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SMEs in the online platform economy

This chapter looks at the ability of online platforms, which connect two or more independent sets of users, and enable positive network effects, increase their customer base, reach scale without mass, find innovation opportunities and assets, and access digital solutions and business intelligence services. However, online platforms can also raise risks related to competition distortions, reputational damage, and digital security or lock-ins, especially for SMEs. The chapter explores relatively scarce international data and literature to analyse SME use of online platforms and economic impact. Finally, the chapter highlights how policy action to support SME's access to, and ensure a level playing field on, digital platforms is currently being mainstreamed by OECD governments, illustrated through six short case studies (Australia, Denmark, France, Korea, New Zealand, United Kingdom).

In Brief

Highlights

- **Online platforms are central in the digital transition** of economies and societies, and the pandemic has strengthened their role. They provide important channels for growth to SMEs “going digital”.
- **At the time of COVID-19, online platforms have opened new sales and sourcing channels for SMEs** and facilitated their access to multiple types of digital networks which might be key for the survival and expansion of both existing and nascent SMEs – by providing e-commerce sales, teleworking capabilities and more.
- **SMEs uptake remains relatively limited and behind larger firms, despite the evidence suggesting that by leveraging online platforms, SMEs can improve their productivity.** SMEs can lower operation costs, access business intelligence services, and generate economies of scale (capitalising on network effects) as well as economies of scope, through reduced information asymmetry, increased client/supplier base and greater market outreach, outsourcing logistics, as well as many other factors. OECD studies highlight that the impact on productivity is disproportionately larger the smaller the firm.
- **However, SMEs face challenges and risks in operating on online platforms.** The lack of digital skills and the need to adapt business models can be important barriers. Fee structures of the platforms and the sharing of sensitive business data with implicit acceptance of matching algorithms on which SMEs have no influence or even information also present challenges. There are also risks related to digital security, competition distortion and possible lock-in effects.
- **Complementary investments to raise awareness and develop skills, especially of non-ICT expert staff, could increase uptake.** The higher the share of SMEs providing in-house ICT training in a country, the higher the share using social media, with evidence of a stronger impact on smaller firms.
- **Governments have a strong role to play in enabling greater uptake (and in turn fostering resilient growth).** Some OECD governments have introduced policies aimed at increasing SME use of online platforms, through awareness campaigns, consultancy vouchers, self-assessment tools or training. These initiatives typically target higher SME engagement in e-commerce, greater online presence, and communication platforms that can facilitate remote working. Some governments are also promoting programmes in co-operation with large online platforms. **In the context of COVID-19, policy actions have intensified**, with more probably long-term effects.

Introduction

Online platforms are central in the development of digital economies and societies. In the last decade, they have become ubiquitous, impacting most economic sectors and social dynamics in OECD countries and beyond. Online platforms can be pure intermediaries, direct service providers, employers, lenders, or, indeed, a combination of all the above. It is difficult to overstate their role in the rapid development of the internet economy from a low starting point to the current relevant reach and influence. For example, in the United States, e-commerce as a percent of total retail sales has grown from 0.6% in 1999 to 16.1% in the second quarter of 2020 (U.S. Census Bureau, 2020^[1]). The global COVID-19 pandemic and the related requirements for social distancing has accelerated these trends.

Greater uptake of online platforms is especially important for SMEs. Unlike larger firms, the ability of SMEs to develop internal digital infrastructures that can capitalise on the benefits of digitalisation, is limited by a lack of financial resources and/or skills (OECD, 2019^[2]).

Leveraging on online platforms provides scope to overcome size based challenges, and enable SMEs to better benefit from digital transformation. Online platforms offer some obvious benefits to SMEs. They provide a means to access new markets, sourcing channels and a multitude of digital networks. They also provide scope for efficiencies that can drive economies of scale, leverage network effects, and, in turn, boost competitiveness and productivity. Digital technologies can substantially lower many types of cost: search costs, replication costs, distribution costs, tracking costs and verification costs, (Goldfarb and Tucker, 2019^[3]). A recent empirical study across 10 OECD countries in four industries in which SMEs are the majority (hotels, restaurants, taxis and retail trade) found that platforms can improve the productivity of incumbents and stimulate movement of workers to more productive firms (Bailin Rivas et al., 2019^[4]). Another recent study found that an increase in platform traffic has a stronger positive effect on labour productivity growth for SMEs (Costa et al., 2020^[5]).

At the same time, SMEs face challenges in adoption and adapting. Whilst online platforms can circumvent the challenges and costs associated with developing their own internal digital infrastructures, they do not amount to a free lunch. Capitalising on online platforms incurs direct and indirect costs: from the fee structure proposed by platforms, to the need to share sensitive business data and the implicit acceptance to be subjected to matching algorithms on which SMEs have little influence. Vertical integration of platforms (e.g. combining production, advertising and distribution of goods) might also generate conflicts of interest with SMEs which have low bargaining power. Moreover, many “offline” business models have been disrupted by online platforms, creating the need for SMEs to adapt to the changing scenario. Possible anti-competitive practices by online platforms could also threaten fair competition in an increasingly large number of markets, and regulators in many OECD countries are looking closely at this phenomenon.

Many governments are supporting the transition of SMEs towards digital business practices, especially in the context of the COVID-19 global pandemic. Many governments across the OECD have shown an interest in helping SMEs and entrepreneurs to reap the benefits of online platforms. Some have introduced policies that specifically target increasing SMEs’ skills and awareness, engagement in e-commerce, online presence, or increasing capacities to leverage communication platforms for remote working – policies that have become even more important in responding to the pandemic.

This chapter analyses how SMEs across OECD countries are capitalising on online platforms. Using comparable international data the chapter analyses the benefits and the challenges, and provides an overview of the main differences among countries in terms of uptake and usage. The chapter also provides specific national examples of policies being adopted in OECD countries to support greater uptake of online platforms by SMEs, both before and during the COVID-19 pandemic.

Online platforms: Features, benefits and challenges for SMEs

Features and definition

In this chapter, an online platform is defined as: “**an online platform is a digital service that facilitates interactions¹ between two or more distinct but interdependent sets of users (whether firms or individuals) who interact through the service via the internet**” (OECD, 2019^[6]; Rochet and Tirole, 2003^[7]). The term “users” is considered here in its wider sense, and includes: not only individuals and firms of all sizes, but also governments, non-profit organisations and other actors in the economy. In the discussion that follows, we consider only those SMEs using non-proprietary platforms as opposed to SMEs that develop their own platforms (Box 3.1).

A central feature of platforms relates to their ability to generate and deliver network effects. Direct network externality can be defined as a change in the benefit that an agent derives from using a good/service when the number of consumers or users of the same good/service increases – e.g. the value for a user of a social network increases with the total number of other users of the same social network. In the common economic literature, most markets with network externalities are two-sided, with particular reference to online platforms and their ability to “get both sides of the market on board”. A more precise definition of two-sided markets is “one in which the volume of transactions between end-users depends, not only on the overall level of fees charged by the platforms, but on the structure of these fees”.

Two key notions derive from the theories of network externalities and of multi-product pricing. First is the idea that end-users do not consider externalities and do not internalise them in their decisions to interact through the platform. To clarify with an example: in his decision to purchase a good, a buyer on an e-commerce website does not generally consider the welfare impact of his or her use of the platform on other end-users (e.g. buying the product could drive the price up for other users if there is limited supply, or drive it down by attracting new sellers). The second is the importance of price structure (e.g. product pricing which defines various prices or discounts in relation to volumes, etc.). Two-sided and multi-sided markets however can also be seen from a different angle, considering the existence of *cross-group externalities* – the intuitive notion that the net utility of end users (for example, SMEs) on a platform is affected by an increase of the number of members of the other group of end users (for example, customers) in the platform (Rochet and Tirole, 2006^[8]).

Box 3.1. The rise of SME platforms

The case of “SME platforms” is quite interesting as the specific features of their business model (i.e. cascading network effects) has allowed them to become global players with millions (and sometimes hundreds of millions) of users without the need to scale up in terms of size. This phenomenon that became known in the literature as “Scale without mass” (Brynjolfsson et al., 2008^[9]) is related to the extremely low marginal cost of processing, storing, replicating and transmitting data for additional users once the initial fixed costs incurred for hardware and software development have been covered/paid.

Whatsapp offers a telling example. The app was launched in 2009 and bought by Facebook in 2014 for approximately USD 16 billion. The app had over 450 million monthly users, 70% of which were active on any given day (SEC, 2014^[10]). But the striking fact is that these volumes were reached by an SME with only 55 employees. The possibility to scale up the business model rapidly and without the need to grow the employee base is one of the core characteristics of the business and technology developments underpinning it, involving network effects, vitality, behaviour design and data (Choudary, 2015^[11]).

Another key aspect of these (typically disrupting) business models is that the network effects create “winner-takes-all” markets, characterised by the fact that the player is able to reap all the benefits from the market, leaving almost nothing for all other competitors (with similar albeit less extreme outcomes in “winner-takes-most” markets). However, the winner-takes-all and winner-takes-most structure of platform businesses can be offset in part by their property of scalability. New competitors can enter and sweep the market rapidly if they are able to unlock the self-reinforcing network effects if users can switch platforms easily and at low costs. The most recent example is in social media, where a seemingly “closed” market dominated by few very large players saw the rapid growth of the new competitor *Tik Tok*, especially among young users. The downloads of the platform’s app rapidly surged from 343 million in the first half of 2019 to 615 million in the first half of 2020 (Mediakix, 2020^[12]). Fair competition and low switching costs are a pre-requisite for markets to stay contestable (see the following sub-section on “Risks of competition distortion”).

In OECD and G20 countries the COVID-19 pandemic has caused a surge in the use of online platforms, but this surge has been very heterogeneous across sectors and countries. Online platforms in areas where activities could be pursued without physical proximity (e.g. mobile payments, online marketplaces, restaurant delivery) saw a rise in traffic above 20%. In other areas however where physical proximity is needed to consume the service being provided (e.g. accommodation, restaurant booking and transport) platform use declined sharply (-70%). Countries with more developed digital infrastructure and higher digital literacy saw a steeper increase, suggesting that investing in these capabilities could be a way to increase resilience to future shocks (OECD, 2020^[13]). The uneven use of online platforms across countries and regions is also a result of differences in access to digital infrastructure (i.e. fixed or mobile high-speed broadband). This space-based disparity has also a more general impact on digital adoption by SMEs (see sub-section on “Cross-country differences are significant in accessing infrastructure” of Chapter 2).

SME business functions on online platforms

Online platforms are very heterogeneous in their functionalities, structures and in the services they offer. The definition of “online platforms” considered (See sub-section on “Features and definition” of this chapter) is very comprehensive. However, it makes it difficult to narrow the scope to the most important cases in which platforms modify deeply market conditions (both as opportunities and challenges, see next sections) specifically for SMEs. To give an idea of the wide variety of large active platforms offering their

services to different types of end-users, a recent global survey identified 176 platform companies worldwide with a market valuation of USD 1 billion or more (Evans and Gawer, 2016^[14]).

Table 3.1 below provides a summary of key business functions that can be carried out by SMEs using online platforms (see also (OECD, 2019^[6])² for a detailed discussion of various typologies of platforms – e.g. functional, user based, data based, revenue sources, and others).

