trends such as increased globalisation, increasing segmentation of store formats, a decrease in store inventory, fewer independent retailers and lower turnover per square meter continue (Dawson, 2006; Knezevic et al., 2010). International competition and economies of scale increase even further as major manufacturers start supplying directly to consumers. As a result, small companies in particular run the risk of lagging behind competitors, which can lead to a loss of market share compared to foreign competitors, reduced customer satisfaction and bankruptcies in the sector. Possible bankruptcies and business closures within the retail sector, therefore, impact the vibrancy of villages and cities, with consequences for social cohesion.

The first pillar, sustainability, is already partly stimulated by guidelines such as the Ecodesign for Sustainable Products Regulation (ESPR) or the Waste Direction Framework. Under the *Uitgebreide Producentenverant-woordelijkheid (UPV)*, more and more manufacturers, often in collaboration with the retail sector and without government intervention, are taking direct responsibility for the collection and processing of their products when consumers wish to dispose of them, with financing from the (regional) government. This responsibility applies, among other things, to electronic equipment, batteries, textiles, mattresses and packaging (Rijkswaterstaat, 2024). Retailers in the relevant branches can encourage more sustainable production by setting requirements for their purchasing. Failure to take advantage of this opportunity could ultimately lead to a loss of competitive advantage in an increasingly environmentally conscious market (Naido et Gasparatos, 2018). By prioritising investments with a shorter payback period, retailers miss opportunities to make business operations more efficient and save costs in the long term (DesJardins, 2005; Ambec & Lanoie, 2008).

The Netherlands is known as one of the most developed markets in terms of online sales and web stores (McKinsey, 2022). Consumers have adapted to the convenience of 'click-and-collect' (EuroCommerce, 2021) and it is likely that the online sales channel will continue to grow in the business-as-usual scenario. Physical stores can further expand their range and market and become more flexible through hybrid sales channels.

Intensified competition, labour shortages, and increasing pressure to raise salaries make automation more of a necessity than an option (Begley et al. 2019). The biggest challenges in implementing process automation and data analysis lie mainly with retail entrepreneurs themselves, who may not yet fully grasp the potential profits that can be gained from customer analyses. If retailers do not adopt these changes quickly, they risk falling behind in international competition, particularly against Big Tech platforms or manufacturers from the US or China. Alternative distribution systems, such as dropshipping, that allow entry into European and national markets without retailer involvement, also impact competition. International disadvantage can also be caused by a failure to focus on artificial intelligence (AI): The deployment of AI should be seen not just as an individual technology, but as part of a broader transformation (Kaur et al., 2020). If businesses do not further focus on data analysis and automation, they will also lag behind in the latest developments in the field of AI. Making the retail sector more sustainable and driving its digitalisation rely on having the right skills and talent. If efforts are not made to attract and retain workers of diverse education levels in the retail sector, the retail sector may shrink in the long term.

2.2 Scenario 2: Additional investments in transformations

In the second scenario, we explore the consequences of additional investment in the three transformations, which may also involve (significant) changes to current business models. For example, business models that are more

focused on circularity, omnichannel or experiences. Retailers invest in the opportunities, as described in Table B.1 of Appendix B. The preconditions required for this are discussed in Chapter 3.

Sustainability requires a change from linear business models to more circular business models. A linear business model is heavily focused on just producing and selling products, without much attention to what happens to the products afterwards. Such a business model therefore promotes mass production, the risk of depletion of natural resources and discontinuity in the supply of goods. This is in contrast to a more circular business model, where there is more attention to the cycle of raw materials, more customised and smaller quantities and a shorter supply chain, closer to home. Examples of circular business models include stores that specialise in second-hand products, repair and rental, or Product-as-a-Service (PaaS). In the consumer electronics sector, offering a product as a service (rather than selling a product) can save 36 percent of consumer electronics emissions, according to a PwC study (2023). PaaS shifts the focus from owning products to utilising the value they provide, while leaving the responsibility for maintenance, repairs and any upgrades with the supplier.

