

Executive Summary

The Small Business Roundtable (SBR) developed this report to explore how digital tools are transforming the small business landscape in the United States. Representing more than 30 million small businesses, SBR seeks to inform public policy and private sector strategies to support small firms in navigating the increasingly digital economy. As the backbone of the American economy, small businesses are essential for employment, innovation, and community development. In today's interconnected world, digital adoption is no longer a competitive advantage but a fundamental tool for growth and success.

Digital tools such as e-commerce marketplaces, cloud-based software, and online marketing enable small businesses to operate more efficiently, reach new markets, and improve their resilience. This report highlights that 99 percent of small businesses use at least one digital platform, with widespread adoption of tools like social media, digital payments, and accounting software. However, the depth and impact of digital integration vary significantly, particularly among rural firms and microbusinesses with fewer than 10 employees. Underserved entrepreneurs, including veteran-, women-, and minority-owned businesses, have often led in digital adoption, leveraging technology to overcome traditional market barriers and expand their reach.

Case studies and statistics throughout the report illustrate the tangible benefits of digital tools. These examples and benefits underscore the potential of digitalization to drive revenue growth, create jobs, and enhance customer engagement. Emerging technologies such as artificial intelligence, augmented reality, and the Internet of Things are also becoming more accessible and are poised to offer even greater opportunities for small businesses to innovate and compete. Despite these clear benefits, small businesses face persistent challenges in adopting digital tools. A lack of digital skills, limited financial resources, inadequate broadband access, time constraints, regulatory requirements, and cybersecurity concerns all hinder progress. These barriers are especially acute for the smallest and most remote businesses, threatening to widen the gap between digital leaders and laggards and exacerbating regional and economic inequalities.

To address these issues, this report offers a comprehensive set of policy recommendations. These include expanding broadband infrastructure and affordability, investing in digital skills training through local and national programs, and providing financial incentives such as tax credits and grants to catalyze digital adoption. The recommendations also include pilot programs to help small businesses experiment with emerging technologies, regulatory sandboxes to foster innovation, and public-private partnerships to maximize the reach and effectiveness of support initiatives. Importantly, it emphasizes the need for targeted outreach and interagency coordination to ensure all small businesses—especially those in underserved communities—can benefit.

Digital transformation holds the key to unlocking the full potential of America's small businesses. By reducing barriers and expanding access to technology, stakeholders across the public and private sectors can help build a more inclusive, competitive, and resilient economy. Empowering small businesses to succeed in the digital era is not only a catalyst for entrepreneurial growth, but also a vital opportunity to unlock national economic potential.

Introduction

The Small Business Roundtable (SBR) has undertaken this report to explore how digital tools such as e-commerce marketplaces, digital marketing, social media, and cloud-based software are shaping the small business landscape in the United States. SBR is a coalition of leading small business and entrepreneurship organizations representing over 30 million U.S. small businesses and is dedicated to advancing policy, securing access, and promoting inclusion to benefit the businesses at the heart of the American economy.¹

The rise of digital technology has been a transformative force across industries, and understanding its impact on small firms is critical for policymakers, business leaders, and entrepreneurs alike. This report's objective is to provide an analysis of the state of small business digitalization: how extensively are small businesses adopting digital tools, what benefits are they seeing, what obstacles do they encounter, and what can be done to support further adoption. By examining these questions, the report aims to inform policy decisions and business strategies that will foster a vibrant, digitally-empowered small business sector.

Small businesses are the backbone of the economy. Beyond the statistics, small businesses hold a special place in communities – they are often owned by local families, drive community development, and spur innovation. In short, when small businesses succeed, the economy succeeds.

In today's digitally connected world, the opportunities for small businesses to grow, evolve, and compete are expanding. With consumers increasingly turning to online platforms to research and purchase products, and with digital tools transforming everything from marketing and accounting to team collaboration, adopting digital practices is becoming a powerful lever for greater efficiency and long-term success. Digital tools enable small businesses to increase productivity, unlock new markets, and scale their businesses in ways that were once possible only for large corporations. For example, a brick-and-mortar retailer can launch an online storefront and suddenly reach customers worldwide, or a home-based artisan can sell products to a global audience via an online marketplace. Cloud software allows a small firm to manage operations and save the "all-in-one" small business owner time, and online advertising lets small businesses target customers with precision. These opportunities explain why digital adoption among small businesses has accelerated and why this report focuses on ensuring all small businesses can fully participate in the digital economy.

This report provides a comprehensive overview of small business digitalization in the U.S. It analyzes the economic impact of small businesses and how digital tools contribute to their productivity and growth. It also examines current digital adoption trends and use cases among small firms and identifies key challenges and barriers that limit digital tool adoption, such as cost, skill gaps, and broadband access issues. Third, we explore future areas for growth, discussing emerging technologies and their potential applications for small business. Finally, we offer policy recommendations to foster digital adoption, aimed at government and industry stakeholders.

Economic Impact of Small Businesses and Digital Tools

Small businesses make outsized contributions to employment, innovation, and economic growth. There are over 34 million small businesses (defined by the Small Business Administration (SBA) as firms with fewer than 500 employees) as of 2024 according to the SBA, comprising 99.9 percent of all U.S. businesses, employing about 59 million Americans (nearly half of the private workforce) and contributing 39 percent of private sector payroll.² These firms span every industry – from retail and food services to manufacturing, professional services, and agriculture – and are estimated to contribute roughly 43.5 percent of Gross Domestic Product. In addition, small businesses are crucial for job creation. According to the SBA, small firms have historically created about two-thirds of net new jobs, making them key to economic dynamism. Many are also engines of resiliency and innovation, weathering economic downturns and producing patents and new technologies essential to economic growth. For example, more than 25 million new business applications have been filed since 2020, indicating a remarkable contribution to the post-pandemic recovery.³ Thus, small businesses play an integral role in the overall health of the U.S. economy.