Table 3.1. SME- business functions performed through online platforms

SME business functions	Matchmaking		Main benefits for SMEs ¹	Examples
	SME end-user	Other end user(s)		
Marketing, advertising, branding, customer services and external communication	All SMEs	Potential clients, business partners	Positive indirect network effects, access to markets (incl. global), advanced analytics/AI (e.g. for targeting/market segmentation, impact analysis)	Google, Facebook, YouTube
E-commerce (online marketplaces)	SMEs (e.g. manufacturing, retail)	Companies (B2B), individual customers (B2C)	Positive indirect network effects, access to markets (incl. global), advanced analytics/AI (e.g. for targeting/market segmentation, impact analysis), lower transaction costs (e.g. payment, shipping, logistic), enhanced client trust (i.e. reviews system, platform insurance)	Amazon, E-bay
Service delivery (Aggregators of incumbents²)	SMEs in accommodation and food services, media and entertainment, etc.	Individual customers	Positive direct and indirect network effects, access to global markets, lower transaction costs (e.g. payment, shipping, logistic, customer care), enhanced client trust (i.e. reviews system, platform insurance)	Deliveroo, DoorDash, Uber Eats, Booking, Netflix, Spotify, Sony Playstation
Service delivery (Disruptors for new entrants into the market²)	Self-employed, entrepreneurs	Individual customers	Positive indirect network effects, standardisation of offer, standardisation of contracts, reduced asymmetry of information, access to markets (incl. global), enhanced client trust (i.e. reviews system, platform insurance)	Airbnb, Taskrabbit
Financing	SMEs looking for financing sources and financial products?	Financial institutions, retail investors, banks	Positive direct network effects, access to global markets, reduced financing costs, reduced asymmetry of information (e.g. collaterals?)	GoFundMe, Kickstarter, Lending Club, Funding Circle, Campeon, We.trade
Payment	Selling (?) SMEs (merchants)	Individual customers	Positive direct and indirect network effects, lower cashing delays, reduced asymmetry of information (funders?) WHAT ELSE?	PayPal, Square, Revolut
Communication, remote working, teleconferencing	All SMEs	Individual customers, Suppliers, workers (?)	Positive direct and indirect network effects, lower to zero costs for implementation (incentive or benefits?)	Whatsapp, ZOOM, Microsoft Teams, Google Meet
Research and Development (R&D), Design, exploration	SMEs (application developers)	Other programmers, Individual users	Positive direct network effects, lower production and diffusion costs (e.g. common standards, open source code)	GitHub, Apple App store, Google Play

Note: The “SME end-user” column is used to highlight the different types of SMEs using different online platforms, and it is by no means exclusive as also large firms, non-profits, etc. can (and generally do) use the same platform.

1. Definitions and analysis (e.g. positive direct and indirect network effects) can be found in the following section of this chapter on “The main benefits of platforms for SMEs”.

2. The distinction between “Aggregators” and “Disruptors” is a qualitative assessment of the platforms’ business model proposed in (Bailin Rivares et al., 2019^[4]). It distinguishes between online platforms focused on allowing incumbent service providers to reach their customers more effectively (“aggregators”, e.g. Booking, Deliveroo) and online platforms opening markets to previously almost non-existing competitors, usually self-entrepreneurs (“disruptors”, e.g. Uber, Airbnb).

Marketing, advertising, branding, customer services and external communication

Online advertising is now the dominant form of advertising in many OECD countries, and large online platforms capture most of the market Industry estimates suggest that more than half of worldwide revenues in online advertising in 2019 were attributable to Google (31%) and Facebook (20%), and around 77% if we consider all major online platforms (Alibaba, Amazon, Baidu, Tencent, Microsoft, Verizon, Twitter, Sina) (eMarketer, 2020^[15]).

Box 3.2. SME business case – Online marketing and e-commerce – Five Ways Cellars, Australia

Five Ways Cellars is an Australian independent wine retailer with one brick and mortar store. The independent family-run small business has been in operation for over 30 years. Five Ways Cellars is primarily a B2C retailer with a small B2B market, supplying imported European wine to a handful of local restaurants. Despite the Australian wine and liquor retail industry being monopolised by large retail conglomerates, Five Ways Cellars has experienced success and built up a loyal customer base. Its owner and founder attributes this success to the personalised and unique in-shop customer experience.

Five Ways Cellars over the recent years has begun to engage with online platforms and digital tools as a means to connect with existing customers and communicate offers. For most of its existence, Five Ways Cellars used traditional channels (such as flyers dropped into mailboxes) to advertised its products, but in recent years Five Ways Cellars created a Facebook page and started sending out a newsletter to communicate new offers and wine catalogues. The small business also created a “landing page” website, with basic information about the brick and mortar stores location and opening hours and a digital catalogue of their retail contents. In 2018, the website was further developed with e-commerce functionality, giving customers the opportunity to make orders online. Orders have traditionally been done in-store or over the phone. This transition opened up new customer markets and lightened the workload for the small team.

The COVID-19 crisis and the lockdown restrictions forced Five Ways Cellars to temporarily close its brick and mortar store. The e-commerce website became the sole consumer channel. The crisis accelerated Five Ways Cellars reliance on this medium and allowed the business to stay afloat during the lockdown. With all Australian consumers ordering wine and liquor online, this was also an opportunity for Five Ways Cellars to engage new customers and those in different markets, such as interstate customers. To compete with the large wine and liquor conglomerates who were able to cut prices and offer same-day delivery during this period, Five Ways Cellars increased social media presence and online advertising. Through social media channels, particularly Instagram, Five Ways Cellars could communicate its unique “boutique” offering. As lockdown regulations have eased in Australia, Five Ways Cellars continues to rely heavily on e-commerce channels, particularly for acquiring new customers.

Source: OECD “Digital for SMEs” Global Initiative Databank.

Online advertising offers sizeable opportunities to SMEs: from the global reach to the “targeting” practices based on advanced analytics leveraging users’ information, on which online platforms excel. However, this practice also raises various concerns related to consumer protection³ (OECD, 2019^[16]).

The potential access of hundreds of millions/billions of users makes appearing on the search algorithms of the larger search engines or social media platforms a crucial marketing tool for SMEs. In 2019, an estimated 82% of European SMEs promoted their products and services on online search engine platforms (European Commission, 2019^[17]). In the United Kingdom, a recent survey showed that 60% of SMEs are currently using paid digital advertising, 67% are using free services, and half of them

declared that the current COVID-19 public health emergency has made it even more important for their business. Moreover, 63% of the SMEs that do use these paid services are convinced that it has a good return on investment in terms of generating sales. The same research suggests that up to 45% of all digital advertising spending in the United Kingdom is accounted for by SMEs (IAB.uk, 2020^[18]).

E-commerce and online marketplaces

Small firms selling online are more likely to sell on online platforms (35%) than medium-sized (29%) and large firms (23%) in the EU28 (OECD, 2019^[19]). SMEs deciding to outsource e-commerce functions, can rely either on the few extremely large providers on which they can sell all kinds of products (e.g. Amazon (eBay (183 million users) - or on smaller specialised online marketplaces focusing on specific types of goods (e.g. Yoox or Zalando for fashion, BloomNation for flowers, GOAT for sneakers, Chrono24 for watches, etc.). The scale of a platform's network plays a crucial role for both large and smaller specialised platforms, as it enables the direct and indirect network effects creating value for SMEs joining the network (Holland and Gutiérrez-Leefmans, 2018^[20]). While the network of large players is obviously bigger and more diversified in general, some specialised platforms can compete by offering access to a deeper network of end-users in a specific industry/sector.

One key element for SMEs is that online marketplaces enable them to trade across regions and countries and provide a wide range of complementary services (e.g. logistic, data analytics). This happens in both developed and developing economies (OECD/WTO, 2017^[21]; ITC, 2016^[22]). It is estimated that around 300 000 SMEs registered in Amazon's "marketplace" in the United States were exporting to other countries in 2017 (OECD, 2019^[6]). Another important aspect is that they often offer a wide range of complementary services that are particularly attractive for SMEs lacking resources: logistic, customer services, SaaS, data analytics (OECD, 2019^[19]). Data analytics offered to SMEs often rely on advanced machine learning algorithms, creating an avenue for SMEs to access frontier knowledge and technology that would have been out of reach if they had to conduct developments with their limited internal capacity (see Chapter 6 on AI and SMEs).

Service delivery (Aggregators of incumbents)

"Aggregators" are platforms that allow incumbent service providers to reach their potential customers more effectively (Bailin Rivares et al., 2019^[4]). These platforms do not create a new market but do make matchmaking in the existing market more efficient thanks to the network effects. This is particularly relevant for SMEs as they have less resources to invest in traditional advertising and reach out activities.

Two interesting examples come from the restaurant and hospitality industry:

- In the first, online platforms (e.g. Deliveroo, Door Dash, Uber Eats) have provided scope for restaurant owners to access many more clients than they were previously able to. By taking care of advertising, software and mobile applications, customer care and the whole logistics of the delivery service, they have transformed the food delivery industry. Market estimates suggest that the global market reached USD 85 billion in 2018 and is set to double its value by 2025 (Forbes, 2019^[23]). During the COVID-19 pandemic this industry has accelerated its expansion and offered a lifeline to many restaurant owners who saw their conventional (non-delivery sales) disappear during lockdowns.⁴
- In the second, online platforms are able to offer a well-structured "catalogue" of hospitality service businesses (e.g. hotels, Bed&Breakfasts) to potential customers. SMEs have a very strong incentive in appearing on such platforms (e.g. Booking.com), as their global geographical reach, standardised and intuitive reservation system and extensive "traveller reviews" repository makes them very successful among travellers.

In creative industries, content delivery is increasingly shifting towards online platforms, matching creators of content with consumers. For large and small producers of movies or TV series, it is now very important to offer their products on online platforms that are coming to dominate the market (e.g. Netflix, Hulu, YouTube, HBO, Amazon Prime Video, Disney+). An even more compelling case is the one of game producers, as consumers access their products by design through platforms which might have a physical terminal (e.g. consoles like Sony PlayStation, Microsoft Xbox), but not necessarily (e.g. games for PC or Mac on Steam, Epic Games Store, Battle.net; e.g. mobile games on Apple Store or Play Store on Android).

Service delivery (Market disruptors)

“Disruptors” platforms create new markets, by bringing in new service providers and increasing competition for incumbents in the same industry. For example in the hospitality industry, the most disrupting of such services has been Airbnb, which allows anyone who has a spare room/apartment/house to rent it out directly on the platform. The growth of this online platform has allowed many new self-entrepreneurs to enter the hospitality market, increasing competition but also allowing some existing SMEs (e.g. B&Bs) to reach a much wider set of potential clients.

Financing

In recent years, a number of online platforms have entered the market to provide SMEs with easier access to financial institutions and indeed finance from non-traditional sources. SMEs might decide to use these types of platforms for their greater transparency, security and ability to lower information asymmetry with finance providers. An example is Germany’s Campeon, a tech start-up connecting data and financing requests from SMEs with large companies, banks, equity investors, guarantors, innovation support agencies, and public and private databases (OECD, Upcoming^[24]). A growing avenue of SME financing is “Peer-to-peer lending” and “Crowdfunding”, with some online platforms connecting SMEs to retail investors willing to finance directly their projects (e.g. Kickstarter, GoFundMe Lending Club, Funding Circle). This way of soliciting funds from the public through an online platform is still relatively small: the biggest market for “online alternative finance” is in the People’s Republic of China,⁵ and it accounts for 0.36% of GDP, followed by the United Kingdom (0.2%), Estonia (0.2%) and Israel (0.18%) (OECD, 2020^[25]).

Some large online marketplace platforms have also started to offer financing solutions directly to SMEs. Among the largest online marketplaces, Amazon, Alibaba, or MercadoLibre have developed a full set of financial services for SMEs operating on their platform (e.g. working capital loans, payment services, trade financing, and more). These players can leverage the large amount of data SMEs generate while operating on their platform for credit risk assessment, and are able to provide them convenient financial products without the need to partner with banks or traditional financial institutions.

Some platforms leverage distributed ledger technologies (blockchain) to provide decentralised access to KYC⁶ information to financial institutions and trading companies (e.g. Komgo SA, using the Ethereum chain). Other banks and financial institutions are testing the decentralised infrastructure of R3’s Corda: the very innovative idea here is that clients (SMEs and private citizens) maintain self-sovereignty over their data, managing their own identities and the amount of information shared with each bank. Marco Polo is another platform based on Corda which specialises in trade finance and supply chain financing. We.trade, another platform directed to SME buyers and sellers, is facilitated by 12 European banks, and clears SMEs for KYC compliance (based on Hyperledger Fabric; (OECD, Upcoming^[24])).

Payment

SMEs might decide to use online platforms to receive and make transfers for their products and services. Incumbents as VISA or MasterCard offer this kind of service providing the platforms for their network of merchants (including thousands of SMEs) to be paid by card-holders.

SMEs can also decide to open corporate accounts on new digital payment platforms that offer online payment services. These platforms allow them to connect for instant-payments with their vast network of users. Examples of such platforms are PayPal, Square or Revolut, which allow customers to pay via extremely streamlined and user-friendly mobile applications on their phones.⁷

Communication, remote working, teleconferencing

SMEs also use online digital platforms for many of their communication needs, as the most common ones offer attractive network effects with hundreds of millions of users and usually free service. Instant messaging (e.g. Whatsapp, Telegram, Skype), web conferencing (e.g. ZOOM) and hybrid services offering “workspaces” integrating both services (e.g. Slack, Microsoft Teams, Google Hangouts) have become widely integrated in business practices worldwide.