PaaS is also an example of the shift in the entire economy from the industrial to the service sector. We have seen such a shift taking place since 1970 (CPB, 2023). In the short term, such a shift and change in business models could lead to downsizing and frictional unemployment as workers need time to learn new skills and find new jobs. The process by which old economic structures, such as business models, are replaced by new and innovative concepts is also known as 'creative destruction' (Schumpeter, 1942). Due to the path dependence of innovation, a timely transition to sustainable innovations can lead to higher long-term growth, driven by the knowledge already acquired and the technologies developed (Acemoglu et al., 2012).

Digitalisation can help alleviate staff shortages in industries with a high proportion of salaried employees (McKinsey, 2022; Oosthuizen et al. 2021; Fashion United, 2023). Where digitalisation replaces and automates some traditional functions in the retail sector, there is room for more functions aimed at providing personal advice and customer service (Knezevic et al., 2010). Examples of this are stylists or personal shoppers. Where sales channels move online, Augmented Reality (AR) and Virtual Reality (VR) experiences can provide an interactive and personalised shopping experience. Such applications are already used by large-scale retailers such as Amazon, Walmart or Carrefour (Kaur et al., 2020).

In addition to a change towards more customer-oriented support tasks, the demand for analytical skills and management positions is also growing (McKinsey, 2022). This requires staff that can make data-driven decisions and use advanced analytics, for example for demand forecasting, inventory and flow management, and the transition from offline to omnichannel activities. At the same time, the importance of marketing functions is also growing. For example, marketing personnel can use language, colours or symbols that emphasise the environmentally friendly aspects of products to encourage sales of sustainable products. Structuring the choice architecture so that consumers are more likely to make the choice preferred by the designer is referred to as 'nudging' (Thaler & Sunstein, 2003).

Investing in digitalisation makes it possible to better respond to the interests of (potential) customers, determine optimal price points, conduct more precise inventory management and better manage distribution and logistics processes (Manyika et al., 2011). However, there is still a need for research to identify (i) for which retailers, (ii) in which environment and (iii) for which types of decisions there is demonstrable value in using (big) data (Dekimpe, 2020). Data analysis is especially useful for frequently recurring decisions but may be less appropriate when it comes to strategic decisions or building long-term consumer trust.

On the one hand, digitalisation can contribute to sustainability. On the other hand, digitalisation is not a substitute for physical capital and its related environmental impact (Lange et al., 2020). Digitalisation and the associated economic growth are accompanied by energy consumption. Scarce raw materials in the form of metals and minerals are also of great importance for the development of electric mobility and digital technologies. The imbalance in the supply and demand of these elements creates dependence on certain countries, including those with labour practices considered unethical, such as China (Eerola et al., 2021).

In this scenario, retailers save costs in the long term by installing energy-saving equipment and tracking energy consumption with smart meters or applications. Since January 2023, the Corporate Sustainability Reporting Directive (CSRD) has contributed to this through reporting. According to this guideline, listed companies will be required to report on the impact of their business activities on people and the climate starting from the 2024 financial year. Although SMEs are exempt from this legislation, they are still impacted because listed companies must report on the entire supply chain and therefore request information from SMEs involved in the chain.

3 The preconditions for investments

By collaborating within the supply chain and breaking traditional patterns, retailers can become more sustainable and embrace digitalisation. Important conditions are a level playing field, centralisation and harmonisation of regulations and access to financing at reasonable costs.

3.1 Preconditions and monitoring

In the second scenario, opportunities for sustainability, digitalisation, and talent development will emerge under certain conditions. These conditions also form the counterpart of the potential threats that may hinder additional investments in the transformations. We indicate a unit of measurement for each investment, which makes it possible to measure the progress of these investments. The availability and form of this data are discussed in the fourth column of the table. Three colours are used for the preconditions to indicate how easily investments can be made. The colours also indicate the availability of the data. This colour system is explained in Table 3.1.

