The future of work in retail: Digitalization as an engine for sustainable economic recovery and decent work

Report for discussion at the Technical Meeting on Digitalization in the Retail Sector as an Engine for Economic Recovery and Decent Work
(Geneva, 25–29 September 2023)
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<td>ICT</td>
<td>information and communications technology</td>
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<td>LDCs</td>
<td>least developed countries</td>
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<td>MNEs</td>
<td>multinational enterprises</td>
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<td>MSMEs</td>
<td>micro, small and medium-sized enterprises</td>
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<td>OSH</td>
<td>occupational safety and health</td>
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<td>PPE</td>
<td>personal protective equipment</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>STEM</td>
<td>science, technology, engineering and mathematics</td>
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<tr>
<td>TVET</td>
<td>technical and vocational education and training</td>
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<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
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Background

1. At its 346th Session, in October–November 2022, the Governing Body of the International Labour Office endorsed the convening of a technical meeting on digitalization in the retail sector as an engine for economic recovery and decent work.¹

2. The technical meeting will discuss current and emerging issues in the context of digitalization and the future of work in the retail sector. It will focus on policies, strategies and good practices for ensuring that digitalization contributes to a human-centred sustainable development and a future of work with full and productive employment and decent work for all.

3. This report highlights recent developments in the retail sector in the context of recovery from the coronavirus disease (COVID-19) pandemic, the many other ongoing crises, and the interplay between digitalization and other megatrends and drivers, as they impact on retail enterprises and workers.

Introduction

4. Digitalization is rapidly transforming the landscape of the retail sector and it has the potential, through appropriate policies and measures, to contribute to the post-COVID-19-pandemic recovery in the context of respect for decent work. Although technological advances have driven new business models and changed the nature of retail work and forms of work organization for decades,² this process was accelerated by the onset of the pandemic, which forced the retail sector to rethink the ways in which humans engage and interact with it as a result of the shop closures, confinements and physical distancing that prompted a wave of digitalization in retail.³ Digital applications and e-commerce were significantly upscaled to continue business throughout the pandemic. Meanwhile, digitalization was used, inter alia, to automate sales, limit physical contact and accelerate delivery times in response to increased demand, crisis situations and shifting consumer preferences.

5. The retail sector consists of a very diverse ecosystem of business models, enterprise sizes and specialized segments, with the crisis having considerable and varied implications for enterprises and workers. The demand-side implications during the peak of the crisis varied greatly across the industry, with certain subsectors experiencing major spikes in consumer demand, while other retail operations stopped working for significant periods of time. Online retailers fared better than brick-and-mortar stores, and sellers of goods deemed "essential" performed better than others, because they were typically exempt from requirements to close.⁴ However, forced closures and subsequent declines in demand and sales had severe consequences for many other enterprises, particularly for the micro, small and medium-sized enterprises (MSMEs) in retail subsectors that were deemed non-essential. While government policy measures such as tax reliefs, loans and finance, interest rate cuts and job retention schemes contributed to supporting retailers in many countries, in some cases enterprises and workers that were already prepared to implement and

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³ ILO, COVID-19 and Food Retail, ILO Sectoral Brief, June 2020.
harness the digital transformation emerged best from the crisis. The impacts of the COVID-19 pandemic varied further by country and region, with enterprises in developing countries notably less prepared for digitalization, due to the lack of adequate access to digital technologies and markets, as well as the shortage of skilled workforces, the lack of fiscal space and the ensuing limitations of government support measures, and the lack of labour protection and social security systems, especially in countries in which inadequate legal frameworks or weak labour market governance prevail.

6. Following the COVID-19 pandemic, interlocking geopolitical and economic crises led to low productivity, low economic growth and high inflation. Recoveries in the labour market and incomes in most countries stalled and high food, energy and transportation costs created severe challenges for people and enterprises, taking a particular toll on poorer households and MSMEs. The cost-of-living crisis has been characterized by an increase in the prices of goods and services and stagnating income growth, with many workers worldwide struggling to afford even basic living standards. This has prompted a slowdown in the recovery of sales in the retail sector, with consumers tending to prioritize the purchase of essential goods. Consequently, retail enterprises continue to face economic and financial uncertainties that threaten their businesses, including disruptions in supply chains, high operating costs due to energy prices and a lack of access to finance. In some countries, such as the United Kingdom of Great Britain and Northern Ireland, the recent cost-of-living crisis has resulted in demands for higher wages and a low labour supply, with many workers having left the retail sector.

7. The retail sector is a key contributor to the economy and a major employer of workers in every country. Consequently, retail has a critical role to play in driving a resilient, fair, sustainable recovery from the current geopolitical and economic crises, beyond the COVID-19 pandemic. While women make up a large share of the sector’s workforce in many countries, ILO estimates show that overall, female employment and income opportunities have recovered slower than those of men.

8. The digital transformation of the retail sector may have been accelerated by the COVID-19 pandemic, but it is a longer-term trend and is here to stay. Business operations, distribution and logistics, as well as employment relations and working conditions, are all being shaped by this transformation. This also encompasses informal retail entrepreneurs and enterprises in developing countries, which have started to use social media platforms to reach out to consumers and increase their business opportunities.

9. The recovery provides a timely opportunity to ensure that such changes are informed by policies that promote decent work in order to ensure a just distribution of the benefits of digitalization for all in the retail sector.

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6 Leigh Sparks, “How is the Cost of Living Crisis Affecting Retailers and their Customers?”, *Economics Observatory*, 28 July 2022; and Anne D’Innocenzio, “As Rent and Food Prices Rise, Retail Sales Remained Flat in September”, *PBS News Hour*, 14 October 2022.
8 Sparks.
10. This report will examine how digital transformation in retail is likely to change the dynamics of the world of work, with impacts on employment, including skills development; the quality of jobs and working conditions; and labour rights and social dialogue. It will also examine the implications of these changes for the productivity, sustainability and resilience of enterprises, and will show how digitalization is interacting with other interconnected megatrends and drivers of change in the retail sector, such as demographics, globalization and climate change, with an emphasis on the importance of the retail sector as a driver for decent jobs. The report concludes by exploring opportunities for policy action to ensure a rapid, sustainable and inclusive recovery.

11. For the purposes of this report, the term “retail sector” includes:

- any economic activity that acts as a link between the producers of goods and their consumers (such as warehouses) and as a final step in the distribution of goods; ¹⁰
- any economic activity that can be for the purpose of resale (sale without transformation) of new and used goods to retailers (wholesale) or to the public (retail) for personal or household consumption or utilization, by shops, department stores, stalls, mail-order houses, door-to-door salespersons, hawkers and peddlers, consumer cooperatives, auction houses and online sellers.

12. The scope of the report encompasses workers engaged as retail and wholesale managers; commercial sales representatives; sales workers; stall and market salespersons; shop salespersons; shopkeepers; shop supervisors; cashiers and ticket clerks; street vendors; shelf fillers; and online operators. The report also refers to a number of groups of workers that are particularly affected by the growth in e-commerce, such as last-mile delivery and warehouse workers, who are more and more integrated in the retail value chain, as well as the informal enterprises in the retail sector that follow a similar value chain through social media platforms (figure 1).

¹⁰For the purpose of statistical analysis, the data is based on codes G46 (Wholesale trade, except of motor vehicles and motorcycles) and G47 (Retail trade, except of motor vehicles and motorcycles) of the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4 (United Nations, 2008) at two- and three-digit levels; however, the literature review and the broader analysis of issues in the report includes other workers linked to the retail sector.
Figure 1. E-commerce and social commerce value chains

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<th>E-commerce value chain</th>
<th>Social commerce value chain</th>
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<td><strong>Product creation</strong></td>
<td>Manufacturers create products and distribute them to wholesalers or retailers</td>
<td>Manufacturers create products and distribute them to retailers or wholesalers</td>
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<tr>
<td><strong>Inventory management</strong></td>
<td>Wholesalers or retailers manage inventory and may use warehouses or third-party logistics providers to store and ship products</td>
<td>Retailers or wholesalers manage inventory and may use warehouses or third-party logistics providers to store and ship products</td>
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<td><strong>Platforms channels</strong></td>
<td>E-commerce platforms provide a digital marketplace for retailers to sell their products</td>
<td>Social media platforms provide a digital marketplace for retailers to sell their products</td>
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<td><strong>Marketing and sales</strong></td>
<td>Retailers use various marketing channels to promote products and drive sales, such as search engine optimization, pay-per-click advertising, social media marketing and email marketing</td>
<td>Retailers use social media marketing to promote their products and drive sales on social media platforms</td>
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<tr>
<td><strong>Payment processing</strong></td>
<td>E-commerce platforms process payments and may take a commission on each transaction</td>
<td>Social media platforms process payments and may take a commission on each transaction</td>
</tr>
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<td><strong>Fulfilment and shipping</strong></td>
<td>Retailers ship products to customers using their own logistics network or third-party logistics providers</td>
<td>Retailers ship products to customers using their own logistics network or third-party logistics providers</td>
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1. New landscape of the retail sector

13. The retail sector accounts for a large percentage of economic activity in global economies. In Organisation for Economic Co-operation and Development (OECD) countries for instance, the sector accounts for almost 5 per cent of gross domestic product (GDP). \(^{11}\) Taking into account the different methods applied in the analysis of their GDP share, emerging markets report a higher figure; this is the case of India, where the retail sector contributes 10 per cent of GDP, \(^{12}\) and developing countries such as Nigeria (16.4 per cent), \(^{13}\) Malawi (12 per cent) \(^{14}\) and Myanmar (15 per cent). \(^{15}\) It is also a labour-intensive sector that employs a significant share of workers across economies, both directly and indirectly, complementing activities in many other economic sectors.

14. While these fundamental characteristics of the retail sector remain unchanged, its overall landscape is rapidly changing and evolving, and digitalization is at the forefront of these changes. On the demand side, increased consumer interaction with digital technologies is driving consumer preferences in terms of how, what, when and where goods and services are purchased. Digitalization is facilitating new interfaces between consumers and retailers, and in many instances making the process faster, more convenient and increasingly customized towards the individual consumer. On the supply side, retailers can now utilize digital channels throughout the supply chain, including in manufacturing, logistics, distribution and sales. This is the case of manufacturing platforms, in which the supplier relationship is mediated through digital business platforms that connect enterprises with buyers and ensure the manufacturing and delivery of products. \(^{16}\)

15. These trends are in turn changing employment in the sector. In some instances, digitalization has facilitated the formalization of work (such as through the digitalization of government services or e-formalization); \(^{17}\) in other cases, there has been an increase in part-time and casual working contracts and a prominence of digital labour platforms in retail and retail-adjacent work, such as in last-mile delivery, which has prompted new forms of work organization. \(^{18}\)

1.1. Impacts of the COVID-19 pandemic

16. The policy measures introduced by governments to contain the spread of the COVID-19 virus have had widespread and uneven impacts on the retail sector. For certain types of retailers – in particular traditional retailers of goods and services that are deemed “non-essential” – enterprises and their workers have had to deal with the repercussions of long periods of lost income while brick-and-mortar stores remained closed. Other subsectors performed much better throughout the crisis or even experienced unprecedented surges in demand. During the height of the

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11 OECD, COVID-19 and the Retail Sector, 2.
12 Invest India, “Retail & E-commerce”.
15 United States, Department of Commerce, “Burma (Myanmar) Retail”, April 2022.
COVID-19 pandemic, enterprises and services that were deemed essential (typically grocery and food, pharmaceutical and some consumer electronics retailers) continued to operate, although frequently under difficult conditions, while non-essential goods (including, for example, apparel, home appliances and furnishings, luxury goods and so on) were often closed entirely for long periods, generating increased demand for e-commerce. In the European Union, for instance, there was a sharp decline in retail trade in all categories other than “supermarkets” and “food, drinks and tobacco”, while “mail orders and internet” saw a spike in demand. 19

17. The boom in e-commerce is one of the most high-profile trends that has arisen in the retail sector since the onset of the COVID-19 pandemic. As of 2020, e-commerce represents between 16 and 19 per cent of total retail sales. 20 Already on an upward trend prior to the pandemic, the demand for online shopping rapidly accelerated as a result of lockdown measures and store closures. 21 In many developed economies, online shopping was commonplace (more than 50 per cent of internet users engaged in e-commerce in many countries), while most developing economies had much lower levels of online retail activity. Spikes in e-commerce occurred across income groups. In seven major economies 22 that account for about half of global GDP, e-commerce sales increased from US$2 trillion in 2019 to US$2.5 trillion in 2020 and US$2.9 trillion in 2021. These gains in e-commerce revenues were heavily skewed towards the world’s largest online platforms, with the pandemic further entrenching an already strong market concentration among relatively few large multinational enterprises (MNEs) based in the world’s largest economies. 23 Many developing countries, starting from a lower base point, saw the biggest proportional increases in e-commerce. 24 Meanwhile, many others continued to lag behind in uptake, particularly countries with pre-existing low levels of digitalization and least developed countries. Nevertheless, e-commerce transformations are widespread and diverse across regions (box 1). In Latin America and the Caribbean, some e-commerce enterprises also expanded beyond national borders. 25

Box 1. E-commerce transformations in Africa, Asia and the Pacific and Latin America

In Africa, online retail activity increased during the COVID-19 pandemic, coexisting with the activities of supermarkets and large convenience stores and more than 2.5 million small and independent stores, which make up more than 70 per cent of the market, as well as of informal markets and street vending. Many of these enterprises – of all sizes – are also digitizing and building partnerships with new retailers. A study conducted of more than 4,500 small retailers in five African countries predicts that in most countries (except for South Africa) they will keep their large market share but will undergo digital transformations, including by offering online payment options and last-mile delivery, particularly in areas with higher digital and economic development. Nevertheless, e-commerce uptake is expected to be slower than in Asia and the Pacific or Latin America. 1 As in Asia and the Pacific, informal entrepreneurs are increasingly making use of social commerce (through social media platforms) to expand their businesses.

22 Australia, Canada, China, Republic of Korea, Singapore, United Kingdom and United States.
23 UNCTAD, “COVID-19 Boost to E-Commerce Sustained into 2021”.
24 UNCTAD, “COVID-19 Boost to E-Commerce Sustained into 2021”.
Asia and the Pacific is considered a front runner for the e-commerce transformation, with many enterprises leapfrogging traditional retail activities directly into online operations. The retail sector is expanding and generates two thirds of e-commerce growth and almost three quarters of overall sectoral growth. Online penetration grew from 9 to 19 per cent between 2014 and 2019, compared with 6 to 11 per cent growth in the rest of the world. At the country level the landscape is diverse, characterized by “digital leaders” (China), “mature followers” (Australia, Japan, Republic of Korea, Singapore), “fast modernizers” (India, Viet Nam, Indonesia) and “developing digitalizers” (Malaysia, Philippines, Thailand). The online retail sector is adjusting its channels to the consumer base by focusing on mobile applications and social media platforms, especially among women and informal entrepreneurs. Increasing labour costs and real estate costs favour the adoption of technological innovations, including scan-and-go payment, smart shelves, radio frequency identification and so on. However, the acceleration in online retail activities is reducing the business space for traditional supermarkets and stores (for example, sales per square metre in hypermarkets declined by 6 per cent in the Republic of Korea and 14 per cent in China between 2014 and 2019).

