DIGITAL TRANSFORMATION AND COVID-19: A MULTIPLE CASE STUDY ON FOOD MICRO AND SMALL ENTERPRISES

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Abstract

Objective of the study: To analyze the pandemic context in food micro and small enterprises (MSEs) and the digital transformations resulting from adopting new communication and sales channels. We aimed to assess how the COVID-19 pandemic affected these companies, describing its financial consequences and the digital transformations they implemented.

Methodology/Approach: Multiple descriptive case studies, qualitative approach, and content analysis. Data collection consisted of semi-structured interviews, employing the snowball sampling technique and theoretical saturation.

Originality/Relevance: This study describes and disseminates the practices and actions adopted by MSEs to face the COVID-19 pandemic.

Main results: The results revealed the impact of the pandemic on MSEs in the food industry and how this new context promoted and accelerated digital transformation. These companies implemented multiple digital communication and sales channels in their business models and strategies in response to the pandemic, and they are most likely to keep expanding to meet the shift in customer behavior.

Theoretical /management contributions: Analyzing the impacts and challenges for MSEs in the food industry during the pandemic and describing the actions implemented to face and overcome this new scenario may help other companies with similar challenges.

Keywords: Digital transformation, Multichannel marketing, Micro and small enterprises, COVID-19 pandemic.

Resumen

Objetivo del estudio: Analizar el contexto de la pandemia en las micro y pequeñas empresas de alimentos y las transformaciones digitales que se produjeron a partir de la adopción de nuevos canales de comunicación y venta. Específicamente, analizar el impacto de la pandemia Covid-19, describir las consecuencias financieras, las transformaciones digitales ocurridas y la adopción de nuevas comunicaciones y canales de venta.

Metodología/enfoque: Estudio de caso múltiple con fines descriptivos, enfoque cualitativo y análisis de contenido. Recogida de datos mediante entrevistas semiestructuradas que tuvieron en cuenta la técnica de la bola de neve (snowball) y la saturación teórica.

Originalidad/Relevancia: Este estudio contribuye al conocimiento y difusión de las prácticas y acciones adoptadas por la Micro y Pequeña Empresa (MPE) ante la pandemia ocasionada por el Sars-CoV-2.

Principales resultados: Los resultados presentan el impacto de la pandemia en las MPE del sector alimentario, describen cómo la transformación digital fue impulsada y acelerada por el nuevo escenario. La adopción de múltiples canales de comunicación y ventas digitales es uno de los efectos de la pandemia en los modelos y estrategias de negocio de estas empresas, y debe mantenerse y expandirse en respuesta a cambios en los hábitos de los consumidores.

Aportes teóricos / gerenciales: La investigación aporta aportes teóricos y prácticos al analizar los impactos y desafíos para las MPE del sector alimentario en la pandemia y describir las acciones implementadas para enfrentar y superar ese nuevo escenario. Las experiencias relatadas pueden contribuir a otras empresas con dificultades similares.


TRANSFORMACIÓN DIGITAL Y COVID-19: ESTUDIO DE CASO MÚLTIPLE EN MICRO Y PEQUEÑAS EMPRESAS ALIMENTARIAS

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Cite as / Como citar

American Psychological Association (APA)
1 Introduction

The pandemic caused by the Sars-CoV-2 virus — popularly known as coronavirus — brought uncertainty and environmental changes. This context drastically redefined business workflow and priorities, requiring robust optimization (Perdana, Chaerani, Achmad, & Hermiatin, 2020).

The coronavirus has impacted not only public health but many other social aspects, such as food commercialization (Ministry of Agriculture, Livestock and Food Supply – Ministério da Agricultura, Pecuária e Abastecimento [MAPA], 2020).

The out-of-home food industry, which used to grow around 10% annually before the pandemic, was among the most affected by the pandemic (Brazilian Service of Support for Micro and Small Enterprises – Serviço Brasileiro de Apoio às Micro e Pequenas Empresas [Sebrae], 2019). The Brazilian Institute of Geography and Statistics (IBGE) in partnership with the Brazilian Association of Bars and Restaurants (Abrasel) estimated that around 250,000 out of more than 1 million bars and restaurants closed between March and August 2020 in Brazil (Salomão, 2020). Environmental changes led some companies to increasingly adopt digital media to manage their businesses (Sebrae, 2020).

Digital transformation is the initiative to use new capabilities by leveraging digital technologies to transform organizational strategies and operations (Priyono, Moin, & Putri, 2020). Priyono et al. (2020) stated that even though several sectors adapted using digital technologies, this is a challenging journey for Micro and Small Enterprises (MSEs). And a quick digital transformation can be critical during a pandemic due to the various changes it brings.

According to Sebrae (2020), various sectors massively adopted this strategy, generating a 30% growth in the Brazilian e-commerce and a 15% increase in the revenue of e-commerce food.

Thus, this study aimed to assess the pandemic context in food MSEs and the digital transformations by means of new communication and sales channels. The specific objectives were (1) to analyze the impact of the COVID-19 pandemic on MSEs in the food industry; (2) to describe the financial consequences of the pandemic for the MSEs assessed; and (3) to describe the implementation of new communication and sales channels by these MSEs and the digital transformations that followed.

Digital transformation is a suitable response to the disruptive changes caused by the COVID-19 pandemic (Priyono et al., 2020). The coronavirus disease affected the whole world on different levels depending on the context (Bjorklund, Mikkonen, Mattila, & Marel, 2020). Thus, a region-focused study is needed to fully understand this scenario. Our object of study was food MSEs of a specific region of the state of Minas Gerais, famous for its bars (Assé, 2021). Around 30,000 companies in the food industry went bankrupt and about 250,000 job positions ceased to exist during the pandemic in Minas Gerais alone (Assé, 2021). Bernardes, Silva, and Lima (2020) highlighted the importance of carrying out studies in a pandemic context, as it is still a recent phenomenon with much potential for exploration.