Table 3.1 Colour system for preconditions and available data

Colours	Precondition	Data availability
●	Within the capabilities of retailers, no/little external support is required.	Available
●	Partly beyond the capabilities of retailers, may require external support.	
●	Largely beyond the capabilities of retailers, likely requires external support.	Not available

When investments fall within the capabilities of retailers (●), entrepreneurs are largely independent of external factors and/or developments and are able to realise the investments themselves. When investments are partly (●) or largely (●) beyond the capabilities of retailers, entrepreneurs are partly or largely dependent on external factors. This could mean that support and/or intervention by external parties such as the government is possible or probably necessary. For data availability, we only use the colours green and red (available or not available).

Sustainability

Initiatives that retailers can undertake to have a greater impact on sustainability include collaborating within the supply chain and formalising that collaboration in the terms of (purchasing) agreements. This requires suppliers to evaluate their sustainability performance (through monitoring and audits) so that retailers can provide transparency to consumers and society as a whole (Berning et Venter, 2015). It is still unclear to what extent a standardised assessment, ideally based on a life cycle analysis, is applied in practice. The large number of sustainability labels does not currently offer clear transparency to consumers.

Retailers can strengthen collaboration with suppliers by offering education and support to help them better understand and implement sustainable practices, as well as by establishing partnerships and platforms for ongoing collaboration (UN, 2010). An important precondition for these initiatives is **consumer demand**, as consumers may prefer cheaper (and less sustainable) solutions. For this reason, a **level playing field** where the entire environmental impact of a product is internalised (often referred to as *true pricing*) is crucial, at least within the EU. The market for trade goods and the tendency of Dutch consumers to purchase from abroad is too large to manage solely within

the Netherlands. The shift from integral cost price calculation to universal Life Cycle Analysis (LCA) calculations is becoming increasingly important. Through the Carbon Border Adjustment Mechanism (CBAM), the EU aims to price CO2-intensive products imported into the EU to encourage more environmentally friendly production abroad and create a level playing field in the global market. The CBAM is currently still in a transition phase and does not yet cover all product categories.

Table 3.2 Sustainability: Preconditions, unit of measurement and available data

Sustainability			
	Preconditions	**Unit of measurement**	**Data availability**
Renewable energy / energy efficient installations	🟡 A reasonably short payback period 🟡 Sufficient financing 🔴 Level playing field 🔴 Sufficient renewable energy	Renewable in kW/h per year CO2 performance ladder level 3 Share of renewable energy	🔴 EED Energy audits[4] (not publicly available) 🔴 CO2 performance ladder (not publicly available) 🟢 CBS Statline
Switch off advertising lights where possible	🟢 Collaboration with retailers 🟡 Municipality rules	Number of stores with advertising lights / share of energy consumption	🔴 Not available
Save space through multifunctional use of the physical store	🟢 Multifunctional use of space for complementary stores	Square meters of store surface area	🟢 Retail Insiders
Circularity	🟢 Cooperation within the supply chain 🟡 Recycling techniques 🔴 System integration of waste flows 🟡 Staff and skills 🔴 Consumer demand and awareness	Share of second-hand shops in retail Percentage of food wasted in supermarkets Percentage of wasted food by consumers Recycling ratio processors (UPV) Shelf life	🟢 CBS Statline 🟢 WUR 🟢 Milieu Centraal 🟢 Afvalfonds
Responsible purchasing	🟢 Cooperation within the supply chain 🟢 Tariff differentiation 🟡 Consumer demand 🔴 Level playing field	Kg of life cycle emissions Percentage of food wasted in supermarkets	🔴 Through businesses (not publicly available) 🟢 WUR
Transparency and communication about sustainable products to consumers	🟢 Cooperation within the supply chain 🟡 Sustainable labels	Kg of life cycle emissions Share of products with sustainability certificate	🔴 Through businesses (not publicly available) 🔴 Not available

