Digitalization of SMEs

Potential, challenges, and trends

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Potential of Digitalization

- The adoption of more digital technologies by firms is associated with **better performance** in terms of value-added and productivity. This result holds for SMEs.

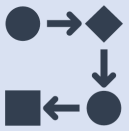
- Digitalization presents **opportunities** for SMEs, including growth and scale-up, generation of quality jobs, resilience to shocks, reduction in income inequalities, social inclusion, others.

- SME digitalization can help not only reduce costs and maintain/ increase profits, but also leveraging **new opportunities** and distribution channels

Digital technologies and the potential benefits

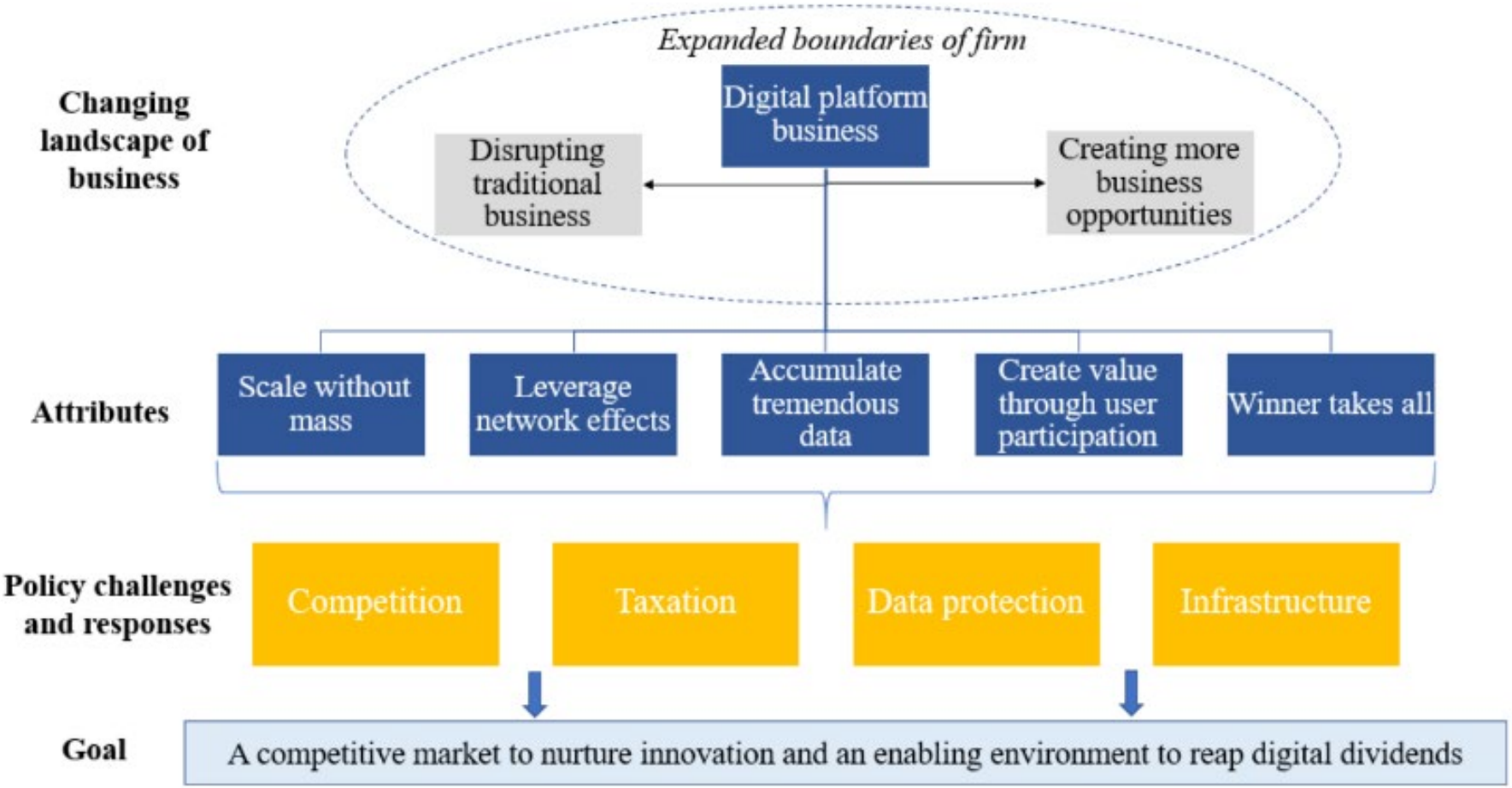
- Advances in digital technology are **expanding the boundaries of firms** and bring more opportunities to traditional businesses by closely connecting suppliers and customers and reducing transaction frictions.