When forced to avoid direct personal contact during the COVID-19 pandemic, SMEs have heavily resorted to these online platforms to keep up their operations. Communication platforms have become even more critical in maintaining relations between suppliers and clients across value chains, not least because of their scope to enable teleworking. Obviously, the share of workers that can perform tasks remotely varies widely across sectors, so the value of using such online platforms differs between SMEs. For example, around 37% of EU-27 employees are in “teleworkable” occupations, but this share varies from 10-15% in agriculture, forestry, fishing, and construction, to more than 90% in financial and insurance activities (European Commission, 2020^[26]).

Box 3.3. SME business case – Remote working – Chartwell Consulting, Germany/United Kingdom

Chartwell Consulting is a consulting firm that has offices in Berlin and London and is specialised in advising businesses that operate in the manufacturing sector. Employees of Chartwell Consulting have on average a high level of digital skills and have always used “work-flow” and time management platforms to increase the efficiency of the day-to-day running of the business. Before the COVID-19 pandemic there was a company culture of occasional teleworking, mostly due to work-related travel. However, with the crisis and lockdown restrictions, the entire firm was forced to work from home. International travel restrictions made it impossible for employees to visit manufacturing sites in person. These new business and market conditions accelerated the firm’s reliance on teleworking platforms and accelerated its digital transition.

Chartwell Consulting in response to the crisis have used digital teleworking platforms and tools throughout the period. For internal communication, employees use Microsoft Teams and for meetings with external stakeholders they use Zoom. The firm has increased its reliance on cloud storage to adapt to teleworking as well as ensure higher levels of digital security whilst operating on less secure personal broadband connections. The practices put in place throughout this period has increased the teleworking capabilities of the firm whilst also reducing costs related to international travel and will continue in a post-COVID context.

Source: OECD “Digital for SMEs” Global Initiative Databank.

Research and Development (R&D), design, exploration

The importance of online digital platforms for innovation has been discussed in the literature of information system (e.g. (Evans, Hagi and Schmalensee, 2008^[27])). One key point is that continuous innovation in the internal structure and technical functioning of digital platforms has an effect on how businesses leverage them for innovation, making the two concepts closely interconnected (Yoo, Henfridsson and Lyytinen, 2010^[28]). In other words, it is complicated to decouple the technical side of innovation on digital platforms (analysed in Information System literature) and their economic effects on businesses, as one cannot be understood without the other (De Reuver, Sørensen and Basole, 2017^[29]).

One relevant case of innovation platforms is the digital applications marketplaces, or “App stores”, on which SMEs (app developers) build and offer their products. These products are built from the beginning respecting technical standards and leveraging the core functionality of the “app marketplace”,⁸ with a view to being specifically commercialised in the marketplace and accessible to mobile users. The iOS and Android ecosystems, integrating the App Store and Play Store platforms, are the two most important cases in terms of number of mobile users globally and number of apps supported (respectively around 2 million and around 3 million apps in Q3-2020): they offer application programming interfaces and software development kits, alongside the access to their extremely large and ever-growing user-base.

Another important role of online platforms is that they allow for open innovation⁹ to blossom. The openness of a digital platform architecture allows developers and programmers to access APIs, providing an environment in which there are few barriers to the creation and development of innovative knowledge products (Nambisan, Wright and Feldman, 2019^[30]). As an example, GitHub has gathered 40 million programmers and software entrepreneurs globally to interact with each other, creating over 44 million repositories of code (GitHub, 2020^[31]) to adapt existing products and develop new ones (e.g. business applications, website functionalities, games). There are advanced technology applications applied to online platforms that bring interesting results as well. For example, researchers have found that Artificial Intelligence (machine learning algorithms) applied to machine translation on an online marketplace has increased international trade (by users including both individuals and firms) on the platform by 10.9% (Brynjolfsson, Hui and Liu, 2019^[32]).

Box 3.4. Non-platform business digital applications

While the platforms of business applications are a very large and rapidly growing market at global level, they do not fall into our definition of platforms (OECD, 2019^[6]). Business applications such as Customer Relations Management (CRM), Enterprise Resource Planning (ERP), Supply Chain Management (SCM) provide business intelligence services to a single set of end-users (including millions of SMEs) but are not “facilitating their interaction” with other sets of users. For example, if the “platform” provides Customer Relationship Management services to an SME, it helps the SME to better manage its clients, but these clients are not another “end-user” of the “platform” (or only indirectly). A similar consideration might hold for cloud computing. It allows for a radical reduction in the cost of computing resources and ICT tools, making them available at a relatively small operating expense rather than an important capital expense, especially for SMEs (Kenney, 2016^[33]), but it is a service offered directly from providers to clients, without the involvement of other “end-users”. A few specific examples might help clarify further. Some very renowned service providers which could be identified as a “platform” for the large variety of different services they offer, ultimately serve only one set of end-users— even if most of these clients or end-users are SMEs:

- CRM, marketing (e.g. Salesforce).
- Website building, sales solution (e.g. Shopify, Wix).
- Cloud computing – storage, analytics, security (e.g. Amazon Web Services, Microsoft’s Azure, Google Drive).

Source: OECD (2019^[6]), *An Introduction to Online Platforms and Their Role in the Digital Transformation*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/53e5f593-en>; (Kenney, 2016^[33]), *The Rise of the Platform Economy*, Issues in Science and Technology 32, No. 3, <https://issues.org/the-rise-of-the-platform-economy/> (accessed on 16 July 2020).

The main benefits of platforms for SMEs

Network effects

Network externalities are among the most defining features that characterise online platforms (OECD, 2019^[6]). In economic theory, it is widely accepted that network externalities imply that the usefulness of a platform is directly correlated to the size of its user-base. However, there is a distinction to be made in discussing two-sided (or multi-sided) online platforms, as considered in this paper. As these platforms serve different sets of end-users, network externalities can be either (Katz and Shapiro, 1985^[34]; Shapiro and Varian, 1998^[35]):

- direct - if the value of accessing the platform for the user increases at the increase of the number of users in the same set of users
- indirect – if the value increases at the increase of the number of users in the other (different) set of users.

For SMEs, the interplay between direct and indirect network effects depends on the type of platform they choose. When an SME decides to join a platform, incentives differ in relation to the type of platform. It can be argued, for example, that the most obvious incentive for an SME to sell products on an online marketplace is to connect to a larger number of clients beyond its current physical and geographical reach (positive indirect network effects). However, the presence of a large number of other SMEs selling on the platform (direct network effects) can be both positive and negative. It can attract even more potential clients (as it increases the positive indirect network effects for consumers who can access a broader and

potentially more diversified offer on the platform), thus increasing the positive indirect network effects for the SME and starting a virtuous circle. The presence of more SMEs on the platform can also help improve the offer of services to SMEs by the platform, as the higher their number, the more the platform will be able to optimise and continuously improve its offer through client-feedback and demand-screening.¹⁰ However, the presence of more SMEs on the platform also increases the level of competition from other SMEs, which could reduce profit margins and ultimately make the presence on the platform unattractive.

Often platforms are willing to lose money (e.g. by keeping prices artificially low, by cross-subsidising one set of end-users, by investing very heavily in advertising, etc.) in order to increase the overall number of users and “ignite” the virtuous circle of direct and indirect network externalities. While some platforms fail to achieve scale and disappear, in other cases this is a sound business strategy as it allows the platform to become profitable at a later stage, once it achieves a dominant position in the market, but profitability is not guaranteed (Cusumano, 2020^[36]). An interesting and very well-known example is Uber. Uber disrupted the taxi sector by proposing an efficient and secure platform to get alternative transportation services at competitive and flexible rates, especially in large cities. Since its foundation in 2009, while its user base and revenues have grown at a very fast pace, it has yet to generate a profit.

A large user base is key to unlocking the network effects that make platforms attractive for SMEs. The larger the user base, the more likely for them to find a match (e.g. with service providers, suppliers, clients) reducing transaction costs and information asymmetry. In some cases, platforms can leverage their large user base to attract even more users by integrating additional separate functionalities. For example, the review and rating systems in online marketplaces (which grows in effectiveness with the growth of the user base) generates a positive direct network effect for customers, incentivising more to join (Belleflamme and Peitz, 2018^[37]). If we look at online marketplaces, ancillary services as review and rating systems, platform insurance on purchases and refunds, as well as guarantees on delivery times and logistic, greatly increase the trust of consumers, making it more likely for an SME to be able to sell to them via the platform than through its own app/website.

Network effects permit online platforms to unlock access to digital services at very low costs for SMEs. Platforms are able to scale and increase their user base at incredible speed as the marginal cost of adding a new user becomes virtually zero after the initial sunk costs (hardware and software) are undertaken (Brynjolfsson et al., 2008^[9]). To use again the Whatsapp example, the platform passed from 50 employees serving 200 million users at the beginning of 2013, to 55 employees serving 420 million users at the beginning of 2014 (Olson, 2015^[38]). This consideration is very important in our perspective, as the platform’s cost structure has an effect on its users as well. In most online platforms, the marginal cost of adding a new user is close to zero, but it is fundamental to reach scale. Thus platforms have a strong incentive at offering SMEs the opportunity to externalise business functions for a fraction of the cost they would have incurred if they had to perform them on their own.

Increasing customer base and global and regional reach

Another core characteristic of online platforms is that they allow SMEs to interact with other end-users across regional and national borders, and trade at a global level. SMEs are primarily local actors and have usually more difficulties in participating and benefit from Global Value Chains (OECD, 2019^[2]; López González, 2017^[39]). SME internationalisation has generated a very large and fragmented body of research over the last 25 years, but digitalisation is seen as possibly the key strategic means for SMEs to reach international markets by lowering trade costs and easing access to foreign markets (Morais and Ferreira, 2020^[40]; OECD, 2018^[41]). Online platforms are key for the digitalisation and internationalisation of SMEs, as they provide the technological and logistical infrastructure to match buyers and sellers and deliver their products and services, but also manage firm-consumers relationships and firm reputation (Nambisan, Wright and Feldman, 2019^[30]). Online platforms have also led to a rising number of small packages being sold across international borders, by connecting SMEs and individual clients across borders (OECD, 2020^[42]).

Overcoming the skills gap

In addition, platform services accessed by SMEs are often tailored to them and relatively “easy to use”, so that the skill gap is less of a barrier. To ensure the continuous increase of their user base and of their users’ engagement, platforms’ services must be as “user-friendly” as possible. This implies that almost any person working in an SME, without particular training, should be able to use at least the basic features of the platform. On top of this, large online platforms usually offer free online courses and tutorials catered specifically to SMEs to explain how to exploit all the features of the platform more effectively.

Innovation opportunities and access to innovation assets

Online platforms stimulate innovation in business models and products for SMEs and entrepreneurs both in “digitally intensive” sectors¹¹ as well as in traditional ones. Online platforms, with their easy access to large networks and effective matchmaking systems, create important opportunities for SMEs willing to innovate and adapt their products and business models. This happens both in sectors where technological innovation is core and in those where it is not. Direct network effects are a key factor in this environment focusing on software development.