Source: SEO Amsterdam Economics (2024)

A level playing field is largely defined by national and European regulations that retailers face, but also by regulations in other countries. These regulations can be hindering or supportive. One method for comparing countries in terms of how restrictive their regulations are for the retail sector is the Retail Restrictiveness Indicator (RRI). This includes operational restrictions such as taxes, opening hours, sales promotions and sales channels. In 2022, the RRI of the Netherlands was 2.3; that is above the European median of 1.7 (EC, 2022). This highlights the importance of **centralising and harmonising** regulations in the Netherlands and across Europe.

4 For businesses with more than 250 FTEs and an annual turnover of more than 50 million euros.

Digitalisation

Many preconditions for digitalisation are beyond the influence of retailers. For example, **social acceptance** and **digital infrastructure** are factors that develop over time. The data and available technologies for digitalisation already exist: At the macro level, thousands of stores sell specific products, while at the micro level, consumers leave a data trail of their purchases after visiting certain websites or physical stores at specific locations and times (Dekimpe, 2020). At the same time, available technologies for automation, such as self-scanning technology and digital price tags, are already being applied. An example is the robots Pepper and Cruzr, which welcome and assist customers, as seen in VodafoneZiggo stores or the German supermarket EDEKA. Costs are important here. The purchase of such robots can cost between 17,500 and 30,000 euros, with monthly service and software costs of approximately 1,250 euros (Retail Insiders, 2021). However, it is mainly internal challenges, such as the lack of **staff** and/or the lack of **technical and analytical skills** that slow down and limit investments in data analysis and automation. In many cases, **breaking budget cycles** and avoiding repetition of previous capital investments is a major challenge (Begley et al., 2019). Breaking budget cycles refers to the ability of entrepreneurs to move away from traditional annual budgeting and planning and adopting a more flexible and dynamic approach to financial planning and expense management.

Table 3.3 Digitalisation: Preconditions, unit of measurement and available data

Digitalisation			
	Preconditions	**Unit of measurement**	**Data availability**
E-commerce and omnichannel retailing	🟡 Staff and skills 🟢 Consumer demand 🟡 Offer delivery services 🟡 Cybersecurity*	Digital skills Share of businesses with an online sales channel Online spending Number of parcel deliveries	🟢 CBS Statline 🟢 Retail Insiders
Data analysis and personalisation	🟡 Staff and skills 🟢 Breaking budget cycles 🟡 Regulations 🟡 Cybersecurity*	Share of businesses that store and analyse data Restrictions/conditions on use of data	🟢 CBS Statline 🔴 Breaking budget cycles 🟢 AVG, among other things
Automation	🟡 Staff and skills 🟢 Breaking budget cycles 🟡 Costs 🟡 Social acceptance of robots 🟡 Cybersecurity*	Share of businesses that use automatic processes in operations and services Use of cloud services and smart devices	🟢 CBS Statline 🔴 Breaking budget cycles 🔴 Costs of automation by retailers 🔴 Acceptance of robots
Artificial intelligence	🟡 Staff and skills 🟡 Costs 🟡 Social acceptance 🟡 Digital infrastructure 🟡 Cybersecurity*	Share of businesses that use AI[5] Use of cloud services and smart devices	🟢 CBS Statline 🔴 Costs of AI by retailers 🔴 Acceptance of AI

* *Cybersecurity: Data on cybersecurity measures, cybersecurity incidents and cybercrime available via CBS Statline.*

Source: SEO Amsterdam Economics (2024)

[5] AI systems are systems that, by independently analysing their environment, can take actions to achieve specific goals. These systems can be software-based (voice or facial recognition), or integrated into devices (self-driving cars, drones, warehouse systems).