The weakening of MSEs due to market fluctuations (Nassif, Corrêa, & Rossetto, 2020) exposed the changes caused by the pandemic uncertainty. This research enlightens the challenges businesses face
to migrate their structures and tools from a physical to an online scope. We also described the multiple digital communication and sales channels implemented by MSEs, and their consequences for these companies.

We divided this study into four sections, besides this introduction. The second section presents the theoretical framework supporting the research problem, covering the challenges the pandemic brought to MSEs in the food industry and its influence on digital transformation and multichannel marketing. The third section shows the methodological aspects that enabled this research. The fourth section reveals the results and discussions. And finally, the fifth section discusses the final considerations of this study.

2 Theoretical Framework

2.1 Challenges of micro and small enterprises and the food industry in the pandemic context

Businesses struggle to achieve a balance between exploring existing business models and developing new ones (Priyono et al., 2020). In times of crisis, entrepreneurs seek to mitigate adverse effects and address new opportunities (Bjorklund et al., 2020).

The World Health Organization (WHO) declared COVID-19 a pandemic in March 2020. More than 118,000 cases in 114 countries and 4,291 deaths were already confirmed by then. The first case of COVID-19 in Brazil was officially declared on February 26, 2020 — a person who had recently arrived from Italy and was probably infected there (BBC, 2020).

The virus quickly spread throughout Brazil. However, specialists believe this first officially confirmed case was not responsible for it as several cases were later confirmed simultaneously all across the country (Pinheiro, 2021).

The University of Brasilia (UnB) Communications Office (2020) conducted a survey to assess the economic and social impacts of the pandemic on the food industry and concluded that this sector was one of the most affected. Even though the apps significantly increased the number of food deliveries, many establishments did not survive the drop in sales. Freitas (2020) highlighted that the lockdown in Minas Gerais presented unsatisfactory results in the fight against COVID-19. Therefore, drastic measures such as the complete interruption of non-essential activities became necessary.

The Brazilian Association of Bars and Restaurants (Associação Brasileira de Bares e Restaurantes [Abrasel], 2020) stated that bars and restaurants closed 1 million job positions. Thus, this industry had to reinvent itself through delivery apps and channels, vouchers, and live streams during the pandemic. Jakitas and Gavras (2020) reinforced that, during the coronavirus crisis, bars and restaurants were among those that most fired their employees. Vinhas (2020) corroborates this idea by affirming the bar and restaurant sector fired 1 million employees and closed 20% of businesses.

Barreto et al. (2020) considered the COVID-19 pandemic one of the biggest global health challenges of the 21st century. MSEs faced many challenges In this context, such as decreased customer
purchasing power, restrictions in interaction and working hours, shortage of raw materials, order cancellations, difficult cash flow, and supply chain disruption (Priyono et al., 2020). The pandemic did not only affect areas related to biomedicine and epidemiology, but also social, economic, cultural, and political spheres, among others (Bernardes et al., 2020; Nassif et al., 2020).

Nassif et al. (2020) sought to understand the impacts of the pandemic on entrepreneurs and MSEs, as they are fragile in the face of market fluctuations. They highlighted the importance of adaptability and emphasized the need for innovation in all sectors. They also added that federal, state, and municipal governments implemented strict social distancing measures at a global level to reduce the incidence and spread of the virus.

The need for digital services in the food sector emerged to minimize the spread of the virus, as an alternative technology to reduce human interaction. A digital experience can reduce ordering time, food loss, and waste and maximize inventory capacity (Perdana et al., 2020).

In Brazil, the COVID-19 impacts have been different in each sector. While large industries continued to produce food, small producers struggled to continue their activities. Bars and restaurants initially had to suddenly interrupt their services to follow the social distancing recommendations. Their comeback, in contrast, had to be gradual, following security protocols. Challenges ranged from changing revenue to deciding on business feasibility. Organizations had to explore the potential of digital tools and managed to stay open. Beverage sales through e-commerce grew within this period (Sebrae, 2020).

Establishments reinvented themselves shifting to delivery and takeout. Despite these efforts, sales were, on average, only 15% of the pre-pandemic revenue (Abrasel, 2020). Even the government intervened, offering some financial support to help companies honor their debts with payrolls and suppliers. However, Sebrae, in partnership with Abrasel, conducted a survey in 2020 and identified that about 80% of the companies that applied for this financial aid had their requests denied (Agência Sebrae de Noticias, 2020).

2.2 Digital transformation and the pandemic influence

Digital transformation is one of the main challenges faced by contemporary companies. The need to leverage digital technology to develop and implement new business models forces companies to reassess present capabilities, structures, and cultures to identify which technologies are relevant and how they will be enacted in organizational processes and business offerings (Saarikko, Westergren, & Blomquist, 2020).

Changes in consumer behavior towards new technologies leveraged the use of mobile platforms over the Internet. As a result, information could be instantly exchanged, attracting companies from several industries, including the food sector (Pigatto, Machado, Negreti, & Machado, 2017). Ainin, Parveen, Moghavvemi, Jaafar, and Shuib (2015) stated that social media are especially advantageous for MSEs because of the low cost and level of information technology skills required to use them.
According to Cole, Denardin, and Clow (2017), being active on social networks such as Facebook®, Twitter®, and Instagram® allows small businesses to reach consumers and engage them with their brand. However, digital technology can be transformative or disruptive, depending on its perspective and ability to harness its potential. Exploring it requires a proper understanding of how it works and its relevance to the specific circumstances and purposes of a company (Saarikko et al., 2020).

