

# Chapter 11

## Technological Disruptions in the Service Sector

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### ABSTRACT

*Technological advancement has greatly shaped the service sector, with the most disruptive technologies in their infancy. The broad arena of the service industry includes several sections, each of which has been disrupted by technological advancements, resulting in transformed process mechanisms and market paradigms. The present chapter included a comprehensive narrative review of literature aimed at broadly analysing the status of technological disruption in the service sector with the help of relevant research studies and real-world applications. Four service sectors, namely financial services, tourism and hospitality, legal services, and the health industry, were investigated to highlight the advent of disruptive technologies across the service industry. Further, consumer and employee behaviour changes concerning technological disruption were highlighted. The prevalent trend of technological disruption has immense practical and academic implications, encouraging experts to provide future directions in the area.*

### INTRODUCTION

The present chapter aims to provide a comprehensive understanding of technological disruptions in the service sector, examining the diverse disruptive technologies. A comprehensive narrative review was conducted to analyse the status of technological disruption by focusing on major service sectors, namely, financial services, tourism and hospitality, legal services, and the health industry. The phenomenon has been examined using empirical research studies and real-world instances to highlight the changes these disruptive technologies have brought about in the processing of the service industry. Special emphasis was placed on the impact of technological disruptions on consumer and employee behaviour and the consequent changes in human resource practice in sync with disruptive trends. Considering the above objectives, future directions highlighting the practical implications and research opportunities in the field of technological disruption have been discussed.

DOI: 10.4018/979-8-3693-3003-6.ch011

## **DISRUPTIVE TECHNOLOGY**

Technological innovation has been associated with productive growth and sustainable development (Jones et al., 2018). In 1995, Christensen and Bower formally introduced the disruptive-innovation model in their article ‘Disruptive Technologies: Catching the Wave’, and since then, the model has been extended to business proposals and technological advancements. Disruptive technologies include extensive changes resulting from specific automation and robotics technologies (Hynes & Elwell, 2016). They create novel market and technological trends (Abernathy & Utterback, 1978). These technologies are usually inferior to existing ones, but specific improvements make them highly appealing to customers, resulting in disrupted markets. These disruptive technologies interact with each other and with diverse demographic and social factors, amplifying each other’s impact on market paradigms (Jones et al., 2018).

Technological disruption has three characteristics: generating new values and challenging the existing status quo, displaying innovative traits that produce radical transformations and having relative effects. Scholars debate whether disruptive technologies result in new opportunities or job losses and unemployment (Jones et al., 2018). It largely impacts employment status such that Manyika et al. (2013) predicted that by 2025, around 140 million workers may experience high job insecurity because of growing artificial intelligence technologies. Further, the impact of disruptive technologies is felt unequally across the workforce (Bennett et al., 2004). Over time, the concept of disruptive technology has widened to include disruptive services and business innovation (Jones et al., 2018).

### **Focusing on the Service Sector**

While pondering the theory of evolutionary science, over fifty profound scholars belonging to the service sectors of marketing, management, tourism and hospitality reached the consensus that in this technologically- driven world, the most responsive has the best chances of survival (Aksoy et al., 2019). The consensus summed up the essence of disruptive technology well. Technological advancement has greatly shaped the service sector such that the global economy’s computerisation and digitalisation have major consequences (Klausner & Antia, 2021). Particularly in the service sector, disruptive innovations are the intentional application of technology to benefit producers and consumers (Khan & Khan, 2009). They significantly determine behavioural actions and customer experiences (Su, 2011). Disruptive technologies like cloud computing, machine learning, big data analytics and artificial intelligence have transformed the service industry (Klausner & Antia, 2021).

Service management was greatly impacted by technological advancements and smartness such that the resultant shared economy built a highly interconnected network of customers and service providers, as evidenced in the case of Deliversoo or Uber Eats that were developed to fulfil service requirements (Buhalis et al., 2019). Four key factors drive technological disruption in the service industry (Klausner & Antia, 2021). Primarily disruptive technologies are still evolving, with many in their infancy stage. Further, various associated legal and regulatory challenges need attention, for instance, personal data privacy risks in applying big data analytics. Strong regulatory supervision results in “tech inertia”, as experienced in financial and healthcare services. The ongoing patterns of structural dependency limit technological disruption since replacing the global networks of infrastructure, transportation and logistics is difficult.

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