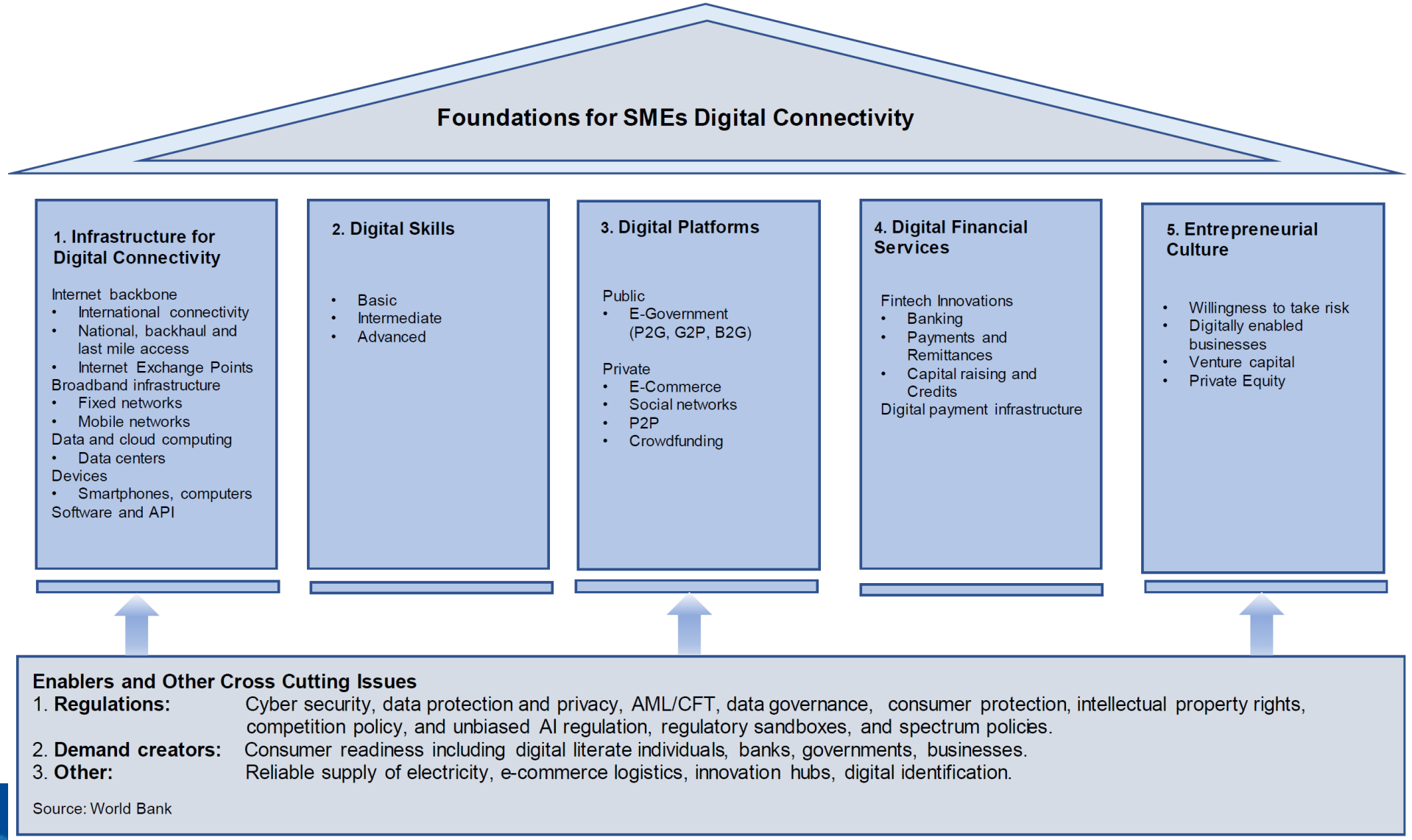
- Technologies like the Internet of Things, artificial intelligence and e-payments allow firms to streamline internal processes, **cut costs and enhance their profitability**.