Besides, the popularity of smartphones, the internet, and social media induce consumers to spend more time on these platforms than on traditional media. Therefore, companies that fail to use digital strategies may lose at least part of their customer base. One of the reasons behind the fast-growing digital and social media marketing is the ability to measure results, especially compared to traditional media (Cole et al., 2017).

Technology leads to digital transformation, reported in the literature as one of the strategies to respond to disruptive environmental changes, particularly technologies that help businesses to identify new business practices (Priyono et al., 2020). Stephen and Galak (2012) addressed the need to understand how social media affects multichannel sales.

2.3 Multichannel marketing

Webb and Hogan (2002) see multichannel marketing as the sharing of several distribution tasks performed by a combination of different indirect and/or direct channels. Consumers quickly started using a variety of channels to make their purchases, including physical stores, telephone, and the Internet, among others. Zhang et al. (2010) stated that multichannel marketing uses different customer service channels to promote, sell, distribute, and communicate.

Organizations must adopt a multichannel mindset and effectively employ a multichannel marketing program since this practice can increase profitability and improve customer experience and satisfaction (Weinberg, Parise, & Guinan, 2007).

Companies are constantly adjusting following the environmental changes (Dickinson & Ramaseshan, 2004). They need dynamic strategic structures to operate in unstable environments. Technological innovations only increased the relevance of multichannel marketing, its benefits and opportunities (Valos, Polonsky, Geursen, & Zutshi, 2010).

Multichannel marketing has increasingly incorporated new technologies, such as social networks (Valos et al., 2010). As a result, companies are able to build better customer relations. They can offer customers and potential customers information, products, services, and support through two or more synchronized channels simultaneously. Companies that offer a multichannel customer experience improve service quality, provide more adaptive solutions and acquire new customers more easily (Rangaswamy & Bruggen, 2005). Neves (1999) states that distribution channels enable the construction of sustainable competitive advantages.
According to Valos et al. (2010), businesses are increasingly adopting multichannel marketing, which can increase revenue and reduce costs. This practice, however, seems more difficult to implement compared to traditional single-channel marketing. A dynamic strategy may be a better approach to understanding complexities and uncertainties regarding implementation.

2.4 Strategies adopted by companies in the face of the COVID-19 pandemic

When exposed to new competitive market rules, organizations need to adapt to these conditions and adopt strategies to survive (Lemos da Silveira Santos et al., 2007). Mintzberg and Waters (1985) identified that organizations can combine more than one strategy, incorporating different degrees of deliberation or emergency. For the deliberate strategy to occur (precisely as intended by the organization), there must be no influence of any external force — whether of marketing, technological, or political order — and the environment must be perfectly predictable and controllable. Emergent strategies, however, directly impose a pattern of action on an organization under less predictable circumstances (Mintzberg & Waters, 1985).

Increasingly competitive environments led organizations to employ different marketing strategies to attract and retain customers and expand sales (Ferreira et al., 2019). Silva, Rosa, Buongermino and Santos (2021) stated that marketing plays a big role in positioning strategies, enabling companies to achieve greater success. The uncertainty triggered by the COVID-19 pandemic in Brazil had many effects on the productive sectors and the economy. Sales and revenues reflected these effects, forcing companies to look for new strategies to sell their products and keep their businesses (Rezende, Marcelino, & Miyaji, 2020).

Multichannel marketing is one of the strategies the companies employed. It consists of a series of practices aiming to get the brand to different channels, directing products and/or services so they reach their target audience. Multichannel marketing increases the digital presence, essential in the pandemic scenario. It helps to disseminate and engage organizations seeking to adapt to this new reality (Silva et al., 2021).

To survive in increasingly competitive and dynamic markets, companies have used the internet to develop their activities, as this is a fast and agile resource. MSEs especially relied on this strategy both for communication and identification of customer expectations, desires, and needs to effectively serve them (Ferreira et al., 2019; Fidelis, 2019).

3 Methods

3.1 Research type/approach

We conducted a descriptive study, analyzing digital transformations in MSEs in the food industry as a result of the COVID-19 pandemic. Richardson (1999) stated that a descriptive study consists in knowing the reality of the environment, by describing the characteristics of a certain
population or phenomenon. We approached our object from a qualitative perspective, explaining certain facts without, however, focusing on quantifying values (Gerhardt & Silveira, 2009). Mezzaroba and Monteiro (2009) stated that this approach is used to understand contexts based on several interrelated factors. A qualitative study focuses on studying the perspectives and experiences of the participants (Flick, 2009).

We conducted a theoretical-empirical study according to Gil (2008). He stated a case study is an empirical study that investigates a current phenomenon considering its context. He also affirmed social scientists often use case studies to describe the context of a particular study.

3.2 Sample

We interviewed representatives of MSEs in the food industry located in Minas Gerais. To ensure all ethical standards in scientific research, the interviewees signed an informed consent after we detailed the study goals and answered all possible questions. In November 2020, we conducted the interviews online because of social isolation during the pandemic. The interviews were recorded and later transcribed manually (no software support).

The selection was intentional. We stopped recruiting new companies for the study once we reached theoretical saturation. Fontanella et al. (2011, p. 388) explained theoretical saturation as the point where “the field of observation no longer provides new elements to support the theory desired”. Bauer and Aarts (2008) considered that a good understanding of a specific context is not necessarily related to an exact amount of interviews. Thus, we carried out 12 semi-structured interviews.

Table 1 presents the categories of each company and the profiles of each respondent.