In Latin America in 2018, 92 per cent of retail activities still took place in physical stores. Since the COVID-19 pandemic, the growth of nascent e-commerce and subscription models has accelerated. Between 2020 and 2022, e-commerce sales grew by 37 per cent, with large growth in leading markets such as Argentina (79 per cent), Brazil (35 per cent) and Mexico (25 per cent). When stores reopened in 2021, there was a shift towards more hybrid digital and physical models, including for services and logistics models. While Latin America has a strong culture of shopping malls (more than 1,500 were registered in 2015), these are expected to coexist with the increased adoption of e-commerce by consumers.


The COVID-19 pandemic further highlighted the strong links between retail activities, especially e-commerce operations, and other economic activities (logistics and transport). Last-mile delivery services are becoming more essential for the functioning of retail operations and they increased in importance during the COVID-19 pandemic. Consumers typically became more accustomed to rapid delivery by purchasing food groceries through applications, with restaurants and stores unable to open. However, this prompted increased demand for rapid delivery of all kinds of products from both physical stores and online retailers, often organized through mobile applications and online platforms. In the post-pandemic context, the last-mile delivery trend is expected to continue; data from 2020 and 2021 in France, the United Kingdom and the United States show that although the levels of use of these services peaked during lockdowns, they remained higher than pre-lockdown levels thereafter.

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19. In some countries and subsectors, the COVID-19 pandemic also prompted a trend towards increased consumer support for local enterprises and environmentally friendly products. In the United Kingdom, for instance, 45 per cent of the consumers surveyed stated that buying from local and independent retailers had become more important for them during the pandemic. Meanwhile, a European Commission survey found that 81 per cent of respondents supported local enterprises and 58 per cent were influenced by environmental concerns in their purchasing decisions after the pandemic. 28 Online platforms also emerged during the COVID-19 pandemic to connect consumers to independent stores through third-party delivery. 29

1.2. Evolution of organization, production and service delivery models in the retail sector

20. Although the COVID-19 pandemic had a transformative impact on the retail sector, a major upheaval in the organization, production and service of delivery models was already under way before the crisis, including through the rise of transnational e-commerce enterprises. The continual rise of e-commerce, the declining profitability of existing models and shifting consumer preferences were among the key challenges facing retail enterprises and driving change.

21. Prior to the COVID-19 pandemic, physical store traffic was already declining rapidly. In the United Kingdom, the number of consumers in stores fell by 5 per cent between 2015 and 2018. 30 Profit margins of retailers were also diminishing, resulting in increased numbers of closures. This phenomenon has also affected developing countries. For example in India, online retail sales had already grown to 42.6 per cent in 2019 and 55.3 per cent in 2020, 31 while the number of online shoppers increased by 35 million in 2020. 32

22. As retailers seek to respond to these challenges, the landscape of the sector is also being shaped by several new market factors. These include the widespread consolidation of major retailers, which can make it harder for independent retailers to compete even as the demand for local products increases. Another new market factor is the rise of start-up competitors, introducing innovative products, technologies and business models. These new digital ecosystems pioneered by major online retailers are also driving changes in regulations and legal requirements (for example, on data protection). 33 Retailers, including traditional food retailers, are increasingly resorting to franchising models; 34 ILO research has already highlighted “high levels of fragmentation [of the retail sector] due to the prevalence of franchised enterprises and the use of outsourcing, practices which provide an enabling environment for the development of some forms of vulnerable employment”. 35

32 Statista, “Number of Annual Online Shoppers in India from 2019 to 2021, with an Estimate for 2027”, 2023.
23. To deal with these developments, business models are evolving and adapting. Omni-channel operating models, which combine physical retail and e-commerce operations, are becoming more commonplace and allow enterprises to exploit new channels of revenue online, while linking their growth to and maintaining activities in physical stores. Shipping and delivery models are also evolving – including the last-mile models described above – with enterprises having to balance between structuring their own delivery services or making use of increasingly innovative third-party delivery services. Through digital technologies such as artificial intelligence (AI), 3-D printing and digital traceability, the sector has increased its efficiency to cope with consumer demand for instant delivery and has built resilience to deal with future crises. These technologies also allow consumers and regulators to track goods from the start of the supply chain to the end-user.

2. Digitalization’s potential for a resilient, fair and sustainable recovery and interconnected trends

2.1. Digital transformation in the retail sector

24. Digitalization or digital transformation is broadly defined as “changes associated with the application of digital technology in all aspects of human society”. In the context of the retail sector, this report covers both automation (the process of making a task or procedure executable without, or with reduced, human assistance) and the broader digitalization processes (AI, block chain, data analytics, the internet of things and robotic process automation).

Technological advances and their impact on the sale and distribution of goods

25. Technological disruption in the retail sector is not a new phenomenon. Since the beginning of the twentieth century, technological developments (such as the train, the modernization of the mail system, the telegraph, the invention of the modern “container”, the widespread adoption of the car and the internet) have triggered major shifts in the channels through which people purchase goods: from department stores and mail-order retailers to big box retailers and e-commerce retailers. Yet, the current wave of technological disruption represents a distinct shift for the industry, characterized by new and emerging channels of digital retail; the merging of digital and physical spheres (so-called “phygital” retail); the integration of AI and augmented reality (AR) into traditional retail streams; and the robotization and automation of processes that were previously controlled manually (figure 2).

Figure 2. Examples of new technologies, processes and applications in the retail sector

<table>
<thead>
<tr>
<th>Technologies</th>
<th>Processes</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales and customers data</td>
<td>Networking, the web and the internet of things</td>
<td>• E-commerce and outsourcing</td>
</tr>
<tr>
<td>Loyalty cards and memberships</td>
<td>Advanced image processing</td>
<td>• Cashless/contactless payment systems</td>
</tr>
<tr>
<td>Store sensors and remote-sensing</td>
<td>Natural language processing</td>
<td>• Ordering, inventory and stock replenishment</td>
</tr>
<tr>
<td>Cameras and CCTV</td>
<td>Machine learning and AI</td>
<td>• Work/staff planning and scheduling</td>
</tr>
<tr>
<td>Robots and autonomous vehicles</td>
<td></td>
<td>• Task allocation, targets and reward</td>
</tr>
<tr>
<td>Mobile devices and wearable tech</td>
<td></td>
<td>• Surveillance and monitoring systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Predictive marketing and personalization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Autonomous warehouses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Automated/self-service human resources transactions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Augmented/virtual reality and product visualization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Counterfeit detection</td>
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</tbody>
</table>


26. Since retail activities have returned to physical stores following the shop closures during the COVID-19 pandemic, the sector has witnessed a rapid emergence of new hybrid models of shopping. The use of quick response (QR) codes initially experienced a revival as a tool for enabling physical distancing. However, they are now increasingly being used to enhance the consumer experience in other ways, including to facilitate the completion of online purchases while in the store, manage physical queuing systems virtually, provide customer feedback and enable interactive window displays. \[40\] The result has been the integration of the online and the virtual experience into physical retail activities. This is a trend that is forecasted to continue, with consumers expected to spend one hour a day in the virtual world by 2026. \[41\] A parallel phenomenon is the emergence of “dark stores”, which offer very rapid delivery options, with implications for labour protections in both developing and developed countries. \[42\]

27. In addition to their traditional role as a marketplace to sell goods, physical stores increasingly serve secondary roles as showrooms to promote products and experiences to consumers. This is being aided by AR, which enables virtual fitting rooms, new store navigation technologies and

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\[40\] RetailWit, “Retail Technology: Upgrade Your Toolstack With These 6 Trends”, 2022.


digital platforms to help workers set up physical displays in the store. This is combined with increased consumer expenditure in the virtual world or the “metaverse”: a total of US$54 billion was spent on in-game purchases in video games in 2020, which provides new revenue streams for the sale of content and changes perceptions of what activities can be considered to be “retail” activities.

28. At the forefront of the digitalization of the retail sector are AI and the internet of things. AI and machine-learning have a wide range of applications across the retail sector and its supply chains. These include systems for the personalization and recommendation of products to potential customers; the management of the relationship between retailers and consumers; the provision of customer services; the optimization of supply chains; and the creation of store tasks. AI is also being applied to advanced inventory management, including in the physical grocery stores of one major e-commerce retailer, which use a network of cameras and internet of things sensors to determine when customers have taken something off the shelves and charge them instantly to their credit cards when they exit. AI and machine-learning are also being used for demand-forecasting through the analysis of big data to predict how and when products will sell, improve relations with consumers and suppliers, and reduce waste. This is being enabled by the proliferation of cloud computing, which employs a network of servers to store, process and manage data and is also becoming cheaper, more scalable and more accessible for retailers of all sizes.

29. While robotics and automation have existed in various forms in the retail sector for several decades, new applications combined with digital technologies are emerging and shaping the industry. There have been innovations in robotics throughout retail supply chains, including in delivery services, warehouses and stores. Automated delivery, for instance, is being facilitated by robotics and self-driving vehicles, with one market leader in ride-hailing, food and package delivery service recently acquiring a robotic delivery start-up to expand its automated services. Meanwhile in the United States, one leading shipping and logistics enterprise and one major telecommunications enterprise have collaborated to leverage 5G technologies and enhance drone delivery services. In warehouses, automated smart robots can assist in performing and optimizing the storage, retrieval, unloading and transportation of products. In-store robotics, such as those that provide customer service or fulfill orders, remain relatively rare. However, their uptake was accelerated by the requirements for physical distancing during the COVID-19 pandemic. For instance, one leading Republic of Korea car manufacturer introduced an AI robot into its showrooms to greet consumers and provide interactive information on available products and services. Automotive retail provides an interesting example of the impact of digitalization on the workforce, through the electrification process and online sales, as well as through the rise of “mega dealers” of cars. These trends are poised to impact jobs, resulting in a reduction in retail employment and the need to address skills needs in the sector.

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44 Shotwell.
46 Shotwell.
47 Shankar et al.
30. The digitalization of the retail sector and the growth of e-commerce have brought with them several opportunities and challenges for the industry. Digitalization holds the potential to benefit the retail sector in various ways, from promoting inclusive trade and development and increasing productivity to lowering prices and increasing price transparency and market access. However, it also presents risks in terms of the privacy, security and ownership of data; the concentration of market power; the weak regulation of new practices; and the potential impacts on the environment and on labour relations and working conditions, depending on the regulatory environment and institutional context (table 1).

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion of increased trade and economic development</td>
<td>New risks regarding the privacy, security, ownership and use of data</td>
</tr>
<tr>
<td>Increased enterprise competitiveness</td>
<td>Increased concentration of market power (and concentration of data)</td>
</tr>
<tr>
<td>Increased productivity</td>
<td>Regulation issues regarding cross-border data flows</td>
</tr>
<tr>
<td>Provision of new sources of innovation</td>
<td>Taxation and enforcement of regulatory frameworks</td>
</tr>
<tr>
<td>Potential for lower prices and increased price transparency</td>
<td>Protection of electronic payments</td>
</tr>
<tr>
<td>Increased market access</td>
<td>Protection of intellectual property</td>
</tr>
<tr>
<td>International and cross-border markets meaning improved access to products</td>
<td>Inadequate skills and training for adoption and operation of technologies</td>
</tr>
<tr>
<td>Potential to enhance and improve customer service</td>
<td>Poorer customer service due to reduced emotional and human engagement</td>
</tr>
<tr>
<td>Reduced administrative and transaction costs</td>
<td>Regulatory gaps in addressing working conditions, including on working hours and work–life balance and contractual arrangements</td>
</tr>
</tbody>
</table>


The digital divide in the retail sector

31. While digitalization has already had a transformative impact on the retail sector, the effects and benefits have been uneven: 37 per cent of the 8 billion people alive today remain offline. During the COVID-19 pandemic, digitalization facilitated access to goods and services for many people and access to markets for many enterprises. However, many other people who lack access to digitally supported markets found themselves increasingly isolated by a digital divide in the retail sector. Often the world's poorest and most vulnerable people are the least prepared for digitalization and the least able to share the benefits of technological transformation. Left unaddressed, the digital divide in the retail sector could exacerbate existing inequalities both within and across national borders.

32. The COVID-19 pandemic has accentuated the traditional barriers to bridging the digital divide between regions (that is, the lack of access to online payment solutions, the lack of reliable internet and the lack of electrical connectivity). However, some governments have facilitated e-commerce in developing countries through actions such as increasing internet connectivity, offering cheaper data services or reducing transaction costs on digital payments and mobile money transfers, among others.  

33. While internet use has grown considerably in developing countries over the past decade, it still lags far behind that of developed countries. The lowest levels occur in the least developed countries (LDCs), in which only 24.6 per cent of people used the internet in 2020 (figure 3). These levels are reflected in the low percentage of consumers making online purchases. While these low base levels meant high proportional rises in e-commerce during the COVID-19 pandemic, current levels in LDCs typically remain at relatively low levels compared to those in high-income countries. Poor access to the internet, limited WiFi capacity and use of older information communication technologies mean that many enterprises, in particular MSMEs, find it difficult to develop an online presence and trade.

Figure 3. Individuals using the internet per 100 inhabitants, 2010–2021

![Graph showing internet usage per 100 inhabitants from 2010 to 2021 for different regions.]


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54 UNCTAD, *E-Commerce and the Digital Economy in LDCs.*
Many developing countries, in particular LDCs, are being confronted by the fast pace of digitalization. Investment is required to prepare these economies for a digital future and to help them catch up with developed economies in the future, and competitiveness in e-commerce is a key target area. A review conducted by the United Nations Conference on Trade and Development (UNCTAD) suggests that the COVID-19 pandemic has exposed gaps in key policy areas for facilitating digital readiness in developing countries, including weak regulatory frameworks and a lack of access to finance for MSMEs and start-ups to promote digital entrepreneurship in the sector. The promotion of sustainable enterprises development and the creation of decent jobs in a more digitalized retail sector would benefit from increased investments in access to infrastructure, including access to broadband, information and communications technology (ICT) equipment, and the development of skills such as digital literacy.

