# Policy Briefing

# Investigating Disparities in SMEs Digitalisation

## Research Paper 111

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**This research investigates disparities in digitalisation among UK Small and Medium-sized Enterprises (SMEs), with a specific focus on variations by gender, ethnicity, region, and business sector. Adopting a mixed-method approach, data was collected from both primary and secondary sources. Primary data was obtained from a panel discussion with academics, SME owners, and industry experts, providing a practical perspective that bridges the gap between theory and practice in digital transformation, particularly in the context of SMEs. This panel discussion analysis offers deeper insights into the disparities, challenges and effective strategies for the adoption of digitalisation across business demographics. Secondary data was sourced from the UK Longitudinal Small Business Survey (LSBS) spanning from 2018 to 2022, which examines technology adoption trends across five key digitalisation indicators: Accountancy Software, HR Management Software, Enterprise Resource Planning (ERP) Software, AI/Robotics/Automation, and Virtual Reality/Augmented Reality (VR/AR) technologies. The study provides recommendations to policymakers for addressing the existing gaps related to gender, ethnicity, and sectoral and regional differences in the adoption of digitalisation and AI technologies among small businesses.**

## Key findings

The key findings from LSBS analysis includes:

**General:**

- Digital technology adoption is highest for Accountancy software and lowest for AI, Robotics, Automation, Virtual Reality (VR) and Augmented Reality (AR).

**Gender:**

- Men-led businesses consistently have higher adoption rates of AI, Robotics, and VR/AR technologies compared to women-led businesses.
- Both men-led and women-led businesses showed an increase in the adoption of AI, Robotics, Automation, and VR/AR technologies in 2022 within their respective groups.

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**Ethnic Minority:**

- Non-MEG-led businesses consistently exhibit higher adoption rates across all examined digital technologies and software compared to MEG-led businesses.
- There is no evidence that MEG-led businesses lag behind in digital adoption relative to the total number of MEG-led businesses. However, the overall number of MEG-led businesses adopting digitalisation is relatively lower compared to non-MEG-led businesses.

**Region:**

- There are regional disparities in technology adoption, with London and the South East leading in AI, Robotics, and VR/AR adoption rates.
- Since 2021, there has been a noticeable increase in adoption rates across all regions, with London, the West Midlands, and the South East showing the most substantial growth in AI, Robotics, Automation, and VR/AR technologies within their respective regions.

**Sector:**

- The Professional/Scientific and Other Service sectors show significant adoption rates for ERP and VR/AR technologies, respectively. The Manufacturing and Professional/Scientific sectors have high adoption rates for AI, Robotics, and Automation technologies compared to other sectors.
- The Manufacturing, Information/Communication, and Professional/Scientific sectors lead in the adoption rates of AI, Automation, and Robotics within their respective industries.
- The Information/Communication and Professional/Scientific sectors are at the forefront of VR/AR adoption within their sectors.

The panel discussion indicates that several barriers impede the adoption of digital technologies across different business demographics in the UK. Among these, risk aversion towards loans and investments, particularly in a male-dominated culture with few women investors, hinders digital innovation. Women-led businesses often face a lack of support and training in understanding digital tools, contributing to cautious investment behaviour. Similarly, ethnic minority businesses, especially those led by first-generation immigrants, show reluctance to invest in AI and other technologies due to cultural experiences and financial challenges, such as a lack of collateral and weakening family support networks. New immigrant businesses, in particular, are lagging in adopting advanced technologies.

## POLICY & PRACTICE IMPLICATIONS

**1. Promote Gender Equity in Tech through Grants and National Campaigns**

a. Establish Targeted Grants for Women in Tech: Create dedicated funding opportunities for women-led tech startups and initiatives focused on increasing female participation and leadership in technology.
b. Launch a National Awareness Campaign: Implement a nationwide campaign to raise awareness about gender disparities in tech, promote diversity, and provide resources for women interested in tech careers.
c. Support STEM Education for Girls: Increase funding and resources for STEM education programmes aimed at encouraging girls to pursue tech-related subjects, including scholarships, mentorships, and real-world experience opportunities.

d. Incentivise Gender Diversity in Hiring Practices: Offer financial incentives to tech companies that demonstrate commitment to gender diversity through specific hiring benchmarks and transparent reporting.
e. Create a National Gender Equity in Tech Task Force: Establish a task force to coordinate and oversee efforts to promote gender equity in the tech industry, involving stakeholders from government, industry, academia, and advocacy groups.