Talent and skills

Recruiting talent is often challenging for retailers due to rising **labour costs** and decreasing **interest from the labour market**. As a result, the retail sector is experiencing an increasing workload (CBS, 2023). Because of factors like low salaries and limited career opportunities, the retail sector is not always viewed as an attractive employer (Broadbridge, 2003). On the other hand, the sector is also known for its flexibility and positive working atmosphere, Moreover, individuals with work experience in the retail sector generally hold a positive view of the sector (QandA, 2022). In collaboration with the public sector, the image could be improved by deploying employees as ambassadors and informing them of career opportunities in education (QandA, 2022). Investing in the skills of employees and retail entrepreneurs through further training can be achieved through collaboration with businesses and educational institutions. This can potentially be done easily through the use of online modules and/or courses. Data about possible training and courses in the retail sector can be found on websites such as 'Werk in de Winkel' and can be linked to the Retail Qualification Framework, which will enable a link with the Skillspaspoort. This makes a person's competencies more visible and objective and makes talent development and following courses more accessible. However, university courses are less prominent in this context, despite their potential connection to the retail sector through economies of scale, digitalisation, and sustainability. It is therefore relevant that entrepreneurs and higher education providers make students aware of the possibilities of a career in the retail sector.

Table 3.4 Skills and talent: Preconditions, unit of measurement and available data

Skills and talent development			
	Preconditions	**Unit of measurement**	**Data availability**
Retraining and further training	🟡 Interest by staff and students 🟢 Available modules and courses 🟢 Collaboration businesses and educational institutions	Number of students who choose a course with a possible career in the retail sector Number of courses specifically aimed at aspects in retail	🟢 Werkindewinkel.nl, Studiekeuze 123, 🟢 CBS Statline 🟢 Retail Insiders
Vocational education and training	🟡 Staff and skills 🟡 Interest by staff and students	Number of students who choose a course with a possible career in the retail sector Number of courses with a focus on retail	🟢 Werkindewinkel.nl, Studiekeuze 123, 🟢 CBS Statline 🟢 Retail Insiders
Employee recruitment and retention	🟡 Staff and skills 🟡 Good working hours 🟢 Career opportunities 🔴 Salary 🔴 Costs	Incoming and outgoing employees Average number of working hours per subsector Average salary per FTE	🟢 CBS Statline 🟢 Retail Insiders
Digitalisation	🟡 Costs 🟡 Social acceptance 🟡 Regulations	Internet access and use Use of IT and cloud solutions.	🟢 CBS Statline

Source: SEO Amsterdam Economics (2024)

3.2 Level playing field

The Retail Restrictiveness Indicator shows that Dutch retailers face a high number of regulatory restrictions. For example, there are strict zoning plans that determine where shops can be located, Dutch labour legislation is relatively strict compared to other countries, as is Dutch consumer protection legislation. In addition, Europe has to

deal with different regulations and cost structures than the United States or China. This applies to various areas, including sustainability, competition law aspects of vertical and horizontal cooperation, and maintaining entrepreneurial independence. To establish a level playing field for the retail sector in the Netherlands, support is needed in areas such as fair taxation, access to financing, and technological innovation. This includes harmonisation of tax rules, subsidies for digitalisation and sustainability, and flexible labour laws. Furthermore, collaboration between the government, educational institutions, and the private sector is essential for promoting fairness and competitiveness. A level playing field takes into account environmental pollution, social impact or other externalities of production. Local and regional authorities have a clear understanding of the impact of lagging investments in the retail sector and their effects on high streets. But the means to promote structural cooperation are limited. Governments must be empowered to support entrepreneurs with the transition, particularly at the local level. For example, by allowing them to make better use of existing incentive schemes.

References

Acemoglu, D., Aghion, P., Bursztyn, L., & Hemous, D. (2012). The environment and directed technical change. American economic review, 102(1), 131-166.