	Descriptions	Benefits for SMEs
 **Internet of Things**	Enables a host of new business models, applications and services based on data collected from divices and objects. For instance, a GPS embeded in a telephone can track the users location	▪ Better interaction with clients ▪ Improved efficiency and reduction in operational costs ▪ In retail stores: Allows SMEs to provide tailored products ▪ In production: Anticipate stock replacement ▪ In Logistics: Calculate better delivery routes and improves customer experience
 **Cloud Computing**	Cloud computing is the delivery of computing services like servers, storages and more over the internet. Cloud providers charge for cloud services based on usage. The services include Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Software as a Service (SaaS) or storage, data base, etc.	▪ Most SMEs opt for SaaS or IT services from niche service providers which helps reduce cost of digitalization, partially addresses the knowledge gap and ensures cost effective security. ▪ Reduces upfront ICT infrastructure costs, and software easier to install, maintain and update ▪ Resources can be used and priced in a scalable and adaptable manner, and reduces piracy risk
 **Big Data Analytics**	Analysis of data characterised by high volume, velocity and variety of sources, such as market transactions, data retrieved from sensors or social media content	▪ Effective use of data for business decisions ▪ Gives SMEs a competitive advantage and ability to compete with larger firms ▪ Reduced costs and increased productivity ▪ Enhanced design of marketing projects ▪ Ability to forsee and identify trends
 **Artificial Intelligence**	AI is the ability of machines and systems to acquire and apply knowledge, including by performing a broad variety of cognitive tasks, such as sensing, processing language, pattern recognition, learning and making decisions and predictions. Machine Learning is key to the development of AI.	▪ Fewer employee expenses, as robots can execute several repetitive tasks ▪ Greater efficiency ▪ Reduced errors related to the collection and analysis of vast amounts of data
 **Blockchain**	Enables applications to authenticate ownership and carry out secure transactions for a variety of asset typs. It is a ledger or spreadsheet that is maintained and stored across a network of computers. The network regularly updates the database in every place it exists, so that all copies are identical	▪ Provides full transparency, allowing buyers and sellers to inquire into the original source of information ▪ Smaller businesses can obtain more types of trusted information at lower cost ▪ Has been effectively applied in real estate to provide reliable collateral registries

Source: OECD Idea Factory, Harnessing Digital Technologies for Entrepreneurs and SMEs, 2019

A **Changing** Business Landscape





The Foundations

Means of Digitalization

- There are three clusters are: (i) Basic Digital Tools (BDT), (ii) Digital Platform Tools (DPT), and (iii) Advanced Digital Tools (ADT)

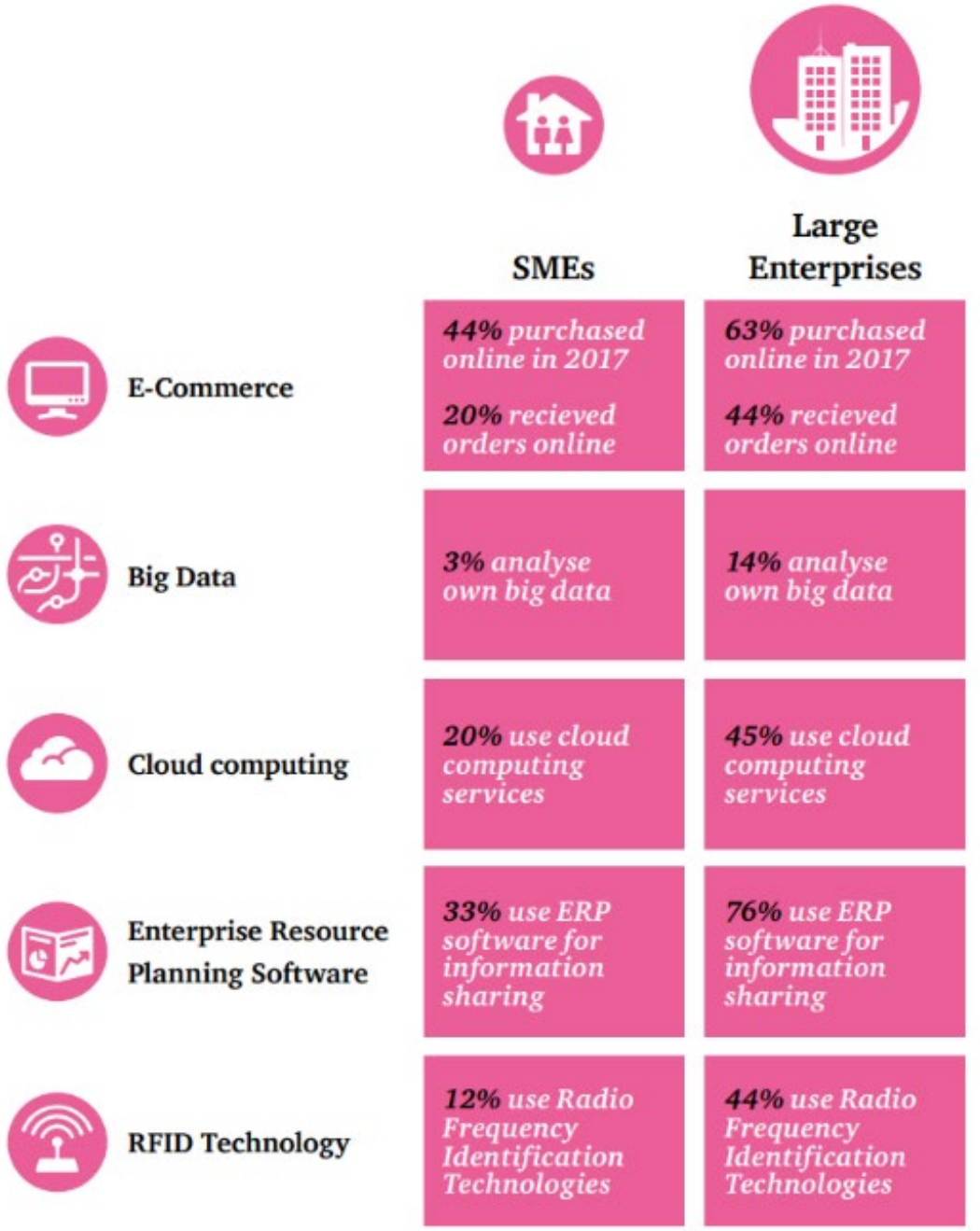
- Typically , there is a high level of adoption of BDT among firms, regardless of their size. Comparatively, the adoption rates observed for DPT and ADT are lower, yet e-payment solutions have become more usable recently