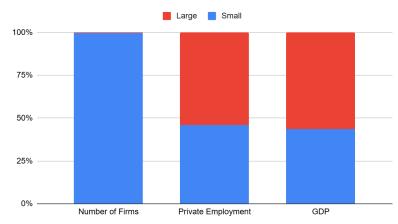


Figure 1: The Economic Impact of Small vs Large Firms

Source: Frequently Asked Questions about Small Business, 2024

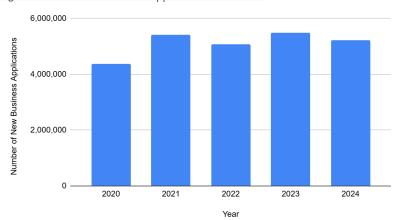


Figure 2: Annual New Business Applications Since 2020

Source: U.S. Census Bureau Business Formation Statistics, 2020-2024

² "Frequently Asked Questions about Small Business, 2024," U.S. Small Business Administration Office of Advocacy, July 23, 2024. https://advocacy.sba.gov/2024/07/23/frequently-asked-questions-about-small-business-2024/#:~:text=%2A%20 99.9,small%20businesses%20in%20FY%202022

³ "Business Formation Statistics, Business Applications Seasonally Adjusted," U.S. Census Bureau. https://www.census.gov/econ/currentdata/?programCode=BFS&startYear=2020&endYear=2025&categories[]=TOTAL&dataType=BA_BA&geoLevel=US&adjusted=1¬Adjusted=0&errorData=0#bar014

Small businesses' economic impact can be further amplified by digitalization. Digital tools have a multiplier effect on small business performance – enabling owners to operate more efficiently, serve more customers, and adapt to market changes. According to a 2021 report by the Organisation for Economic Cooperation and Development, adoption of digital technologies generally raises firm productivity, with the biggest effect on firms with less than 10 employees.⁴ The U.S. Chamber's 2024 report on small businesses' utilization of digital tools found 84 percent of respondents said that technology platforms have helped their businesses operate more efficiently and 67 percent said their businesses would struggle to survive without access to technology platforms.⁵ For instance, moving operations online can reduce transaction costs and overhead. An online bookkeeping or inventory system can save hours of manual work each week, effectively increasing productivity. E-commerce marketplaces allow a small shop to remain open around the clock to serve a global customer base, generating sales beyond just the limits of the traditional physical storefront. Digital tools also help small businesses compete in areas like marketing and customer service, where historically they lacked scale. By using social media or search engine advertising, a small business can target unique customer segments without needing a massive advertising budget. Digital tools are a game changer in terms of enhancing productivity and leveling the playing field for small businesses to compete with their larger counterparts.

The link between digital adoption and small business growth is well researched. A 2022 report by the U.S. Chamber of Commerce found that small businesses categorized as "power adopters"—those using six or more technology platforms—significantly outpaced their less tech-savvy peers in key growth metrics.⁶ Among power adopters, 84 percent reported increased profits, 82 percent experienced higher sales, and 74 percent expanded their workforce, compared to much lower rates among firms using only one or no digital tools. These findings underscore how robust digital engagement not only drives revenue but also supports job creation and overall business resilience. Indeed, digital tools can catalyze both productivity and expansion for small firms.

Importantly, digitalization helps small businesses not only be more productive and grow faster, but also become more resilient. Companies that sell through multiple channels (in-store, online, etc.) or use data analytics to inform decisions are better equipped to weather disruptions. This was evident during the COVID-19 pandemic: small businesses that quickly pivoted to online sales or remote work were more likely to survive lockdowns and even find new revenue streams, whereas those without digital options struggled.

⁴ Hélia Costa, Giuseppe Nicoletti, Mauro Pisu, and Christina von Rueden, "Are online platforms killing the offline star? Platform diffusion and the productivity of traditional firms," OECD Economics Department Working Papers No. 1682, October 5, 2021. https://www.oecd.org/en/publications/are-online-platforms-killing-the-offline-star-platform-diffusion-and-the-productivity-of-traditional-firms_1e2bbe10-en.html

⁵ "Empowering Small Business: The Impact of Technology on U.S. Small Business," U.S. Chamber of Commerce Technology Engagement Center. September 15, 2024. https://www.uschamber.com/assets/documents/Impact-of-Technology-on-Small-Business-Report-2024.pdf

⁶ "Empowering Small Business: The Impact of Technology on U.S. Small Business," U.S. Chamber of Commerce, August 2, 2022. https://www.uschamber.com/workforce/empowering-small-business-the-impact-of-technology-on-u-s-small-business

Furthermore, digital tools often enable innovation in small businesses. By analyzing online customer data, a company might spot an unfilled market gap and develop a new product line. By adopting e-commerce, a crafts store can experiment with selling different product styles and immediately gauge customer response, adapting quickly to demand. The agility and creativity of small businesses combined with the power of digital technology creates a potent recipe for innovation. Indeed, many digital startups begin as small businesses that leverage online platforms to test and refine disruptive business models, including app developers, digital media creators, and tech-enabled service providers. Digitalization can not only streamline existing business operations, but transform a small business's trajectory, turning small local companies into growing, job-creating, and innovative enterprises.

Digital tools and e-commerce have tangible, real-world benefits for small businesses. For example, SBR e-commerce council member AmeriBag, a long-standing company operating since 1987, traditionally sold its products wholesale through retail partners. But in 2018, the company shifted to a direct-to-consumer model focused on its website and third-party marketplaces — a move that boosted profit margins by 40 percent and expanded its reach to a broader customer base. This strategic pivot not only helped AmeriBag survive the challenges of the pandemic but also opened new doors for innovation and agility. By selling directly to consumers, AmeriBag gained greater insight into product performance, allowing for faster adjustments and more targeted offerings. The shift also deepened customer relationships, fueling brand loyalty and repeat business in ways that weren't possible through traditional retail channels.

Rural Creamery, a small artisanal cheese producer in Wisconsin, launched an online store in 2020 to supplement their local shop. This move unlocked new markets beyond their hometown, and within one year their sales jumped by 150 percent. Such stories show how even a very small business can achieve scale and prosperity through digitalization.

A collective of artisans in rural Iowa called Crafted in the Cornfields makes handmade home goods.⁸ By creating a simple e-commerce website, they began reaching customers all across the U.S. Within six months of launching online, their sales doubled as orders poured in from outside their small town.

Pearl Express, a family-owned and operated restaurant in Salt Lake City, saw a significant decline in revenue and orders during the Covid-19 pandemic. But by leveraging online ordering and promotional tools, Pearl Express saw a 195 percent increase in sales and doubled their amount of new customers. Online ordering and digital marketing helped them weather the pandemic and prosper once again.