Ambec, S., & Lanoie, P. (2008). Does it pay to be green? A systematic overview. The Academy of Management Perspectives, 45-62.

Begley, S., Hancock, B., Kilroy, T., & Kohli, S. (2019). Automation in retail: McKinsey & Company Retail Insights.

Berning, A., Venter, C. (2015). Sustainable Supply Chain Engagement in a Retail Environment. Sustainability 2015, 7, 6246-6263; doi:10.3390/su7056246

Broadbridge, A. (2003). The appeal of retailing as a career 20 years on. Journal of Retailing and Consumer Services, 10(5), 287-296.

CBS (2023). Drie kwart van de ondernemers ervaart personeelstekort. https://www.cbs.nl/nl-nl/nieuws/2023/34/drie-kwart-van-de-ondernemers-ervaart-personeelstekort

CBS (2023). ICT-gebruik bij bedrijven; bedrijfsgrootte, 2023. https://opendata.cbs.nl/statline/#/CBS/nl/dataset/85734NED/table?ts=1713258938909

CBS (2024). Dashboard arbeidsmarkt. https://www.cbs.nl/nl-nl/visualisaties/dashboard-arbeidsmarkt

Centraal Planbureau. (2023). "De Nederlandse economie in historisch perspectief". https://www.cpb.nl/de-nederlandse-economie-in-historisch-perspectief-eco

Council of Europe (2022). EVERYBODY'S BUSINESS: the role that business can play in supporting cohesive communities. https://rm.coe.int/policy-brief-business-and-diversity-the-role-of-business-in-community-/1680a569cd

Dawson, J. 2006. Retail Trends in Europe, in Kraft, M.; Mantrala, M. K. (Eds.). Retailing in the 21st Century. Springer, Berlin, 41–58. http://dx.doi.org/10.1016/j.ijproman.2006.02.006

Dekimpe, M. G. (2020). Retailing and retailing research in the age of big data analytics. International Journal of Research in Marketing, 37(1), 3-14.

DesJardins, J.R. (2005). Business and environmental sustainability. Bus. Prof. Ethics J., 24 (2005), pp. 35-59

DesJardins, S., Halseth, G., Leblanc, P., & Ryser, L. (2002). Services, social cohesion, and social capital: A literature review. Montreal, QC: Canadian Rural Restructuring Foundation.

Ecodesign Project (2018). Ecodesign in the Textile Sector. http://www.ecosign-project.eu/wp-content/uploads/2018/09/TEXTILE_UNIT09_EN_lecture.pdf

Eerola, T., Eilu, P., Hanski, J., Horn, S., Judl, J., Karhu, M. & Långbacka, B. (2021). Digitalization and natural resources. Geological Survey of Finland. Open File Research Report, 50, 2021.

Eurocommerce (2021). E-commerce still growing: accelerated digitalisation of businesses and consumers. *Position paper – Digital, Technology & Payments*. https://www.eurocommerce.eu/2021/09/e-commerce-still-growing-accelerated-digitalisation-of-businesses-and-consumers/

Eurocommerce (2024) Signs of Hope: The State of Grocery Retail 2024. https://www.eurocommerce.eu/2024/04/signs-of-hope-the-state-of-grocery-retail-2024/

European Commission (2022). Retail Restrictiveness Indicator. https://single-market-economy.ec.europa.eu/single-market/services/retail/retail-restrictiveness-indicator-rri_en

European Commission (2023). Who does what under Ecodesign? https://energy-efficient-products.ec.europa.eu/ecodesign-and-energy-label/legislative-framework/who-does-what-under-ecodesign_en

European Commission (2024a). Europe's Digital Decade: digital targets for 2030. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en

European Commission (2024b). A transition pathway for a more resilient, digital and green retail ecosystem.