**Table 1**

_Cases studied and interviewees_

<table>
<thead>
<tr>
<th>Case</th>
<th>Activity</th>
<th>Operating time</th>
<th>Interviewees</th>
<th>Duration</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1</td>
<td>Açaí shop</td>
<td>6 years</td>
<td>Managing Partner (R1)</td>
<td>25’18”</td>
<td>November 12, 2020</td>
</tr>
<tr>
<td>Case 2</td>
<td>Restaurant</td>
<td>12 years</td>
<td>Managing Partner (R2)</td>
<td>24’32”</td>
<td>November 20, 2020</td>
</tr>
<tr>
<td>Case 3</td>
<td>Pastry Shop</td>
<td>10 years</td>
<td>Manager (R3)</td>
<td>34’43”</td>
<td>November 16, 2020</td>
</tr>
<tr>
<td>Case 4</td>
<td>Bar</td>
<td>2 years</td>
<td>Owner (R4)</td>
<td>45’03”</td>
<td>November 10, 2020</td>
</tr>
<tr>
<td>Case 5</td>
<td>Steakhouse</td>
<td>8 years</td>
<td>Manager (R5)</td>
<td>26’13”</td>
<td>November 17, 2020</td>
</tr>
<tr>
<td>Case 6</td>
<td>Dairy Products</td>
<td>8 years</td>
<td>Managing Partner (R6)</td>
<td>48’50”</td>
<td>November 17, 2020</td>
</tr>
<tr>
<td>Case 7</td>
<td>Burger Shop</td>
<td>2 years</td>
<td>Managing Partner (R7)</td>
<td>26’13”</td>
<td>November 17, 2020</td>
</tr>
<tr>
<td>Case 8</td>
<td>Restaurant</td>
<td>8 years</td>
<td>Managing Partner (R8)</td>
<td>44’20”</td>
<td>November 9, 2020</td>
</tr>
</tbody>
</table>
We selected the participants through the snowball sampling method. Vinuto (2014) stated this non-probabilistic sampling technique is suitable for understanding private and public matters when there is limited access to these groups. We adopted the multiple case study method following Yin (2001) to study events over which researchers have little control, contemporary phenomena, and organizational and managerial studies.

3.3 Data collection instrument

We developed the interview script — used for data collection — from semi-structured questions. According to Minayo (2009), these questions allow a more flexible discussion of the research topic. The initial data characterized the companies — by sector, operating time, number of employees, revenue level (before and during the pandemic), main products, customer profile, etc. — and the interviewee(s) — by time working in the company, position, experience in the field, academic background, among others.

The script also included questions aimed at meeting the research goals, divided into four topics: (1) impacts of the COVID-19 pandemic on MSEs in the food sector; (2) customer contact channels and dissemination of MSEs’ products and services; (3) COVID-19 pandemic influence on the digital transformation process of MSEs; and (4) changes caused by the pandemic.

3.4 Data analysis

Besides the interviews, we also used secondary data — such as news reports on the COVID-19 pandemic and its effects on distribution and communication channels — to describe the pandemic context.

The analysis process in qualitative research is not rigid. It ends when the new data no longer add to the search, reaching a state of saturation (Gil, 2008). Bardin (2016, p. 134) stated that “coding the data is treating it”. So we analyzed, coded, and categorized the answers as part of the data processing by content analysis (Bardin, 2016). After reading the transcripts of all interviews, we did the first coding. Next, based on this first coding, we confirmed the interviews’ highlights and relevance to analyze the context. Finally, we collected information on each code and category we analyzed.
We identified four categories of analysis: (1) COVID-19: impact on MSEs of the food sector; (2) financial and political consequences of the pandemic for MSEs; (3) digital transformation and the pandemic influence; and (4) multichannel marketing. We established codes to describe the main features of each category and analyzed them with Microsoft Excel®. The results will be presented in the results section.

### 3.5 Case studies structure

Figure 1 summarizes how we conducted each case study presenting our structuring scheme, based on Yin (2001).

**Figure 1**

*Case studies structure*

![Case studies structure](image)

*Source:* Created by the authors, based on Yin (2001) and employing research data (2022).

### 4 Results and discussion

We analyzed the interviews categorizing the information collected to meet the research goals. Each category considered a specific goal in line with the theoretical framework, including the COVID-19 impacts on the food industry, digital transformation during the pandemic, and the channels the companies used to engage customers. Table 2 summarizes the categories' subdivisions (codes) and the number of mentions during the interviews.
Table 2

Categories, codes, and number of mentions

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory or Code</th>
<th>Number of mentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. COVID-19: impact on MSEs of the food industry</td>
<td>Adherence to delivery service</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Change in consumer behavior</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Change in revenues</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Adoption of hygiene measures</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Company adjustment in favor of social distancing</td>
<td>12</td>
</tr>
<tr>
<td>2. Financial consequences of the pandemic for MSEs</td>
<td>Negative municipal policies</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Positive municipal policies</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Financial aid for the company</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Financial aid for employees</td>
<td>2</td>
</tr>
<tr>
<td>3. Digital transformation and the pandemic influence</td>
<td>Advantages/Impact of implementing digital communication and sales channels</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Difficulties in implementing/adopting digital communication and sales channels</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Customer relation/attraction</td>
<td>7</td>
</tr>
<tr>
<td>4. Multichannel marketing</td>
<td>Adherence to third-party apps</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>Adherence to first-party apps</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Advertising on social media</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Advertising on Instagram®</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Advertising on Facebook®</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Adherence to WhatsApp Business®</td>
<td>27</td>
</tr>
</tbody>
</table>

Source: Created by the authors (2021).

We present below some statements on each category and subcategories (codes).