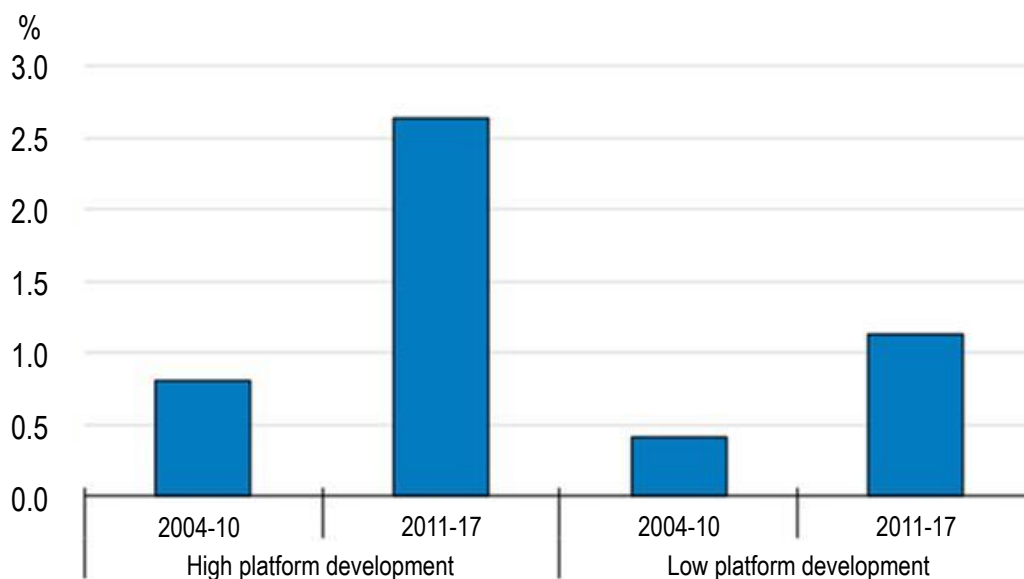
In less “digital intensive” sectors, such as restaurants, food delivery platforms (e.g. Deliveroo, DoorDash, Seamless) have accelerated digitalisation especially for “take-away” services. In the context of the pandemic, this ongoing process has accelerated rapidly, with a transformation that was expected to take years to happen in just a few months. It is estimated that the market for food delivery in the United States reached USD 45 billion in 2020 (10% more than the previous estimate) and 16% of the addressable market by 2022, instead of by 2025 (Morgan Stanley, 2020^[43]). This has pushed product innovation (e.g. proper packaging for delivery with insulation and advertising, digital terminals in the kitchen to track orders, web advertising on platforms) in a business that might have not felt the pressure to change before.

Increase productivity

Empirical research suggests that online platforms increase productivity in hotels, restaurants, taxis and retail trade; sectors in which there is an overwhelming presence of SMEs. A study across 10 OECD countries (Belgium, France, Germany, Hungary, Italy, Poland, Spain, Sweden, United Kingdom and the United States) leveraged data from Google Trends and business micro-data from Orbis to assess the impact of online platforms on productivity. Results averaging the effects on all four industries, point to a significant increase in multi-factor productivity (Figure 3.1), with a stronger effect in countries where platform development is considered higher. This effect comes from “aggregator” platforms, while “disruptors” have no significant effect on the productivity of existing service providers (Bailin Rivares et al., 2019^[41]).

Figure 3.1. Impact of platform development on the productivity of incumbent service providers

Total effect of platform development on multi-factor productivity of the average service firm, unweighted average of the effect across selected industries (hotels, restaurants, taxis and retail)



Note: "High platform development" is the average of the five countries where the platform development indicator is above median on average over the 2004-17 period (France, Italy, Spain, United Kingdom, United States), while "Low platform development" is the average of the five other countries in the sample (Belgium, Germany, Hungary, Poland, Sweden).

Source: Bailin Rivares et al. (2019^[4]), "Like it or not? The impact of online platforms on the productivity of incumbent service providers", *OECD Economics Department Working Papers*, No. 1548, OECD Publishing, Paris, <https://dx.doi.org/10.1787/080a17ce-en>.

Impact on firms' productivity from the use of online platforms appears to be more important the smaller the size of the firm. In OECD countries, in firms with less than 10 employees a one-standard deviation increase in traffic on platforms is associated with a boost of more than 10% of labour productivity growth. On the same premise, a positive but more limited boost is seen also for companies with 10 to 50 employees (~7%) and 50 to 100 employees (~6%) (Costa et al., 2020^[5]).

Challenges for SMEs on digital platforms

There are multiple challenges that SMEs face in using and trading on online platforms. With the increasingly central position of online platforms in the development of the digital economy, issues span from consumer protection to data privacy, from competition to transparency.

Lack of skills/inadequate business model

Both to avoid being "disrupted" by online platforms and to use them in the most effective way, SMEs might need to invest in skills development and change their value proposition/business model. Notwithstanding the fact that for some SMEs e.g. restaurants (as shown above) only limited skills are needed in capitalising on platforms, this is not universally the case across all SMEs and sectors. Traditional business models are not necessarily ready to be "transferred" online, and the entrance of business platforms in a market might be so disruptive as to make business models obsolete in a very quick fashion. Many businesses need to introduce and implement innovation in order to make their businesses "digitally ready", especially because to exploit the opportunities provided by online platforms they need

adequate internal digital processes. But this means dedicating the resources for complementary investments, for example in skills development and organisational change. There are usually multiple private (Amazon, 2020^[44]) and public (European Commission, 2020^[45]) programmes available for free, or at a very low cost, for SMEs to embark on this transition. However, decision makers in the enterprise could lack the motivation to dedicate resources and time to transform their business model.¹²

Risks of competition distortion

Competition authorities are looking at possible anti-competitive behaviours arising from platforms.

Online platforms maximise profits based on interlinked demand from the two (or multiple) sets of end-users connected in the platform. The winner-takes-all and winner-takes-most effects Box 3.1, resulting from the particularly strong network effects in this market introduce a risk that platform providers could wield their market power and abuse their dominance status, thus distorting competition. (OECD, 2020^[46]) presents the main types of abuse of dominance that can be found in digital markets, which encompass digital platforms (Box 3.5).

Box 3.5. Abuse of dominance in digital markets: Criteria and typology

Digital markets can be characterised by the dominance of particular service providers, multi-sided markets connecting different groups of consumers, and the presence of network effects. Such characteristics can result in more concentrated markets and consequently the emergence of dominant player(s) in the market.

However, defining digital markets and assessing market dominance is challenging due to the unique characteristics of these markets, such as the non-price dimensions of competition and the multiple markets these multi-sided platforms operate in. Determining an abuse of dominance involves a case-by-case assessment based on indicators such as substitutability, entry barriers, profitability and market shares.

Below are the main types of unilateral conduct that can constitute an abuse of dominance:

- Refusal to deal: A dominant actor controls access to an important input, technology or distribution network and refuses other players' access to the resources, therefore foreclosing competition.
- Predatory pricing: A firm strategically sacrifices its profits in the short term to drive out its competitors from the market, with the aim to recoup its losses at a later stage with higher prices.
- Exclusive dealing and loyalty discounts: A dominant firm aims to obtain exclusivity in a market through exclusive contracts with a supplier or a customer.
- Tying and bundling: Exploiting linkages of a digital product with other products (e.g. hardware, software, or web-based services) by tying or bundling products together.
- Exploitative abuses: A firm uses its market power to impose unfair prices or other conditions on consumers.

Source: OECD (2020^[46]), *Abuse of dominance in digital markets*, <http://www.oecd.org/daf/competition/abuse-of-dominance-in-digital-markets-2020.pdf>.

Anti-competitive behaviours by platform providers can harm SMEs using the platforms.¹³ Distortion in competition conditions does not allow SMEs to operate on a level playing field. Algorithmic price-setting,¹⁴ results of search algorithms, and platforms competing with their own products against SMEs on the same platform are all areas of scrutiny by public authorities (Khan, 2017^[47]).

Consumer protection on platforms is relevant for SMEs as well, especially in e-commerce. In 2016 the OECD published the *Recommendations of the Council on Consumer Protection in E-commerce* (OECD, 2016^[48]) stating that some expansion of the traditional consumer protection principles (e.g. fair business, advertising and marketing practices) should be applied when dealing with e-commerce platforms. In particular, as many services are offered for free, non-monetary transactions should be considered more carefully. For example, the trust-building system based on ratings, reviews and customer services should be managed in full transparency to ensure that consumers as well as “sellers” operating on such platforms are treated fairly.

On another side, platforms increase competition for SMEs that were previously exploiting small “rents” based on the local networks. Allowing customers to access providers that can be based anywhere makes many corner shops, restaurants, local entrepreneurs (painter, plumber, gardener) less insulated from competition. While this might have a productivity-enhancing effect in aggregate, it might also introduce an additional challenge for many SMEs. For example, a restaurant that was before serving people leaving in its surroundings becomes less exclusive once food delivery apps become widely used. In this sense, the lack of visibility on such apps might erode even local markets, “forcing” somehow SMEs to establish an online presence on them.

Data protection risk

SMEs provide platforms with a large volume of sensitive business information, thus transparency in the use of such data are essential. To operate on platforms, SMEs usually agree to contractual terms and conditions that usually give online platforms the right to use the data they gather as they see fit, for example by selling them to third parties that remain unidentified by SMEs. Often SMEs do not really have a choice as some of the largest platforms are in dominant positions. Regulators around the world are tackling the issue, trying to give more say to SMEs and consumers over the data they generate with their commercial behaviour. In this sense, the General Data Protection Regulation (GDPR) in Europe is one of the most advanced examples at the global level.

Digital security

As sensitive information is stored on online platforms, SMEs have an interest in their cybersecurity standards. SMEs trust online platforms with business data (e.g. on sales, supply channels, client base) that have crucial importance. There is a need for SMEs to fully understand the scale and scope of the data they share, to better assess the inherent risks – but often SMEs lack the skills needed for this task (Chapter 3).

Risks of lock-ins

Another critical aspect of the use of platforms by SMEs is the high switching costs and the difficulty in multi-homing. As platforms profit from the size of their network and the volume of data gathered, stored and managed, it is a clear business objective to retain client SMEs and avoid their passage to other platforms. This is done by offering attractive conditions and constantly upgrading and enhancing the services offered, but also by making it difficult to transfer data (e.g. transaction history, contacts, logistical information) from one platform to another. So that the more a business uses a platform, the more it has to lose if they decide to switch to a competitor. These barriers introduced by some platforms make data transfer more costly, hindering multi-homing (i.e. the use by SMEs of multiple networks at the same time) (Park, Seamans and Zhu, 2017^[49]). A relevant example of lock-ins on both sides of the two-sided market is in the gaming industry, where the high prices of consoles and subscription services, such as Xbox Live and Playstation Plus reduce players’ incentive to multi-home – while exclusive contracts oblige content developer to sell their product exclusively on one platform (Zhu and Iansiti, 2019^[50]).

How do SME use online platforms? Prevalence, impact, barriers and enablers

A full understanding of the current use by SMEs of online platforms is a non-trivial task, reflecting the current state of official statistical information systems in the field of the digital economy. Although significant efforts are being made on this front (OECD, 2019^[51]; OECD, 2020^[52]; OECD, WTO and IMF, 2020^[53]) it will be some time before comprehensive and internationally comparable data¹⁵ begins to materialise, especially data that provide a view of SME uptake.

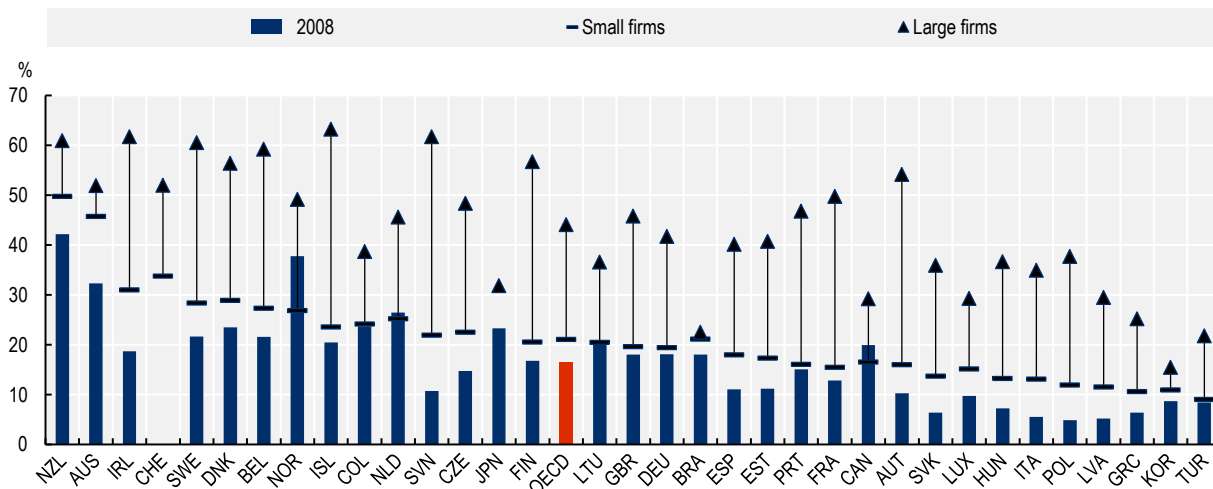
That being said, the current information tool kit does include some data sources that provide insights into two important dimensions: e-commerce and use of social media platforms. Although it's important to note that these sources do not yet cover micro-firms (i.e. firms with less than 10 employees, who account for 90% of the total business population in OECD countries, employing one person out of three on average (OECD, 2019^[2]) (see Chapter 2 on SME digital uptake).