Europees Milieuagentschap. (2024). Textile waste management in Europe's circular economy. https://www.eionet.europa.eu/etcs/etc-ce/products/etc-ce-report-2024-5-textile-waste-management-in-europes-circular-economy

Fashion United (2023). Digitalisering als wapen tegen het personeelstekort in de retailsector. https://fashionunited.nl/nieuws/business/digitalisering-als-wapen-tegen-het-personeelstekort-in-de-retailsector/2023100458721

ING (2023). Klimaattransitie loopt nog geen storm in de retail. (7 november, 2023). https://www.ing.nl/zakelijk/sector/trade-retail/klimaattransitie-loopt-nog-geen-storm-in-de-retail
Kamer van Koophandel. (2020). Webshop én fysieke winkel waarom combineren loont. https://www.kvk.nl/marketing/webshop-en-fysieke-winkel-waarom-combineren-loont/
Kaplan, A., & Haenlein, M. (2019). Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. Business horizons, 62(1), 15-25.
Kaur, V., Khullar, V., & Verma, N. (2020). Review of artificial intelligence with retailing sector. Journal of Computer Science Research, 2(1), 1-7.
Knezevic, B., Renko, S., & Knego, N. (2011). Changes in Retail Industry in the EU. Business, Management and Economics Engineering, 9(1), 34-49.
Lange, S., Pohl, J., Santarius, T. (2020). Digitalization and energy consumption. Does ICT reduce energy demand? Ecological Economics, Volume 176, October 2020, 106760. https://doi.org/10.1016/j.ecolecon.2020.
Manyika, J., Chui, M., Brown, B., Bughin, J., Dobbs, R., Roxburgh, C., & Hung Byers, A. (2011). Big data: The next frontier for innovation, competition, and productivity.
McKinsey (2022). Transforming the EU retail sector. https://www.mckinsey.com/industries/retail/our-insights/transforming-the-eu-retail-and-wholesale-sector
Ministerie van Onderwijs, Cultuur en Wetenschap (2024). Referentieraming 2024. https://www.rijksoverheid.nl/documenten/rapporten/2024/04/24/referentieraming-ocw-2024.
Naidoo, M., & Gasparatos, A. (2018). Corporate environmental sustainability in the retail sector: Drivers, strategies and performance measurement. Journal of Cleaner Production, 203, 125-142.
Oosthuizen, K., Botha, E., Robertson, J., & Montecchi, M. (2021). Artificial intelligence in retail: The AI-enabled value chain. Australasian Marketing Journal, 29(3), 264-273.
PwC (2023). Future Proofing the Electronics Industry: The case for circular business models. https://circulareconomy.europa.eu/platform/sites/default/files/2023-11/Circular%20electronics.pdf
QandA (2022). Het Imago Van De Retail De Verwachtingen En Wensen Van Twintigers En Dertigers. https://qanda.nl/downloads/Whitepaper-Het-imago-van-de-retail.pdf
Rabobank (2024). Rabobank Retail Update. https://agfstorage.blob.core.windows.net/misc/W360_nl/2024/04/03/Rabobank_Retail_Update_april_2024.pdf
Retail Insiders (2021). Robots in retail. https://www.retailinsiders.nl/docs/32fe9d75-f103-4d57-8715-7b976cae1a57.pdf
Retail Insiders (2023). Arbeidsmarktrapportage Zelfstandigen & Werknemers Vergelijking tussen detailhandelsbranches.
Rijkswaterstaat (2024). Uitgebreide producentenverantwoordelijkheid. https://www.afvalcirculair.nl/producentenverantwoordelijkheid/
Schumpeter, J. A. (1942). Capitalism, socialism and democracy. Harper & Brothers.
SEO Economisch Onderzoek (2023). Arbeidsmarktbeleid in de detailhandel. https://www.seo.nl/publicaties/arbeidsmarktbeleid-in-de-detailhandel/
United Nations Global Compact. (2010). Supply chain sustainability: A practical guide for continuous improvement. Available online: https://www.unglobalcompact.org/Issues/supply_chain/ guidance_material.html