2.2. Demographic dynamics in the context of digital transformation

Global demographic trends are shaping the future of the retail industry. As population dynamics and composition change, so do the needs of consumers and the structure of the retail sector's workforce. This leads to new patterns in consumer behaviour, which generate demand for new products, while new methods of distribution and business models emerge to service these needs. Although the global population is currently growing at its slowest rate since 1950, it is projected to reach 8.5 billion in 2030 and 9.7 billion in 2050, before peaking at about 10.4 billion people in 2100. More than half of the global population growth through 2050 is expected to occur in sub-Saharan Africa, creating a demographic dividend in terms of the working-age population. Also, more than 50 per cent of population growth will occur in just eight countries: the Democratic Republic of the Congo, Egypt, Ethiopia, India, Nigeria, Pakistan, the Philippines and the United Republic of Tanzania. Meanwhile, the number of people in the global middle class is expected to grow, particularly in Asia, with several emerging markets, including Brazil, China, India, Indonesia and Mexico, establishing themselves as major economies. As a result of these changes, developing and emerging economies may provide opportunities for long-term growth in the retail sector, including growing markets for a diverse range of goods. However, existing retailers will need to adapt to these markets to diversify and grow, and measures will be needed to create an enabling business environment in which local enterprises may start and grow.

Urbanization patterns are further shaping and being shaped by digitalization in the retail sector. More than half of the world's population now live in urban areas and by 2030, the number of people living in cities and towns is expected reach 5 billion. As urbanization accelerates, traffic volumes are increasing and urban space is becoming an important issue. With the demand for delivery services increasing in urban areas, there is a risk that this will contribute to traffic and pollution. Meanwhile, warehouse spaces in or near urban centres are increasingly in demand, offering rapid online deliveries and impacting on the business of large brick-and-mortar enterprises in these areas.

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59 United Nations Population Fund, "Urbanization".
60 Hunt and Rolf.
38. In rural areas a number of challenges, such as market access, seasonality, the lack of digital infrastructure and competition from e-commerce, could undermine the survival of enterprises and prevent them from starting and growing. Revitalizing the retail sector in rural areas will require investments to provide the infrastructure and conditions to address these challenges and doing so could help promote MSMEs, as well as sustainable and circular retail practices.  

39. In addition to growing markets, shifts in demographics will mean a shift in the size and relative influence of consumer groups. Ageing populations in many of the world’s wealthiest countries will mean that the role of older consumers will become even more significant, with the largest growth among consumers over 65. While older consumers were considered to prefer physical retail, the COVID-19 pandemic shifted many consumers towards e-commerce. In the United Kingdom, consumers over 65 accounted for 30 per cent of consumer goods purchased online in 2020, up from 20 per cent in 2019. In the United States, online spending by consumers over 65 increased by 53 per cent in 2020. For retailers, this means delivering hybrid shopping models that are both innovative and accessible, while catering for older consumers without alienating them.

40. Consumer preferences are also evolving, particularly among young consumers, who tend to privilege online shopping. The rise of single-person households, particularly in regions such as Asia, is also a factor that is changing consumption patterns. Such preferences are driven by trends such as the use of social media and mobile applications, the demand for instant availability and delivery, and preferences for individualized products and shopping experiences, healthy living and sustainable consumption. Furthermore, while one might expect digitally native young consumers to buy more online, the majority of them still prefer physical retail stores over online or hybrid models.

2.3. Globalization

41. Globalization is continuously changing how retail is organized and goods are traded. The current wave of globalization is closely related to the digitalization of the retail sector, which is creating and expanding marketplaces for retailers and consumers to interact across borders. In the past, global enterprises were typically large MNEs. However, the changing landscape of the retail sector and e-commerce means that global markets are more frequently accessible to smaller enterprises, even if they still face a number of challenges. Digitalization has stimulated the trade in and delocalization of services (for example, financial, sales and marketing, and professional services); many services that were previously considered non-tradable are now increasingly tradable. Subsequently, in recent years, trade in commercial services has grown far more quickly than trade in goods. Meanwhile, the distinction between manufacturing, services and retail is becoming increasingly hazy, with large e-commerce retailers producing many of the goods they sell and even the hardware that is required to access their digital services.

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63 "Older Consumers Have Learned New Tricks in the Pandemic", The Economist, 6 May 2021.
64 dataSpring, "The Rise of the Single-Household In East Asia", 2022.
42. Globalization in retail has been coupled with increasing competitive pressures, particularly in terms of profit margins and sales growth. This has driven consolidation and mergers and acquisitions between retail enterprises, which can help MNEs operate in the global market, while making it more difficult for smaller enterprises to compete. ⁶⁸

43. Although the high concentration of the market poses challenges for MSMEs, e-commerce operations, including through service delivery platforms, also have several benefits. These include the potential to facilitate the sale of goods and services, reduce the costs of entry to markets, reduce operating costs and increase productivity and profitability. ⁶⁹ The barriers to digital infrastructure and access to e-commerce among MSMEs that were mentioned above are particularly prevalent in developing countries. As such, more than half of global e-commerce activity currently occurs in China and the United States, dominated by a few large enterprises. ⁷⁰

44. As the e-commerce market has grown, traditional incumbent retailers have responded to market demand competition from new market entrants by creating omni-channel solutions, including through an increased online presence and hybrid stores. While these operations still represent a relatively small percentage of sales of traditional retailers, there is a clear trend towards the increased integration of digital services and increased investment in these spheres. ⁷¹ During the crisis, digital technologies played a significant role in mitigating the impact on trade by allowing enterprises to maintain sales activities (figure 4).

**Figure 4. Percentage change in retail sales via mail order or the internet in the eurozone during the 2020 lockdowns**


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45. Globalization, digitalization and e-commerce are also driving the data-driven economy (box 2). Digital retailers increasingly provide a network of interrelated services, including warehousing, logistics, e-payment, credit and insurance services. With the rise of the digital economy, data production is growing exponentially, with estimates suggesting that more data could be created between 2020 and 2023 than in the previous 30 years and three times as much data could be created in the subsequent 5 years than in the preceding 5 years. Data is no longer driven solely by human activity, with up to 40 per cent of internet traffic being generated by AI and machines. The data-driven economy has the potential to create competition and opportunities for traditional retailers, increase productivity and market access, and reduce transaction costs and other costs (hiring or space rental). While MSMEs have access to a larger customer base, issues have been raised concerning the fees paid by third-party sellers to sell through online platforms, competition with platforms that sell their own products, and the capacity of these latter to make pricing decisions through data-gathering. Also, there are major concerns about the security, privacy and ownership of data. In the response to the COVID-19 crisis, there has been increased public-private collaboration on collecting and processing data in a manner that is ethical and safe. Nevertheless, in order to protect consumers and workers from the risks of data misuse and the erosion of privacy, there is a need to identify and fill regulatory gaps and strengthen enforcement capacities at local, national and international levels.

Box 2. The data-driven economy and the digital economy

The data-driven economy refers specifically to the economic activity that results from the collection, processing and analysis of large amounts of data (including data mining, data analytics and machine-learning), and data is treated as a valuable resource to facilitate decision-making, gain insights and create new products and services.

While the digital economy is focused on the use of digital technologies to conduct economic activities, the data-driven economy focuses on the use of data to drive economic activities. However, there is a significant overlap between the two concepts, as the digital economy generates a vast amount of data, which can be used to drive the data-driven economy.

2.4. Just transition to an environmentally sustainable retail sector

46. The retail sector lies at the intersection of production and consumption. It has a major influence on what is produced, what is sold and how: consumption and production are key drivers of the global economy and determine the way in which the environment and natural resources are utilized. The combined effects of the COVID-19 pandemic and the energy crisis are encouraging governments, retail enterprises, workers and consumers to think of more sustainable models, while ensuring energy-efficiency measures along the supply chain, which also affect the retail

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75 ILO, World Employment and Social Outlook 2021, 41–42.
76 Syndex, E-Commerce: Recent Trends and Impacts on Labour, 9–10.
78 Zhang and Melguizo.
79 United Nations, “Goal 12: Ensure Sustainable Consumption and Production Patterns”.
segment. While such trends are poised to promote new – and more sustainable – patterns of consumption and production, a rethinking of how these models impact decent work may be required.

47. As the global middle class grows, the average person is consuming more. At the same time, current production processes and retail models have led to more waste products being discharged into the environment. Every year, one third of all the food produced – 1.3 billion tonnes valued at US$1 trillion – is wasted by consumers or retailers.80 Meanwhile, 85 per cent of all textiles purchased in the United States are thrown away rather than recycled, with fashion being responsible for 20 per cent of global wastewater.81 In terms of the environmental impact of e-commerce, as opposed to the retail sector as a whole, the increased number of orders, returns and fast deliveries has the potential to increase the sector’s footprint.82 The retail sector is faced with the double challenge of ensuring access to safe, sustainable basic goods for low-income groups and shifting the consumerist behaviour of high-income groups towards more sustainable and circular practices.

48. Coherent and integrated policies across all areas of social, environmental, economic and industrial policies are critical for fostering an enabling environment for enterprises, workers, investors and consumers in order to drive a just transition.83 Retailers have an important role, because they influence both production processes and consumer demand through the partners they choose to work with along their supply chains and the way in which they sell and market their goods. Since policies to build consumer awareness and promote sustainability can generate shifts in consumer demand, retailers also have both the opportunity and a valuable business case for responding to this demand and providing channels for sustainable consumption.

49. New models of consumption, production and retail have emerged and were catalysed by the digital transformation of the sector. For instance, by adapting the application of algorithms, filters and the use of big-data analysis, e-commerce platforms have the potential to promote sustainable, net-zero and ethically sourced goods and to empower consumers to make sustainable choices.84 Furthermore, the development and proliferation of “green technologies” could help to reduce the carbon footprint of production, distribution and retail. Currently, data centres and transmission networks are responsible for 1 per cent of energy related greenhouse gas emissions.85 However, the use of sensors and data analysis can reduce waste, for example by carrying out targeted reductions of food products or employing algorithms and AI to produce products in quantities that are targeted to consumer needs. The sourcing and use of alternative production materials, including the promotion of reduced plastic use, as well as the use of sustainable or recycled fibres (such as hemp) and the promotion of local growth and consumption patterns, can help promote sustainable consumption.86

80 UN Environment Programme (UNEP), “Retail”.
83 ILO, Outcome of the General Discussion Committee on a Just Transition: Proposed Resolution and Conclusions Submitted to the Conference for Adoption, ILC.111/Record No.7A, 2023.
85 International Energy Agency (IEA), “Data Centres and Data Transmission Networks”.
50. Although the circular economy is not a new phenomenon, especially in developing countries, it is at the forefront of the shift to environmental sustainability in the retail sector. The shift from a manufacturing to a service economy is driving the growth of these new retail business models, facilitated by innovation and digital applications. The circular economy includes the rental, reuse, recycling, remanufacture and repair of goods, replacing traditional models of extraction, use and disposal that cause environmental damage and generate waste. A shift from the sale of electrical and electronic equipment to their hiring or leasing can create new enterprises and jobs at the local and national levels. For instance, newly emerging enterprises rent mobile phones and other electronic devices based on subscription models, while retail enterprises can use services such as “lighting-as-a-service” instead of buying LED lamps, with the provider remaining the owner and maintainer of the lamps and thereby yielding significant energy savings. In the clothing sector, second-hand retail practices are growing rapidly, and the COVID-19 crisis has seen a spike in the number of consumers looking to buy and sell second-hand clothing. It is expected that the value of the clothing resale industry in the United States will grow nine times faster than that of the traditional clothing retail sector to reach US$70 billion in 2027.

51. Moreover, it is not just conscious consumers and emerging resale and rental platforms that see circular business models as the way forward. Traditional retailers are also introducing circular supply chains and circular products, enabled by digital technologies that include material innovations such as garment-to-garment recycling machines, which transform old products to new ones in-store. In consumer electronics, designing and using materials in a way that ensures their reuse and recycling at the end of their life cycles is one approach to tackling planned obsolescence and e-waste. The collaboration of major brands in consumer electronics with online sites such as ifixit offers new possibilities for repairing consumer electronics for a wider segment of consumers by providing authorized repair parts and tools and publishing free online repair guides.

52. The circular economy can be a driving factor for the development of the small enterprises that recycle and repair goods and a major driver for the creation of employment opportunities, with estimates suggesting that a transition to these models could create 6 million new jobs by 2030. Although circular models can increase the utilization rate of goods such as clothing, thereby offering a positive environmental impact, they are also characterized by high levels of informality (such as informal practices for repair, recycling and so on), as well as low wages and insecure working conditions. As the retail sector recovers from the current crises, there is scope and opportunity to review operating models and supply chains and build back better while ensuring a just transition to environmental sustainability. This may also require paying more attention to the needs of developing countries and the impacts of some circular economy models on their economies and local enterprises (such as the impacts of second-hand products that are

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87 ILO, Sectoral Policies for a Just Transition towards Environmentally Sustainable Economies and Societies for All, Just Transition Policy Brief, August 2022.
“discarded” and sent to developing countries, where they end up in landfills), as well as the business viability of such models. 95

3. Decent work opportunities and challenges in the retail sector

3.1. Employment trends

53. Digitalization and interconnected megatrends and drivers are transforming the world of work in the retail sector. As the sector evolves, it faces new and emerging opportunities and challenges with regard to decent work. These were accentuated or accelerated during the COVID-19 pandemic and subsequent interlocking crises, which have had ripple effects on employment and working conditions. These crises both impact enterprises themselves (through increased operating costs, sales volumes, shifting to discount models and so on) and the labour market (through labour supply shortages, increasing wage costs and so on). However, the impacts on enterprises and workers have varied across different segments of the retail sector (for instance, traditional versus online commerce, “essential” versus “non-essential” goods and so on) and across different countries and regions.

54. The retail sector is predominantly labour-intensive and is a major employer worldwide. Essential workers in the retail sector constitute 22 per cent of the retail workforce in low-income countries. 96 Globally, more than 420.4 million people were employed in the retail sector in 2020 (figure 5), representing more than 13 per cent of global employment. 97

97 For this analysis, ILO estimates covered ISIC codes 46 (Wholesale trade, except of motor vehicles and motorcycles) and 47 (Retail trade, except of motor vehicles and motorcycles) only.
55. At the regional level, Asia and the Pacific has the highest number of people working in the retail sector; according to the same estimates, the sector’s contribution to total employment was the highest in Africa (13.9 per cent) (figure 6).
56. Workers in the traditional retail sector are employed in a large variety of different occupations, ranging from shopkeepers, customer service representatives, checkout clerks and stock workers to supervisory and managerial workers and other related jobs. In the e-commerce sector, many occupations are emerging in related areas, such as ICT and software development, digital marketing and last-mile delivery or warehousing. Although the volume of more specialized jobs in e-commerce is growing, such jobs are typically less labour-intensive and tend to employ far fewer workers than traditional retail jobs. With a wide range of occupations in the sector, there is also a wide range of working conditions, although it remains a sector in which workers tend to be low-paid and low-skilled in relative terms, across countries.

57. Due to the impact of the measures put in place to contain the COVID-19 pandemic, in particular the closure of retail stores, some segments of the retail sector were among the hardest hit in terms of employment. In the immediate aftermath of the outbreak of the pandemic, employment declined 7.2 per cent and 2.8 per cent in the second and third quarters of 2020, respectively, while working hours declined 13 per cent and 4.9 per cent, respectively. In the United States, for example, this decline meant that employment in the retail sector fell by 800,000 jobs during 2020. Countries in Asia experienced a similar situation; for example, 300,000 workers lost their jobs in retail malls in Malaysia.