⁷ "Success Stories: How Small Businesses Are Thriving in Rural E-Commerce," Disk.com, September 25, 2024. https://disk.com/resources/success-stories-small-businesses/

⁸ "Success Stories: How Small Businesses Are Thriving in Rural E-Commerce," Disk.com, September 25, 2024. https://disk.com/resources/success-stories-small-businesses/

⁹ "Two new opportunities that might fuel your restaurant revenue," Grubhub for Restaurants. https://get.grubhub.com/blog/online-ordering-for-restaurants/

Hydrate Medical, a small IV hydration therapy clinic based in North Carolina, saw rapid growth after investing in a targeted digital advertising strategy. ¹⁰ Partnering with a local marketing agency, they developed a comprehensive campaign using social media ads, email marketing, and other tools to raise brand awareness and drive bookings. As a result, Hydrate Medical tripled its sales in under two years and expanded operations.

These examples, among others, demonstrate the number of ways in which digitalization can help small businesses grow revenue, create jobs, and improve efficiency. Whether through e-commerce, online ordering, or digital marketing, embracing digital tools creates tangible economic value for small businesses.

Digital Adoption Trends Among Small Businesses

As of 2025, the vast majority of U.S. small businesses have embraced at least some form of digital technology. The U.S. Chamber of Commerce's annual 2024 report on the impact of technology on U.S. businesses found 99 percent of small businesses are using at least one digital platform. As Figure 3 shows, the highest levels of adoption were among social media (63%), digital payments (56%), and accounting software (54%) while the lowest levels were among third-party delivery services (17%), lending and cashflow management platforms (16%), and cryptocurrency (13%). Thus, the question is no longer if small businesses are using digital tools, but how extensively and to what effect.

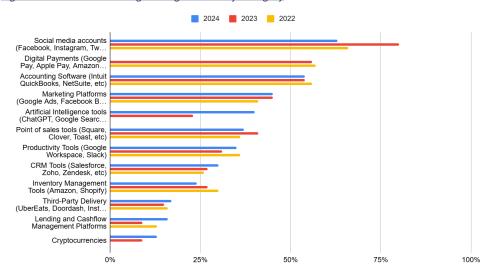


Figure 3: Small Business Usage of Digital Tools by Category

Source: U.S. Chamber of Commerce Technology Engagement Center's 2024 report on Empowering Small Business: The Impact of Technology on U.S. Small Business

¹⁰ "Case study: How a local IV clinic tripled revenue in less than two years," Axios, October 27. 2022. https://www.axios.com/local/charlotte/sponsored/case-study-hydrate-medical-social-ape-marketing-pr-charlotte-306110

¹¹ "Empowering Small Business: The Impact of Technology on U.S. Small Business," U.S. Chamber of Commerce Technology Engagement Center. September 15, 2024. https://www.uschamber.com/assets/documents/Impact-of-Technology-on-Small-Business-Report-2024.pdf

Many small firms have partially or fully integrated digital tools into their everyday operations. Indeed, according to the US Chamber report, nearly 70 percent of small businesses reported utilizing two or more types of digital tools in their businesses. However, microbusinesses under 10 employees tend to lag adoption of digital tools compared to other small businesses. An October 2022 report by the Bipartisan Policy Center found only 15 percent of firms with 1-4 employees and 22 percent of firms with 5-9 employees reported being "early adopters of new digital tools," compared to 34 percent of businesses with 10-49 employees and 35 percent for those with 50-100 employees. A January 2023 report by the SBA Office of Advocacy cited similar results, with about 17 percent of small businesses with more than 20 employees expecting to adopt or expand use of digital technologies over the next six months compared to only 11 percent of businesses with 1-5 employees. As a result, these microbusinesses are often left out of the lower costs, increased competition, and higher revenue growth that digital tools adoption affords.

Importantly, underserved business owners are more likely to be early adopters of digital technology. 95 percent of veteran-owned small businesses utilized at least one technology platform, with 86 percent planning to increase usage in the next two to three years, according to the Chamber of Commerce's 2024 annual report on the impact of technology among small businesses. ¹⁴ The October 2022 Bipartisan Policy Center report found 26 percent of minority business owners said they were early adopters of new digital tools, compared to 19 percent of white business owners. ¹⁵ It is noteworthy that businesses owned by males were more likely to be early adopters of digital tools compared to female-owned businesses. Importantly, research has shown digitalization to level the playing field for underserved entrepreneurs by streamlining business operations and opening up new markets. ¹⁶

^{12 &}quot;Small Businesses Go Digital: Benefits, Trends, and Barriers of Digitalization," Bipartisan Policy Center, October 2022. https://bipartisanpolicy.org/download/?file=/wp-content/uploads/2022/09/BPC-SMB-Campaign-Report-FINAL-v3-1.pdf

¹³ "U.S. SME Access and Use of Digital Tools," U.S. Small Business Administration Office of Advocacy, January 2023. https://www.trade.gov/sites/default/files/2023-06/SME_Digital_Tools.pdf

¹⁴ "Empowering Small Business: The Impact of Technology on U.S. Small Business," U.S. Chamber of Commerce Technology Engagement Center. September 15, 2024. https://www.uschamber.com/assets/documents/Impact-of-Technology-on-Small-Business-Report-2024.pdf

¹⁵ "Small Businesses Go Digital: Benefits, Trends, and Barriers of Digitalization," Bipartisan Policy Center, October 2022. https://bipartisanpolicy.org/download/?file=/wp-content/uploads/2022/09/BPC-SMB-Campaign-Report-FINAL-v3-1.pdf

¹⁶ "Digital, diverse, and going global: A new dawn for women-led firms," Visa Economic Empowerment Institute. https://usa.visa.com/content/dam/VCOM/regional/na/us/sites/documents/veei-women-small-business-in-the-digital-age.pdf

Small businesses' use of digital tools can roughly be fit into the below six categories. Of course, many small businesses fit more than one category, and digital adoption exists on a spectrum. Importantly, small businesses are not monolithic, and their patterns of technology use often differ by industry and business model.