4.1 Categories and codes

4.1.1 Category 1 — COVID-19: impact on companies in the food industry

The first category analyzed how companies changed and adapted during the COVID-19 pandemic. The most mentioned code within this category was adherence to the delivery system to adapt to the pandemic scenario. Adopting delivery systems is a response to mitigate the effects of the crisis (Bjorklund et al., 2020) and bet on digital services, as well as a way to improve processes and maximize capabilities (Perdana et al., 2020).

Twenty-one interviews mentioned changes in consumer behavior towards joining delivery systems. Bernardes et al. (2020) corroborate these findings. They stated that the pandemic affected multiple fields, such as social and economic. We highlighted some statements below:

The major change we observed was that customers started to order delivery services more often, something I believe is here to stay. People are getting more and more used to stay-at-home orders [Managing Partner R1].

As the pandemic came — and everything that came with it —, how can I put this [...] these new habits helped us to strengthen our delivery service and iFood presence. So it encouraged us a lot to grow this service, which we already offered. Today I can say that they are stronger, let's put it this way. Those who did not know our product got to know it and they will continue to buy it [...] [Manager R5].
[...] the only thing I know is that I worked only with deliveries for a while, yes, but I don't remember if it was in April. It was at the time the mayor decreed an interruption of services, then we worked a while only with deliveries, indeed. Just delivery, with zero face-to-face services for a while [Managing Partner R7].

We adopted the delivery system as our major way of reaching customers [Managing Partner R11].

Changes in revenue were another highlight concerning the impact of the pandemic on companies. Some companies saw their revenue decrease as a result of the spread of the virus and the need to close their doors:

[...] a large part of our revenue was concentrated on event days, around 80% of our revenue was linked to events [...] without them there was a 50% decrease in revenue [...] [Managing Partner R2].

[...] from March, when it started, until now, the revenue dropped suddenly, let's say by 80%. We had two or three months with 20% of our normal revenue [...] [Managing Partner R8].

[...] [revenue] dropped an average of 40% [...] during the pandemic [Manager R12].

In contrast, some interviewees reported positive changes in the revenue of the companies assessed:

[...] before [the pandemic] the average gross revenue ranged from R$ 6,000 to R$ 8,000, you know? But during this pandemic, however, the average was R$ 12,000, R$ 14,000 [Manager R3].

I made R$ 45,000 to R$ 53,000 a month before the pandemic. During the pandemic, specifically in April, I made R$ 14,000. Then, I started working with deliveries and it increased by about 50%, now businesses are reopening, the revenue is on average the same as before. We noticed huge revenue growth in the first 30 days. People were euphoric about bars reopening. Now it's normal, like before [Owner R4].

[...] during the pandemic, the demand for dairy products was higher [...] It was very high. There was a time when the demand reached such a peak that we even had to buy milk from other dairy suppliers to produce cheese and this made mozzarella cheese prices rise practically 100% [...] [Managing Partner R6].

[...] thinking about the pandemic, I didn't experience any difficulties. The demand is increasing, maybe because it's food. People continue to order a lot [...] [Managing Partner R9].

Adopting new hygiene measures was mentioned 15 times during the survey. Companies adjusting to social distancing was mentioned 12 times. Many organizations had to adjust to social distancing to face the spread of the coronavirus, as highlighted by Nassif et al. (2020). The narratives below illustrate the scenario:

First, you must show your client the responsibility and safety of the processes carried out by your company. That includes your team, hygiene, the use of masks and hand sanitizer, both for employees and customers, as well as establishing some distance between tables and cleaning all equipment. This was very important [Managing Partner R2].

[...] we already demanded the use of masks before. The only thing we did was provide more hand sanitizer spots and ask the staff to pay more attention to this issue [...] [Managing Partner R6].
[...] we have always worked with hand sanitizer at the burger shop, and we have increased it now. Each table has a bottle, but we will always keep this habit. We have always used 70% alcohol-based hand sanitizer, and we will continue to use it to clean the tables [...] [Managing Partner R7].

[...] we put hand sanitizer at the door, started wearing gloves while serving at the self-service line, and implemented the mandatory use of masks [...] [Managing Partner R8].

These actions, required during the pandemic, reverberated on daily life and business management. Bernardes et al. (2020) highlighted how such events and measures influenced the business world. The next category presents some financial consequences of the pandemic for the companies.

4.1.2 Category 2 — Financial consequences of the pandemic for MSEs

The second category aimed to enlighten the financial consequences of the pandemic for the companies evaluated. The most mentioned code refers to government policies that changed how companies operate, as highlighted by Bernardes et al. (2020) and Nassif et al. (2020), who discuss the impacts on social, economic, cultural, and political contexts.

Negative municipal actions were mentioned 10 times, and positive municipal actions, 4 times. The following statements reveal some examples.

[...] I think they [rulers] do not do their part and they decided to close the stores to show society they are doing something [...] I did not support this measure [Managing Partner R1].

I was fined one time because about eight people were drinking at the door of my bar. I only sold to-go at the counter. I couldn't control where they would drink. My second fine came when the stores reopened. People were very excited, and there were a lot of people crowding the bar. I believe that the protocols provided are really ineffective and pointless. For example, I was walking by [...] there were a million people [at the bank]. A crowd at the [supermarket], and I had to keep my business closed. Besides, the city government still sent me my business license to be paid even though I could not open it. I think I paid the license in April [Owner R4].

I am not saying that I totally agree with the decision to close businesses. I think it was really harsh. It could have been smoother, with a simple requirement of using masks and greater supervision. I think this affected us, small companies and stores, a lot. I believe the stores could have kept their doors open [Managing Partner R6].

