

Policy Briefing

Digital readiness, digital adoption and digitalisation of UK SMEs amidst the Covid-19 crisis

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Based on new ERC Business Futures survey data for around 1,000 firms, we examine the diffusion of digital technologies among UK SMEs in 2020, explore the factors driving digital adoption and reflect on the role that digital technologies played in helping UK SMEs to address challenges of Covid pandemic crisis. Our analysis reveals that established digital technologies are well diffused among UK SMEs and that emerging digital technologies are becoming increasingly more common in 2020.

Key findings

Our analysis examines factors lying behind digital adoption by developing a scale of *digital readiness* that refers to both internal and external motivators regarding digital technologies behaviour. It also provides first insights into the role played by digital technologies in helping UK SMEs to maintain sales during unprecedented pandemic crisis times. We find:

- Digital readiness is associated with the probability of digital adoption through both internal (organisational and technological) and external (environmental) dimensions. Depending on type of technology, these dimensions are more or less important in predicting the probability of adoption. For instance, organisational and technological readiness proves to be more important for emerging technologies such as AI/ML and AR/VR.
- Overall, barriers do not prevent firms from adopting new technologies provided strong levels of digital readiness. However, firms experiencing issues with broadband capacity are found to be less likely to adopt emerging digital technologies.
- Firms reporting 'no barriers' are less likely to adopt emerging digital technologies. This indicates that firms may be lagging behind their counterparts in digitalisation process not so much because of barriers they encounter but more so because of intrinsic factors.
- Digitalised SMEs were better equipped to weather the storm of Covid-19 pandemic and maintain the same turnover or grow if the digital technology they introduced in operations resulted in increased innovative activity.



Authors



Anastasia Ri Enterprise Research Centre and Aston Business School a.ri@aston.ac.uk



Hoang Minh Luong Queen's University Belfast H.Luong@qub.ac.uk



Effect of Digital Readiness on Digital Adoption

We consider how firms' *digital readiness* influences the probability of adoption of digital technologies and the probability of being digitalised. We allow for a wide range of other influences of digital aoption, such as barriers to digital and firm characteristics.

Figure 1 below provides a summary of the key results. Digital readiness has generally significant positive effect on digital adoption and digitalisation. Additionally, we find that the organisational/technological dimension of digital readinesss (ODR) is particularly powerful in predicting the probability of adoption of CAD, CRM, cloud and AI. We find only little support for the negative effect of barriers to digital on probability of adoption. Product and process innovation business objectives are generally associated with higher probability of digital adoption.

| | E- comm | E- market | Acc / HR | CRM | 'Zoom' | Cloud | CAD | IoT | AR / VR | AI | Digital SME |
|-------------------------|------------|--------------|-------------|------|--------|-------|------|------|------------|------|----------------|
| ODR | +** | market | | +*** | +*** | +*** | +*** | | +*** | +*** | +*** |
| EDR | +* | +** | | +*** | +*** | +*** | | | +** | +* | +*** |
| Finance | | +* | | | | | | | | | |
| Broadband | +* | • | | • | • | • | • | +*** | _*** | _*** | • |
| Compatibility | | • | | • | | | • | • | | • | • |
| Skills | | • | | • | | | • | • | | • | • |
| Workforce engagement | | | | | | | +** | | | | |
| Cyber risk | | _** | | • | | | -* | • | | • | |
| No barriers | | | _** | | | | | | _** | _** | |
| Business plan | | • | | +*** | +* | | • | • | | +* | +* |
| Exporting | | • | | • | +** | | • | | +* | +** | +*** |
| Prod innov obj | | +** | _* | +* | | | +** | | | +** | |
| Process innov obj | +*** | +** | +*** | +** | +*** | +** | ÷ | +*** | | ÷ | +*** |

Table 1. Probability of digital adoption: summary

Note: only statistically significant results reported: '+' stands for a positive relationship, '-' for negative relationship; significance level: *** p<0.01, ** p<0.05, * p<0.1. *Source*: ERC Business Futures Survey

Implications for policy

Our results highlight the complexity of digital adoption behaviour which relies both on intrinsic factors and perceptions of external environment by owners-mangers. In policy terms, it suggests the importance to reach out for 'not digitally ready' firms, i.e. those firms that do not see the benefits of digital transformation for their business and do not feel the pressure from their immediate business environment. In this sense, networking, information sharing mechanisms and business support may alter the perception of the environment and better showcase the benefits of adoption, as well as provide instruments to facilitate increased knowledge of emerging technologies and better understanding of barriers to implementation. Digital readiness as well as digitalisation are not a static 'state' but rather dynamic and evolutive process that may pay off in increased flexibility, innovativeness, competitiveness, and preparedness to address uncertainty and adversity.

Full paper link: <u>https://www.enterpriseresearch.ac.uk/our-work/publications/</u>