- Digital Marketing and Social Media: Promoting products or services through digital channels such as search engines, social media, email, and content marketing. Small businesses might use platforms like Google Ads, Facebook Ads, Instagram, or TikTok to reach target audiences with precision. Tools like Mailchimp or Constant Contact also help manage campaigns and customer engagement. For example, a local restaurant may leverage Mailchimp and Google Ads to increase customer traffic based on events, holidays, or discounts. This channel enables costeffective, targeted outreach to potential customers, builds brand awareness, and helps small businesses to grow their business more efficiently.
- **E-Commerce Marketplaces**: Websites or services that allow businesses to build and operate online storefronts. SBR's 2025 survey of small business owners on e-commerce usage found many small businesses have complimented an in-person shop with multichannel online sales through marketplaces such as Amazon, Facebook Marketplace, eBay, Etsy and Shopify to name a few.¹⁷ These marketplaces offer small businesses access to customers around the world and support to attract and fulfill those orders, including marketing, inventory management, and payment tools. For example, a boutique craft store may leverage Etsy, a marketplace specializing in craft goods, to increase sales and grow the business. The result is a streamlined, cost-effective process of launching and managing an online store, enabling small businesses to sell directly to more consumers with lower overhead costs. Indeed, a December 2024 survey of small business e-commerce retailers by technology trade association TechNet found that 90 percent view online marketplaces as a cost-effective way to sell, 85 percent report that these marketplaces help reduce overall business expenses, and 92 percent say they make it easier to reach potential customers.¹⁸
- Digital Payment Systems: Tools that allow customers to make payments
 electronically, such as PayPal, Square, Google Pay, and Apple Pay. These
 systems often include features like invoicing, fraud protection, and
 recurring billing. As an example, a local thrift store may utilize a card
 reader to increase sales among customers who may not carry much cash.
 Digital payment systems are essential for online transactions and are

¹⁷ "Main Street to Marketplace: How Small Businesses Are Selling Online," Small Business Roundtable, February 2025. https://ecommerce.smallbusinessroundtable.org/main-street-to-marketplace

¹⁸ "TechNet Study Reveals Valuable Role of E-Commerce Marketplaces in Supporting Small Businesses," TechNet, December 19, 2024. https://www.technet.org/media/technet-study-reveals-valuable-role-of-e-commerce-marketplaces-in-supporting-small-businesses/

increasingly used in physical stores via mobile readers. These systems facilitate fast, secure, and convenient transactions, enhancing the ways customers can pay and improving the cash flow of small businesses.

- Business and Productivity Management Services: Software tools that help streamline daily operations, such as QuickBooks for accounting, Slack or Microsoft Teams for communication, and Customer Relationship Management Platforms such as Salesforce. For example, a small plumbing company may utilize QuickBooks to quickly assess their income, expenses, and cash flows. These tools increase operational efficiency, reduce administrative burdens, and enable teams to collaborate more effectively a critical need for small businesses with limited staff.
- FinTech Platforms: Financial technology services such as Bluevine, OnDeck and Funding Circle offering small businesses access to loan products, particularly small dollar loans most sought by small businesses. These platforms use data-driven algorithms to make financial services more accessible and user-friendly. For example, a small retailer may utilize a fintech company to secure a small loan to increase inventory before the busy holiday season. These platforms offer small businesses quick access to small loans that were traditionally harder to obtain through conventional banks.
- **Product Delivery**: Services that handle the logistics of getting goods from businesses to customers. This includes local delivery apps like UberEats, DoorDash, and Instacart. For example, a local restaurant without delivery staff may utilize product delivery services to increase their customer base and sales a market they previously would not have been able to access. These services help to enhance a business's customer reach, ensure timely delivery, and enhance customer satisfaction without the need for in-house logistics infrastructure.

Challenges and Barriers to Digital Tools Adoption

While the benefits of digital tools for small businesses are clear, many small business owners face significant challenges in adopting and leveraging these tools. Understanding these hurdles is essential to formulating policies and solutions to overcome them. The major challenges include digital skill gaps, cost constraints, and access, among others.

Lack of digital skills or knowledge has frequently been cited as a top barrier to digitalization among some small business owners and their employees. While small business owners are often skilled at many functions of their businesses, they may not be tech experts. Adopting a new e-commerce system or marketing tool can be intimidating if one is not tech-savvy. Indeed, 2023 research by job search platform Zippia found that nearly a fifth of small business owners without a website cited not knowing how to create or run a website as the primary

reason.¹⁹ Digital skill gaps can range from basic (i.e. not knowing how to set up a social media page effectively) to more advanced (i.e. lacking expertise to configure an online store plugin). Additionally, employees of small businesses might require training to use new software or tools, which requires a time and monetary investment. Unlike large firms, small businesses often don't have inhouse IT departments or training programs. The rapid pace of technological change means continual learning is required too – something many small business owners struggle to keep up with while juggling daily operations. While younger entrepreneurs or those who have grown up with technology tend to have less difficulty, ensuring that small businesses have access to training and guidance is essential to overcoming this barrier.

Cost can serve as a barrier to technology adoption for small businesses as well. Unlike large corporations, small firms have limited capital and operating cash flow, making it hard to justify and afford new tech investments. Traditional small business loans or grants might not be easily available for purchasing software or IT equipment. Technology expenses can include purchasing hardware (computers, routers, point-of-sale systems, etc), subscribing to software, hiring IT support, and ongoing maintenance or transaction fees. For example, setting up a robust website might involve hiring a web developer, which cost between \$2,000 to \$9,000 on average in 2024 - a major expense for small businesses' thin margins.²⁰ Moreover, some digital tools come with recurring costs. A suite of cloud software such as accounting, marketing, and inventory platforms typically requires a monthly subscription, which could cost hundreds of dollars per month. Small businesses often have to weigh these costs against uncertain returns. Cost also comes in the form of opportunity cost: devoting budget to a new software might mean cutting back on something else essential. This challenge is particularly acute for very small and microbusinesses with even less capital. Even if the longterm return on investment of digitalization is positive, the short-term costs can be prohibitive without external support.

Digital tools of course require internet connectivity. In the United States, broadband access is widespread in urban and suburban areas, but gaps still persist in rural and remote regions. According to the FCC's most recent broadband deployment report, 17 percent of rural Americans lack access to basic 25 Mbps/3 Mbps speeds as of 2021, compared to only 1 percent of urban Americans. Closing the digital divide would open new markets and revitalize rural economies that lag other communities. Indeed, a 2024 report by the Center on Rural Innovation found rural counties with more than 80 percent adoption rates experienced 213 percent higher business growth, 10 percent higher self-employment growth, and 44 percent higher Gross Domestic Product compared to low adoption rural communities. Lack of providers and competition in rural

¹⁹ Jack Flynn, "20+ Essential Small Business Website Statistics [2023]: How Many Businesses Have A Website," Zippia, March 28, 2023. https://www.zippia.com/advice/small-business-website-statistics/

²⁰ Allison Ko, "50+ small business website statistics for 2025," WIXBlog, July 7, 2024. https://www.wix.com/blog/small-business-website-statistics

²¹ "FCC Annual Broadband Deployment Report Shows Digital Divide Is Rapidly Closing," Federal Communications Commission, January 19, 2021. https://www.fcc.gov/document/fcc-annual-broadband-report-shows-digital-divide-rapidly-closing

²² "Beyond connectivity: The role of broadband in rural economic growth and resilience," Center on Rural Innovation, September 30, 2024. https://ruralinnovation.us/wp-content/uploads/2024/09/CORI-Beyond-Connectivity-Broadband-Rural-Economic-Growth-Report.pdf

areas often mean rural businesses pay higher prices for broadband too. A 2023 report by the Daily Yonder found "the average monthly cost of a 25/3 broadband connection was nearly \$13 higher in rural Zip codes." While this data reflects subscriptions for rural residents rather than businesses, rural businesses often face similar challenges. Expanding broadband access is essential to unlocking opportunities for rural businesses.