Appendix A Research questions and definitions

This fact sheet provides insight into the opportunities and threats of possible investments and the preconditions required to realise the investments. To this end, the following research questions are answered:

1. What is the annual turnover of the retail sector in the Netherlands (and therefore the investment requirement of 1.2 percent)?
2. What are the objectives of the investments, and which scenarios (for the future) will unfold if investments prove impossible or lag behind?
3. What options do retailers have to finance the investments themselves, is this the same for all type(s) of retailers (what is known about profit margins?) and under what circumstances (preconditions) will they make these investments?
4. Do retailers have sufficient resources to participate in the triple transformation, or is more support needed?
5. What are the potential data requirements (quality, measurement level, variables, access, etc.) needed to monitor and promote investments in sustainability, digitalisation, and workforce development within and by the retail sector?

Definition of the retail sector

Retail Insiders (2024) defines the retail sector as follows: "Retail includes businesses that sell goods to consumers (excluding cars, motorcycles and caravans). These can be both new and second-hand goods." According to the *Standaard Bedrijfsindeling (SBI)* of Statistics Netherlands, the retail sector falls under SBI code 47. This can be further divided into the following subsectors:

- Supermarkets and department stores
- Specialized stores in food and beverages
- Petrol stations
- Consumer electronics stores
- Stores selling other household items
- Shops selling literature and sports, camping and recreational items
- Shops selling other items (including clothing)
- Market trading and retail trade not via shop or market (internet).

Data was collected for this research from Statistics Netherlands, among others, but also from Retail Insiders. The latter uses a similar division of the retail sector into branches. This is as follows:

- Consumer electronics
- IT
- Household electronics
- Clothing
- Shoes & lifestyle
- Health & beauty
- Home & living
- DIY & garden
- Media & entertainment
- Toys
- Sports & recreation
- Telecom
- Other products

Appendix B Opportunities and threats

Table B.1 Opportunities for the retail sector

Opportunities	Sustainability	Digitalisation	Workforce
	Scope 1 • Renewable energy installations • Better insulation of glass, floors and walls • Heat pumps, heat/cold storage installation, sustainable air conditioning • LED lighting, switch off advertising lighting • Energy monitoring, remote digital management • Circularity, less food waste • Save space Scope 2 • (Possibly) sustainable self-production • Circular packaging • PaaS: rental of products • Switch to green electricity suppliers Scope 3 • Producer responsibility • Responsible purchasing • Transparency and communication about sustainable products to consumers	• Automation of processes and supporting functions • Inventory management • Optimisation of pricing and promotions • Staff planning • Demand forecasting and planning • Supply chain management • Last-mile delivery (in- or outsourced), delivery drones and their technical maintenance • Integration of offline and online channels, data integration and sharing, breaking through data silos • PaaS, IoT	• Using all channels for consumers • More growth in management positions • Marketing functions • HR functions • (Financing of) training programs • Modules • Sector-wide campaigns for recruiting new staff
	Collaboration with external parties		
	Level playing field		
	Monitoring		
	Centralising and harmonising regulations		

Source: SEO Amsterdam Economics (2024)

Table B.2 Threats to the retail sector

Threats	Sustainability	Digitalisation	Labour market
	• Lack of renewable energy • Lack of harmonised standards and labels • Prioritisation of investments with a shorter repayment period • Lack of collaboration with external parties	• Costs, especially for smaller players • Cybersecurity • Lack of privacy • Lack of infrastructure • Wish for a 'shopping' experience • Delivery services	• High turnover rate • Limited readiness for the transition • Little investment in training • Increasing share of employees with higher qualifications • Little interest in retail sector
	High costs		
	Competition		
	High interest rates, liquidity problems of banks		
	Uncertainty		
	Complex regulations (retail restrictiveness)		
	Lack of talent		

Source: SEO Amsterdam Economics (2024)

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