SMEs and e-commerce

In e-commerce it appears that business participation is positively correlated with firm size, also reflecting the SME lag in digitalising business processes and practices. Figure 3.2 shows the participation in e-commerce of businesses broken down by size in OECD countries in 2017 and its development since 2008. The gap between large and small business is evident across all countries considered, as is the growing importance of e-commerce.¹⁶ On the OECD average, e-commerce was used by 16% of all firms in 2008, compared to 44% of large firms and 21% of small firms in 2017, albeit with a wide variation between countries. In New Zealand and Australia for example SME uptake of e-commerce was higher than uptake of larger firms in most other OECD countries.

Figure 3.2. Business participation in e-commerce has increased since 2008, although smaller firms are lagging

Businesses receiving orders over computer networks, as a percentage of all enterprises with ten or more persons employed, by firm size, 2017



Note: Data only cover firms with ten or more persons employed. Small firms are defined as having between 10 and 49 employees, medium-sized firms between 50 to 249 employees, and large firms 250 employees or more. For Australia, data are for 2010 and 2016 and refer to the fiscal year, ending in June of that year. The Australian definition of e-commerce includes any transaction where the commitment to purchase was made via the Internet, including via email. For Canada, data are from 2013 and 2012; large enterprises have 300 or more employees. Sales online over the Internet may include Electronic Data Interchange (EDI) sales over the Internet as well as website sales, but do not include sales via manually typed e-mail or leads. For Colombia, data are from 2016 and 2012. For Iceland, data are from 2009 instead of 2008. For Japan, data are from 2015 instead of 2017 and refer to businesses with 100 or more employees instead of 10 or more. Large firms have 300 or more employees. For Korea, data are from 2015 instead of 2017. For New Zealand, data are from 2015 and 2007. For Switzerland, data are from 2010 instead of 2017. For Turkey, data are from 2009 instead of 2008. For Brazil, data are from 2016 instead of 2017. Data do not exclude manually typed emails or any other such channels after 2010.

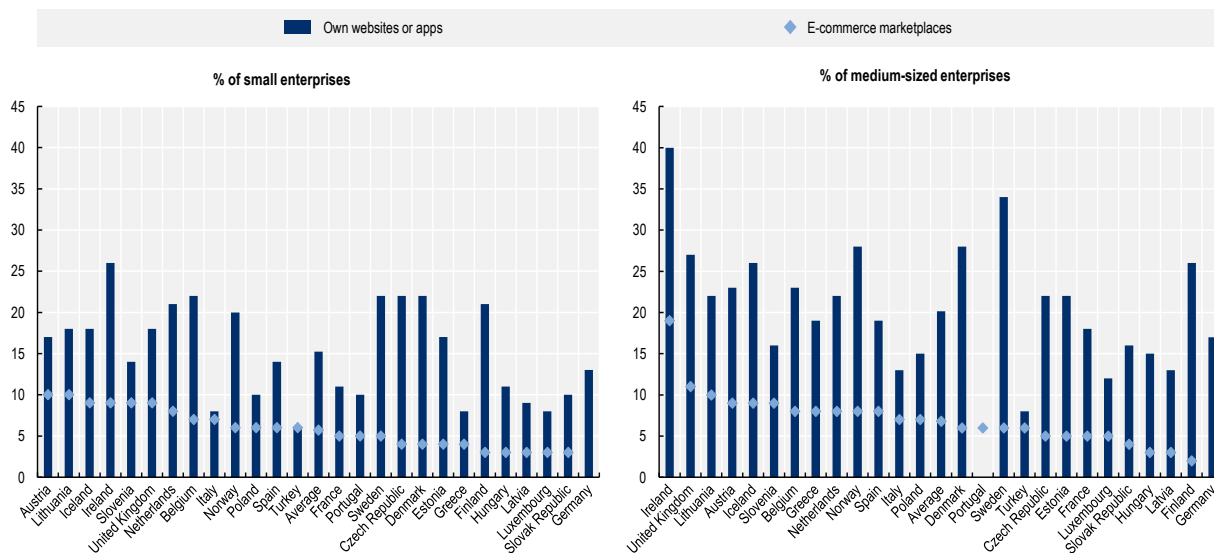
Source: OECD (2019^[19]), *Unpacking E-commerce: Business Models, Trends and Policies*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/23561431-en>, based on OECD (2020^[54]), OECD ICT Access and Usage by Businesses Database, <http://oe.cd/bus>.

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Businesses can decide to sell online by building their own website/app, by leveraging online marketplace/platforms, or both. As discussed earlier in this chapter, online platforms dedicated to e-commerce (“marketplaces”) offer integrated solutions for SMEs at relatively low cost, allowing them to leverage positive direct and indirect network effects and offering complementary services, but at the additional cost of sharing sensitive data and facing strong competition. For many SMEs that decide to build their own website with e-commerce capabilities, costs might be high as they do not necessarily have employees with the necessary skills.

Figure 3.3. SMEs are more likely to sell online through their own website/apps than online marketplaces

Percentage of firms using e-commerce, by firm size, 2019



Note: Data only cover firms with ten or more persons employed. Small firms are defined as with between 10 and 49 employees, and medium-sized firms as with 50 to 249 employees.

Source: Eurostat (2020^[55]), Community survey on ICT usage and e-commerce in enterprises (accessed in November 2020).

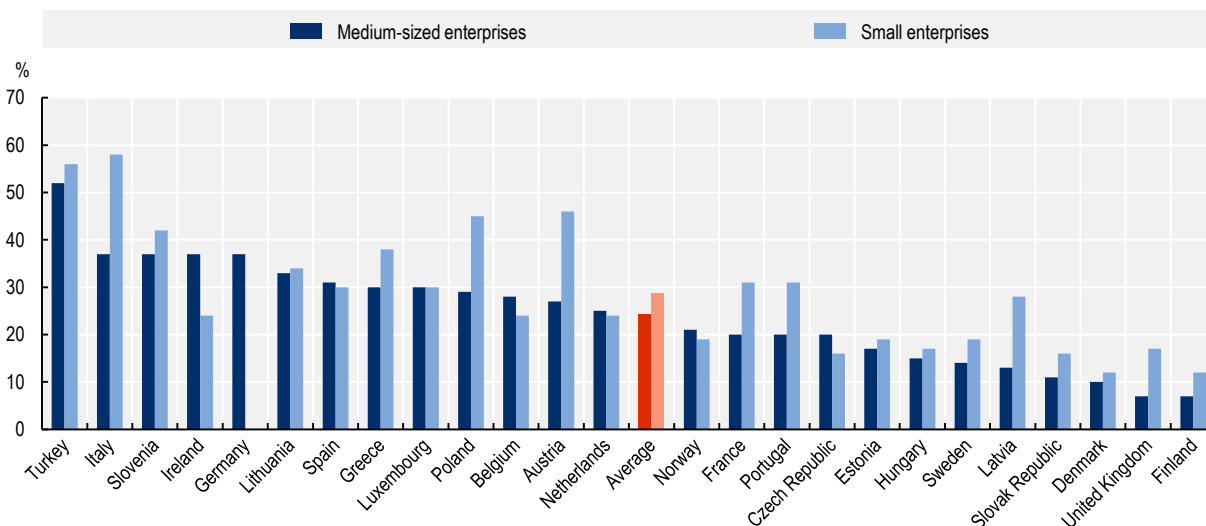
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On average, the share of SMEs using their own website for online sales is higher than that of companies using online marketplaces (Figure 3.3). In OECD countries within the European Union, in 2019 on average 15% of all small enterprises sold their products online via their own website, while 6% sold on online platforms/marketplaces. Among medium-sized enterprises, these values were respectively 20% and 7%. The two options are not mutually exclusive.

On average, a bit less than a third of small firms and a fourth of medium-sized firms selling online make at least 20% of their sales on online marketplaces. Among European OECD countries, around 5% of all SMEs sell online and make at least 20% of their sales on e-commerce platforms. But if, instead of looking at the whole heterogeneous SME population, we look only at the sub-set of businesses selling online, data show that 29% of small businesses make at least 20% of their sales via e-commerce marketplaces, compared to 24% of medium businesses (Figure 3.4). In Italy, online marketplaces are important for all SMEs, but particularly so for small (58%) rather than medium (37%) businesses; in Turkey, the role of online platform is extremely important for both small (56%) and medium (52%) firms; while in Ireland, online platforms are more relevant for medium (37%) than small (24%) firms.

Figure 3.4. SMEs selling online can make a substantial share of their sales on online platforms

SMEs making at least 20% of their online sales on online marketplaces, share of all firms selling online, by firm size, 2019



Note: Data only cover firms with ten or more persons employed. Small firms are defined as with between 10 and 49 employees, and medium-sized firms as with 50 to 249 employees. The financial sector is not covered.

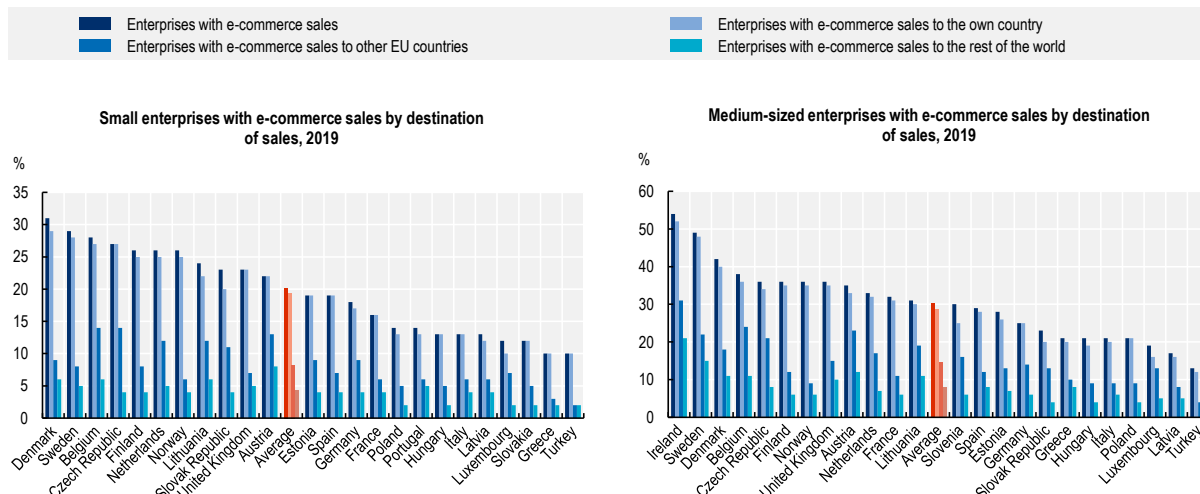
Source: Eurostat (2020^[55]), Community survey on ICT usage and e-commerce in enterprises (accessed in November 2020).

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Disproportionally fewer SMEs have cross-border e-commerce sales. Figure 3.5 shows that out of the (average) 20% of small businesses with e-commerce sales, nearly all sell within their own economy (i.e. very few serve only foreign markets) but less than half (8%) sell in other EU countries and an even lower share (4%) sell outside of the European Union. A similar trend can be observed for medium-sized firms, where out of the 30% of companies selling via e-commerce, only half (15%) sell in other EU countries and less than a third (8%) sell outside of the European Union.

Figure 3.5. Almost half of SMEs selling through e-commerce sell abroad

Percentage of enterprises with e-commerce sales by destination of sales and size class, 2019



Note: Data only cover firms with ten or more persons employed. Small firms are defined as with between 10 and 49 employees, and medium-sized firms as with 50 to 249 employees.

Source: Eurostat (2020^[55]), Community survey on ICT usage and e-commerce in enterprises (accessed in November 2020).