58. While many workers in the industry lost their jobs or were placed on government job retention schemes, many others decided to quit the industry entirely owing to job insecurity and new demands for flexible work. In the United States for instance, a record number of retail workers quit their jobs in mid-2022 – at a rate 30 per cent higher than that of other sectors – and half of the industry’s workers considered quitting their jobs. This attrition rate, which was typically high in the sector even before the COVID-19 pandemic, reflects the limited opportunities for career progression in the retail sector and the challenging working conditions for many workers; it represents a major challenge for the sector’s employers in hiring and retaining skilled and motivated workers in the face of digital transformation.

Women’s employment

59. Women represent a large proportion of the workforce in the retail sector. At the global level, the sector has the second highest relative concentration of women, after the education, health and social work sectors. According to a recent ILO report, women constitute the majority of workers in key segments of the retail sector (58.4 per cent versus 41.6 per cent for men). The contribution of the sector’s female workforce to total regional employment exceeded that of the male workforce across all regions except in the Arab States in 2020 (figure 7).

102 “300,000 Mall Workers Lost Jobs Past 16 Months”, HR Asia, 23 June 2021.
104 ILO, World Employment and Social Outlook 2023, 7 and 17.
Figure 7. Contribution of wholesale and retail trade sector to total regional employment by sex, 2020

* Less than 50 per cent of the population covered.
Source: ILO estimates; see https://ilostat.ilo.org.

60. In Africa and Europe and Central Asia, the share of female workers in the retail sector is higher than that of male workers (figure 8).

Figure 8. Share of wholesale and retail trade sector employment by gender and region, 2020

* Less than 50 per cent of the population covered.
Source: ILO estimates; see https://ilostat.ilo.org.
61. Throughout the COVID-19 pandemic, the hardest-hit sectors were those with a large concentration of women workers, including the retail sector. As a result, women suffered greater employment losses and retail closures meant that many women temporarily or permanently lost their jobs. Women in the retail sector are more likely to work in the informal sector than men, which has left them particularly vulnerable to the most severe impacts of the crisis. Women also bear a disproportionate responsibility for unpaid care work, which became an increased burden during the pandemic and meant that many of the sector’s women workers had less time to dedicate to work. Since the outbreak of the pandemic, the hours worked by women have recovered more slowly than those of men. These challenges have threatened hard-fought gains in gender equality and resulted in a wider gender gap than pre-pandemic levels.

Youth employment

62. Traditionally, the retail sector has employed many young workers and students, often acting as an entry point to the job market. In general, the retail subsector has a larger share of youth employment than the wholesale subsector (figure 9).

**Figure 9. Share of youth (15–24 years) employment by subsector, selected countries or territories, 2020**

*Analysis of 18 countries or territories, with available data. Source: ILO harmonized microdata; see https://ilostat.ilo.org.*

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105 Along with other sectors, such as the accommodation and food services, arts and entertainment, and domestic work sectors, as well as parts of the manufacturing sector, such as the garment industry.


63. Between 2018 and 2020, the share of youth employment in the wholesale and retail trade sector declined in six of the eight countries with available data (figure 10).

**Figure 10. Percentage change in the share of youth employment by subsector, selected countries, 2018–2020**

Source: ILO harmonized microdata; see https://ilostat.ilo.org.

64. Young people across countries were disproportionately affected by the impacts of the crisis, with youth employment falling by 8.7 per cent compared to 3.7 per cent for adults. Global youth unemployment in 2021 was estimated at 15.6 per cent, three times that of the adult rate. Meanwhile, the recovery of youth employment has lagged considerably behind that of adults, particularly in low- and middle-income countries, and more than one in five young people are not in education, employment or training, a number that rose by 1.5 percentage points in 2020. ¹¹⁰

65. Targeted policies may be needed to promote youth employment in the retail sector and in the context of the recovery in the labour market. Investing in youth employment can also help prepare the retail sector for the digital transformation. Youth employment in the digital economy is typically characterized by young people with high levels of skills and education. However, inadequate access to education and training and weak digital infrastructure often result in poor access to digital employment in lower-income countries, which has the effect of perpetuating inequalities between lower-income and higher-income countries. ILO modelling suggests that investing in achieving universal broadband could yield a net increase of 6.4 million jobs for young people. These jobs would at first be concentrated in the ICT sector, but as consumption effects

spread, the largest youth employment impacts would in fact occur in the retail sector.\textsuperscript{111} Targeted labour market policies for young people include investing in the digital economy; promoting skills development and entrepreneurship among young people; and addressing the decent work deficits faced by young retail workers (including in the informal economy or linked to new typologies of contractual arrangements that are not adequately regulated, such as zero-hours contracts). Such policies can help ensure that young workers can fulfil the demand for digitally skilled workers as the sector recovers and continues its technological transformation.\textsuperscript{112}

### Job transformation

66. The sector is faced with significant job transformations that go beyond the COVID-19 pandemic. It remains unclear whether the labour shortages triggered by the pandemic in the traditional retail sector will be structural or will recover in the wake of the current economic crisis. However, it is evident that new forms of work organization are emerging. While most jobs in the sector still fall under traditional physical retail, the composition of the sector is rapidly being shaped by digitalization, particularly in developed and increasingly in middle-income countries. Many new digital jobs are being created in the e-commerce sector, as well in related industries such as warehouses and last-mile delivery services.\textsuperscript{113} In the United States, employment in the courier industry and the warehousing and storage industry grew 54.4 per cent and 86.1 per cent, respectively, during the 2010s, compared with employment in the retail sector, which grew just 8.1 per cent over the same period.\textsuperscript{114} In India, employment in e-commerce increased 28 per cent in 2021 alone.\textsuperscript{115}

67. The retail sector is one of the sectors with the highest potential for the automation of jobs, with estimates suggesting that 52 per cent of current activities in the retail sector could be automated.\textsuperscript{116} The impact of the automation of many tasks means that the skills needed for workers to succeed in the sector will transform. The friction that this generates in the job market creates risks for employers, workers and economies, in terms of finding adequately skilled employees, the potential job losses and the lack of an adequate and adapted labour protection framework.

68. In practice, while many tasks within occupations have the potential to be automated, the availability, expense and desirability of technologies mean that the full extent of potential automation is unlikely to be realized. The uptake of such technologies will vary greatly by income level, by level of digital adoption and by cultural context (for instance, the cultural context may have a significant influence on the acceptance of service robots in the retail sector).\textsuperscript{117} Also, although the potential to automate many tasks exists, only 5 per cent of all jobs can be fully automated with the current technology, which is only available to those with significant

\textsuperscript{111} ILO, Global Employment Trends for Youth 2022, 17.
\textsuperscript{112} ILO, Global Employment Trends for Youth 2022.
\textsuperscript{114} Dorfman.
\textsuperscript{116} Patrick Simon, Caroline Tufft, and Pierpaolo Zampella, Closing the Skills Gap in Retail with People Analytics (McKinsey & Company, August 2020).
resources. Instead, the change that the sector will undergo is more likely to be characterized by transformation than job losses, which may require a combination of reforms in protection frameworks and action to address productivity growth, which has been slowing despite the acceleration of digitalization and is affecting the productive capacities of capital and workers. 

Digitalization is also driving job creation in the sector, including in the traditional retail sector. For instance, while cashiers are likely to be increasingly automated, customer service roles will be even more critical to help consumers navigate hybrid spaces. Meanwhile, the rise of e-commerce is creating employment in adjacent industries, potentially changing the nature of work in retail. The e-commerce industry will increasingly require workers in areas such as software development, data analysis and digital marketing. The growth in e-commerce is also linked to a surge in demand for last-mile delivery drivers or warehouse jobs. Subsequently, the need for new skills and the resulting skills gaps, in particular for digital and ICT skills, is likely to shape and drive the employability of workers and the productivity and competitiveness of enterprises.

**Skills and lifelong learning**

Skills development and lifelong learning have key roles to play in facilitating a just transition to a digitalized retail sector and addressing the immediate opportunities and challenges posed by the response to the current geopolitical and economic crises. Investment in skills can help unemployed workers find new employment in the retail sector, help them develop the new skills necessary for digital transformation and ensure that investment in recovery strategies generates long-term economic benefits. Promoting skills and lifelong learning for retail workers is critical for supporting a human-centred recovery from the crisis that is sustainable and resilient, achieves full, productive and freely chosen employment for all, raises productivity and fosters sustainable development.

While labour markets demonstrated encouraging signs of recovery in terms of hours worked at the beginning of 2022, employment deficits have continued to threaten low- and medium-skilled workers, including many workers employed in the retail sector, with employment in high-skilled occupations (managers, professionals, and technicians and associate professionals) experiencing stronger recoveries, while employment in lower-skilled occupations remained below 2019 levels.

The advance of digitalization in the retail sector, which was accelerated by the COVID-19 pandemic, requires workers with a wide range of skills. Retail occupations may evolve away from manual skills and basic cognitive skills, to include more tasks and more work hours spent using digital skills and interpersonal skills. ILO data show that overall, most workers in both the retail and wholesale subsectors are medium-skilled (figure 11). However, skill levels may depend on

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118 Begley et al.
occupational groups in the sector, with higher skill levels attributable to managers, while lower skill levels may be associated with street workers and related sales and services workers.

### Figure 11. Employment share by skill level and subsector, selected countries, 2020

<table>
<thead>
<tr>
<th>Subsector</th>
<th>Skill level 2: Medium</th>
<th>Skill levels 3 and 4: High</th>
<th>Skill level 1: Low</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Retail trade</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plurinational State of Bolivia</td>
<td>96%</td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>Myanmar</td>
<td>95%</td>
<td></td>
<td>4%</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>90%</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>Egypt</td>
<td>86%</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>Thailand</td>
<td>84%</td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>Zambia</td>
<td>78%</td>
<td></td>
<td>8%</td>
</tr>
<tr>
<td>Peru</td>
<td>64%</td>
<td>4%</td>
<td>11%</td>
</tr>
<tr>
<td>Philippines</td>
<td>64%</td>
<td>24%</td>
<td>13%</td>
</tr>
<tr>
<td>India</td>
<td>54%</td>
<td>36%</td>
<td>9%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>52%</td>
<td>35%</td>
<td>12%</td>
</tr>
<tr>
<td><strong>Wholesale + Retail trade</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plurinational State of Bolivia</td>
<td>93%</td>
<td></td>
<td>2%</td>
</tr>
<tr>
<td>Myanmar</td>
<td>92%</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>Egypt</td>
<td>83%</td>
<td></td>
<td>6%</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>82%</td>
<td></td>
<td>9%</td>
</tr>
<tr>
<td>Thailand</td>
<td>77%</td>
<td></td>
<td>12%</td>
</tr>
<tr>
<td>Philippines</td>
<td>62%</td>
<td>24%</td>
<td>14%</td>
</tr>
<tr>
<td>Peru</td>
<td>62%</td>
<td>8%</td>
<td>29%</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>57%</td>
<td>40%</td>
<td>3%</td>
</tr>
<tr>
<td>India</td>
<td>53%</td>
<td>37%</td>
<td>9%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>49%</td>
<td>36%</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Wholesale trade</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plurinational State of Bolivia</td>
<td>56%</td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>Myanmar</td>
<td>53%</td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>56%</td>
<td></td>
<td>23%</td>
</tr>
<tr>
<td>Egypt</td>
<td>56%</td>
<td></td>
<td>21%</td>
</tr>
<tr>
<td>Thailand</td>
<td>53%</td>
<td>18%</td>
<td>14%</td>
</tr>
<tr>
<td>Peru</td>
<td>53%</td>
<td>29%</td>
<td>17%</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>59%</td>
<td>22%</td>
<td>28%</td>
</tr>
<tr>
<td>Philippines</td>
<td>46%</td>
<td>27%</td>
<td>51%</td>
</tr>
<tr>
<td>India</td>
<td>44%</td>
<td>37%</td>
<td>29%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>42%</td>
<td>43%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Source: ILO harmonized microdata; see [https://ilostat.ilo.org](https://ilostat.ilo.org).

73. While the digital transformation tends to create high-skilled jobs in general, it also generates low-skilled micro-tasking jobs, such as labelling and categorizing tasks. Overall, however, automation and digitalization are reducing the sectoral demand for routine and manual tasks and increasing the demand for non-routine tasks; cognitive skills such as problem-solving; interpersonal skills; and other core skills. These skills are applicable to a wide range of roles, from operating digital technologies, providing customer service or keeping stock in hybrid physical and digital spaces to data analysis, web development and marketing in order to meet the growing demands of e-commerce. These digitally intensive jobs are typically at lower risk of automation and equipping
workers with the education and training to perform them can effectively help to create decent and sustainable jobs in a rapidly evolving sector.  

74. Currently, many of the sector’s workers lack digital and ICT skills, both upon entering the retail workforce and throughout their careers. This can generate a gap in the supply and demand of digital skills in retail. For instance, while digital skills are now needed for 79 per cent of retail jobs in the United Kingdom, 62 per cent of employers have reported difficulty in hiring workers with the right skills and experience and 94 per cent of enterprises reported being worried about talent shortages.

75. A lack of digital skills can not only be a barrier to entry for workers in the retail sector but also limit their opportunities for advancement in the sector throughout their careers. The divide in digital skills can therefore be a major challenge to addressing inequalities, both within and between countries. Many poorer households still have limited access to digital devices and the internet, which can leave them unprepared for the demands of work in the retail sector, even in jobs that are typically regarded to be low-skilled and provide entry points to the labour market. Meanwhile, the sector’s existing older workers, who rely on retail work for incomes, are less likely to be equipped with the requisite digital skills, which coupled with the lower intake of young workers is likely to exacerbate skills shortages.

76. Regional differences in skills gaps need also to be considered. In Africa, the ILO data for 2019 showed that more than one in five young people (15–24 years) are neither in employment nor in education or training. Issues include low educational attainment and a mismatch between people's skills and the skills required by the labour market. At the same time, the services sector is driving the shift from lower to higher productivity employment in Africa. This is the case of activities fostered through digitalization, such as e-commerce, which are contributing to growth in some African countries (such as Kenya, Morocco, Senegal and South Africa). Recent analysis emphasizing strategies to address the skills mismatch in Africa can be particularly relevant to the retail sector, which may require a coherent framework that encompasses skills anticipation, skills development and recognition, and skills utilization, as well as ensuring the inclusion of and accessibility for all workers.

77. Skills gaps and shortages in the retail sector are a major constraint on sustainable enterprise development. Skills mismatch in the sector can increase labour costs and lower productivity for retailers and slow sectoral and economic growth. Persistent skills mismatches are likely to affect enterprises’ ability to adapt to digitalization and implement new products, services and technologies in the era of e-commerce. This is likely to be a major limiting factor on competitiveness, particularly for the sector’s MSMEs.