Adopting new technology often requires changing established processes as well. Business owners and their employees can often default to the "old way of doing things" and be skeptical of adopting new technologies. For example, a 2025 poll of small businesses by the Public Private Strategies Institute on their views and usage of artificial intelligence found 47 percent of small business owners who said they will never use artificial intelligence said they would not because they "prefer the traditional ways of doing business." Changing business owners' mindset about established processes and ways of doing things can be a barrier to digital tools adoption, especially for older entrepreneurs.

Small business owners are famously time-strapped, often wearing multiple hats and working long hours to manage their business operations. Implementing a new technology, whether setting up an e-commerce site or learning a new accounting software, requires a time investment. Many small business owners feel they simply "don't have the time" to research the best tools, learn how to use them, and integrate them into their business. According to a 2024 survey of microbusinesses by small business solutions provider UENI, "85% of respondents face challenges managing their time." As a result, a small business owner may have to learn a new technology on the go or simply not adopt new innovations unlike larger companies that can dedicate entire teams to IT projects. The opportunity cost in terms of time of learning a new technology or managing the immediate pressures of a business can easily push long-term tech improvements down the priority list.

Small business owners also face significant regulatory hurdles when adopting digital tools — challenges that can further deter them from embracing new technologies. In addition to limited time, these entrepreneurs must navigate a complex landscape of compliance requirements that often demand both financial and administrative resources. One particularly burdensome area is data privacy, where the growing patchwork of state-level privacy laws creates inconsistent and often confusing obligations for businesses operating across jurisdictions. Without dedicated legal or IT teams, many small business owners are left to interpret and implement these rules themselves, adding to the already heavy demands on their time and capacity. More broadly, regulatory compliance is costly. According to a 2023 report from the National Association of Manufacturers, the average U.S. firm spends approximately \$277,000 annually on regulatory compliance, with smaller

²³ "Research and Analysis: Rural Internet Subscribers Pay More, New Data Confirms," The Daily Yonder, November 28, 2023. https://dailyyonder.com/research-and-analysis-rural-internet-subscribers-pay-more-new-data-confirms/2023/11/28/

^{24 &}quot;Small Businesses and Artificial Intelligence," Public Private Strategies Institute. https://irp.cdn-website.com/0dd693a6/files/uploaded/PPSI-_AI_Survey_Memo-_FINAL.pptx.pdf

²⁵ "Does 'Al' Mean 'Absolute Inequality' in American Business?," UENI, May 2024. https://ueni.com/en-us/small-business-research/how-microbusiness-owners-spend-their-time

firms bearing an even greater burden per employee.²⁶ These regulatory pressures make digital adoption feel not only time-consuming but also risky, discouraging smaller firms from fully leveraging tools that could otherwise improve efficiency, competitiveness, and growth.

Privacy and cybersecurity can serve as another barrier. Small businesses often have inadequate policies and systems in place to manage data or do not have policies at all. As a result, they can be hesitant to adopt tech or suffer an expensive data breach. According to IBM's 2024 Cost of a Data Breach Report, the global average cost of a data breach for a business reached \$4.88 million in 2024.²⁷ According to the National Cybersecurity Institute, 50 percent of SMBs have been the victims of cyber attack and over 60 percent of those attacked go out of business.²⁸ Educating small business owners, providing cybersecurity resources, and reducing the cost of cyber attacks is key to incentivizing digital tools adoption.

The cumulative effect of these challenges is that many small businesses remain under-digitized relative to their potential. Businesses that lack digital tools often operate less efficiently, have a smaller market reach, and do not perform as well as their peers. For example, according to market research firm IDC's 2020 Small Business Digital Transformation Survey, small businesses that lead in digitalization enjoy eight times as much revenue growth as those who do not.²⁹ On a macro level, lack of digitalization among small businesses can drag productivity growth for the small business sector and widen the gap between large and small firm performance. Additionally, small businesses in rural or low-income areas that face more barriers might fall further behind, exacerbating regional economic disparities. For instance, a 2021 study on rural broadband speeds and business startup rates found that rural counties with greater broadband availability and faster speeds generally experienced higher business startup rates across all tested industries.³⁰ Overcoming these barriers is key to ensuring all small businesses can share in the benefits of digital tools and increasing long-term economic growth.

²⁶ "The Cost of Federal Regulations," National Association of Manufacturers, October 2023. https://nam.org/issues/regulatory-and-legal-reform/cost-of-regulations/

²⁷ "Cost of a Data Breach Report 2024," IBM. https://www.ibm.com/downloads/documents/us-en/107a02e94948f4ec

 $^{^{28}}$ "Cybersecurity for Small Business: The Impact of Cybercrime on Small Business," Small Business Administration. https://www.sbir.gov/tutorials/cyber-security/tutorial-1#.

²⁹ "2020 Small Business Digital Transformation: A Snapshot of Eight of the World's Leading Markets," IDC. https://www.cisco.com/c/dam/en_us/solutions/small-business/resource-center/small-business-digital-transformation.pdf

³⁰ Steven Deller, Brian Whitacre and Tessa Conroy, "Rural broadband speeds and business startup rates," American Journal of Agricultural Economics, September 9, 2021. https://onlinelibrary.wiley.com/doi/epdf/10.1111/ajae.12259

Figure 4: Challenges and Barriers to Digital Tools Adoption for Small Businesses

Challenge	Description	
Lack of Digital Skills	Small business owners and employees may lack the necessary digital skills to adopt and effectively use digital tools. This can range from basic skills (setting up social media) to advanced skills (configuring an online store).	
High Costs	Digital tools require significant financial investment (hardware, software, maintenance, and ongoing subscriptions). Small businesses with limited capital may struggle to afford these costs.	
Limited Access to Broadband	Rural and remote small businesses may lack high-speed internet, limiting their ability to leverage digital tools effectively. Rural businesses often pay more for broadband with fewer options.	
Resistance to Change	Small business owners may prefer traditional methods and be skeptical of digital tools. This is especially true for older entrepreneurs who are less familiar with technology.	
Time Constraints	Small business owners are often too busy managing daily operations to research, learn, and integrate new digital tools. The opportunity cost of learning a new tool is high.	
Regulatory Compliance Costs	state-level privacy laws creates compliance confusion for small firms	
Privacy and Cybersecurity Risks	Small businesses often lack strong cybersecurity practices, making them vulnerable to data breaches. Fear of breaches can discourage technology adoption.	

