ORIGINAL RESEARCH ARTICLE

Economic and financial analysis: Impact of the pandemic on the food sector

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ABSTRACT

The COVID-19 pandemic has an impact on both the food sector and people's eating habits. This study aims to understand the impact of COVID-19 on the economic and financial outcomes of the canned foods, sauces, and condiments sector of several companies. Three KPIs, current ratio (CR), EBITDA, and total debt, of Kraft Heinz Company Brazil (KHC Brazil) over the years 2018 to 2023 are analyzed by referring to its financial statements. Finally, the three KPIs are analyzed together, and visions for three different scenarios at different times are extracted.

Keywords: COVID-19; food sector; economic analysis; financial analysis; current ratio; EBITDA; total debt

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1. Introduction

Global events such as pandemic and war, affect many nations shutting down their activities, leading to isolations and sometimes causing more demands for food than normal conditions.

In 1930, in Brazil, there was an armed movement to overturn the government of Washington Luís, prevent the take hold of Júlio Prestes and turn up Getúlio Vargas the new Republic President. The president had as a power strategy of the "Estado Novo" to guarantee food assistance to the poorest populations[1], although soon after the event, studies pointed to a starvation triggered in the Northeast. The Second World War had a worldwide impact, however, especially in Europe, it destroyed infrastructure and mobilized agricultural land and rural labor forces in the armed forces[2], depriving millions of people with basic food. The New York Financial Crisis in 2007 caused by the loss of real estate assets, provoked a global recession, overthrowing banks and governments, generating waves of protests and leaving millions of people around the world homeless and unemployed[3].

In Brazil, the food sector has always been present in the domestic economy, but had its growth accentuated from the twentieth century because of industrial development and the increase in consumption caused by the Second World War. From the 1970s, other industrial branches began to have more importance in the country, but nothing that transformed the food industry into something irrelevant[4]. The main precursors of processed foods were the industrial age and population growth. Society begins to demand greater quantity and durability of food and the industry inherits traditional methods of

preservation and artificially replaces them with a safer form[5]. The mass production system now ensures agility in the process, waste reduction and increased profits.

But a new event that occurred at the beginning of 2020, shocked the world with a serious disease originated in China called COVID-19, which in a few weeks came to be triggered as a pandemic, causing the shutdown of many nations through the isolation known around the world as lockdown. This condition generated a huge race for food, because people, being at home mandatorily, began to worry about the supply shortage, stocking more food in addition to increasing their own consumption. During the pandemic caused by COVID-19, this industrial sector was forced to sketch new strategies to not get lost in the middle of so many sudden and rapid changes. However, according to the Brazilian Association of Food Industry[6], the sector closed the year 2021 with a turnover 16.9% higher than that recorded in 2020, thanks to the advance of vaccination and the return of the service sector that were decisive for the production expansion, generating more income and employment into the food sector.

Noticing the practices carried out inside the residences, social isolation brought physical and emotional consequences that changed the eating habits of the population. Many studies show that healthy food consumption has decreased in some age groups, mainly in the use of vegetables, and traditional and minimally processed meals have been replaced by ultra-processed products, according to research by Malta et al. [7].

2. Objectives

Based on these events, the objective of this work is to understand the impact of COVID-19 on the economic and financial outcomes of the canned foods, sauces and condiments sector of the companies: The Kraft Heinz Company Brasil Ltda., Cargill Agrícola S.A., Castelo Alimentos S.A. and Fugini Alimentos Ltda. The selected food sector was chosen because it is the area of interest of the author in other researches and also because they are considered processed products, covered in the introduction.

The companies were chosen because they sell the same products declared in the objective of this research. Although this is an ongoing research, which is being submitted to this event with the purpose of raising suggestions and contributions, this work is justified by the concern about the interference of the impacts of COVID-19 on these companies' outcomes.

3. Methodology

The research method used is the exploratory, which identifies the factors that determine a phenomenon already described in other research[8], using financial statements provided by these companies. The research is being developed from the use of key performance indicators (KPIs), covering the period from 2018 to 2023, using primary and secondary databases. **Figure 1** was extracted from one of these secondary sources and allows an insight into the results of one of the companies surveyed throughout the interest of the research.

4. Results

Figure 1 shows the evolution of Kraft Heinz Company Brazil (KHC Brazil) over the years 2018 to 2023 under the aspect of three KPIs:

- current ratio (CR);
- EBITDA;
- total debt.

These indicators were chosen as a way to measure the cause and consequence relationship. In other words, if the company is not having good profitability, it will have its liquidity reduced and its indebtedness increased.

Current ratio, represented in blue, shows the company's ability to pay its short-term debts, so the higher the index, the better. In the case of KHC Brazil, the behavior of the line in the **Figure 1** shows that the company has been growing in ratio and having positive results, but in 2020 and 2021 there was a great destabilization with abrupt rises and falls in the results, revealing a connection with the objective of this research. The fall in the year 2022 onwards worries, in a way, because the CR is less than 1, representing that the short-term resources are insufficient to pay off the short-term debts, being lower than the minimum recorded by the company in 2018.