128 Crowther.
132 ILO, "What is Skills Mismatch and Why Should We Care?", 2020.
78. Consequently, investment in skills and lifelong learning can create a win-win situation for both enterprises and workers. Proactively skilling, upskilling and reskilling workers through education and training could represent a shift in culture and approaches to skills development and training in the retail sector, in which it has typically been considered that many roles do not require specific skill sets and that short on-the-job training suffices to address existing skills gaps among workers. The turnover of workers in the retail sector is also typically high – a trend that has been accelerated by the new demands and expectations of workers since the COVID-19 pandemic – with poor remuneration, a lack of career development opportunities and a lack of flexibility among the most common reasons why workers leave the retail sector to pursue work elsewhere. This can lead to enterprises being reluctant to train workers and encountering difficulties in replacing staff, particularly the most qualified workers. Establishing a clear link between training, including quality apprenticeships, and career progression in the retail sector is key to the development and retention of skilled workers in the sector so that enterprises may meet the challenges of digitalization. In this context, collective bargaining could offer a level playing field to ensure better and fairer opportunities in career progression and training.

79. As governments, workers and employers plan to recover from the current crises, there is an opportunity to use the rebuilding process to refocus efforts on skills development and training. In doing so, they can better prepare the retail sector for digitalization and sectoral transformation and help to address the challenges of skills mismatches, unemployment, underemployment and labour market inefficiencies. There is a need for education and training, including technical and vocational education and training (TVET) that places a renewed emphasis on the development of core skills, including social and emotive and cognitive skills; basic digital skills; and science, technology, engineering and mathematics (STEM) skills. Developing these skills can help promote innovation and entrepreneurship and adapt workers to the changing needs of the future of work and societies.

80. Making training available to a larger number of retail workers and ensuring that it is inclusive, gender-responsive, flexible and innovative can help address existing gaps in digital skills and tackle inequalities that have been exacerbated by current crises. Concrete strategies for the universal adoption of these skills, as well as the provision of access to the internet and digital equipment and infrastructure, can help to overcome the issues of a digital divide, within and across countries. Digital technologies can also be integrated throughout the learning process through delivery, assessment and certification mechanisms; assist with upscaling skills development programmes to target more workers; and help transform workplaces such as retail stores into learning environments. Access to coordinated lifelong career guidance and career counselling services, coupled with renewed efforts to create sustainable long-term career pathways in retail, can help to ensure a supply of workers that directly meets the needs of employers and promotes increased job retention rates. Efforts to target groups of workers whose skills are often underutilized, such as women, young people and migrant workers, can help the sector’s workforce to learn sector-specific technical skills and to grow sustainably.

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134 Fuller, Logan and Valkova.
137 ILO, Resolution concerning skills and lifelong learning.
81. In line with relevant international labour standards (see annex),\(^{138}\) it will be important to extend, adapt and harmonize vocational training systems to meet the needs of workers in the sector throughout their lives; this will require increased investment and stronger links between education and TVET systems targeted to competences in the retail sector.

**Sustainable enterprise development**

82. Digitalization and technological advances, alongside other key megatrends and drivers, are having significant impacts on sustainable enterprise development, particularly on the productivity, sustainability and resilience of enterprises. New technologies and digital infrastructure have opened new opportunities for growth, productivity and innovation in the retail sector, particularly in e-commerce. In this context, a recent ILO analysis of productivity trends in Latin America and the Caribbean highlighted how some e-commerce platforms have “democratized” the access of small and medium-sized enterprises to markets beyond the region, through increased visibility, access to data and better knowledge of their customer base and consumption patterns.\(^{139}\) However, in some cases, large e-commerce platforms may create challenges for the emergence and growth of new local platforms, raising issues related to the competition and regulation of these markets.\(^ {140}\)

83. In general, the benefits of the digital revolution have been uneven, particularly for MSMEs, which have less capacity to invest in technological transformation. Meanwhile, the COVID-19 pandemic and subsequent economic crises have put a strain on the profitability and sustainability of many retailers, particularly MSMEs, which have had to operate through periods of forced closures and reduced cash flow.\(^ {141}\)

84. The traditional retail sector is typically highly fragmented and consists of a large proportion of MSMEs (figure 12).

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\(^{138}\) The annex provides a non-exhaustive list of standards and instruments of particular relevance to the retail and commerce sector.


\(^{140}\) “Why Competition Commission of India Is Investigating Amazon”, *Outlook India*, 2 May 2022.

Figure 12. Employment share in the wholesale and retail trade sector by enterprise size, selected countries or territories, 2020 *

<table>
<thead>
<tr>
<th>Country</th>
<th>Micro</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rwanda</td>
<td>98%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Plurinational State of Bolivia</td>
<td>96%</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Occupied Palestinian Territory</td>
<td>94%</td>
<td>4%</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>El Salvador</td>
<td>90%</td>
<td>2%</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Jordan</td>
<td>88%</td>
<td>2%</td>
<td>2%</td>
<td>7%</td>
</tr>
<tr>
<td>Seychelles</td>
<td>82%</td>
<td>3%</td>
<td>15%</td>
<td>18%</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>80%</td>
<td>10%</td>
<td>8%</td>
<td>14%</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>76%</td>
<td>7%</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>Mongolia</td>
<td>72%</td>
<td>9%</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>Georgia</td>
<td>72%</td>
<td>13%</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>Serbia</td>
<td>72%</td>
<td>20%</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>Mexico</td>
<td>68%</td>
<td>10%</td>
<td>8%</td>
<td>14%</td>
</tr>
<tr>
<td>Uruguay</td>
<td>66%</td>
<td>10%</td>
<td>9%</td>
<td>19%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>56%</td>
<td>23%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Czechia</td>
<td>55%</td>
<td>21%</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>Thailand</td>
<td>55%</td>
<td>16%</td>
<td>3%</td>
<td>22%</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>53%</td>
<td>28%</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>North Macedonia</td>
<td>49%</td>
<td>22%</td>
<td>13%</td>
<td>16%</td>
</tr>
<tr>
<td>Botswana</td>
<td>39%</td>
<td>17%</td>
<td>15%</td>
<td>29%</td>
</tr>
<tr>
<td>Austria</td>
<td>32%</td>
<td>26%</td>
<td>21%</td>
<td>21%</td>
</tr>
</tbody>
</table>

* Based on countries or territories with available data for 2020.
Source: ILO harmonized microdata; see https://ilostat.ilo.org.

85. In general, the retail sector tends to have a high prevalence of MSMEs compared to other sectors. For instance, the retail sector in Association of Southeast Asian Nations countries had the highest share of MSMEs compared to other sectors at the end of 2020 (table 2). Single-store retailers still account for most enterprises across major economies, although larger retailers often dominate in terms of sectoral revenue. In the United Kingdom, for example, the retail sector has the second highest percentage of MSMEs (43 per cent) of any industry after the hospitality industry. This fraction is normally even higher in low- and medium-income countries, in which the sector is characterized by many smaller retail enterprises and street vendors.

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Table 2. Sectoral distribution (%) of MSMEs in South-East Asia in 2020, selected countries

<table>
<thead>
<tr>
<th></th>
<th>Agriculture</th>
<th>Manufacturing</th>
<th>Transportation and communication</th>
<th>Construction</th>
<th>Wholesale and retail trade</th>
<th>Other services</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunei Darussalam *</td>
<td>2.80</td>
<td>10.70</td>
<td>5.50</td>
<td>9.90</td>
<td>34.70</td>
<td>35.10</td>
<td>1.30</td>
</tr>
<tr>
<td>Thailand</td>
<td>1.80</td>
<td>17</td>
<td></td>
<td>41.10</td>
<td>40.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>1.70</td>
<td>5.10</td>
<td>7.40</td>
<td>85.50</td>
<td>0.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lao People's Democratic Republic</td>
<td>1.40</td>
<td>14.70</td>
<td>3</td>
<td>1.70</td>
<td>61.20</td>
<td>3.20</td>
<td>14.80</td>
</tr>
<tr>
<td>Viet Nam *</td>
<td>1.10</td>
<td>15.70</td>
<td>7.90</td>
<td>13.70</td>
<td>37.50</td>
<td>22.80</td>
<td>1.20</td>
</tr>
<tr>
<td>Philippines</td>
<td>0.90</td>
<td>11.60</td>
<td></td>
<td>46.40</td>
<td>40.40</td>
<td>0.70</td>
<td></td>
</tr>
</tbody>
</table>

* 2019 data.

86. The digitalization of the retail sector presents a wide range of opportunities and challenges for the sustainable development of enterprises, in particular for MSMEs (table 3). MSMEs face major barriers in harnessing the benefits from digitalization at a global level, particularly in developing countries. They often have difficulties in accessing digital infrastructure and finance to invest in digital technologies. While many MSMEs can use digital platforms to gain access to wider consumer bases and sell their products, they often struggle to compete with these platforms when selling directly to consumers and can find their margins squeezed by their pricing strategies and associated referral fees.  

In developing countries, poor access to the internet, limited WiFi capacity and the use of legacy technologies mean that many MSMEs find it difficult to develop an online presence and trade on equal terms, which can further the digital divide and risk amplifying inequalities between countries.  

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## Table 3. Examples of technological applications, challenges and opportunities for MSMEs

<table>
<thead>
<tr>
<th>Use of digital technology</th>
<th>Opportunities</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E-commerce</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Increased market access (including international markets) and new opportunities for expansion and growth.</td>
<td>Barriers to entry</td>
</tr>
<tr>
<td></td>
<td>Potential to reverse the decline in sales from reduced store traffic in physical stores.</td>
<td>Incumbent platforms and large retailers have more resources and better access to digital infrastructure, and may find it easier to find skilled workers.</td>
</tr>
<tr>
<td></td>
<td>Ability to outsource elements of the e-commerce process (marketing, logistics, front-end interface development and so on) provides the possibility of hugely expanding market reach and sales.</td>
<td>Access to finance can be a major constraint, with more capital needed for up-front investments in digital technologies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outsourcing may require handing over sales and product data and access to customer data and profiles. This can give an advantage to platforms in creating competing products.</td>
</tr>
<tr>
<td><strong>Cashless and contactless payments</strong></td>
<td>Decreases in cost and applications linked to mobile phones have enabled basic contactless card/mobile payment systems to be available to many small/local retailers, such as market stalls.</td>
<td>Basic systems are at a disadvantage in comparison to the opportunities for data capture, analysis, processing of, for example, scan-and-go and online account-based payments used by large retailers.</td>
</tr>
<tr>
<td></td>
<td>Small retailers can compete and provide customers with a modern service when cash use has fallen significantly.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cooperative practices such as cross-retailer loyalty schemes may be used to pool and retain customer data in order to allow smaller retailers to make personalized offers in line with the practices of large retailers.</td>
<td></td>
</tr>
<tr>
<td><strong>Inventory, ordering and stock</strong></td>
<td>Digitalized inventory systems can increase product range, provide more information on stock and availability, and monitor and reduce lead times and delivery times.</td>
<td>Systems are increasingly available to large- and medium-sized enterprises but remain less common for small enterprises, so that it can be harder for them to compete.</td>
</tr>
<tr>
<td></td>
<td>Digital logistics platforms are making this available to small enterprises by offering inventory and supply chain management services.</td>
<td>Need for significant capital and infrastructure investments can be a major barrier.</td>
</tr>
</tbody>
</table>

Source: Hunt and Rolf.
87. The increased pace of digitalization during the COVID-19 pandemic left many enterprises unprepared for the rate and extent of such transformation. While industry-specific data are scarce in the wider economy, smaller enterprises have been significantly more susceptible to business failures. This had a knock-on effect on employment, with the greatest declines in working hours and outright employment in MSMEs (figure 13).\(^{147}\) Traditional retailers, including MSMEs, operating in non-essential services, in particular those already operating with lower levels of productivity, have been particularly vulnerable to the effects of the pandemic.\(^{148}\)

**Figure 13. Hours worked by establishment size** (per cent change in 2020)

![Bar chart showing percent change in hours worked by establishment size](chart.png)


88. Sustainable enterprise development, through an enabling business environment, can be a key part of policies to promote a recovery in the sector from the current economic crises across economies and better prepare for a digital future of work in the retail sector. These policies can help retail enterprises to start and grow, raise productivity, drive the creation of decent jobs and help promote economic, environmental and social sustainability. They can also help facilitate the transition of enterprises and workers from the informal to the formal economy.

89. Policies to help create an enabling business environment in a digitalizing retail sector may include those that improve access to credit and other financial services to improve business resilience and investment opportunities; simplify business regulation and tax reforms in order to encourage formalization and stimulate industry development; and adopt measures to stimulate demand for retail products and boost sectoral employment. Specific reforms based on digitalization and new technologies can help develop sustainable enterprises,\(^{149}\) including by digitalizing legal and

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regulatory administration arrangements, in particular to assist retail MSMEs in remote areas, as well as by strengthening e-commerce platforms through improved provision of internet access.

90. The COVID-19 pandemic has also highlighted the need for increased digital financial inclusion, which harnesses the potential of technology – in particular through the use of mobile devices – to ensure that financial services are targeted towards excluded and remote enterprises and people. Reforms of online and mobile payment regulations and policies to facilitate mobile financial transactions can help promote financial inclusion in the sector.

91. Using electronic money, for example, can in turn improve the financial records of business performance and enable enterprises to access lines of credit and other financial services for their business. Developments such as the digital payment of wages into bank accounts or mobile wallets could facilitate financial inclusion for the workers in the sector as well. This virtuous cycle may have positive implications for the transition to the formalization of the enterprise and of employment contracts, and may also support retail enterprises in gaining access to digital infrastructure and finance (including with regard to credit, insurance, payments and transactions), thereby encouraging enterprises to start and grow.\(^{150}\)

**Transition from the informal to the formal economy**

92. The retail sector is characterized by a high incidence of informal work and informal enterprises. Currently, more than 61 per cent of the global workforce work informally.\(^{151}\) One recent study conducted in seven countries estimates that two thirds of informal enterprises operate in the retail sector, with a median size of just two employees, including the owner.\(^{152}\) The retail sector accounts for one quarter of all informal non-agricultural employment worldwide and one third of such employment in developing countries.\(^{153}\) Many informal workers in this sector work as street vendors, at market stalls or in small shops. Informal employment remains a key reason why there are high differentials in the wages of low- and high-skilled workers and in the productivity and profitability of MSMEs and larger enterprises.

93. The employment effects of the COVID-19 pandemic and the subsequent economic crises have fallen disproportionately on informal workers but has also pushed their drive towards digitalization. Informal retail entrepreneurs – many of them in developing countries – have resorted to social media platforms to find clients and to expand their business base, allowing them to operate from home. However, this has also brought some challenges in terms of denial of payment for products, unstable internet access or delay in deliveries.