Future Areas for Digital Tools Growth in Small Business

Several new technologies and innovations are on the horizon for small businesses. While tools like websites, social media, and e-commerce marketplaces have become staples, emerging technologies such as artificial intelligence (AI), virtual and augmented reality (VR/AR), and the Internet of Things (IoT) are opening new doors. These tools offer small firms the ability to improve efficiency, offer personalized experiences, and expand their service models. As these technologies become more accessible and affordable, they are no longer reserved for large enterprises but have been democratized for small business owners who are eager to stay competitive.

²³ "Empowering Small Business: The Impact of Technology on U.S. Small Business," U.S. Chamber of Commerce Technology Engagement Center, September 15, 2024. https://www.uschamber.com/assets/documents/Impact-of-Technology-on-Small-Business-Report-2024.pdf

All is one of the most promising technologies for small business growth. All has become embedded in many everyday applications—from smart email filters to personalized ad targeting on social media. Small businesses are increasingly using Al to power customer service through chatbots that handle common questions and basic tasks like order tracking or reservations, often without the need for fulltime staff. Al also plays a key role in marketing and sales by analyzing customer data to optimize email timing, target ads, and forecast demand. Even behind the scenes, AI can assist with scheduling, fraud detection, and dynamic pricing. Generative AI tools are helping businesses create marketing strategies, social media content, and customer communications quickly and cost-effectively. As of late 2024, 40 percent of small businesses reported using generative AI, and more than 90 percent of those believe it will help their business grow.³¹ Al holds the potential to free up time for small business owners and increase growth, helping to level the playing field when competing with their larger counterparts. Indeed, website company GoDaddy's research found a significant 72 percent of small business owners using AI tools reported increased productivity, while 61 percent observed higher revenues in the past six months.³²

VR and AR are also beginning to make an impact. AR, which can be deployed through smartphones, allows customers to visualize products in real-world settings—like seeing a virtual couch in their living room or seeing how clothes may look before purchasing them. Small retailers and service providers can use AR to enhance shopping experiences, increasing customer confidence and reducing returns. VR, though less widespread often due to the need for headsets, offers opportunities for immersive training, virtual tours and showrooms. A small firm utilizing remote employees can use VR to train new employees, bring workers together for team meetings, and participate in virtual trade shows when travel is not feasible. Small real estate agencies, travel businesses, or museums can use VR to engage clients remotely. These technologies offer creative, engaging ways to connect with customers and expand reach.

The Internet of Things (IoT) refers to connected devices that collect and exchange data, and it has the potential to enhance how small businesses operate. In retail and logistics, IoT can automate inventory tracking with smart shelves or RFID tags. Service providers can monitor equipment using GPS and usage sensors, improving maintenance and reducing losses. Small offices or shops can save on energy bills by using smart thermostats, lighting systems, and security cameras—all controllable via smartphone. In agriculture, small farms use IoT sensors to monitor soil conditions, guide irrigation, or track livestock, ushering in precision farming once reserved for large operations. Small manufacturers, breweries, or food producers can use sensors to maintain product quality, monitor equipment, and automate alerts for issues, minimizing waste. As prices fall and do-it-yourself

³² "How AI Is Amplifying Small Business Impact on Local Economies," GoDaddy, March 4, 2025. https://www.csrwire.com/press_releases/818211-how-ai-amplifying-small-business-impact-local-economies

kits emerge, IoT adoption is becoming more practical. The value for small firms lies in real-time data and automation that supports informed decisions, efficiency, and cost control.

Other emerging technologies also show potential to transform business for small firms. 5G connectivity can support mobile businesses, like food trucks or popup vendors, by improving access to real-time payment and promotional tools. Blockchain and cryptocurrency, while still niche, may become relevant for secure payments. Robotics—such as automated cleaners or food delivery bots—are beginning to show up in small retail or hospitality settings, offering novelty and labor savings. And 3D printing gives small businesses a way to prototype or produce items on demand without large inventories.

In summary, new digital tools that were once out of reach for small firms have the potential to enhance business processes and growth, and narrow the gap between large and small firms. According to the U.S. Chamber of Commerce, 77 percent of small business owners plan to adopt emerging technologies in the near future.³³ To realize this potential, small firms will need access to resources, training, and technical support. With the right conditions in place, emerging technologies can power a new generation of small businesses who are agile, data-driven, and ready to compete in a digital-first economy.

Policy Recommendations to Foster Digital Tool Adoption Among Small Businesses

Government programs to help small businesses go digital exist but are small in scale and fragmented in their approach. The SBA's State Trade Expansion Program (STEP) provides awards to U.S. states to help small businesses overcome obstacles to exporting, and can include support for website and e-commerce capabilities.³⁴ SBA's resource partners such as Small Business Development Centers and Women's Business Centers also partner with major technology companies such as Google and Amazon to provide digital training to small businesses. However, digital skills are not a core focus of these resource partners' curriculum compared to other business skills such as creating a business plan and identifying funding sources.

A coordinated effort is needed from policymakers, industry, and small business stakeholders to improve digital tools adoption among small businesses. The below policy recommendations aim to foster digital tool adoption among small businesses, ensuring they have the infrastructure, skills, and incentives to thrive in the digital economy. These recommendations are actionable steps that federal,

³³ "Empowering Small Business: The Impact of Technology on U.S. Small Business," U.S. Chamber of Commerce Technology Engagement Center, September 15, 2024. https://www.uschamber.com/assets/documents/Impact-of-Technology-on-Small-Business-Report-2024.pdf

 $^{^{34}\} https://www.sba.gov/funding-programs/grants/state-trade-expansion-program-step$

state, and local governments can take to support small business digitalization in partnership with the private and nonprofit sectors.

