# Chapter 1
# Digital Transformation in Restaurants

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## ABSTRACT

*The COVID-19 pandemic process, which has affected the whole world, has accelerated technological developments by laying the groundwork for digital transformation in many fields. In this context, various technological innovations have been introduced, such as a social distance tracking system that warns when the appropriate social distance rules are violated between employees, robot dogs on patrol, the use of drones for delivery, and robots that can do many jobs that humans can do. The restaurant industry has also tried to integrate these rapid technological developments as much as possible. In this study, which is about how the recent advances in technology have or can be affected restaurants, examples from the world are given for each technological development mentioned in order to better understand the subject. It is considered that the study will contribute to the literature, future studies, sector representatives who want to apply technological developments in their restaurants, and investors who want to open a new restaurant with technological infrastructure.*

## INTRODUCTION

The industrial revolution, which started after the 1760s, continued gradually in parallel with technological developments. The period between 1760 and 1830 is called the 1st Industrial Revolution by Industrial historians. In this period, the production sector, which was monopolized by the craftsmen, shifted to factories with the development of watermills and then steam engines. Thus, with their abilities far

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above human power, the machines both increased the production speed and ensured standardization. The period between 1830 and 1945 is called the second Industrial Revolution. This period is divided into two as the age of coal and the age of oil. In the first stage, the railways increased the speed of transportation and the transportation of goods and people became cheaper, comfortable, and faster. Interchangeable parts laid the foundations for industry standards. This early period of the 2nd Industrial Revolution can be called the age of steam engines. Coal is the energy source of this period. Developments in electricity generation and internal combustion engines are at the center of the second period of the 2nd Industrial Revolution. Oil, another energy source, has replaced coal. The challenging competitive environment created by the two world wars in the first half of the 20th century has advanced the pace of development for decades. After 1945, in the Third Industrial Revolution era, programmable logic circuits that enable machines to do complex tasks provided new opportunities to the industry. Coordinated programmable robots that can perform tasks that were previously considered to be impractical by machines have increased industrial production. Materials science is an important pillar of the 3rd Industrial Revolution. Polymers and nano-technological materials have made possible new applications that have not been seen before. The greatest advances of the period were nuclear technologies, spacecraft, and computers (Proente Automation, n.d.).

Today, Industry 4.0, which is the latest stage of the industrial revolution, is being experienced. With Industry 4.0, concepts such as Smartphone technology, mobile internet, social media usage, cloud technology, virtual reality, artificial intelligence, and the Internet of Things have become an integral part of today's people. Although these concepts have a very recent history, they have become indispensable in people's lives in a very short time. For example, considering that the first Smartphone was invented by IBM Company in August 1994 (Cumhuriyet Newspaper, 2015); it becomes clear once again how quickly people adapt to these technologies. All these innovations have been integrated into each sector in different ways. The first examples of digital transformations in the tourism industry, where restaurants are also a pillar, were seen in hotels. For example, in the 290-room FlyZoo Future hotel of Chinese electronic e-commerce giant Alibaba Group in Hangzhou, China, many services such as registration, control of lights, and room service are performed by artificial intelligence robots. Hilton hotels, on the other hand, have started using a real robot called "Connie" who assists guests at check-in and advises on famous local sights and things to do, in Virginia, US. Connie, a small robot standing at the hotel reception desk, learns and develops itself as it interacts with visitors. It can also access WayBlazer's travel information to help customers get the information they need (New Software Solutions, 2020). Aiming to provide "concierge" service to hotel customers, Connie is named after Conrad Hilton, one of the founders of the Hilton hotel chain, and was developed upon the cooperation of IBM, one of the