The total debt, represented in light green in **Figure 1**, shows a persistent fall until the beginning of 2020, where it reaches a slight and fast peak and then falls again, but more quickly. This line, represented by this KPI, demonstrates that the company was able to maintain its debt policy, therefore, it is believed that there was no interference in these results by COVID-19. The latest presented report shows total debt at its lowest point, which means a decrease in the risk of insolvency.

The KPI called EBITDA, represented in dark green in **Figure 1**, which the generation of profit before interest, income tax, depreciation, amortization and depletion, presented a low floating performance, that is, low variation in performance between 2018 and 2023, demonstrating little or no co-relation with the objective of the research.
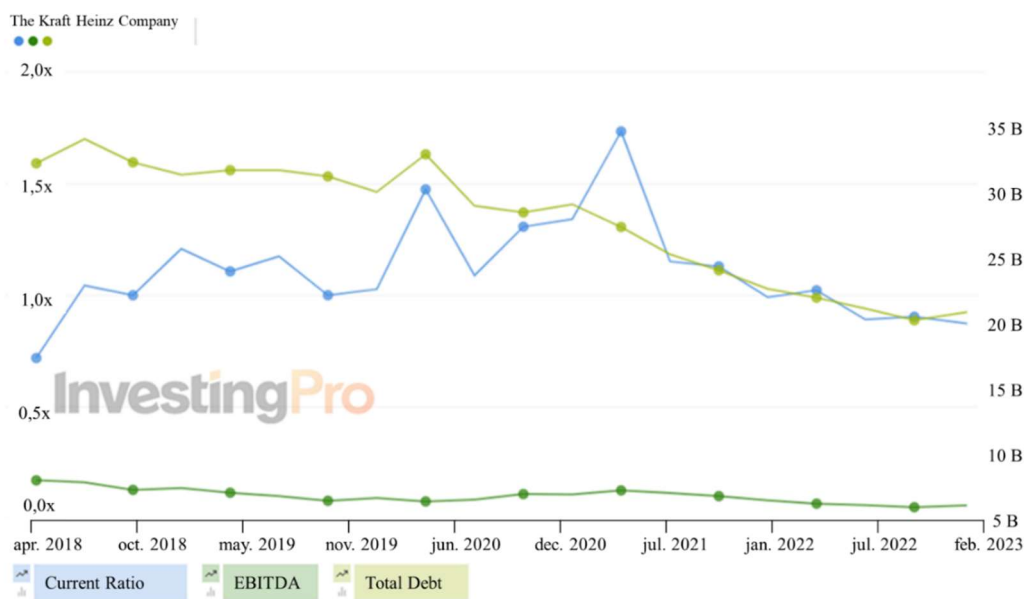

Figure 1. Indicators on KHC Brazil between 2018 and 2023.
Source: Investing.com, 2023[9].

According to the current progress of the research, some views were extracted from this preliminary analysis and a change in the way of analyzing these data is being provided. Therefore, the disclosure of the analysis of the other companies was not presented, as it seeks to improve the method for later disclosure, although the results presented are enlightening and corroborate in answering the research objective.

5. Final considerations

Analyzing the three KPIs together, we can extract visions for three different scenarios.

1st scenario—before March 2020:

- Cash generation capacity was high, with higher value in March 2018 (R$ 8 billion), but had a constant reduction;
- Total debt was relatively high, with the highest value in July 2018 (R$ 34 billion), but promising to fall;
- The current ratio was unstable, with a lower value in April 2018 (0.7 of quotient), but increasing, showing that the company was trying to pay off its debts, with some difficulty (given the fall in production), but with constancy and effectiveness.

2nd scenario—between March 2020 and April 2021:

- The most critical moment of the COVID-19 pandemic;
- The company showed positive results for the situation it was stand, as it generated more cash (increase of R$ 1 billion);
- Had a small growth in debts (of R$ 2 billion in March 2020), but soon adjusts (reduction of R$ 3 billion) and continues to reduce the numbers;
- Ratio was marked by instability of rises and falls, but still showed high growth, with a higher value in March 2021 (1.7 of quotient).

3rd scenario—April 2021 onwards:

- Advanced vaccination and falling pandemic;
- A sharper decrease in EBITDA, representing the reduction in the company's cash generation or operation, with a lower value in September 2022 (R$ 5 billion);
- Debts continued to be greatly reduced, with the lowest value in September 2022 (R$ 20 billion);
- There was a proportional drop in ratio, falling below 1, again in June 2022 (0.9 of quotient).

As mentioned at the end of the previous section, as future contributions, it is expected to obtain the results/indicators of the other companies described in the objective, tracing an individual analysis for each of them as was done in this preliminary exposition, seeking the support of multivariate statistics to find explanations about correlations exploring probable multicollinearities.

Author contributions

Both authors contribute equally to this article.

Conflict of interest

The authors declare no conflict of interest.

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