

SMEs digital transformation and value creation

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Abstract: SMEs are usually in a disadvantaged position and struggling to harness value creation when it comes to DT. Accelerating DT has become a compulsory factor for many SMEs to achieve high-quality development. Although DT is changing SMEs' traditional business model and customers' value creation process, there are still limited studies on the challenges of DT in SMEs and how digitalization may change the entire process of consumer value creation. Therefore, it is profoundly necessary to understand the challenges SMEs face regarding DT and how DT change the customer value creation process of SMEs. This study aims to collect qualitative data by using in-depth interviews with the owners/managers and employees of SMEs, which have already implemented DT in the UK. The results of this study contribute to the understanding of SMEs digital transformation and value creation.

Keywords: Digital transformation, SMEs, Value creation, challenges

Primary track: OTCD

Introduction

Digital technologies, such as AI, Big data, Internet of Things (IoT), cloud computing, blockchain, and NFT, have brought disruptive changes to businesses and society. Many traditional businesses have been surpassed by those innovative digital competitors (Verhoef et al., 2021). Digital transformation (DT) has gained global attention in various industries. Implementing DT is an inevitable choice for the sustainable development of many businesses. Although DT has drawn great attention in both scholarship and business practice, there is no agreement on its definition (Osmundsen et al., 2018; Warner and Wäger, 2019), and what it covers (Wessel et al., 2020). It means different things to different people. At an organizational level, some scholars consider it an organizational strategy (Bharadwaj et.al., 2013; Kane et al., 2015; Matt et.al., 2015). Others view it as a process (Agarwal et.al., 2010; Vial, 2021), a business model (Henriette, et.al., 2015; Remane et al., 2017; Stieglitz and Brockmann, 2012), or a paradigm (Berman, 2012; Berman and Marshall, 2014).

Through DT, businesses can fully utilise digital technologies to conduct all-round and multi-angle transformation and application of their production, operation, management, marketing, and distribution, to achieve efficiency and productivity. DT has also revolutionised how organisations conduct business, manage their relationships with their customers, suppliers and stakeholders, and promote business model innovation and customer value creation (Yang

et al., 2021; Stich et al., 2020; Chatterjee et al., 2022). Businesses need to use digital technologies to gain insights into customer needs and wants, redesign their business models and value chain, and create value for customers. Customers are no longer merely service users but are involved in the process to co-create value (Falkenreck and Wagner, 2021). Organisations have to design the right experience for their customers and also deal with digital transformation challenges and obstacles (e.g. leadership, culture, institutional, etc.) that might impede a successful implementation (Zaki, 2019). DT offers many opportunities for all businesses to improve their performance, engage in innovation, create efficiency, aid customer relationships, and enhance productivity. Despite the importance of DT and the significant benefits on offer, not all organisations have the necessary knowledge and resources to succeed in DT initiatives (Ramos et al., 2022).

The recent flood of academic studies on DT mainly focused on large-firm contexts (Eller et al., 2020), but SME DT remains under-researched (Li et al., 2018). Small and medium-sized enterprises (SMEs) play a major role in job creation and the world economy. According to the World Bank, SMEs account for about 90% of businesses worldwide and contribute to over 50% of employment. In Emerging markets, almost 40% of national income (GDP) is contributed by formal SMEs (The World Bank, no date). Due to the significance of SMEs, many governments around the globe take their development as a high priority. Compared to larger organisations, SMEs are usually in a disadvantaged position when it comes to DT (Kane et al., 2015). They lag in the DT, especially hindered by a lack of relevant resources and awareness, skills, or other financing issues. Digital Economy and Society Index DESI (2020) indicated that many SMEs across Europe struggle with digitalization and adjusting to the data-driven economy and the majority of them are not taking advantage of digital technologies in Europe. Therefore, SMEs need support in assessing their digital situation, developing digital growth strategies, and advancing digital skills to integrate complex technologies into their processes, products, and services (Aramburu et al., 2020).

With the current complex and changeable domestic and international political and economic environments, the impact of the Covid-19 pandemic, and the cost-of-living crisis, SMEs in many countries are facing issues such as rising costs, insufficient resources and innovation, and fierce competition in the markets. Accelerating DT has become a compulsory factor for many SMEs to achieve high-quality development. Digital technologies are competitive tools for SMEs. Failing to recognise the importance of them may seriously compromise their survival. Digital technologies can support value creation and customer engagement, which are critical for the success of SMEs (Matarazzo et al., 2021). SMEs utilising digital technologies and tools can strengthen their competitiveness through innovations in value creation, value proposition, value delivery, and value capture (Teoh et al., 2022).

Relevant literature shows that SMEs generally lack the necessary knowledge and understanding of the importance of Industry 4.0 to design the underlying digital transformation strategically (Chauhan et al., 2021; Stentoft et al., 2020; Ghobakhloo and Iranmanesh, 2021). Nguyen, Newby and Macaulay's (2015) study found that a significant impediment to DT in SMEs is the lack of human resources with the knowledge and skills required to meet the criteria of the DT process. Therefore, the lack of skilled labour critically impacts the success of DT in SMEs (Eller et al., 2020). Laverne et al. (2019) highlighted that IoT devices could cause security and privacy issues, whereas big data usage can possess some challenges such as poor data quality and data silos, and those challenges could be overcome by recruiting appropriate skilled employees and providing proper training to reskill or upskill the existing employees (Vrontis, Chaudhuri and Chatterjee, 2022). Previous studies (Kane et al., 2015; Eller et al., 2020) also showed that a clear and coherent digital strategy can also contribute to

the success of DT. A digital strategy involves the transformation of products and services combined with digital technologies taken from a business centric perspective (Matt et al., 2015; Teubner, 2013).

Although DT is changing SMEs' traditional business model and customers' value creation process (Matarazzo et al., 2021), SMEs are struggling to harness value creation (Trabert et al., 2022). Previous studies showed that IT helps to optimise business processes to create customer and firm value (Pagani and Pardo, 2017; Ramasamy, 2016; Verhoef et al., 2021). However, these studies were not conducted in an SME-specific context. Besides, existing literature on SMEs digital transformation and value creation lacks empirical knowledge on the challenges facing SMEs. Therefore, it is profoundly necessary to understand the challenges SMEs face regarding DT and value creation. This paper intends to answer the following research question: What challenges do SMEs face regarding DT? How does DT change the customer value creation process of SMEs? Are there any differences between the perspectives of owner-managers and employees?

This study provides key insights into DT and value creation of SMEs. The results of this study contribute to the understanding of the challenges of DT SMEs face from the perspectives of SME owner managers and employees.

Research Methods

In order to answer the above research questions, qualitative data were collected by using in-depth interviews with the owners/managers and employees of SMEs, which have already implemented DT in the UK. In this way, we can supply empirical knowledge on various possible challenges of DT and value creation in British SMEs from the perspectives of SME owner managers and employees. The interview data collected will be coded through the software NVivo following an inductive approach from empirical to conceptual. Thematic analysis will be adopted to analyse the data.

Further development of the paper

Between the submission of the paper and the BAM conference in September, the authors will do wider reading, compare, contrast and synthesise the relevant literature in terms of DT and value creation in SMEs, the challenges of DT and value creation SMEs face.

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