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The COVID-19 pandemic has strongly accelerated the expansion of e-commerce in 2020. Social distancing rules have moved companies and consumers increasingly online over the year. For instance, in the United States, the share of e-commerce in total retail sales jumped from an average of 10-12% in the period spanning from Q1-2018 to Q1-2020 to 17% in Q2-2020. In the United Kingdom, the increase over the same period was even sharper, with an increase from 18-20% to 32%. In the EU-27, retail trade turnover contracted by almost 10% in March and by almost 20% in April 2020 before turning back to similar values of 2019 in May, June and July. In the same period, retail trade via e-commerce rose by 10% in March, 30% in April, 40% in May, 30% in June and 20% in July with respect to the same months in 2019 (OECD, 2020^[56]).

SMEs and social media platforms

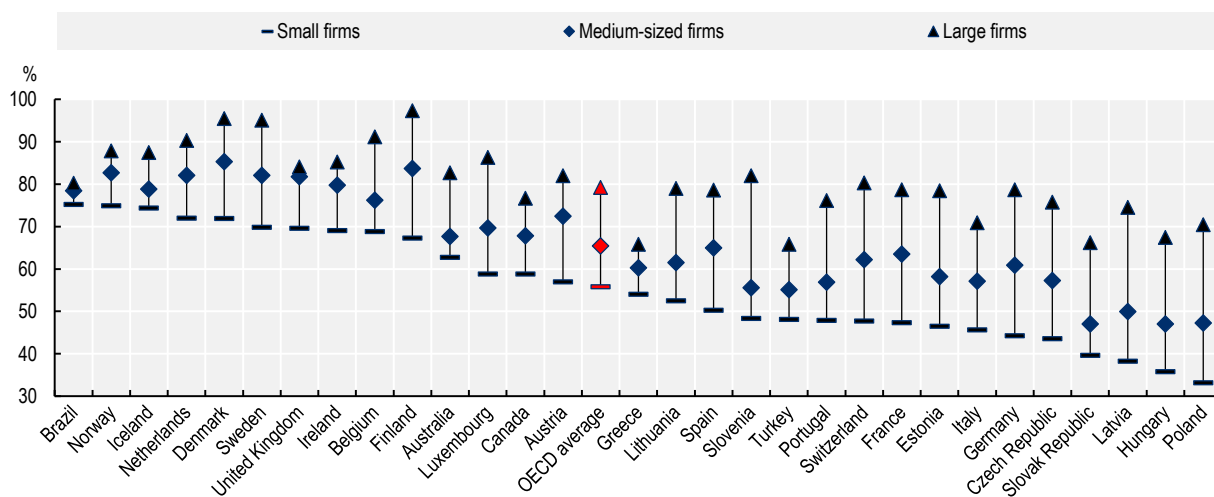
On average in the OECD more than 50% of small businesses are using social media. The definition used for social media here is “social networks, blogs, file sharing, wikis” (OECD, 2015^[57]), which makes it relevant for the definition of online platforms considered herein. As described earlier, social media can have a positive impact on the financial performance of SMEs, as well as on cost reduction on marketing and customer services, improved customer relations and improved information accessibility (Ainin et al., 2015^[58]; Chatterjee and Kumar Kar, 2020^[59]).

In the OECD, the share of businesses using social media has steadily increased over the past decade. In 2013, on average across OECD countries, less than a third of small businesses (29.9%) used them compared to more than half (55.8%) in 2019. This consideration holds for medium businesses (from 36.6% to 65.4%) and large businesses (from 47.6% to 79.2%) as well (Figure 3.6). However, different types of social media have different user growth dynamics. For example, in the European Union from 2013 to 2019 there has been a marked increase in the share of businesses using “social networks” (from less than 30% to more than 50%) and a doubling in the percentage of users of “Multimedia content-sharing

websites” (from 10% to 20%). In the same time-span, the use of “Enterprise blog or microblogs” (around 10%) and “Wiki-based knowledge sharing tools” (around 5%) has remained stable (Eurostat, 2020_[60]). However, there is a strong cross-country variability in the use of social media by firms: while in the five countries with the most use, more than 70% of small companies and more than 80% of medium-sized companies operate on social media, in the bottom five less than 45% of small companies and less than 60% of medium-sized companies do.

Figure 3.6. While broadly mainstreamed among large firms, the use of social media remains very unequal among SMEs and across countries

Businesses using social media, as a percentage of all enterprises by firm size, 2019



Note: Data only cover firms with ten or more persons employed. Small firms are defined as having between 10 and 49 employees, medium-sized firms between 50 to 249 employees, and large firms 250 employees or more. Data for Australia, Canada and Switzerland refer to 2017; data for medium businesses in Portugal refer to 2017.

Source: OECD (2020_[54]), OECD ICT Access and Usage by Businesses Database, <http://oe.cd/bus> (accessed on 19 September 2020).

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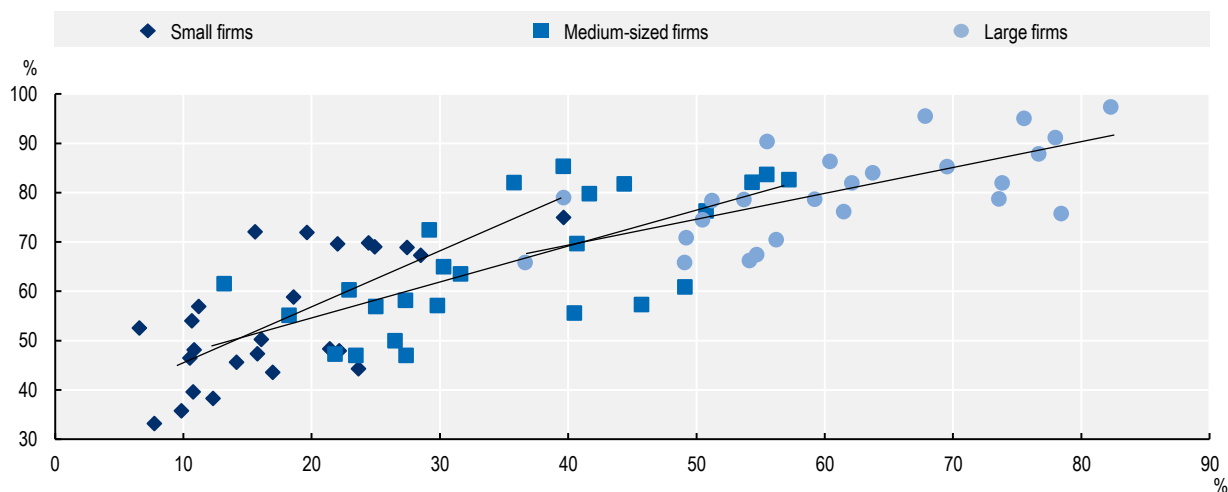
The use of online platforms is a matter of internal skills capacity, an issue of particular concern for SMEs. The cost of setting up a social media profile and/or e-commerce account on a large platform is usually very low. Most of the platforms have a “free to use” model, while others offer their services for relatively small fees. These “basic accounts” are also usually designed to be extremely user friendly and do not require particular skills to be operated. However, if they want to unlock all the potential of the online platforms they are using (in terms of network effects, cost reductions, etc.), SMEs need to develop particular skills and capabilities to move operations online and concretise the opportunities available to them. While many SMEs have social media accounts, studies suggest that many of them do not fully exploit their potential. In particular, the lack of skills for strategic planning, measurable objectives and clear assessment of needed resources impedes most SMEs from achieving positive Return on Investment (McCann and Barlow, 2015_[61]). For instance, any employee can set up a social media account and put some basic information about the company and its products online without the need for any particular skill. But if the company wants to really gain from its presence on the platform, it needs to increase traffic, reactions, network, impressions – a non-trivial task that requires knowledge of the functioning of the sorting algorithm on the platform and the set-up of a media strategy. This can be achieved through internal training or by hiring specialised professionals (e.g. social media manager). Figure 3.7 we show that there is a relatively clear correlation between the level of ICT training for non-ICT specialists provided in-house and

business use of social media in OECD countries, the former being also related to the level of adult digital literacy in countries (OECD, 2019^[2]).

A higher share of firms promoting ICT training seems to be associated with an increased share of firms using social media, and increasingly so the smaller the firm is. As shown in Figure 3.7, expectedly both the share of firms using social media and providing ICT training rises with the size of the firms. In addition, a simple regression model shows that across the countries in the sample there is a relatively strong correlation (R -multiple = 0.7) between the share of firms using social media and the share of firms providing ICT training for their staff. The relation is stronger for smaller firms, where an increase of 1% in the share of non-expert employees accessing ICT training is correlated with an increase of 1.1% in the use of social media. The relation is still positive but less strong for medium-sized firms (0.7% increase) and large firms (0.5%).

Figure 3.7. SMEs that train their employees are more likely to engage in social media, especially the smaller ones

Percentage of enterprises that provide in-company ICT training to non-ICT-specialists and engage in social media, as a percentage of all enterprises with ten or more persons employed, by firm size, 2019



Note: Data refer to 25 OECD countries and only cover firms with ten or more persons employed. Small firms are defined as having between 10 and 49 employees, medium-sized firms between 50 to 249 employees, and large firms 250 employees or more.

Source: OECD calculations based on OECD (2020^[54]), OECD ICT Access and Usage by Businesses Database, <http://oe.cd/bus> (accessed on 19 September 2020).

StatLink  <https://doi.org/10.1787/888934227602>

National policies for SME use of online platforms

Governments are offering a range of support policies to encourage SME uptake of online platforms.

However, it should be noted that the diffusion of online platforms varies widely across countries and regions for both structural and policy reasons. OECD research shows that a country's structural characteristics (socio-economic and demographic features, the digital preparedness of the population, and platform concentration in different sectors) as well as its structural policies (freedom and rule of law, product market regulation, and digital service regulation) have an impact on both the number and the average size of platforms operating in the country (Costa et al., 2020^[5]).

Growing policy attention to SME use of online platforms

Governments are beginning to introduce awareness campaigns and policy action targeting online platforms specifically. Below is an analysis of six country case studies of approaches used by national governments to support SME uptake of online platforms: covering Australia, Denmark, France, Korea, New Zealand and the United Kingdom. These OECD countries have been selected as they all have devised policies with an explicit focus on online platforms and on their use by SMEs.

An analysis of official documents shows that in some cases, these policies are generic, designed for the business population at large, and, so, implicitly targeting SMEs. The policy initiatives selected from Denmark, France, Korea and New Zealand are targeted specifically towards SMEs, but also include policy tools created for firms of all sizes. Australia and the United Kingdom do not have specific SME initiatives, but rather policies to encourage the use of online platforms by all businesses.

Policy initiatives are targeted towards firms operating in all sectors, but most are relevant for those operating in the retail sector. Currently, a number of governments target e-commerce and SME business functions related to marketing, sales, advertising, branding, customer services and external communication (Table 3.2). Accordingly, firms operating in the retail sector are the most likely to benefit from the support offered.

Table 3.2. Examples of policy initiatives to support SME uptake of online platforms

	Australia	Denmark	France	Korea	New Zealand	United Kingdom
Interaction across policy domains						
Part of a digital strategy	✓					
Part of an SME strategy		✓	✓	✓	✓	
Part of a trade/export strategy		✓		✓		✓
Stakeholder engagement and multi-level governance						
Private sector involvement			✓	✓		✓
Regional/state government co-operation	✓					
SME business functions targeted						
E-commerce	✓	✓	✓	✓	✓	✓
Marketing, sales, advertising, branding, customer services and external communication	✓	✓	✓	✓	✓	✓
Payment	✓		✓			
Communication, remote working, teleconferencing	✓		✓		✓	
Target populations						
SMEs		✓	✓	✓	✓	
Firms of all size	✓					✓

Policy makers seem to focus on certain types of online platforms, especially those with strong positive indirect network effects, where SMEs can interact with a higher number of other end-users (notably individual consumers), and less on service delivery platforms (aggregators or disruptors). There are few SME policies for the use of online platforms for “financing” and “innovation” which could be explained by the alternative measures governments already have in place in these areas (OECD, 2020^[25]; OECD, 2017^[62]). Overall there is limited evidence on how these types of platforms can benefit SMEs, and the role of public policies in the field. There are some examples of policy actions, for instance in Mexico, where in 2018 the government allocated MNX 10 million to the project “Crowdfunding Ecosystem Acceleration in Mexico to Promote Entrepreneurship, Innovation and Economic Inclusion”, to connect SMEs and retail investors in the country (OECD, 2019^[63]).