I thought it was good. I understand there are people who, like us, depend exclusively on what they earn in order to survive. I know this is a very complicated moment with a lot of challenges. But looking from a political perspective, this was necessary, as a lot of people go to physical stores to have food on-site. So if they had not demanded that local stores closed their doors, limiting us only to delivery services, maybe today we would find ourselves in a much worse situation [in the pandemic] [... [Manager R10].

We noticed among the statements a dissatisfaction with government policies concerning the lines of credit offered since they did not cover all establishments that applied.

This emphasizes the general concern of entrepreneurs regarding the financial consequences of the pandemic to their business. Priyono et al. (2020) pointed out that the difficulty to honor payments and make new purchases, as well as debts with suppliers, are some of the challenges MSEs had to face because of the COVID-19 health crisis. The excerpts below reflect the codes that expose the need for financial assistance for both employees and companies.
[Government actions were] very irrelevant in all contexts: municipal, state, and federal. Really insignificant. The federal government somehow indicated some possible lines of credit, but businesses did not have access to them [Managing Partner R2].

[...] we even tried to access these lines of credit for small companies with both banks and the government, but we were not selected, so to speak. It did not work out [Managing Partner R6].

[...] I needed this [government financial aid], but I did not get it. I got credit from private banks. They offer you some working capital. We could not get any government financial aid (laughs). We did not have access to it [Managing Partner R8].

[...] there was this government financial aid for companies, but our business did not receive it. My mother got the government emergency financial assistance, the one for individuals, not legal entities. My father also got it, and it was the money they got from the government assistance that helped pay the bills so we could keep the company going [...] [Manager R12].

Entrepreneurs invested in digital transformation to handle the impacts and consequences of the pandemic, as we describe in the next section. Digital services are promising because they enhance MSEs management by optimizing processes and improving their inventory capacity and customer access (Perdana et al., 2020).

4.1.3 Category 3 — Digital transformation and the pandemic influence

Pigatto et al. (2017) addressed the adoption of technologies that interested business sectors such as the food sector. Digital transformation became a way to face the pandemic crisis, aiding social distancing and ensuring the functioning of companies. Thus, this category focus on the pandemic influence on the digital transformation of companies. The following excerpts illustrate how relevant digital transformation is to entrepreneurs, especially in communication, customer relation, and actions related to sales channels.

[...] we used to do leafleting before, putting them in mailboxes. Nowadays investing in social media yields the best results [...] [Managing Partner R1].

[...] customers began to ask more for delivery services to eat at home, so these technologies came to meet this growing demand. This shifting was already happening. I think the pandemic only accelerated it [Managing Partner R1].

[...] the presence of [...] digital tools and channels is extremely necessary [...] [Managing Partner R2].

 Cole et al. (2017) stated that due to the internet and social media popularity, consumers spend more time on these platforms, and companies adapted to this reality by using digital strategies to avoid losing potential customers. The following statements show the advantages and impacts of adopting digital communication and sales channels.
I believe that [adopting digital channels led to] a 10% to 20% increase in orders. Maybe even more, sometimes. From 10% to 20%. As companies focus on these applications, we can say a 10% to 20% increase [Managing Partner R2].

[...] customers eat with their eyes. If they do not see the product, they do not buy it [...] when we do not post, customers do not order [Manager R3].

I think [...] social media help a lot [...] because it takes the company name [...] to other people [...]. This makes the business grow by increasing advertising through social networks and when people share it as well [Managing Partner R9].

So we noticed that it is huge. Nowadays the Internet offers us these benefits. We reach a modern, younger group who use these digital media to order snacks and food a lot [Manager R10].

[...] [The digital world] attracts a lot of attention [...] we hired a photographer to get high-quality images because people are often attracted by what they see. So seeing a good dish, a well-made snack, makes people want to eat them. People think, “wow, I want to know this, to try it out” [Manager R12].

[...] our customer activity increased by 25% — customers from other places who did not know our business, from other neighborhoods, or who lived nearby but did not know us. We started using Instagram® and Facebook® and then our sales demand increased, so now we sell more than we used to [Manager R12].

Cole et al. (2017) also stated that presence on social networks enables MSEs to engage their consumers with the brand. This corroborates some statements about using social networks to connect with their customers.

[...] even on Instagram®, we display all our different cakes. In the past, people were like, “I will look for something, then I will let you know”. Now it is different. They go straight to our Instagram® profile and select a product we have already made. “wow, I want one just like this one that's very beautiful”. So it helped us a lot to grow during the crisis, and we are still growing [Manager R3].

We advertise on social media pages, some people contact us through social media. Others call us and say, “I have seen your profile, your website, I am interested in your product [...]”. So, as many customers come to us, we focused more on social networks. In a certain way, this yields the best results [Managing Partner R6].

We had to attract customers during the lockdown. So we were always promoting and talking about the product, how good it is, and leaving comments. Even customers who usually went to our physical stores started visiting our profiles and leaving comments, such as "the product is good, low-cost, and of good quality", so we invested a lot in this type of advertising [...] [Manager R12].

According to Priyono et al. (2020), technology helps companies to identify new business practices. MSEs can benefit from the low cost of using social media, considering the financial restrictions of a company of this size (Ainin et al., 2015). This discussion finds support in the following narratives, which share ways to attract customers through these technologies, either via free social networks, paid traffic, partnerships with influencers, or other strategies.

[...] we needed to launch a marketing campaign, so we used digital marketing to promote our dishes and our establishment [...] [Managing Partner R2].

[...] during the pandemic, we focused more on paid social media advertising. So yes, we observed increased visibility using social networks [Manager R5].
we partner with many influencers, and it brings us a lot of positive results [Managing Partner R7].

we also partnered with a girl who works with advertising on Instagram® to help us advertise our products. She knows a lot of people in town, so we can reach a lot of people, and we had good results, too. She advertises on Instagram® [Manager R10].