Basic Digital Tools (BDT)	Digital Platform Tools (DPT)	Advanced Digital Tools (ADT)
• Internet Usage • Computer Usage • Web Presence • Infocomm Security	• E-payments • E-commerce • Software as a Service	• Internet of Things • Data Analytics • Artificial Intelligence

Source: Digital Adoption Among Firms and Impact on Firm-level outcomes In Singapore (2019)

SMEs lag behind in capturing the benefits!

- Often it is **unclear** (to the SME) what would be the benefits from going digital (business case), paired with lack of skills and capacity
- One of the main barriers faced by SMEs on the path to digital transformation relates to **financial constraints**
- **Cybersecurity** is an under-treated policy area and No. 1 challenge for SMEs as SMEs are ill-prepared for eCommerce and lack skills / cannot afford training or consulting services on cybersecurity



Source: Eurostat, OECD, own calculations. Micro-enterprises excluded.

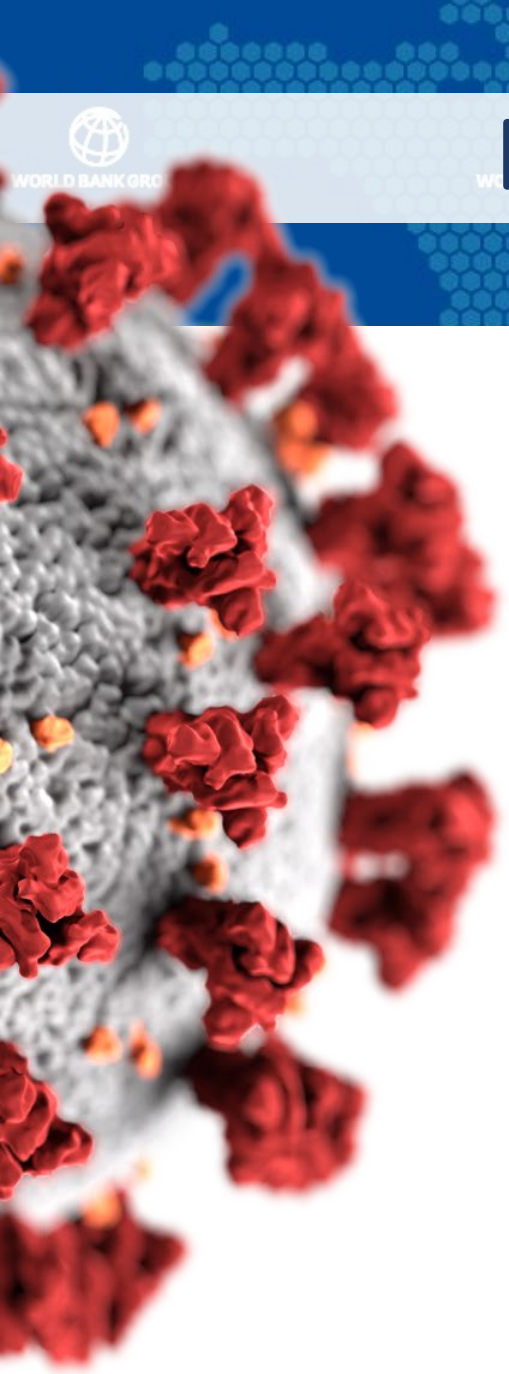
Digitalization For Russian SMEs

Performance indicators of Russian firms is deteriorating (Pre-COVID) in terms of growth and productivity (unlike ECA). Russian SMEs would benefit from digitalization in boosting growth

Indicator	Russian Federation	Europe & Central Asia	All Countries
Capacity utilization (%)*	79.3	75.3	73.3
Real annual sales growth (%)	-2	2.6	0.7
Annual employment growth (%)	3.4	2.9	4.4