Policy intervention is mainstreamed across different government ministries and agencies that have responsibility in the field, with the modalities of policy implementation depending largely on the goals pursued. For example, in the context of a national digital strategy, as seen in Australia, the Ministry of Science, Technology and Innovation is often responsible. Similarly, if the initiatives are part of a business community at large or small business specific policy, it will be the Ministry for Business or Ministry for Small Business that is responsible. This is the case in Denmark, France and in Korea. Interestingly, as seen in the United Kingdom, e-commerce policies are often created in the context of exports, which fall under the responsibility of the Ministry for International Trade. Whilst, the aims and focuses of such policies are often influenced by the body responsible for their execution, there is also room for shared responsibility, as seen in Korea with the e-commerce export policy being a joint venture between the Ministry for SMEs and Start-ups and the Ministry of Trade, Industry and Energy, and in Denmark where the Ministry of Industry, Business and Financial Affairs jointly administrates with the Ministry for Foreign Affairs an export promotion initiative for e-commerce.

Governments are promoting programmes in co-operation with some of the largest online platforms. For many SMEs, to digitalise means to start using the services offered by the main global online platforms. In France, Korea and the United Kingdom (Box 3.10), (Box 3.11) and (Box 3.13), co-operation between government and the providers of such online platforms, specifically e-commerce and advertising platforms, help support SME internationalisation, SME awareness of digital solutions, national brand recognition, as well as SME resilience – particularly important in the current situation - through diversification of revenue sources.

The push of the COVID-19 crisis

As part of the policy responses to the COVID-19 crisis, a number of government initiatives have aimed to accelerate the digitalisation of SME operations, including on online platforms. For example, Australia is providing businesses with information on how to make the best use of social media platform (Box 3.8), while Korea is encouraging brick-and-mortar shops to open their business online through a dedicated support programme, also to access foreign online platforms to sell their products abroad (Box 3.11). Japan has offered subsidies to support firms to adopt IT solutions and develop e-commerce sales channels. Broader support programmes for SMEs, such as the *France Numérique* initiative also helped SMEs transition to an online business model (Box 3.6). Some countries, e.g. Mexico and Turkey, also promoted solidarity campaigns to provide SMEs with essential cash flows during the COVID-19 crisis and directly encouraged online sales on e-commerce platforms. Other countries helped SMEs with access to essential services related to their online business model, e.g. e-customs processing (Switzerland) and strategic consulting to strengthen SME's online presence on international markets (Spain) (OECD, 2020^[64]; OECD, 2020^[65]).

In the context of COVID-19, support has been targeted at increasing e-commerce and advertising capabilities (including through online platforms), and enabling SME use of communication and remote working platforms. For instance, the French government launched a call for large digital platforms to provide small shops with access to free or discounted services in order to help them face the crisis. Respondents included platforms active in e-commerce, e-payment, delivery/logistics, search marketplaces, communication. In another example, the Chinese Ministry of Industry and Information Technology introduced “online operations” programmes to help SMEs sell online through Alibaba and JD (the two major Chinese e-commerce platforms), and to allow them to reduce costs, increase sales and thus stabilise employment (OECD, 2020^[65]).

National and sub-national governments are allocating further resources to encourage SME activities on online platforms, particularly for teleworking and e-commerce. These policies tend to be targeted at assisting SMEs in increasing their “work from home” capabilities or encouraging e-commerce capabilities (including through the use of online platforms). For instance, the regions of

Lombardy and Friuli Venezia Giulia (Italy) have provided financial contributions to support companies and self-employed workers to work remotely in response to the pandemic. The contribution can be requested to cover both the training costs as well as the costs for the purchase of the digital tools/subscription to digital platforms for teleworking (OECD, 2020^[66]).

Public digital platforms

Some OECD governments have introduced freely accessible public online platforms to support the digitalisation of SMEs. To facilitate the use of such portals, SMEs can directly select the business function they want to “digitalise” to be directed to a consultant that might help them in the transition (Box 3.6). There have also been more general reflections on how the government could itself become a “platform”, creating and maintaining the infrastructure where businesses and citizens could match with public service providers (Box 3.7).

Box 3.6. Public online platform to support SME digitalisation – FranceNum

In 2018 the French government launched an online platform to connect SMEs willing to digitalise with a network of specialised consultants (both public and private) across the country. Small businesses only need to connect to the online portal, indicate their size, location and sector of activity, and indicate their digitalisation objective.

The objectives are related to different business functions: to create a digital strategy, to increase online presence, to develop clientele, to sell online, to enhance internal processes, to train and recruit, to protect the firm, to better use data, to integrate different work practices, and to innovate. Consultants also offer information on the available financing options.

During the COVID-19 crisis, the website launched a rolling information feed to provide all SMEs with live information on support initiatives from national and local governments, and from private sector actors. To increase its reach, a daily radio show was launched to discuss upcoming digital trends.

Source: OECD (2020^[65]), *Policy Options to Support Digitalisation of Business Models during COVID-19: Annex*, <https://www.oecd.org/sti/policy-options-to-support-digitalization-of-business-models-during-covid-19-annex.pdf>; France Numérique official website (www.francenum.gouv.fr).

Box 3.7. Government as a platform – G2B services

The idea of “government as a platform” h reflects the potential benefits that could arise from government to be an online “Bazaar”, an open infrastructure to allow citizens and businesses to access services from the public agencies. Central government would only provide the infrastructure and enforce regulation, letting public and private stakeholders to then co-operate and exchange freely (O’Reilly, 2011^[67]). However, this approach faces many difficulties in implementation, connected to the lack of clear, quantifiable incentives for governments to restructure so deeply.

One option is that a “Government 2.0” could become a “marketplace for public services”. This would require a strategic approach to data sharing, a trusted consent model for handling sensitive data, open standards and interoperability of mechanisms for quality assurance. Such a foundational effort would allow multiple public and private actors to concur in the provision of public services.

For businesses, relevant examples could be some “cross-governmental network for delivering services that avoid silos of delivery (e.g. Service Communities, United Kingdom) or to offer standards for

technology (e.g. Secure Cloud Strategy, Australia; Open Source Contribution Policy, France; IT architecture principles, Norway).

Source: OECD (2020^[68]), “The OECD Digital Government Policy Framework: Six dimensions of a Digital Government”, *OECD Public Governance Policy Papers*, No. 02, OECD Publishing, Paris, <https://dx.doi.org/10.1787/f64fed2a-en>.

Six country cases

The six OECD country cases below have in common the introduction of policies specifically aiming to SMEs’ uptake of online platforms. Concrete measures spans from vouchers to hiring consultants to help develop e-commerce capacity to *how to* guides on using social media for promotion and advertising, from marketing training to business managers to target specific overseas market with e-commerce, to self-assessment tools for businesses to track and monitor their ability to use online platforms. In the following cases, the most common policy objective is to increase SMEs’ general digital skills, technology awareness and adoption.

Box 3.8. Guide to digital transformation – Australia

The Australian government has published an online *Guide to Digital Transformation* to provide firms of all sizes with accessible information on the benefits of going digital, including but not limited to the uptake of online platforms, as well as step-by-step instructions on how to achieve their digital goals (Australian Government, 2020^[69]).

This initiative, co-ordinated by the Department of Industry, Science, Energy and Recourses (DISER) is part of the greater *business.gov.au* whole-of-government website for the Australian business community. The *Guide to Digital Transformation* includes links and resources that business owners can turn to for help as well as a platform for “successful digitalisation stories” to be shared. The *Guide to Digital Transformation* is accessible for SMEs. The *Guide to Digital Transformation* is not sector-specific, with many of the more generic sub-sections (*Is Your Business Digital Ready?*, *Know the Rules*, *Move Your Operations Online*, *Build Your Team’s Digital Capability*) being applicable to any business interested in digitalising.

However, the initiatives focus on the uptake of online platforms is most relevant to SMEs operating in the retail sector, mostly B2C but also for B2B, with the most substantial section being *Get Your Products or Services Online*. This section provides firms with information on how to use social media platforms to engage customers and advice on how to use online platforms for e-commerce.

The *Guide to Digital Transformation* collaborates with a sub-national initiative, the NSW state government run *Design System Guide* which includes a catalogue of digital collaboration tools and platforms that are relevant for virtual team management (NSW Government, 2019^[70]). The *Design System Guide* provides a summary of information on each tool, prompting businesses to engage with online platforms for better internal communication. The co-operation with a state government on this initiative aims to avoid overlap of resources.

The *Guide to Digital Transformation* along with other relevant guides related to e-commerce such as the *Guide to Exporting* offers small firms a vast amount of information on digital engagement and international trade, but are often overwhelming. According to the *Growing the Digital Economy in Australia and New Zealand: Maximising Opportunities for SMEs* report, small firms have difficulties finding the information they need (Australian Government Productivity Commission and New Zealand Productivity Commission, 2019^[71]).

Box 3.9. SMEs: Digital – Denmark

The Danish government's programme SMEs: Digital, was established as a co-ordinated scheme and is part of the national government's Strategy for Denmark's Digital Growth, to support the digital transformation of Danish SMEs. SME: Digital features the "E-Commerce Centre", an initiative designed to assist SMEs with online sales (Danish Government, 2018^[72]).

The E-Commerce Centre, like the strategy at large, aims to promote digitalisation and e-commerce amongst SMEs from all sectors and Danish industry. The E-Commerce Centre is specifically targeted towards SMEs. The Ministry of Industry, Business and Financial Affairs is responsible for the initiative that was launched in 2018. The Ministry for Foreign Affairs' has also contributed to the E-Commerce Centre with their export promotion initiative for e-commerce, including work on reasonable competition and framework conditions. DKK 10 million was allocated in 2018, along with DKK 20 million in 2019 and DKK 25 million in 2020-21.

The programme contains several different policy instruments such as grants for private consultancy in order to clarify and develop a company's e-commerce capacity, prepare business cases for converting to advanced e-commerce solutions valued at up to DKK 100 000. SME business owners also have the opportunity to receive a personalised strategy on how to strengthen their online sales. The E-Commerce Centre also runs workshops that are accompanied by a grant of DKK 25 000 on a first come first served basis, in which challenges associated with selling online are workshopped with industry experts.

The E-Commerce Centre offers information on regulation related to using online platform for sales including guidance on EU regulations and Danish export policy, as well as assistance in dealing with unfair competition. The E-Commerce Centre shares success stories of SMEs who have increased their revenue and profits by engaging with online platforms as a key retail channel. There is also the opportunity for referral for additional consultancy on e-commerce and e-exports in the Ministry of Foreign Affairs, including promotion of specific international market opportunities via access to e-commerce consultants in selected global markets.

SMEs: Digital as a portal also offers initiatives to improve the digital competence of managers. "Sprint: Digital" is a policy instrument part of the greater strategy that measures the level of digitalisation of firms and creates a tailored digital trajectory. These initiatives are more general and are not specifically related to the uptake of online platforms.

Box 3.10. E-commerce Recovery Plan – France

The French Ministry of Economics, Finance and Recovery as part of its response to COVID-19 has published an online guide to assist SMEs with their use of digital tools and e-commerce platforms to reach customers (Ministère de l'économie des finances et de la relance, 2020^[73]).

The French government put out a call to providers of online platforms for complimentary offers or to offer their services at a preferential rate for French small businesses. The government then provided an inventory of private sector companies and their preferential offers. The online platforms listed offer solutions to assist SMEs develop commercial websites, navigate marketplaces and e-commerce sites, use payment solutions, communication platforms and logistics and delivery solutions. This inventory is targeted towards small businesses with a focus on the French market and the French consumer, rather than exporting overseas.

The French government have complimented this inventory with an e-commerce digital guide. This guide gives small business owners information on how to update their information online and on social media platforms, how to best communicate with customers online and how to start or maintain a digital business. The guide offers step-by-step solutions or instructions for businesses, as well as links to other guides on specific topics available on www.francenum.gouv.fr. The guide also shares available case studies on how existing businesses have been using digital technologies to better connect with their customers remotely.

Box 3.11. Export policies – Korea

The Korean Ministry of SMEs and Start-ups (MSS) export policy has various programmes aimed at helping SMEs gain entry into global value chains by offering e-commerce support and digital “Brand K” marketing (Korean Government, 2020^[74]).

The MSS operates online programmes to help SMEs sell their products through online marketplaces such as Rakuten, Amazon and Taobao. MSS also promotes SME products on product-dedicated pages that target overseas buyers as well as providing marketing training to business owners. This policy initiative is targeted to SMEs operating in all sectors that are able to sell online.