**2. Support for Minority-Led Businesses**

a. Policy Advocacy and Representation: Ensure minority business leaders are included in policymaking by creating advisory councils or committees that address their needs and influence funding decisions.
b. Enhanced Grant Programmes: Create targeted grants for minority-led businesses to provide capital and resources addressing their specific challenges, like existing programmes for women-owned businesses.
c. Networking and Mentorship Initiatives: Establish programmes to connect minority entrepreneurs with experienced business leaders through networking events, workshops, and peer support groups, fostering community and knowledge-sharing.

**3. Enhance Digital Infrastructure and Support in Rural Regions**

a. Policy Shift: Reconsider existing policies to support digital growth in rural businesses post-Brexit by focusing on digital funding, infrastructure, skills training, and cybersecurity to bridge the urban-rural divide and encourage digital adoption.
b. Public-Private Collaboration: Enhance public sector involvement in broadband infrastructure to make digital services more affordable and accessible for rural businesses, addressing digital gaps and improving skills and cybersecurity.
c. Access Management: Improve access to digital resources and support for rural businesses by establishing digital enterprise hubs, providing local guidance, and launching digital literacy campaigns in regions with lower adoption rates.
d. Training and coaching centres: Promote the use of free cybersecurity resources and training from the UK government's National Cyber Security Centre to help rural businesses and residents meet basic security standards and protect against cyber threats.

**4. Sector-Specific Digital Adoption Grants and Partnerships**

a. Targeted Funding Programmes: Develop funding initiatives specifically for industries like retail, hospitality, and manufacturing, where digital transformation can enhance efficiency and customer engagement, while also supporting SME professionalisation and training.
b. Collaboration with Tech Hubs and Innovation Centres: Partner with local tech hubs, accelerators, and innovation centres to provide mentorship and support for SMEs in their digital transformation, leveraging initiatives like the £118 million AI-focused training and UKRI Centres for Doctoral Training.
c. Public-Private Partnerships: Promote collaboration between government and private sector to expand digital training and resources, utilising tech companies' expertise and existing initiatives like innovation vouchers, Local Enterprise Partnerships (LEPs), and R&D Tax Credits.
d. Inclusive Approach: Broaden the focus of digital transformation beyond manufacturing and Industry 4.0 to include sectors like healthcare, education, and services, recognising the growth potential of AI applications in these diverse fields.
e. Continuation of Existing Programmes: Expand and continue UK government initiatives like the Made Smarter Programme and Digital Growth Grant to support a broader range of sectors in digital transformation.

**5. Targeted Subsidies and Incentives for Digital Literacy and AI Training**

a. Subsidised Training Programmes: Provide financial support for digital literacy and AI training to make them more affordable and accessible, especially for underrepresented communities, building on initiatives like the £7.4m upskilling fund pilot.
b. Collaboration with Educational Institutions: Partner with universities and technical colleges to develop training programmes in digital literacy and AI, with government funding to address skill gaps and align training with industry needs.
c. Community Programmes: Support community-based training initiatives to offer digital literacy and AI courses to diverse populations, ensuring equitable access to technology skills.
d. Micro-Credentialing Initiatives: Develop subsidized micro-credential programmes for digital skills and AI to provide affordable, flexible qualifications for tech sector advancement.
e. Simplification of Access to Services: Create a centralized platform for businesses to easily access information on grants, training, and digital tools tailored to their needs.
f. Feedback Channels: Establish channels for participants to provide feedback on training programmes, guiding policy improvements and ensuring their effectiveness.

**Full paper link:**

**https://www.enterpriseresearch.ac.uk/our-work/publications/**

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