However, a company undergoing digital transformation must be ready to develop and implement new processes or business models. This often requires adjustments in infrastructures, reassessing operational capabilities, and changing the present culture (Saarikko et al., 2020). We observed situations that emphasized the need for change and adaptation.

we're learning. Our company is currently learning how to use these [digital] resources, these mechanisms we need to improve our performance within the digital resources. The more we employ them, the more we use them, the clearer the results, they are immediate [Managing Partner R2].

but to work with delivery nowadays, you must have a lot of space. My restaurant is not that big. Fifteen bikers would come to my door, requiring a lot of physical space. We do not have that kind of space in our restaurant [...] [Managing Partner R8].

As you depend on followers on Instagram®, it was a little difficult. A lot of people do not follow people they do not know. They follow what they are curious about. So we had to do a lot of giveaways to attract customers. We asked our families and friends to follow us, to share our profile with their church friends and neighbors, asking them to follow us as well and show their support because we still had just a few followers [...] [Manager R12].

Those difficulties we observed during the research were mentioned by Nassif et al. (2020), who emphasized that companies will need to adapt to these changes, overcoming the difficulties that may arise during the period. The major difficulties concern applications and their costs.

but iFood charges a fee on sales; 12% goes to iFood [Managing Partner R1].

yes, we faced [difficulties adopting digital channels] because this is still new. We are not a... technological company, you see? We are still in the learning phase, we are not a smart company regarding these technological resources [Managing Partner R2].

A lot [of difficulty adopting digital channels] (laughs) because I have always been too shy to talk, you know... I realized customers are very visual, so I had to record stories on Instagram®. In the past, I used to post things we did, but we saw that they were not attracting customers. So I had to show up, show my face in the stories. This was a very big challenge because I did not have that habit of doing it [Manager R3].

Currently, I'm not using iFood nor Uber Eats, because they are charging a very exaggerated, high fee. For example, if you sell a meal on iFood, if you make a R$ 15.00 sale, they take 27%. In fact, almost 30%. That means [I earn] almost R$11.00... it's very little, right. The [iFood] fee is very high... I started working with them, but it was for a really short time. I do not work with the iFood app anymore [Managing Partner R8].

Given the importance of digital transformation for MSEs — especially during the pandemic — we analyzed how this process developed in the companies assessed and studied the most used digital communication and sales channels.
4.1.4 Category 4 — Multichannel marketing

The fourth category describes what channels the companies use to interact with their customers. The participants clarified aspects of the use of channels, which, according to Zhang et al. (2010), are related to promotion, sale, distribution, and communication. Stephen and Galak (2012) referred to the commercial relevance and popularity provided by social media, such as Facebook® and Instagram®, which highlights the need for understanding how social media affects multichannel sales.

The interviewees mentioned some forms of promotion through social networks. Some mentioned networks in general (15 mentions), without naming them. Others, however, mentioned, in descending order: Instagram® (42 mentions), WhatsApp Business® (27 mentions), and Facebook® (16 mentions).

Some participants were already using social media to interact with their consumers before the pandemic, enjoying the benefits of multichannel marketing (Weinberg et al., 2007; Zhang et al., 2010).

[... we had already been working with all social networks before the pandemic. We had WhatsApp Business®, a Facebook® page, an Instagram® profile... and we also have a WhatsApp group. So everything we plan on doing, we share in the group... When the pandemic came, we intensified our advertising. We started to launch more campaigns — for example, on birthdays — not to lose customers [Manager R3].

[...] we are on Instagram®, WhatsApp, and Facebook®. Instagram® is the one that brings the most positive results. We boost our photos by promoting giveaways from time to time [Manager R5].

[...] some people reach us through social networks. Others call us and say, “I saw your page, I saw your website, and I am interested in your product” [Managing Partner R6].

WhatsApp® and Instagram® are the most popular social media for advertising and communication. We adopted them even before the bakery opened, posting every day since the beginning [...] [Managing Partner R9].

We use [...] Instagram®, Facebook® [...] we promote our product through all these channels and [...] also take orders [Manager R10].

Some statements highlighted the need to adopt new customer channels through social media. Entrepreneurs adopted multichannel marketing to expose their products and provide an alternative to serve their consumers, take orders, and plan deliveries (Dickinson & Ramaseshan, 2004; Valos et al., 2010).

Yes [we adopted new channels]. We used WhatsApp Business®, as a direct ordering channel, we shared our link on social networks so people could order directly [...] We also offer takeout orders, where people pick up their order at an establishment to go [...] [Managing Partner R2]

[...] we had to invest in direct contact channels through social networks and the Internet [Manager R12].

As food MSEs incorporated social networks and adopted multichannel marketing (Valos et al., 2010), they could access new opportunities and strengthen customer relationships — by offering
information, content, and new sales formats —, thus building customer loyalty (Rangaswamy & Bruggen, 2005). Some comments on this incorporation reveal the potential and benefits of social media.

Here’s the thing. Nowadays WhatsApp® and Instagram® [...] reach the largest number of people; Facebook®, not so much. Instagram® is helping us to get new customers because when we publish something, someone shares, then someone else shares, and then when they order a lot of customers say; “wow, I saw the things you guys are sharing on Instagram® and I thought it was really cool!”, and then they start to order. We use WhatsApp® with our older customers. As we have their numbers and they have ours, sometimes they see what we share and say, “wow, I want to order again”, “You have been doing a really good job, I liked it a lot. So I want to order again”. So, on WhatsApp, we are building a... How can I put this? A relationship with our customers, so it improved our interaction with them. We use Instagram® to attract new customers. WhatsApp® maintains a relationship and Instagram® generates new ones. From my point of view, in doing it [...], through social media, we started to serve surrounding cities as well [Manager R3].