The U.S. should continue to prioritize universal broadband access as a foundational step for digital inclusion. This means fully funding and implementing programs from recent legislation to build high-speed internet networks in rural and underserved areas. Importantly, low Earth orbit satellite broadband networks such as Starlink and Project Kuiper may also provide a low-cost solution for expanding coverage to rural small businesses, enabling them to reap the rewards of digital tools.^{35 36} Alongside infrastructure, broadband affordability programs are crucial so that even the smallest, low-margin businesses can afford quality internet service. Policymakers could re-fund and expand initiatives like the Federal Communication Commission's (FCC) Affordable Connectivity Program to explicitly include small business owners or create a new small business broadband subsidy for firms below a certain size or revenue.³⁷ Moreover, state and local governments can foster public-private partnerships with internet service providers to offer discounted business broadband packages in high-need communities. These policies would directly address one of the biggest external barriers - access and affordability.

Additionally, policymakers could establish a grant program for local chambers of commerce, industry associations, or community colleges to create tailored training courses for small businesses on digital tools in their sector. A number of programs that currently exist could be expanded to include a digital skills component. For example, Congress could maintain funding for Small Business Development Centers, Women's Business Centers, Minority Business Centers, and similar organizations to offer workshops and one-on-one consulting on topics like building a website, using social media for marketing, cybersecurity practices, and implementing e-commerce. Policymakers could also expand the Service Corps of Retired Executives (SCORE) to include tech mentors. These organizations are already on the ground and trusted by business owners, but would require resources to develop curriculum, hire tech experts, and provide mentorship. Additionally, policymakers could establish a grant program for local chambers of commerce, industry associations, or community colleges to create tailored training courses for small businesses on digital tools in their sector. For instance, a grant could fund a community college to run a course on digital agriculture tools for small farmers, or an association to host webinars on AI for small retailers. The SBA could expand its help desk or create a dedicated small business tech support line where owners can ask questions and get guidance or referrals for their tech needs. The SBA, in partnership with private tech companies, could also expand online resource portals that provide free on-demand tutorials, how-to guides, and case studies for small businesses venturing into digital areas. Federal and

³⁵ https://www.starlink.com/

³⁶ "Project Kuiper," Amazon. https://www.aboutamazon.com/what-we-do/devices-services/project-kuiper

³⁷ Patricia Moloney Figliola, "The End of the Affordable Connectivity Program: What Next for Consumers?," Congress.gov, May 8, 2024. https://www.congress.gov/crs-product/IF12637

state workforce development programs could incorporate small-business-focused digital upskilling. This might include training unemployed workers in digital marketing or IT support skills and then connecting them with small businesses that need those skills, helping both job seekers and small employers. The government and private sector could work with industry groups to create playbooks for digital adoption in specific sectors and ensure outreach so businesses know these resources exist. These policies would help close the digital skills gap for small business owners and their employees.

Policymakers can also use financial tools to reduce the cost burden of going digital. For example, a "Digital Investment Tax Credit" for small businesses could mirror how businesses get credits for research and development or capital investments by allowing them to claim a tax credit for the cost of approved digital technologies such as e-commerce technology, website development costs, or cybersecurity software. For example, a 20 percent tax credit on spending up to a certain limit could effectively lower the cost and encourage more investment in technology. Similarly, Senator Todd Young (R-IN) introduced the Small Business Technological Advancement Act, which would allow small businesses to leverage the SBA's 7(a) loan program to finance technology that supports daily operations, including inventory management, product delivery, and accounting systems.³⁸ For very small businesses or those in disadvantaged areas, a direct grant might be more useful than a tax credit. Policymakers could establish a voucher program where eligible businesses can apply for a "digital transformation voucher" that can be used to pay for technology purchases, services, or training to implement new technologies. States like Colorado have piloted similar programs, offering \$5,000 awards to small business owners interested in "establish(ing) an online presence, utiliz(ing) website best practices, and focus(ing) on social media to reach more customers."³⁹ Policymakers could expand SBA loan programs or partner with fintech companies to offer loans specifically earmarked for technology upgrades, possibly with partial loan forgiveness if the business meets certain milestones in tech adoption. This gives businesses upfront capital to invest in things like digital payment systems, inventory management software, or other technologies. Governments could negotiate with software providers to provide free or low-cost licenses of essential software to small businesses for a specified trial period. For instance, a collaboration with an accounting software company to give a free year to new small business users could catalyze adoption down the road. These incentives would lower the cost of new technologies, while minimizing the fear of lack of return on investment.

As we encourage small businesses to adopt digital tools, we must also help them manage the risks like cybersecurity and compliance with privacy laws. Government or public-private initiatives could offer free cybersecurity check-ups for small businesses, identifying vulnerabilities in the business's technology systems and

³⁸ "Young, Colleagues Introduce Bill to Help Small Businesses Adopt Digital Tools," January 30, 2025. https://www.young.senate.gov/newsroom/press-releases/young-colleagues-introduce-bill-to-help-small-businesses-adopt-digital-tools/

³⁹ "Governor Polis, OEDIT Announce 180 Small Business Accelerated Growth Program Grants," Colorado Office of Economic Development and International Trade, February 24, 2024. https://oedit.colorado.gov/press-release/governor-polis-oedit-announce-180-small-business-accelerated-growth-program-grants

providing solutions. Cybersecurity education and training should be integrated as part of the curriculum wherever possible in the aforementioned digital skills programs, grants, and tax incentives. In terms of privacy compliance, agencies could provide simple guidelines to help small businesses comply with data privacy laws like Europe's General Data Privacy Regulation or the California Consumer Privacy Act. Reducing the number of cyber attacks and the fear of one occurring will enable small businesses to digitize with greater confidence.

Policymakers should encourage experimentation with emerging tech to help small businesses not just catch up but also leap ahead. They could fund pilot projects where small businesses try out emerging technologies with support. For example, a state ag department might run a pilot for small farms to use IoT sensors, providing equipment and technical help, then evaluate results. Regulatory sandboxes that enable small businesses to test emerging technologies without full compliance with existing regulations can allow for experimentation in a controlled way. Governments could launch contests or challenge grants for tech firms or startups to create solutions tailored for small business needs such as developing a low-cost AI tool for inventory management specifically for small retailers. Additionally, as governments invest in things like smart city infrastructure or open data initiatives, they should ensure that small businesses are a part of the process. For instance, opening up transit or economic data might allow entrepreneurs to build apps that help local small businesses.

