

## **HOW DIGITIZATION INFLUENCES THE SWEDISH FIRMS' BUSINESS RELATIONSHIPS AND CAPABILITIES**

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### **ABSTRACT**

There is consensus that industry 4.0 triggered technologies unfold unique opportunities for firms. The percentage of firms adopting AI in 2022 has more than doubled since 2017 (The Alindex 2023 report). However, some firms that carry out these technological implementations in their processes or business system fail to see the benefits promised by industry 4.0 technology. Many do not achieve the expected results when adopting new technologies into the workforce, e.g., (Chang et al., 2010) indicate that as few as 30% of companies implementing sales technology achieve performance improvements. According to (Pullins et al., 2020), the lack of results is partly due to salesperson technostress, which is the stress that employees experience with using technology (p. 299). Others have pointed to the lack of relevant competencies, employee trust, or organizational digital maturity as possible explanations for difficulties in successful and fruitful technology adoption (Davenport et al., 2020).

As we have seen, these technologies drive value by improving processes or business systems. But in the end, the outcome of these processes depends on the individuals who manage them. For example, managers or staff learn that computers process data well and efficiently, but that is not enough if the people managing the outcome do not use or know the proper analysis of provided data. As (Ross, 2018) found, machine learning enhances people's contributions but "*demand changes in what people are doing,*" requiring "*skilled tasks that require good judgment and domain expertise*" (p. 10). Therefore, employee skills up-gradation will lead to the potential generation of competitive advantage.

Despite the visible influence of active digital transformation adoption and the aftermath of new digital business models, marketing scholars have surprisingly paid little attention to these transformation-led developments, e.g., (Dwivedi et al., 2021; Kumar et al., 2021; Verhoef et al., 2021). Hence to our knowledge, a scarcely investigated area is how the relationships evolve due to industry 4.0 technology.

The evolving digital technologies unfold new opportunities that Swedish firms must address to stay sustainable. Recent global survey findings in the annual report by McKinsey & Company (2020; 2022) highlight that artificial intelligence adoption drives firms' revenue, with few accrediting 20% or more of their earnings to the technology. This study explores if digitization enables the entrepreneur, de novo, or in going concerns, to develop new successful business models that satisfy customer

needs. Furthermore, the study argues if and how Swedish SMEs explore growth opportunities through industry 4.0 enabled digitalization. They can enhance operational efficiency and identify market opportunities by employing digital technologies.

Furthermore, these technologies can influence new learning and knowledge development leading to a change in decision-making. Therefore, the main research question we intend to answer is *how emerging technology-enabled interactions provide new opportunity windows and facilitate the exchange mechanisms within and between Swedish Firms.*

Digital space is growingly hosting business interactions, necessitating firms to embrace novel i4.0 solutions and tools to manage these journeys (Steward et al., 2019; Zolkiewski et al., 2017). Furthermore, as complicated business processes switch to digital (Steward et al., 2019), firms must upgrade digital toolboxes and managerial practices to flourish in the digital era. In addition, customer interactions call for firms' marketing and sales operations fusion to present an articulate customer experience, from exposure to buying and using encompassing managing customer journeys (Steward et al., 2019). Digital environments offer firms new opportunities to manage relationship interactions through i4.0 technologies, for example, artificial intelligence (AI) (Syam & Sharma, 2018), augmented reality (AR) (Orús et al., 2021), Internet of Things (Aunkofer, 2018), and virtual reality (VR). Although the digital space is by nature data-generative, AI technologies specifically are anticipated to enhance and transform business processes (Davenport et al., 2020).

Ritter and Pedersen (2020, pg. 185-186) recommend exploring "How digitization affects the relationships among business model components" and emphasizing "more crossfertilization is needed among constructs to develop a holistic understanding." This work endeavors to expand the literature on the role of digitization operationalization in generating opportunity space in new or existing business relationships. The research shall employ a mixed methodology to investigate the role of digitization in renewable firms' opportunity space generation and their business relationships. As the McKinsey survey (2020; 2022) reveals, product- or service-development and service-operations functions take the lead in AI adoption, followed by customer service analytics and segmentation, while logistics network optimization, inventory, and inventory parts optimization lag behind.

Swedish firms operating in different industries employing i4.0 technologies will be the study respondents. Comparing several industries will show the digitization operationalization outcome in these industries. It would be good to see where digitization is useful and where it is not. This research posits that a growing number of firms during and after the pandemic shall turn to long-term opportunities through digitalization. Data shows growth in online transactions during the pandemic. With more data from digital channels, improved recommender systems, for example, can enable more personalized content, better customer experience, and automated digital customer service.

**Keywords:** Digitization; i4.0 Technologies; Technostress; Business Relationships; Capabilities

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*How digitization influences the Swedish firms' business relationships and capabilities*

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