Real annual labor productivity growth (%)	-5	0	-3.3
Percent of firms buying fixed assets	24.9	45.2	39.6

Source: World Bank Enterprise Survey, 2019

Digital Adoption During COVID-19



- **World Bank global surveys confirm that firms are increasingly relying on digital solutions as a response to the shock**

- Overall, around **49% of firms made greater use of technology**, changed the product mix, or both.

- The **most common firm response** to the pandemic shock has been to **expand the use of digital platforms**; although this response differs across countries, sectors and firms.

- Around **34% of firms have increased (around 22%) or started (around 8%) to use the internet, social media and digital platforms; and 17% of firms have invested in new equipment, software or digital solutions** in response to the pandemic.

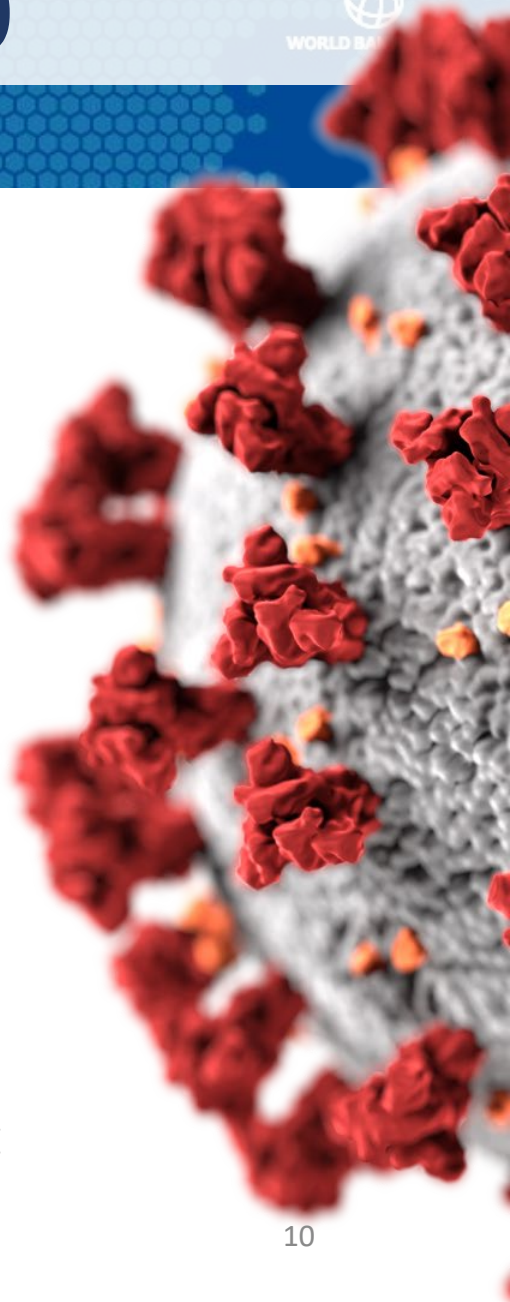
Digital Adoption During COVID-19

- **The shock has clearly accelerated digital adoption, and this could lead to productivity gains in the future.**

- The increased use of digital technology in response to the COVID-19 crisis was **driven by movement restriction** that limited the ability of firms to conduct "business as usual" such as in-person, onsite sales

- Digital **adoption is typically higher for larger firms** and this also holds across business functions, except for payments services and delivery methods