Well, I believe that Instagram® is the most effective way to get new customers in our region. I don’t know about other companies or applications, but I know that many business owners use Instagram® here. Facebook® is the second, right? We take a lot of orders on WhatsApp®. We share our website with our customers so they can check it out [Managing Partner R7].

Besides the aforementioned social networks, we also identified adherence to both third-party applications — iFood®, Uber Eats®, WhatsApp Business®, and Rappi® (43 mentions) — and first-party apps (four mentions).

[...] before, in the early days, we took orders only by phone. The customer had to call saying what they wanted. Later we joined WhatsApp®. There we can send the menu to our customers and they say what they want. Then I signed up for iFood. Everything is ready there, the order, the payment method, the address[...] but if iFood charges a 12% fee on all sales. Then I observed many businesses were creating their own apps. I found a company that provided this service and now we work with our own app [Managing Partner R1].

[...] at first, we took delivery orders on WhatsApp Business®, but I had a problem [...] The company in charge of the deliveries did not fulfill its responsibility [...] and we resorted to iFood. Now, iFood charges a very high fee. We pay a very high fee, but unfortunately, we rely on it. Why? Because of its structure and... many partners. It is what is currently working for our deliveries. It is the largest application on the market, and it handles our delivery demands, so we turned to iFood [...] [Managing Partner R2].

[...] We increased [paid traffic] a lot to strengthen our presence on iFood and our delivery app. We also have a delivery app so we do not depend on iFood alone [Manager R5].

[...] we did not use iFood a lot before, but during the pandemic, it became essential for us. We had to adopt this new workflow [...] But I am currently not using either iFood or Uber Eats. They are charging a very exaggerated, high fee [...] I developed my own delivery service, our own delivery with our own biker, taking orders via WhatsApp, and serving customers. But having our own biker on the streets is a huge responsibility[...] [Managing Partner R8].

[...] the Internet favored us because we now work with delivery in all neighborhoods. Who orders on iFood, who orders on Uber Eats, everyone gets it. We can deliver very far [Manager R10].

[...] We joined WhatsApp® and we started messaging customers in our contact list to get their attention and we started delivering by ourselves and via iFood [Manager R12].

Adopting digital strategies — promotion channels (social networks), sales channels, and delivery applications (first- or third-party) – helped companies attract and build a strong relationship with customers.
4.2 Summary of categories and results

This section outlines the main points addressed to aid the comprehension and visualization of the pandemic impact on MSEs in the food industry and the digital transformation experienced by these companies. Table 3 shows the main findings for each category, with the theoretical framework.

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<td><strong>Summary of categories, results, and theoretical framework</strong></td>
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<tr>
<td><strong>Category</strong></td>
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<tr>
<td>1. COVID-19: impact on MSEs of the food industry</td>
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<td>2. Financial and political consequences of the pandemic for MSEs</td>
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<td>3. Digital transformation and the pandemic influence</td>
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**Source:** Created by the authors (2021).
5 Conclusion

The main goal of this study was to analyze the scenario of food MSEs considering the pandemic and identify the challenges these companies faced and how they addressed the digital transformation process.

Our specific objectives were to analyze the impact of the COVID-19 pandemic on MSEs in the food sector, demonstrating their disruption processes and describing its financial consequences for the MSEs studied. This study also described the digital transformations of MSEs resulting from adopting new communication and sales channels during the pandemic, discussing the measures the companies adopted and the innovations that followed.

The results showed that adherence to delivery services emerged as an alternative to keeping business activities in a period of restrictions on face-to-face services. These restrictions led the interviewees to realize a shift in consumer behavior towards delivery services. Thus, they had to adhere to the delivery system to strengthen this service in an attempt to reverse revenue decline.

We observed both pros and challenges in implementing digital communication and sales channels. Among the advantages of adopting digital channels are the low cost and benefits of using social networks such as Instagram®, Facebook®, and WhatsApp Business®. However, the participants mentioned the lack of expertise to better operate social networks and the high fee charged by third-party applications as some of the challenges they had to face.

We observed a connection between the statements concerning multichannel marketing and digital transformation. Respondents mentioned some actions when asked both about multichannel marketing and digital transformation in the companies during the pandemic. Some companies stated they adopted new channels during the pandemic, while other companies had already implemented them before, and just strengthened some of them to adapt to the new context.

Respondents also differed on the effectiveness of the social isolation measures adopted — some approved and others disapproved of such government measures and actions.

This research contributed to understanding digital communication and sales channels as an alternative for companies and businesses in the food industry, especially in a pandemic period. Companies in the sector can use these channels to achieve greater visibility and engagement with current and potential customers.

However, every study has its limitations. As we carried out this study during the pandemic and we could not interact face-to-face, we conducted the interviews online. We also could not make a general assumption based on the results. Although the pandemic has affected many aspects involving the operation of organizations, our scope was to analyze its influence on food MSEs, considering the digital transformations resulting from the adoption of new communication and sales channels. Finally, as a further limitation regarding the generalization of results, we only considered MSEs from a region of the state of Minas Gerais.
Despite the limitations, however, the study provided opportunities for further research. Our suggestion for future studies is to broaden the research to cover bigger companies and other sectors, as well as companies in other regions, to explore digital transformation in other contexts.

We also suggest future studies on how such implications (the impact of COVID-19 and digital transformations on companies adopting new communication and sales channels) affect the survival of these companies, even after the pandemic.

References