94. Following the outbreak of the COVID-19 pandemic, informal wage workers were three times more likely to lose their jobs than workers in the formal economy and 1.6 times more likely than those who were self-employed.\(^{154}\) Many of these workers are kept in informal employment because they are not registered with social security institutions. It was estimated that earnings for informal workers declined by an estimated 60 per cent globally and by as much as 81 per cent in Africa and Latin America.\(^{155}\) Many retail workers who became unemployed during the pandemic resorted to

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\(^{152}\) Adam Aberra et al., "Understanding Informality through New Data", *World Bank Blogs* (blog), 17 January 2023.


informal street vending to earn a living. Furthermore, informal jobs recovered from the impacts of the pandemic at a faster rate than formal jobs in 2021 and were estimated to be recovering at the same rate in 2022. This trend threatens the slow but consistent trend of the past 15 years towards the formalization of work. There is also a risk of widening gender inequalities, with women more exposed to informality, in particular in low- and middle-income countries. For example, 43 per cent of all women employed in the informal sector in Africa work in the retail sector.

95. Workers in the informal economy suffer from a lack of social protection, including access to essential healthcare and income security. This can leave them unprotected and vulnerable in instances of maternity, sickness and unemployment. Throughout the COVID-19 pandemic, workers such as street vendors were forced to make the choice between falling into poverty or risking contagion from the COVID-19 virus, a choice that is emblematic of the vulnerabilities that they typically face in their day-to-day lives due to their informal employment status. They were also less likely to benefit from the emergency social assistance measures and financial assistance put in place to protect workers throughout the pandemic. In this context, informal retail workers tend to be at greater risk of falling into poverty, particularly given the low economic growth and high inflation characterizing the current crises.

96. Economy-wide measures to support the transition from the informal to the formal economy and progressively and sustainably extend social protection to informal workers can have a positive impact on working conditions and sustainable livelihoods, but they need to go hand in hand with efforts to ensure workplace compliance and strengthened labour inspectorate systems. Supporting informal enterprises and workers throughout crises with a view to facilitate their formalization is an important measure for preventing job losses and vulnerability. Comprehensive policies are needed to support formalization processes, including through the reduction of decent work deficits in the informal retail sector, in combination with longer-term investments in health and social protection systems. Digital technologies, combined with appropriate social policies and legal protections, may themselves be used to support and complement the formalization of jobs in the sector – so-called “e-formalization” – through processes for the digital transformation of the economy, of government and public service delivery, and using access to financial services as a foundation for formalizing work.

3.2. Social dialogue in the context of digitalization and sustainable economic recovery

97. The ILO’s 2021 Global Call to Action for a human-centred recovery from the COVID-19 crisis that is inclusive, sustainable and resilient emphasizes the importance of social dialogue in the response to and recovery from the current global crises. This includes initiating processes to promote economic growth and strengthen labour protection by responding to the challenges of

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156 ILO, World Employment and Social Outlook 2022.
162 ILO, E-formalization in Latin America: Accelerating in a Region Full of Gaps, August 2022.
the digital transformation of work, including platform work, and issues regarding privacy and data protection.

98. Social dialogue has a key role to play in harnessing the full potential of digitalization for the retail sector. Effective social dialogue can help to ensure that technological progress achieves productivity growth, decent work and sustainable development, while ensuring decent working conditions, dignity and self-fulfilment for the sector’s workers, and achieving a just sharing of the fruits of progress and productivity growth for all. It can also help support the design and delivery of national recovery plans targeting the retail sector, including in the areas of job creation, business continuity and investment in the sector, and in facilitating the digital transformation. In developing policies and fostering social dialogue in the retail sector, the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration) provides a framework to guide all enterprises, particularly in countries that are actively engaging with multinational retail enterprises in the recovery process.

99. The more disruptive a technological change is in the retail sector, the more crucial social dialogue is for its inclusive, productive and successful adoption. Evolving working arrangements and employment relationships have changed the traditional terms of negotiations and may require new approaches to social dialogue and innovative ways to represent complex employment realities.

100. Social dialogue processes to manage digitalization in the sector can address several key challenges in the retail sector, guiding the transformation to promote decent working conditions in the sector. This may require building expertise and capacity among retail sector social partners at various levels in the area of digital transformation, including with regard to skills mismatches and emerging safety and health concerns; the implications of the changing organization of work and work arrangements; and specific digital rights, in particular with regard to protection for workers’ disconnection, right to privacy and data protection. Addressing the low unionization rate of retail workers is also an issue to be addressed for a more effective social dialogue. As a recent ILO report indicated, “formally employed workers with job security and union representation were better able to accommodate the increased demands and risks of working during the [COVID-19] pandemic”.

101. The COVID-19 crisis and its recovery process provided opportunities for the revival of tripartite and bipartite social dialogue in the retail sector, such as the adoption of a declaration by five multinational grocery retailers and UNI Global Union and a number of agreements at the national level. This renewed spirit of social dialogue in the sector can be used as a building block for effective social dialogue in order to address the challenges of digitalization in retail.

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163 ILO, ILO Centenary Declaration for the Future of Work; and ILO, Outcome of the Recurrent Discussion Committee on Labour Protection, ILC.111/Record No. 6A(Rev.), 2023.
166 ILO, World Employment and Social Outlook 2023, xviii.
sectoral level, it can contribute to the establishment of industry frameworks supporting the reskilling and the mobility of workers in the context of digital transformation.  

102. At the workplace level, it can ensure that automated and digitalized processes are introduced to workplaces smoothly, with all parties benefiting from their introduction and no negative impacts on job retention, or that jointly agreed measures are put in place to address the unwanted but inevitable effects on the organization of work. Workplace cooperation between employers and workers’ representatives, through social dialogue, can also ensure that technological applications genuinely improve work organization and occupational safety and health (OSH) standards in retail sector workplaces.  

170 During the COVID-19 pandemic, such cooperation also helped to identify solutions to workers’ well-being, while respecting collective bargaining outcomes. This was the case for food retailers, which in collaboration with workers were able to put in place training for workers on virus prevention or implement a stay-at-home policy, and for the application of short time work schemes in Austria, which was made possible thanks to workplace consultations between workers’ representatives and companies.  

171 Tools for effective workplace cooperation should be developed to help ensure safe and productive workplaces in the retail sector. This should be done in a way that respects collective bargaining and its outcomes and does not undermine the role of trade unions.

3.3. International labour standards and fundamental principles and rights at work in the context of the digitalization of the retail sector

103. International labour standards, including the fundamental principles and rights at work, provide a normative foundation for policy responses in times of crisis and beyond. Grounding regulatory and public policy frameworks in those standards and ensuring that all retail workers are covered by the relevant standards can help in responding to the challenges posed by digitalization and crisis recovery. The international labour standards are particularly relevant to the digital retail sector, even though there are ongoing discussions about how they apply in particular contexts (such as digital platforms) and the relevant normative “thematic” gaps that may exist in this regard.

173 In accordance with the ILO Declaration on Fundamental Principles and Rights at Work (1998), as amended in 2022, all Member States have an obligation, deriving from the very fact of their membership in the International Labour Organization, to respect, promote and realize the freedom of association and the effective recognition of the right to collective bargaining, the elimination of all forms of forced or compulsory labour, the effective abolition of child labour, the

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170 Rodríguez Contreras.
171 ILO, COVID-19 and Food Retail.
172 ETUC, Workers’ Information, Consultation and Participation, ETUC Briefing Note, 5 June 2020.
175 ILO, COVID-19 and Food Retail, 7, footnote 54.
elimination of discrimination in respect of employment and occupation, and a safe and healthy working environment.

106. Governments have the duty to adopt, implement and enforce national laws and regulations, and to ensure that the fundamental principles and rights at work and the ratified international labour Conventions protect and are applied to all workers in the retail sector, taking into account other international labour standards.

107. All enterprises have a responsibility to respect human rights, including the fundamental principles and rights at work, throughout their operations, consistent with the United Nations Guiding Principles on Business and Human Rights, the MNE Declaration and the OECD’s 2011 Guidelines for Multinational Enterprises. They also have a responsibility to comply with national laws and regulations wherever they operate.

Ensuring freedom of association and the effective recognition of the right to collective bargaining

108. Digitalization has the potential to generate opportunities and challenges with regard to unionization and collective bargaining for the retail sector, particularly due to the emergence of new contractual arrangements and new forms of work organization. The rise of e-commerce, for example, means that many retailers are hiring fewer workers in physical workplaces, which can make promoting union membership and collective bargaining more difficult. E-retailers are increasingly hiring workers through subcontracting (such as warehouse and delivery workers), which can create barriers to the organization of workers; some instances of anti-union actions have also been reported. At the same time, digital platforms have the potential to enable social partners to develop a mutually beneficial approach to technological changes, and in so doing to share the benefits of increased productivity. They can also help social partners to better organize, increase their reach and membership, develop innovative approaches to workers’ representation and extend their influence.

109. Since the outbreak of the COVID-19 pandemic, the exercise of the rights to freedom of association and collective bargaining has proven critical for building effective, consensus-based policies in response to the challenges of emergency response and recovery to the subsequent crises. The representation of employers and workers and their involvement in decision-making have played pivotal roles in overcoming decent work deficits linked to the COVID-19 pandemic, building resilience, safeguarding their businesses and protecting jobs and incomes. The pandemic played a positive role in unionizing retail workers but also resulted in an increase in labour unrest and collective action in the retail sector, especially in the post-pandemic period, mainly in relation to OSH, working hours, pay issues and violence. Collective bargaining agreements have contributed to improving working conditions in key areas in the retail sector (box 3). These include measures to ensure safe and healthy work environments in the context of the COVID-19 pandemic; provide for social security and leave benefits; and navigate new forms of work organization, including digital working practices (such as telework and hybrid working practices

177 United States, National Labor Relations Board, "NLRB Region 7 - Detroit Wins Injunction Requiring Starbucks to Rehire Unlawfully Fired Worker, Post the Court’s Order, and Cease and Desist from Unlawful Activities Nationwide", Press Release, 21 February 2023.
178 Rodriguez Contreras.
179 ILO, World Employment and Social Outlook 2023, 144.
180 ILO, World Employment and Social Outlook 2023, 48, box 2.1.
and work on digital labour platforms). 181 The prevalence of MSMEs in the retail sector often means limited scope for, and effectiveness of, collective bargaining, hence the importance of other forms of dialogue, including workplace collaboration.

Box 3. Examples of collective bargaining in the retail sector in response to the COVID-19 crisis

- Collective bargaining agreements were used to negotiate the installation of protective measures, such as the installation of physical barriers to protect cashiers in Chile. 1
- In Australia and the United States, workers in certain segments of the retail sector were granted additional sick-leave entitlements through collective bargaining. 2
- In Austria, a sectoral agreement resulted in the reassignment of pregnant workers to protect them from consumer contact, on full pay. 3
- One-off, bonus or hazard pay agreements were negotiated in various countries through collective agreements (such as South Africa 4, Australia 5 and Romania 6).
- In Italy, a joint call by three retail sector unions (Federazione Italiana Lavoratori Commercio, Alberghi, Mense e Servizi, Federazione Italiana Sindacati Addetti Servizi Commerciali, Affini e del Turismo and Unione Italiana lavoratori turismo commercio e servizi) and the employers’ association FederDistribuzione resulted in the provision of personal protective equipment (PPE) for food retail sector and grocery store workers and reduced supermarket opening hours to relieve the pressure on workers. 7
- The German union ver.di concluded the first collective bargaining agreement on digitalization in the retail sector with a well-known clothing brand. 8


110. At the regional level, specifically in the European Union, agreements were reached on addressing digital transformation in the context of work–life balance and working time flexibility; working conditions; OSH, including the ergonomic and psychosocial risks of digitalization; measures to protect the data and privacy of workers; and programmes designed to skill, reskill and upskill the retail sector’s workers to facilitate the process. 182 In recent years, collective bargaining agreements, joint statements and guidelines have been issued on key policy areas such as COVID-19 impact and recovery, telework and ICT mobile work, and supporting age diversity (table 4). 183

182 Rodriguez Contreras.
183 European Commission, “Social Dialogue Texts Database”.
Table 4. Recent social dialogue agreements in the EU retail sector

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>The social dimension of A European Pact for Commerce: Recovery priorities for the retail and wholesale ecosystem</td>
<td>16 October 2020</td>
</tr>
<tr>
<td>Joint statement of EuroCommerce/UNI-Europa on the impact of COVID-19 in the retail and wholesale sector</td>
<td>8 April 2020</td>
</tr>
<tr>
<td>European agreement on guidelines on telework and ICT-mobile work in commerce</td>
<td>25 May 2018</td>
</tr>
<tr>
<td>Voluntary guidelines supporting age diversity in commerce</td>
<td>11 February 2016</td>
</tr>
<tr>
<td>European agreement on guidelines on telework in commerce</td>
<td>26 April 2001</td>
</tr>
</tbody>
</table>

111. Despite the effectiveness of collective bargaining as a tool for negotiating solutions to manage transitions in the world of work, representation levels among retail workers remain low. Union membership of key workers in the retail sector is just 6 per cent, the lowest of any sector, when compared to other important occupational groups (figure 14). Not only are union rates in the retail sector low but they are also declining in many countries. For instance, union membership in the United States reached a low of 4 per cent in 2019, having trended downwards from 6.1 per cent in 2000, before climbing slightly to 4.6 per cent in 2020. Furthermore, the retail sector experienced a decrease in the levels of collective bargaining coverage from 65 per cent to 53 per cent over the period from 2000 to 2016. Low levels of unionization in the retail sector are linked to several factors, including the consolidation of retail enterprises, with an increased number of big chains, in developed countries (where collective organization is predominantly organized at the enterprise level); and the emergence of platforms and the prevalence of informal work and work in micro or small enterprises in developing countries. The sector is further characterized by a high turnover of workers and the prevalence of part-time and temporary contractual arrangements, which may discourage workers from unionization. In some countries, measures have been taken to organize temporary workers.

186 ILO, World Employment and Social Outlook 2023, 75–76.
### Figure 14. Union membership of key employees by occupational group, in 19 countries or territories

<table>
<thead>
<tr>
<th>Occupational Group</th>
<th>Union membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food systems</td>
<td>9.2%</td>
</tr>
<tr>
<td>Health</td>
<td>35.8%</td>
</tr>
<tr>
<td>Retail</td>
<td>6.0%</td>
</tr>
<tr>
<td>Security</td>
<td>22.9%</td>
</tr>
<tr>
<td>Manual</td>
<td>16.9%</td>
</tr>
<tr>
<td>Cleaning and sanitation</td>
<td>13.4%</td>
</tr>
<tr>
<td>Transport</td>
<td>17.2%</td>
</tr>
<tr>
<td>Technicians and clerical workers</td>
<td>23.2%</td>
</tr>
<tr>
<td>Key employees</td>
<td>16.5%</td>
</tr>
<tr>
<td>Total employees</td>
<td>17.6%</td>
</tr>
</tbody>
</table>

Source: ILO, *World Employment and Social Outlook 2023*, figure 3.5; analysis based on ILO microdata repository, 2019 or latest year.