- Increased use of digital **technology in production and supply chain management** typically requires financial investment and managerial capacity and complementary skills to make the most use of new technologies, so it is not surprising that a larger share of large firm did so



Digital Adoption During COVID-19

Spillover Effect: There is evidence of potential bundling

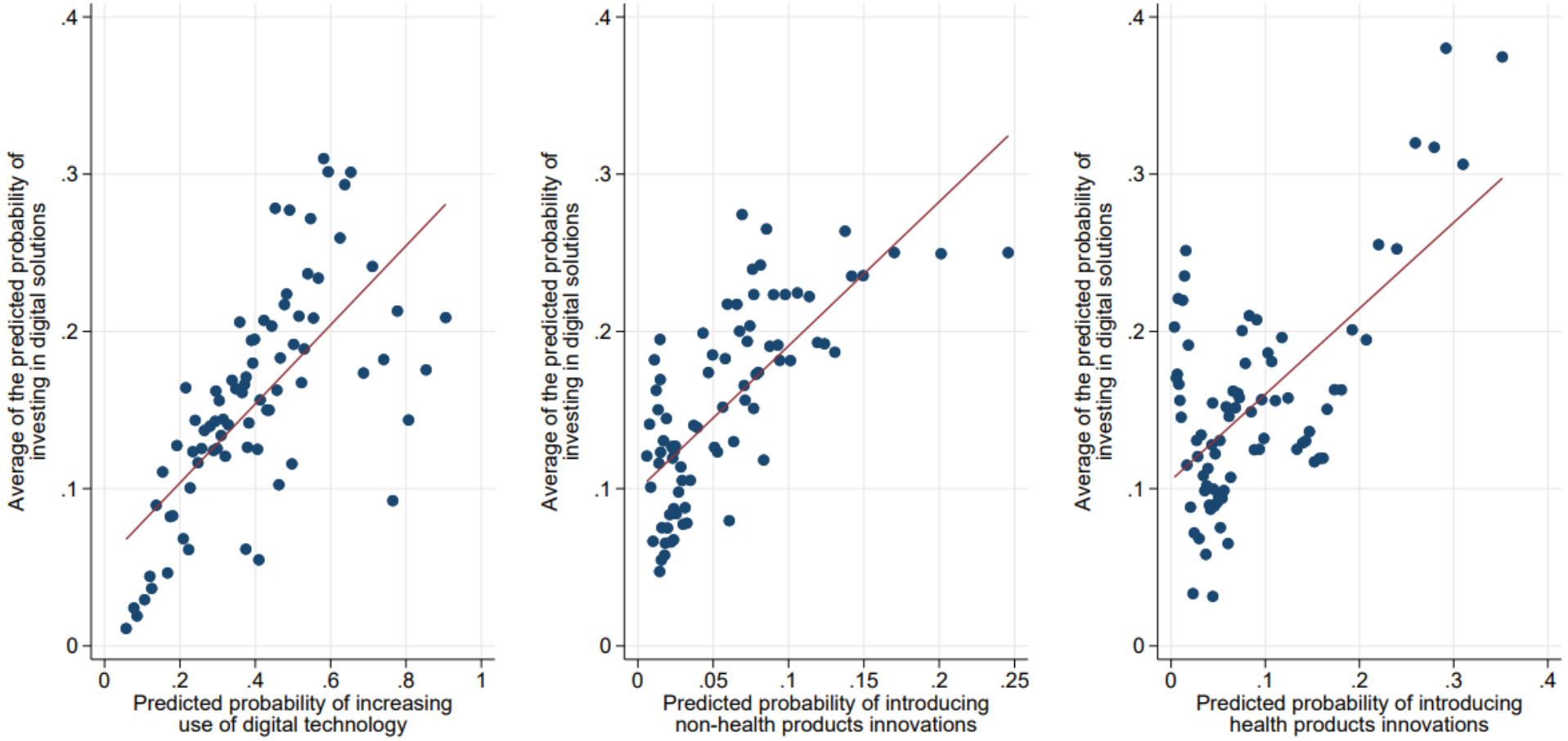
- Firms that **expand the use of digital technologies, diversify into health and health related products, or change the product or services bundle** are also more likely to invest in digital solutions.

- In the case of increased use of and investments in digital technologies, the **complementarity with investments in digital equipment is evident**, since firms may need to upgrade their digital infrastructure in order to expand its use.

- More surprising is the **bundling with changes in the product mix**, which suggests that some firms are responding more actively in **changing key elements of their business model**.