The MSS in co-operation with the Ministry of Trade, Industry and Energy released plans in 2019 to increase e-commerce exports by 2022 with additional infrastructure and financing (The Korea Herald, 2019^[75]). The Korean government has plans to build an integrated logistics centre where storage, clearance and delivery are handled in one place. The Korean government also plans to match Korean SME exporters with global companies, foreign VCs and accelerators to attract investment funds.

As part of the Korean response to COVID-19 the Global Growth Policy Division in May 2020 announced an initiative to hold online video conferences for export consultation for “BRAND K” products. The purpose of the Brand K initiative is to strengthen brand recognition of Korean products, capitalising on the “Korean Wave” in pop entertainment, cosmetics, fashion and food. The MSS as part of the initiative are supporting the follow-up marketing of BRAND K company’s advancement into the global market by assisting them on online platforms after the video consultations. The buyers at the video conference included Suning.com, China’s largest online distribution company and HIT GLOBAL, Indonesia’s largest home shopping vendor company. The co-operation with the private sector is a strength of the initiative.

This initiative is part of a greater MSS strategy for Korean SMEs to bounce back stronger in GVCs in the aftermath of the COVID-19 crisis. This greater policy, co-ordinated by the MSS, is SME specific but targeted to all sectors, as well as retail.

Box 3.12. Small business strategy – New Zealand

The New Zealand Minister for Small business, under the co-ordination of the Ministry of Business Innovation and Employment, established the Small Business Council in 2018 to develop a Small Business Strategy over a 12-month period (New Zealand Government, 2019^[76]).

The Small Business Strategy, released in July 2019, had many recommendations including the update of resources on *business.govt.nz* as part of an effort to build capabilities and skills amongst small business owners to engage with online platforms. This initiative is targeted to firms operating in all sectors.

The *business.govt.nz* resources were developed in partnership with technology leaders from Duke University in the United States. The resource *Business Strategy* connects New Zealand SMEs with global best-practice advice on engaging with e-commerce, online advertising and how to strategically use social media.

In the context of COVID-19, *business.govt.nz* has launched a “revive & thrive” tool to give businesses access to tailored support and information on how to do commerce digitally (New Zealand Government, 2020^[77]). This resource provides case studies and information on the different options for e-commerce, attracting online customers, customer engagement and improving customer experience. There is also a self-assessment tool for businesses to track and monitor their ability to use online platforms effectively. This tool is targeted to firms of all sizes and firms operating in all sectors.

Box 3.13. Selling online overseas with DIT’s E-exporting programme – United Kingdom

The United Kingdom as part of the *great.gov.uk* initiative has launched a platform *Selling Online Overseas with DIT’s E-Exporting Programme* to provide tools and information to assist firms exporting products to consumers through the use of online marketplaces (UK Government, 2018^[78]).

The detailed guide is co-ordinated by the Department for International Trade and was started in November 2016 and last updated September 2020. The service offers a tool to help UK businesses to find online marketplaces and sell products on the platforms.

Business owners can select the category of export product (e.g. health and beauty, food and drink) and the market they want to target, then a list of online platforms that fit their criteria are provided. The tool also provides relevant information about the market place, such as registered users, markets they operate in, commission for use. The initiative offers free support from UK-based E-Commerce advisors and ongoing support on each firm’s journey selling online overseas. The initiative also offers benefits to firms that connect to international marketplaces through DIT’s website with reduced commission rates and free trial periods. The programme’s website shares success stories on online exporting experience.

The information is for firms of all sizes operating in the retail sector. This e-commerce strategy is specifically targeted towards exports and identifying online opportunities for UK businesses abroad. Since November 2016, 1 236 UK companies have applied to sell on an online marketplace through the *Selling Online Overseas* service, whilst 3 136 businesses have made an application to use the service.

Published in November 2018, the DIT released a specific guide titled *E-commerce for UK small businesses selling online to the USA*. The guide offers general information about engaging in e-commerce, as well as specific tips for the US market.

Conclusion

This chapter looks at the main characteristics of online multi-side platforms¹⁷ and their impact on SME business. It explores the incentives, opportunities and challenges for SMEs to move operations onto these often large and international digital platforms in order to understand implications for policy makers. In particular, how SMEs leverage such platforms to perform specific business functions, such as: marketing, communication, service delivery, financing, payment, remote working, teleconferencing, or innovation, etc. To this end, the analysis takes into account the most recent academic literature, internationally comparable data and policy experiences. It gives a particular focus to the effects of the COVID-19 pandemic on SME uptake of digital platforms, and how governments are responding by leveraging the potential of platforms.

Online platforms allow SMEs to reduce transaction costs and information asymmetries, and enable important direct and indirect network effects, increasing customer bases and global reach, overcoming size-based skills gap, whilst also opening up innovation opportunities. Evidence shows higher productivity levels in sectors with a high share of SMEs (e.g. hotels, restaurant, taxis, retail) and a presence of more developed online platforms, as well as an association between higher labour productivity growth and more SMEs engaging in online activities on platforms, the effect being stronger the smaller the firm.

However, there are considerable challenges and risks for SMEs in using online platforms. First of all the lack of skills, understanding, or adequate business models to fully exploit the benefits of online operations. But also important risks related to data protection, potential competition distortion, digital security, and lock-in effects that might negatively and disproportionately impact SMEs.

While there is a significant effort at international level to provide comprehensive and internationally comparable data on the digital economy, a full understanding of the use of online platforms by SMEs is still non-trivial. Comparable international data on e-commerce show an increasing participation of firms of all sizes, and a strong acceleration during the pandemic. Usually, SMEs are more likely to sell online through their own website/apps than on e-commerce marketplaces, but smaller firms with an important share of online sales make most of them via online platforms.

Data on social media platforms suggest a mainstreamed use among large firms (more than 80% of large firms in the OECD area already use social media), less intensive use among SMEs (on average more than 50% of SMEs). But still wide differences in use across countries and firm-sizes, with social media use in the top five countries above 70% for small companies and 80% for medium-sized companies, while in the bottom five respectively less than 45% of small companies and less than 60% of medium-sized companies. Skills matter in this case: while a basic use (e.g. creating a page, uploading some general information) do not require any particular ability, effective more advanced use of these channels, e.g. for advertising, marketing and managing customer relations, require training staff, e.g. on how to increase traffic, manage reviews and reactions, build network, impressions). In fact, the provision of ICT training to non ICT staff seems to be associated with a more intensive use of social media, the effect being stronger the smaller the firm.

Governments are offering a range of support policies to encourage SME uptake of online platforms, although the diffusion of online platforms varies widely across countries and regions for both structural and policy reasons. A growing number of OECD government programmes aim to encourage the digitalisation of SME operations through online platforms and sometimes in co-operation with them. The COVID-19 crisis reinforced policy efforts in that direction, with increased attention to strengthening e-commerce, advertising, communication and remote working capabilities. Six country cases of Australia, Denmark, France, Korea, New Zealand and the United Kingdom are explored in more detail to better understand the design and governance of policies aiming to encourage SME operations on online platforms.

Further exploration of the topic would need a strengthened evidence base, for example by expanding the collection of data on micro-firms (below 10 employees, currently missing in international statistics on ICT business use), expanding the coverage of ICT data to other types of platforms, beyond e-commerce and

social media, getting a better understanding on the return on investments for micro and SMEs to move part of their business functions on digital platforms, and which ones. Likewise, better understanding the impact of digital platforms on market structures (OECD, 2019^[2]), business and competition conditions, and the internal processes of SMEs is critical to future policy making in the area.

Multi-stakeholder efforts including the private sector, large firms, digital platforms and SMEs themselves, like the *Digital for SMEs Global Initiative* (D4SME) that is promoted by the OECD and Business at OECD, might help OECD governments. For instance, by gathering relevant SMEs use cases for information and awareness purposes (as the two integrated in Box 3.2 and Box 3.3), as well as by building research co-operation with academia and large online platforms, in order to leverage original data, better understand the evolution of the sector and the place of SMEs and micro-firms within, and ultimately better inform policy makers.

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Notes

¹ Some researchers defines platforms as business models that are rooted in the core interaction between end-users, “followed by the design of an open infrastructure that will enable and govern this interaction” (Choudary, 2015_[11]).

² These classifications include previous OECD work (OECD, 2015_[81]; OECD, 2013_[82]), as well as the typologies proposed in (Gawer and Cusumano, 2013_[83]).

³ For example: false or misleading advertising, “masked” advertising (not identifiable by consumers as such), leveraging of consumer biases and vulnerabilities, “malvertising” (using online ads to infect devices with malwares), misuse of personal data threatening consumer privacy and security.

⁴ These platforms have also another role as “employers” in “the Gig economy”. As multi-sided platforms, they actually connect three types of end-users: restaurants, customers and couriers. In-depth discussion on the conditions of “gig-economy” workers and their conditions as self-employed, while out of the scope of this report, can be found in (OECD/European Union, 2019_[84]).

⁵ 63% of the global volumes are concentrated in the People's Republic of China, followed by the United States with 21% and by the United Kingdom with 8%.

⁶ Know Your Customer is a regulatory requirement that financial institutions have to comply with, meaning the mandatory process of identifying and verifying the identity of the client when opening an account and periodically over time.

⁷ Digital payment platforms are extremely popular in the People's Republic of China, with services as AliPay and WeChat (platform integrating Social Media services) used by hundreds of millions of people. While in this chapter we focus on services present in OECD countries, a more detailed discussion of the innovative practices in China are discussed in (OECD, 2019^[6]).

⁸ The definition advanced by (Ghazawneh and Henfridsson, 2015^[85]) of “software-based external platforms consisting of the extensible codebase of a software-based system that provides core functionality shared by the modules that interoperate with it and the interfaces through which they interoperate”. These modules are add-on software, usually in the form of the applications or “Apps” ultimately delivering services to the end-users.

⁹ Open innovation indicates “a situation where an organisation doesn't just rely on their own internal knowledge, sources and resources (such as their own staff or R&D for example) for innovation (of products, services, business models, processes, etc.) but also uses multiple external sources (such as customer feedback, published patents, competitors, external agencies, the public, etc.) to drive innovation” (Oxford Review, 2020^[86]).

¹⁰ It is interesting to note that in “single end-user” services (as cloud-computing, business intelligence software) there are inherently no indirect network effects, but this type of positive direct network effects can be relevant.

¹¹ “Digital intensive” refers to characteristics of the sectors as development and adoption of the most advanced “digital” technologies, the human capital needed to embed them in production and the extent to which digital tools are used to deal with clients and suppliers. The full taxonomy is proposed in (Calvino et al., 2018^[79]).

¹² However, a recent trend is lowering these costs consistently. There are increasingly successful online service providers (e.g. Shopify, Wix) offering tools to build a proprietary e-commerce website without the need for any specific technical skill.

¹³ An overview of the main issues can be found in (OECD, 2019^[6]), while a detailed analysis of Competition issues can be found for example in the work of OECD's Competition Division (OECD, 2017^[88]) and (OECD, 2018^[80]).

¹⁴ Algorithmic price setting is the practice of setting up algorithms that evaluate a number of factors (e.g. probabilistic analysis of potential buyers behaviour, price of competing products, personal information on the buyer) to set up a price that has the highest probability of making the trade happen while maximising the value for the seller. However, there is the risk of anti-competitive practice, as firms can set up algorithm to collude without the need of any human interaction (OECD, 2017^[88]).

¹⁵ For instance in e-commerce, where multiple surveys allow to have some historical data, there are various methodological problems (e.g. different practices for data collection and estimations, treatment of outliers, accounting systems of businesses not differentiating between online and offline sales). On the other typologies of online platforms relevant to SMEs, data are relatively scarce and scattered. Most information

on advertising, service delivery (disruptors and aggregators), communication, and innovation platforms are provided by the private online platforms themselves.

¹⁶ Similarly, in the European Union 17.5% of SMEs sold online in 2019 (increasing by 1.4% from 2016), while 39% of large firms did so (European Commission, 2020^[87]).

¹⁷ See sub-section on “Online platforms: Features, benefits and challenges for SMEs”: “an online platform is a digital service that facilitates interactions between two or more distinct but interdependent sets of users (whether firms or individuals) who interact through the service via the internet”..



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