112. Social partners are already looking to tackle issues of working conditions and social protection related to digitalization in retail, while sectoral or enterprise agreements have specifically targeted the issue of digitalization. This is the case of one Spanish multinational clothing enterprise, which has addressed the impacts of digitalization and its effects on the restructuring of retail outlets and logistics, both during and beyond the COVID-19 pandemic, through a number of instruments, including a contingency protocol for remote working and digitalization; agreements with representatives of store workers to continue and scale up online order preparation activities in the stores; \(^\text{188}\) and a joint declaration with the European Works Council on a strategic plan for digital transformation. \(^\text{189}\)

**Gender equality and non-discrimination**

113. The COVID-19 pandemic and subsequent overlapping crises have put at risk the hard-won gains in the areas of equality and non-discrimination achieved in recent decades. Women have been hit the hardest by the crisis. Women's employment-to-population ratios declined proportionally more than men's for all income levels, particularly in middle-income countries and high-risk sectors,


including the wholesale and retail sector. \(^{190}\) This is in part since women are more likely to be employed in poorly remunerated jobs in the sector, often in the informal economy and with inadequate social protection. \(^{191}\) As the retail sector strives to build back better and navigate the transition to a digitalized sector, immediate action is needed to promote equality and non-discrimination, and to safeguard against worsening inequalities and the increased marginalization of often disadvantaged groups of workers.

114. The retail sector has traditionally served as an entry point to the labour market for women looking to re-enter the labour market, such as after a period of absence to care for children. \(^{192}\) In this context, sectoral and workplace actions to reduce gender inequalities may need to include broader reforms that ensure access to care services, policy changes for promoting work-life balance and access to reasonable shift arrangements.

115. Many jobs along the retail supply chain are considered “feminized”, with women more likely to work in jobs that are related to customer service, cashier or checkout work, clerical work and so on. This is partly due to the customer-facing nature of these roles, with women often perceived to be more suitable for work that involves interpersonal management. \(^{193}\) Such roles are also frequently associated with low-paid, low-skilled, part-time and contract work, which may perpetuate gender pay gaps in the sector. In Australia, for instance, women in the retail sector earn 14.8 per cent less than men, while a 2016 study in Canada demonstrated a 26 per cent gender pay gap for work of the same value in the retail sector. \(^{194}\)

116. While women make up nearly half of the retail sector’s workforce, only 27 per cent of management roles and 31 per cent of supervisor roles are performed by women. \(^{195}\) This data is confirmed by a recent ILO analysis, which found that of 1,200 shopkeeping, sales and trade enterprises surveyed, only about 23 per cent reported a female CEO (versus about 77 per cent with a male CEO) and 25 per cent to have a female chairperson on the board of directors. \(^{196}\)

117. The retail sector registered a surge in the incidence of threats and verbal abuses during the COVID-19 pandemic. \(^{197}\) According to a UNI Global Union report, women are the victims of most of the abuse and sexual harassment perpetrated in the sector, including third-party violence: 56 per cent of women reported sexual harassment in Finland and 58 per cent of women reported gender-based violence at work in Nigeria. \(^{198}\) Such trends may require the sector to put in place integrated and gender-responsive approaches to the prevention and elimination of violence and harassment in the workplace, in line with the Violence and Harassment Convention (No. 190) and Recommendation (No. 206), 2019.

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\(^{190}\) ILO, An Uneven and Gender-Unequal COVID-19 Recovery.


\(^{192}\) ILO, Employment Relationships in Retail Commerce, para. 16; and Eurofound, Working Conditions in the Retail Sector, 2012.


\(^{194}\) Sue Mitchell, "Gender Inequality in Spotlight as Retail Vacancies Soar", Financial Review, 21 July 2022; and Kendra Coulter, Angella MacEwen and Sheetal Rawal, "The Gender Wage Gap in Ontario’s Retail Sector: Devaluing Women’s Work and Women Workers" (Brock University, 2016).

\(^{195}\) Sedex, Driving Gender Equality through Data on Global Supply Chains, 2021.


\(^{197}\) ILO, World Employment and Social Outlook 2022.

118. In addition to the discrimination that women traditionally face in the sector, the rapid digitalization of the retail sector is creating additional challenges for gender equality. There is already a digital gender divide in terms of existing digital skills, access to skills development and participation in digital roles within the labour market for women. This digital divide threatens to critically limit the pool of skilled workers to fulfil the demand for digital skills in the retail sector. Among the key challenges that women face are gender biases in occupational choices; low representation in STEM areas; barriers to education and training; and economic and sociocultural constraints.  

119. The shift towards e-commerce has also created an increasing number of jobs in adjacent sectors such as logistics, warehouse and delivery work, which are traditionally male-dominated sectors and have very few women in leadership positions. Moreover, ILO research suggests that digital labour platforms – while they potentially offer flexibility for women to combine paid work with care responsibilities and so on – have not so far reduced gender inequalities, with fewer men than women being employed on such platforms and women tending to pick less demanding and less well-paid gigs. 

120. Policies that target gender equality in the retail sector may need to include comprehensive action to address equal pay for work of equal value and pay transparency; close the gender skills gaps, in particular for core skills and digital skills, thereby creating opportunities for women in retail, including in technology-intensive areas; remove barriers to entry and advancement in education and training and careers; establish well-functioning childcare and family services and facilities; and prevent and protect women from gender-based violence and harassment. The proliferation of digital technologies in the sector can also be used to help protect workers from violence and harassment in the workplace. For instance, communication devices, including mobile devices and headsets, can help to empower workers to summon help when threatened by customers, particularly when trained to do so.

Workers with disabilities

121. Prior to the COVID-19 crisis, retail workers with disabilities already faced significant exclusion in the workplace and beyond. The impacts of the COVID-19 pandemic and the subsequent economic crises have only served to increase the vulnerability of persons with disabilities and to risk exposing them to further inequalities. Nevertheless, there is an opportunity for digitalization to play a key role in promoting the inclusion of workers with disabilities, as the retail sector looks to build back better from the crisis. Digital tools have the potential to enable persons with disabilities to find employment more easily (for instance, through online recruiting platforms), support them in performing the tasks involved in various retail occupations, and help improve workplace safety and health. At the same time, people with disabilities face huge barriers in terms of equal opportunities in the world of work: they may find themselves excluded from appropriate training programmes and therefore lacking the digital skills to benefit from the opportunities that new ICT can bring. Consequently, there is a need for disability-specific initiatives that target

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202 ILO, Global Call to Action; and ILO, The Gender Divide in Skills Development.


diversity, equality and inclusion, including skills training programmes that equip persons with disabilities with the right tools to succeed in the digitalized retail sector. There is also a need for measures that promote the vocational rehabilitation and employment of disabled persons in the digital retail sector, in line with the Vocational Rehabilitation and Employment (Disabled Persons) Convention, 1983 (No. 159).

**Migrant workers**

122. Migrant workers represent a large share of the workforce in the retail sector. In the European Union, United States and Canada, migrant workers account for 12, 15 and 28 per cent of the retail workforce, respectively. During the COVID-19 pandemic, many of these workers were key to the operation of essential services, including in grocery shops, petrol stations and pharmacies. The share of self-employed migrants in the sector is increasing in some regions, such as Europe, where self-employment is particularly important for migrant workers as it gives them the opportunity to rely on their informal family network to maintain long opening hours, especially in urban areas. Street vending is also common among workers who migrate from rural to urban areas in developing countries as a means to ensure their livelihoods.

123. The COVID-19 pandemic had a disproportionate impact on migrant workers. Measures such as lockdowns and border closures had specific impacts on their working conditions and livelihoods, and many migrant workers were unable to access government support measures or access labour protection because of their informal contractual status. Other issues include skills invisibility and inadequate recognition of migrants’ qualifications, with impacts on their earning and working conditions. Ensuring equality of treatment and non-discrimination with respect to nationals and all other workers, in all aspects of employment, as well as ensuring that migrant workers do not pay recruitment fees or related costs, in line with the ILO’s General Principles and Operational Guidelines for Fair Recruitment, are key to ensuring that migrant workers have decent working conditions and can continue to contribute to societies and economies as they did by performing essential retail work throughout the recent crises.

**A safe and healthy working environment in the digital retail sector**

124. The discussion of OSH in the retail sector becomes very important in the context of the recent designation of the Occupational Safety and Health Convention, 1981 (No. 155), and the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187), as fundamental Conventions. This may have implications for the actions that governments, as well as employers’ and workers’ organizations in the sector, put in place to strengthen the governance of OSH; increase their investments in establishing a safe and healthy work environment in the sector; and tailor systems for the promotion of physical and mental health in the workplace, in response to the challenges of digitalization and beyond.

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207 Institute of Immigration Research, "Essential Workers: Retail".


125. Work in the retail sector is often perceived to be relatively safe and low risk, especially when compared to higher-risk economic sectors, such as agriculture, construction, manufacturing, mining and transportation. While this may be reflected in terms of the relatively low incidence of fatalities, injuries and work-related ill health in the sector, there are still significant OSH risks to working in the retail sector, many of which are often hidden or overlooked. In the United States, there were 404,700 cases of injury and illness in retail and trade in 2021, the largest increase of any sector from 2020 levels. At the peak of the COVID-19 pandemic, workers in the retail sector had the second highest incidence of respiratory illness – behind only healthcare and social assistance workers – of 37.5 cases per 10,000 full-time equivalent workers.

126. Workers in the retail sector are at particular risk of musculoskeletal injuries, such as muscle strains and back injuries, tendonitis, carpal tunnel syndrome and rotator cuff injuries. These are attributed to common OSH risk factors associated with retail work, such as awkward or static moving or sitting postures and heavy lifting. These can be of particular risk, due to the large representation of the youngest and oldest age groups of workers in the sector.

127. Throughout the COVID-19 pandemic, workers in the retail sector were at particular risk of contracting the COVID-19 virus, due to commonly working in direct contact with the general public, often in enclosed spaces. This was of additional concern to workers in the food retail sector and other retail workers deemed as “key workers” during the peak of the pandemic, with one out of every five of all key workers working in retail. These workers faced daily risks of contagion throughout the pandemic, which caused many workers stress and concerns over the safety and health of themselves and their families. The excess demand of key workers meant that they also frequently had to work longer hours with less rest. Following the pandemic, it is important for policymakers and employers to consider and take measures to mitigate the psychosocial impacts and mental stress of the pandemic on the sector's workers. It is also critical to take stock of the lessons learned in the pandemic on issues such as workplace hygiene and sanitation, health surveillance, provision of PPE (including sanitary masks) and the use of flexible working arrangements (including telework, where applicable) and their roles in improving OSH, particularly in response to future health crises.

128. Digitalization and the introduction of new technologies in the workplace also present opportunities and challenges for OSH in the retail sector. Digitalization has the potential to help address the musculoskeletal risks associated with retail work, which still persist for warehouse and delivery workers; new technologies can significantly improve ergonomics by automating routine manual tasks, in particular by reducing the need for heavy lifting. During the COVID-19 pandemic, the use of technologies such as mobile devices and communication technologies allowed workers to maintain physical distancing and follow other pandemic prevention guidelines more effectively, particularly in activities such as stocktaking and warehouse work. In some

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215 Anderson and Linn.
instances, digital technologies can help reduce pressure by allowing workers to focus on critical functions and avoid repetitive routine tasks. However, workers can find themselves at additional strain, particularly in terms of psychosocial risks and work-related stress linked to unclear regulations – or a lack thereof – on working time; changes in roles and new requirements; and the lack of adequate skills to meet such changes. This may be compounded by factors such as increased pressure to meet productivity targets in these roles, a lack of job security, and cases of worker monitoring and surveillance enabled by digital technologies.  

219 Last-mile delivery services, which are connected to retail through the rise in e-commerce, present particular OSH risks for their workers, including those linked to traffic accidents and the inability to take necessary breaks; 220 in some instances during the COVID-19 pandemic, this also prevented some delivery workers from receiving occupational accident insurance. 221

3.4. Working conditions and social protection

Conditions of work, working arrangements and changes in the regulatory framework

129. The expanded ecosystem of new typologies of working arrangements reflects the new reality of the emergence of online retail activities, which has intensified the links of the retail sector with, and its effects on, other sectors, such as the logistics, transportation, postal and delivery sectors and so on. Workers in this new ecosystem operate to connect online retailers or platforms with customers and ensure that goods reach people’s homes.

130. The changing landscape of the retail sector, which has been shaped by its rapid digitalization, has also triggered an increase in new working arrangements in the sector, including just-in-time scheduling, zero-hours contracts and on-call contracts, which may be facilitated by the increasing uncertainties in markets, including labour markets, and the stagnation of productivity growth. This has exposed gaps in regulatory frameworks, which do not cover these new categories of workers. One example is the increasing use of workers in “special employment types under consignment contracts”, 222 resulting from the expansion of e-commerce and related delivery services.

Employment status and forms of employment

131. The employment status of retail workers varies considerably among countries, income groups and types of retail employment. Based on countries for which data is available, own-account workers and contributing family members characterize the retail workforce, especially in low-income and lower-middle-income countries (figure 15). A recent ILO study estimates that globally, 45 per cent of workers in the retail sector are own-account workers. 223

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221 ILO, World Employment and Social Outlook 2023, 79.

222 Consignment is a type of contract in which the consignor delivers the goods to the consignee for sale. The consignee takes care of the goods and sells them. Until the goods are sold, the consignor does not lose ownership of the goods. After the sale, the consignee pays the consignor a certain amount of the sale proceeds.

Figure 15. Share of employment, by employment status and country income group, selected countries, 2020

Source: ILO harmonized microdata; see https://ilostat.ilo.org; based on countries with available data.

132. The high incidence of self-employment in developing countries reflects the prevalence of street vending and market selling in the retail sector. Informal street vending is essential for sustaining livelihoods, especially in developing countries, and has been an increasingly important source of employment throughout the COVID-19 pandemic as many workers affected by the pandemic turned to street vending to earn a living. While some efforts have been made to provide street vendors with benefits and legal protections, the lockdowns exacerbated their working conditions, their already irregular incomes and their level of indebtedness. 224

133. With few exceptions, women are the most represented among own-account workers in the retail sector, especially in low-income, lower-middle-income, and upper-middle-income countries (figure 16).