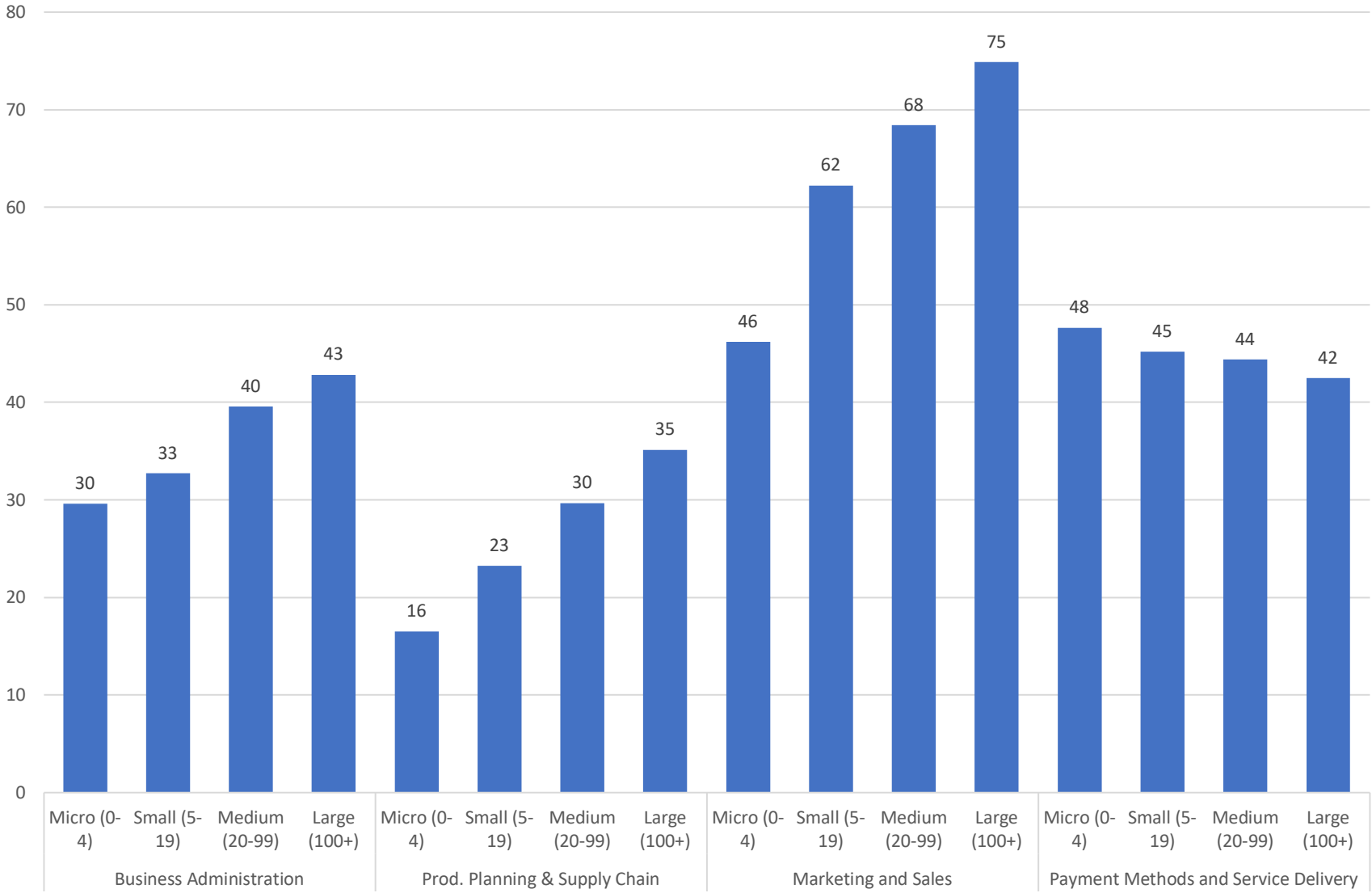
Digital Adoption During COVID-19

Correlation between average predicted probability of implementing each solution (World Bank ES)