Many of the above recommendations can be enhanced through collaboration with corporations and large tech companies via public-private partnerships. For example, Amazon, Google, Facebook, Microsoft, and others have established small business initiatives and regularly work with federal, state, and local governments. Aligning public programs with these private efforts can expand reach, reduce duplication, and leverage each sector's strengths. In addition to coordination, the private sector has a critical role to play in providing education, training, and access to digital tools—particularly for underserved or resource-constrained small businesses. A joint campaign during National Small Business Week, for instance, could focus on "digital readiness," combining public sector outreach with private sector platforms, toolkits, and hands-on training to empower small firms to adopt and effectively use new technologies.

It is essential that the above efforts be complimented by targeted outreach from trusted stakeholders in the small business community, helping to ensure hard-to-reach small businesses are brought into the fold. These efforts should also include an oversight and feedback mechanism such as an overarching interagency task force on small business digitalization involving the relevant agencies that coordinates actions and tracks progress. Gathering input and feedback from small

²³ "Research and Analysis: Rural Internet Subscribers Pay More, New Data Confirms," The Daily Yonder, November 28, 2023. https://dailyyonder.com/research-and-analysis-rural-internet-subscribers-pay-more-new-data-confirms/2023/11/28/

^{24 &}quot;Small Businesses and Artificial Intelligence," Public Private Strategies Institute. https://irp.cdn-website.com/0dd693a6/files/uploaded/PPSI-_AI_Survey_Memo-_FINAL.pptx.pdf

²⁵ "Does 'Al' Mean 'Absolute Inequality' in American Business?," UENI, May 2024. https://ueni.com/en-us/small-business-research/how-microbusiness-owners-spend-their-time

business owners regularly could also help refine these programs. These programs coupled with the proper outreach, oversight and feedback mechanisms would catalyze access and adoption of digital tools among small businesses, increasing both the growth of their businesses and the US economy as a whole.

Figure 5: Policy Recommendations to Foster Digital Tool Adoption Among Small Businesses

Category	Policy Recommendation	Description
Broadband Access and Cost	Universal Broadband Access	Prioritize expanding broadband infrastructure in rural and underserved areas and provide affordable broadband options for small businesses.
	Broadband Affordability Programs	Expand initiatives like the FCC's Affordable Connectivity Program to include small business owners and offer discounted broadband packages for small businesses.
Digital Skills Gap	Digital Skills Training	Maintain funding for digital skills training through Small Business Development Centers, Women's Business Centers, and other resource partners.
	Local Training Grants	Fund local chambers of commerce, industry associations, and community colleges to offer industry-specific digital training for small businesses.
	Digital Help Desk and Online Resources	Expand the SBA's help desk to include a dedicated small business tech support line and provide online tutorials, guides, and case studies.
Cost of Digital Tools	Tax Incentives for Digital Investment	Establish a "Digital Investment Tax Credit" for small businesses to offset the costs of digital tools, software, and cybersecurity solutions.
	Digital Transformation Vouchers	Create a voucher program for small businesses to access technology, software, and training for digital adoption.
	Digital-Specific Loans and Grants	Expand SBA loan programs to include digital technology purchases and partner with fintech companies for digital-specific loans with partial forgiveness.
Cybersecurity and Privacy Compliance	Cybersecurity Support	Offer free cybersecurity check-ups for small businesses and integrate cybersecurity training into digital skills programs.
	Simplified Privacy Compliance	Provide simple guidelines and training to help small businesses comply with data privacy laws.
Experimentation with Emerging Tech	Pilot Programs for Emerging Technologies	Fund pilot projects to help small businesses experiment with emerging technologies (i.e. AI, IoT, smart city data) in a low-risk, supported environment.
	Regulatory Sandboxes for Digital Innovation	Create regulatory sandboxes that allow small businesses to test new digital solutions (i.e. fintech tools) in a controlled environment.
Public-Private Partnerships	Tech Company Collaborations	Partner with large tech companies (Google, Amazon, Microsoft) to deliver digital education and training, discounted software, and other support for small businesses.
Targeted Outreach with Trusted Stakeholders	Local Stakeholder Involvement	Ensure that trusted stakeholders (local chambers, small business organizations) are involved in outreach, feedback collection, and support for digital adoption initiatives.
 	Interagency Coordination	Establish an interagency task force on small business digitalization to coordinate federal efforts and track progress.

²³ "Research and Analysis: Rural Internet Subscribers Pay More, New Data Confirms," The Daily Yonder, November 28, 2023. https://dailyyonder.com/research-and-analysis-rural-internet-subscribers-pay-more-new-data-confirms/2023/11/28/

 $^{^{24}}$ "Small Businesses and Artificial Intelligence," Public Private Strategies Institute. https://irp.cdn-website.com/0dd693a6/files/uploaded/PPSI-_AI_Survey_Memo-_FINAL.pptx.pdf

²⁵ "Does 'Al' Mean 'Absolute Inequality' in American Business?," UENI, May 2024. https://ueni.com/en-us/small-business-research/how-microbusiness-owners-spend-their-time



Conclusion

The digital transformation of small businesses will continue to serve as a vital engine of economic growth in the United States. As this report has demonstrated, digital tools have become powerful levers for small businesses, allowing them to expand their customer base, increase efficiency, and enhance their competitiveness. Yet, this transformation is not without challenges. Many small businesses, especially those in underserved communities, continue to face barriers such as high technology costs, insufficient digital skills, and limited access to high-speed broadband. These obstacles create a business divide, separating those that thrive from those struggling to keep pace.

The performance gap between digital adopters and laggards is evident. Small businesses that embrace digitalization consistently outperform their peers, experiencing faster growth, higher job creation, and greater resilience in times of crisis. Success stories from across the country – from rural e-commerce entrepreneurs to Al-powered startups – illustrate the transformative potential of technology. However, without targeted support, many small businesses may be left behind, further deepening economic inequality and limiting the potential of the broader economy.

This report offers clear policy recommendations for promoting digital tools adoption among small businesses. It recommends expanding broadband access to ensure connectivity, providing training programs to build digital skills, offering financial incentives to reduce technology costs, and creating mentorship opportunities to guide businesses through their digital journey. These recommendations require a collaborative approach involving policymakers, industry leaders, technology providers, and small business organizations, with each stakeholder having a critical role to play in creating an environment where small businesses can access the digital tools, knowledge, and support they need to succeed.

Digitalization offers a prosperous future for small businesses. By committing to digital transformation, we can ensure that small businesses not only survive but thrive, driving innovation, creating jobs, and supporting sustainable economic growth. Achieving this vision will require a collective commitment to making digital tools and skills accessible to small businesses, thereby fostering a more inclusive, competitive, and prosperous small business ecosystem.