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Based on countries or territories for which data is available, a common form of employment in the retail sector is through temporary contracts, particularly in developing countries (figure 17). These can be an opportunity for workers to start engaging in paid work and move towards a more stable contract. However, the over-reliance on such contracts to reduce labour costs and manage uncertainties in the market can create a vicious cycle, whereby workers move between temporary contracts and unemployment. The Termination of Employment Convention (No. 158) and Recommendation (No. 166), 1982, provide a normative framework for ensuring adequate safeguards to avoid the misuse of such types of contracts in the retail sector. 225

225 ILO, World Employment and Social Outlook 2023, 155.
The retail sector covers a diverse range of occupations, with workers earning different wages both across the sector and across different countries. Nevertheless, it is a sector in which there is a prevalence across countries of low-wage jobs that may not be sufficient to sustain a decent livelihood. The ILO estimated that the share of low-paid workers in key segments of the retail sector in 2020 was 37 per cent (versus 29 per cent for all key workers).

\[\text{Wages and incomes}\]

The retail sector covers a diverse range of occupations, with workers earning different wages both across the sector and across different countries. Nevertheless, it is a sector in which there is a prevalence across countries of low-wage jobs that may not be sufficient to sustain a decent livelihood. The ILO estimated that the share of low-paid workers in key segments of the retail sector in 2020 was 37 per cent (versus 29 per cent for all key workers).

226 The World Employment and Social Outlook 2023 defines “low-paid workers” as those workers whose earnings are less than two thirds of the median hourly wage.

227 ILO, World Employment and Social Outlook 2023, 205.
23 per cent of retail workers receive welfare benefits to supplement their incomes.  

In low-income and middle-income countries, the prevalence of informality means that many of the sector’s workers work in low-paid jobs or jobs with insecure incomes.  

136. In many countries, low wages have become a major challenge for both employers and workers in the retail sector. The lack of adequacy and effective application of minimum wages remain a challenge in many countries, including in this sector, which may contribute to the increasing levels of working poverty and income inequality. At the same time, a number of elements need to be considered when setting minimum wages, including the needs of workers in the sector, as well as levels of productivity and other economic factors. Raising wages in some low-paid retail occupations (such as warehousing) may help increase productivity and reduce staff turnover among large retailers, as showed in a recent study.  

137. Digitalization poses opportunities and challenges for the sector in this regard. While low pay in the sector is typically associated with low-skilled work, there is an opportunity to create more jobs in the sector in higher-skilled and often high-productivity occupations, for which wages are normally higher in order to attract and retain skilled workers. Nevertheless, skilling, upskilling and reskilling the current workforce to fulfil labour market demand in the digitalizing retail sector, while ensuring that workers are paid adequate minimum wages, remain key concerns for the sector as it recovers from the COVID-19 crisis. Another related issue is the broader remuneration system resulting from platform work associated with retail, such as that of delivery workers who provide services for e-commerce platforms, which is still part of a complex debate around the regularity and transparency of such systems. In some instances, addressing issues related to the classification of workers (such as disguised employment relationships) could allow the coverage of platform and delivery workers by provisions such as minimum wages. Collective bargaining at enterprise or sectoral levels has also proved an effective tool to address wage-setting in the various segments of the retail sector, as in the cases of Chile, South Africa, Switzerland and Tunisia.  

Working hours  

138. Retail workers tend to have unstable and unpredictable schedules, and in some developing countries or territories they tend to work more than 48 hours per week (figure 18). While this may be especially the case among informal street vendors who often work long hours to sustain their livelihoods, own-account workers and wage workers are also subject to this situation. In higher-income countries, significantly less than one third of the retail sector’s workers work long hours (12.5 per cent), according to ILO data available. Also, many workers in specific key subsectors of the retail sector were either required to work longer hours to provide essential work during the COVID-19 pandemic or else they needed to do so to survive the hardships of the pandemic. Some countries or territories have revised their labour legislation to ensure that the specific working hours of e-commerce enterprises (such as for night work) are introduced by collective bargaining agreements (for example Belgium).  

References

228 Olivia Gable et al., No Returns: A New Direction to Tackle Insecurity in Retail following COVID-19 (Work Foundation, 2020).  
230 ILO, Outcome of the Recurrent Discussion Committee on Labour Protection.  
231 ILO, World Employment and Social Outlook 2023, 195.  
232 ILO, A Normative Gap Analysis on Decent Work in the Platform Economy.  
### Figure 18. Employment share of retail workers by weekly working hours, selected countries or territories, 2020

<table>
<thead>
<tr>
<th>Country</th>
<th>&lt;40 hrs</th>
<th>40+ hrs&lt;48</th>
<th>48+ hrs</th>
<th>Total</th>
</tr>
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<td>25%</td>
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<td></td>
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<td>4%</td>
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<td></td>
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<td>14%</td>
<td></td>
</tr>
<tr>
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<td>38%</td>
<td></td>
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<tr>
<td>Guyana</td>
<td>23%</td>
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<td>59%</td>
<td></td>
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<tr>
<td>West Bank and Gaza</td>
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<td>34%</td>
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<td>Philippines</td>
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<td>Brunei Darussalam</td>
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<tr>
<td>Switzerland</td>
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<td>35%</td>
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<td>48%</td>
<td>9%</td>
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<td>Georgia</td>
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<td>34%</td>
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<td>Greece</td>
<td>35%</td>
<td>38%</td>
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<td>Kyrgyzstan</td>
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<td>Kosovo</td>
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<td>36%</td>
<td>41%</td>
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<td>Belarus</td>
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<td>78%</td>
<td>3%</td>
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<td>Bosnia and Herzegovina</td>
<td>13%</td>
<td>65%</td>
<td>22%</td>
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</tr>
</tbody>
</table>


**Working time arrangements and work schedules**

139. Working arrangements such as just-in-time scheduling, zero-hours scheduling and on-call shifts are also common in the retail sector (box 4) to meet the increasingly demanding expectations of consumers and to adapt to the destandardization of working times.  

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Working arrangements such as irregular work, contract work and other flexible ways of assigning retail shifts provide benefits to retailers in terms of matching the supply of labour to the demand and cutting costs. Flexible working schedules can also help workers in fitting their work around the demands of their lives outside the workplace. Digitalization and algorithms can also assist enterprises and workers in better predicting workflows and improving work organization. However, unpredictable working schedules, which are typical of retail sector workers,\footnote{ILO, World Employment and Social Outlook 2023, 116.} can cause workers difficulties in balancing their family and personal life with their work.\footnote{ILO, World Employment and Social Outlook 2023.} Such uncertainty can have negative impacts on worker’s motivation and can also have negative implications for employers in terms of productivity losses and costs due to high turnover of workers. High turnover could increasingly become a limiting factor for enterprises as they seek to hire and retain skilled workers to adapt to and boost productivity in a digitalizing sector.\footnote{Oscar Vargas Llave, “Digitalisation and Working Time”, Eurofound, 15 December 2021.}

**Digitalization, e-commerce and changing employment relationships**

The evolving working arrangements in the retail sector have created several new challenges in the application of existing legal and regulatory frameworks to the changing retail sector landscape, including for workers employed in adjacent delivery and warehousing work. Some countries, such as Belgium or Brazil, have taken steps to adopt laws to manage the impact of new technologies in the context of e-commerce.\footnote{ILO, Promoting Employment and Decent Work in a Changing Landscape, General Survey 2020, ILC.109/III(B), 2020, 77–78 and para. 151.} Some regulatory systems exist for different forms of casual work, such as on-call work and zero-hours contracts. These are increasingly common in developed countries, which are taking steps to limit, regulate or prohibit them (for example in France, Ireland and the United Kingdom).\footnote{ILO, Promoting Employment and Decent Work in a Changing Landscape, 129–131.}
142. Another trend typical of digital adoption in the retail sector is the increasing resort to algorithmic management, which represents a digital evolution of pre-existing trends of scientific management of workplace organization (as applied to just-in-time and lean manufacturing), and it holds the potential to disrupt work in the retail sector. The use of algorithmic management has benefits for enterprises and workers in terms of efficiency and optimizing work processes, as well as tracking OSH risks and managing workflows; and during the COVID-19 pandemic, it allowed for workplace evaluation of health conditions to help manage the challenges of the COVID-19 pandemic. However, algorithmic management also poses significant risks to enterprises and workers. The application of algorithmic management tools such as software management and wearable technologies have the potential to, inter alia, track workers through their movements, speeds, walking routes, communication and break times. This can have negative effects on job quality and job security in the retail sector, such as increased work hours and work intensity, eroding the division between work and private life, and unpredictability of work schedules. Algorithmic management can also create key privacy and data protection concerns for workers, with adverse effects on their well-being and even their ability to effectively carry out their work.

143. One key aspect of the debate around algorithm-based decisions is the need to acknowledge them as a key factor in platforms' decision-making and to ensure that algorithms follow a process of transparency and evaluation, as some countries are starting to do. The ILO code of practice on protection of workers' personal data (1997) may provide guidance in addressing the risks relating to data protection that arise from new technologies and the need for employers to review their data-processing measures and consult workers' representatives when introducing automated management processes. Other tools such as the OECD's AI principles and the UNI Global Union's 10 principles for workers' data rights and privacy can help inform ethical data protection, in consultation with representative employers' and workers' organizations.

Social protection systems in a changing work environment

144. Social protection coverage in the retail sector depends, as in other sectors, on the type of contracts and employment status prevalent in the different segments of the sector and their level of formalization. Many of the changing working arrangements in the retail sector identified in this section share a common challenge: inadequate social protection coverage for the retail workers working under casual contracts, such as zero-hours contracts, or through outsourcing of work, including in the context of e-commerce platforms. Furthermore, such working arrangements may not constitute formal employment contracts, which has implications for workers' access to basic benefits and social security. In this context, some countries have taken steps to extend social security benefits to these categories of workers, such as by ensuring the extension of coverage for accident or injury and death benefits to self-employed workers or platform workers (France, Indonesia and Malaysia) or by extending social security for self-employed workers (Latin America).

145. Low social protection coverage for workers is prevalent throughout the retail sector (figure 19). This trend is particularly common in the key retail segment, particularly in low-income countries or

244 Guga and Spatari.
245 Baiocco et al., 21–24.
246 ILO, “Algorithmic Management”.
247 ILO, Decent Work in the Platform Economy, Reference document, MEDWPE/2022, 2022, 34.
territories, where many key workers are self-employed (94 per cent), operate in the informal economy and lack social security. Inadequate social protection coverage may also concern some developed countries. For instance, 21 per cent of service workers in the United States, including in the retail sector, had no health insurance in 2020, while nearly 50 per cent had no access to sick leave.

**Figure 19. Employment in the wholesale and retail trade by social security status, selected countries or territories, 2020**

<table>
<thead>
<tr>
<th>Region</th>
<th>Country</th>
<th>With social security</th>
<th>Without social security</th>
<th>Not stated</th>
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<td>United Republic of Tanzania</td>
<td>9%</td>
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<td>19%</td>
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<td>12%</td>
<td>56%</td>
<td>32%</td>
</tr>
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<td>Eswatini</td>
<td>17%</td>
<td>16%</td>
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<td>25%</td>
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<td>14%</td>
</tr>
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<td>11%</td>
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</tr>
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<td>Myanmar</td>
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<td>75%</td>
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<td>Timor-Leste</td>
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<td>Europe and Central Asia</td>
<td>Kosovo*</td>
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<td>Kyrgyzstan</td>
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<tr>
<td></td>
<td>North Macedonia</td>
<td>87%</td>
<td>13%</td>
<td></td>
</tr>
</tbody>
</table>

* As defined in UN Security Council resolution 1244 of 1999.
Source: ILO harmonized microdata; see https://ilostat.ilo.org.

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250 ILO, World Employment and Social Outlook 2023, 118.
The COVID-19 pandemic and subsequent crises have exposed a critical need to close gaps in social protection coverage in the retail sector. Designing, progressively extending and strengthening social protection schemes in a fiscally sustainable manner can help protect the sector’s workers and support decent work. For instance, measures have been taken to address the gap in access to unemployment protection, combining them with labour market and employment services, in order to help drive job creation. The short-term measures used to support retail sector workers throughout the crisis (such as time-bound relief interventions to protect people’s income or health) can be used as a foundation for establishing and strengthening social protection systems and ensuring adequate and comprehensive coverage in the longer term. Investing in social protection floors and targeting the gaps in social protection schemes for retail workers, such as by creating the necessary fiscal space for universal coverage, are measures that could ensure adequate protection for these workers.  

Annex

Non-exhaustive reference list of ILO declarations, instruments and guidance and other international instruments and guidance to advance decent work in the retail and commerce sector

International Labour Standards

Fundamental Instruments

- Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)
- Right to Organise and Collective Bargaining Convention, 1949 (No. 98)
- Equal Remuneration Convention, 1951 (No. 100), and the Equal Remuneration Recommendation, 1951 (No. 90)
- Abolition of Forced Labour Convention, 1957 (No. 105)
- Discrimination (Employment and Occupation) Convention, 1958 (No. 111), and the Discrimination (Employment and Occupation) Recommendation, 1958 (No. 111)
- Minimum Age Convention, 1973 (No. 138), and the Minimum Age Recommendation, 1973 (No. 146)
- Occupational Safety and Health Convention, 1981 (No. 155), and the Occupational Safety and Health Recommendation, 1981 (No. 164)
- Worst Forms of Child Labour Convention, 1999 (No. 182), and the Worst Forms of Child Labour Recommendation, 1999 (No. 190)

Governance (priority) Instruments

- Labour Inspection Convention, 1947 (No. 81), and the Labour Inspection Recommendation, 1947 (No. 81)
- Employment Policy Convention, 1964 (No. 122), and the Employment Policy Recommendation, 1964 (No. 122)
- Labour Inspection (Agriculture) Convention, 1969 (No. 129), and the Labour Inspection (Agriculture) Recommendation, 1969 (No. 133)
- Tripartite Consultation (International Labour Standards) Convention, 1976 (No. 144), and the Tripartite Consultation (Activities of the International Labour Organisation) Recommendation, 1976 (No. 152)
Technical Conventions

- Protection of Wages Convention, 1949 (No. 95)
- Social Security (Minimum Standards) Convention, 1952 (No. 102)
- Weekly Rest (Commerce and Offices) Convention, 1957 (No. 106)
- Hygiene (Commerce and Offices) Convention, 1964 (No. 120)
- Minimum Wage Fixing Convention, 1970 (No. 131)
- Human Resources Development Convention, 1975 (No. 142)
- Termination of Employment Convention, 1982 (No. 158)
- Vocational Rehabilitation and Employment (Disabled Persons) Convention, 1983 (No. 159)
- Part-Time Work Convention, 1994 (No. 175)
- Home Work Convention, 1996 (No. 177)
- Private Employment Agencies Convention, 1997 (No. 181)
- Violence and Harassment Convention, 2019 (No. 190)

Technical Recommendations

- Weekly Rest (Commerce and Offices) Recommendation, 1957 (No. 103)
- Hygiene (Commerce and Offices) Recommendation, 1964 (No. 120)
- Termination of Employment Recommendation, 1982 (No. 166)
- Part-Time Work Recommendation, 1994 (No. 182)
- Home Work Recommendation, 1996 (No. 184)
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