Digitalized Functions

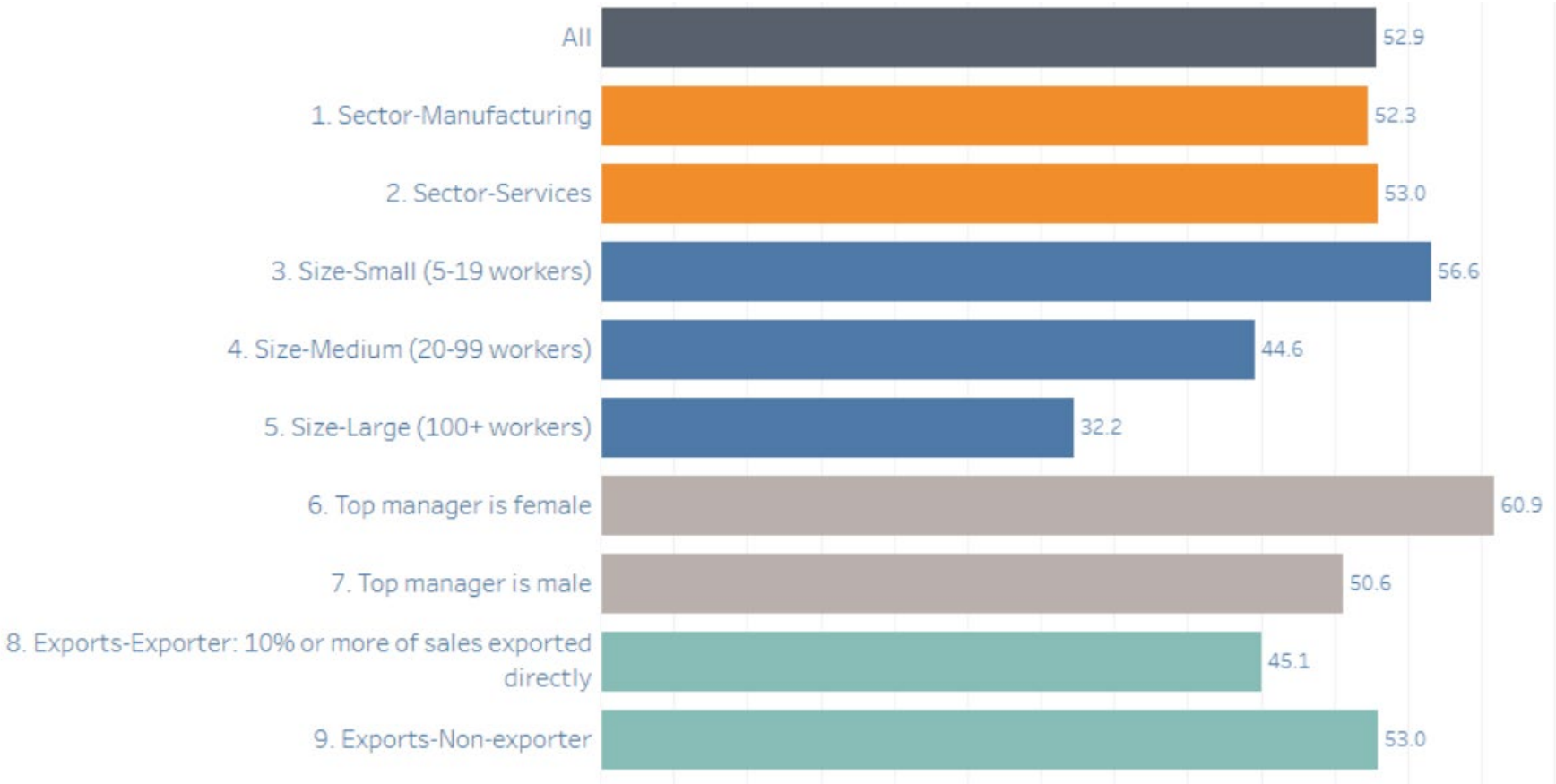
Among ECA firms who increased the use of digital technologies, most did so for marketing and sales purposes



Sources: World Bank Business Pulse Surveys for 8 ECA countries.

Online Sales in Russia

Percentage of firms that started or increased online business activity in Russian Federation during COVID



Sources: World Bank Business Pulse Survey for Russia

SME Support Measures

Gov, Private Sector and others

Going forward, SMEs will need to **embrace digital technologies to strengthen their resilience and propel further growth**. However, they face substantial challenges with the lack of technical knowledge and the high costs associated with shifting towards digitalization. *Support measures to incentivize that would include:*

- **ICT infrastructure** and high-capacity broadband networks, access and affordability
- **Skills**, training and knowledge by government and/or private sector consulting
- **Financial infrastructure** and digital banking solution
- **Regulatory reforms**, specific to digital by creating level playing field and simplify regulations
- **Platforms**, center of excellence (CoE) and hubs