# The Impact of the COVID-19 Pandemic Crisis and the Going Concern Assessment

The case of the audiovisuals production sector in Portugal and Spain

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**Abstract:** In 2020, the emergence of the COVID-19 pandemic changed the world as people knew it. Its impact was felt immediately and globally in numerous spheres of society due to compulsory confinements, social distancing and, most importantly, the associated health repercussions. In this sense, this dissertation aims to assess the impact of the pandemic crisis in a specific sphere — the economic-financial sphere — in a particular sector of the economy – the audiovisual content production sector — in Portugal and Spain. For this purpose, 40 companies in the sector between both countries were selected, subject to Legal Certification of Accounts. From the data gathered from their financial reports, one calculated economic-financial indicators to evaluate the impact of the pandemic in specific categories considered relevant: profitability, liquidity, capital structure, and efficiency. It is also proposed to evaluate the crisis's impact in verifying the going concern assumption in the sector's companies, which was achieved with the analysis of statistical models of bankruptcy prediction. The study concludes that the pandemic's impact was felt mainly at the revenue level, with a considerable decrease in 2020, transversally across the samples and sector. Regarding the going concern assumption, it can be said that, in 2020, the Portuguese and Spanish samples presented similar results to the previous year, with the same proportion of companies verifying the assumption.

**Keywords**: Audiovisual production; Economic-financial analysis; Going concern assumption; Bankruptcy forecast; COVID-19 pandemic; Portugal; Spain

## 1. Introduction

Crises, whichever their origin, are a recurrent phenomenon in the world's economy. One of the latest to strike the world was the COVID-19 pandemic crisis at the beginning of 2020, which threatened the activities of several businesses and established an environment of uncertainty in the markets (Tashanova et al., 2020).

Among the many areas impacted by the pandemic crisis, the audiovisuals production sector — which represents the production of movies, television programs and commercials not made in television studios — was one of the most affected due to the governmental restrictions imposed at the time (Blázquez et al., 2020). These restrictions directly impacted not only the productions at that time, which had to be postponed, but also the destination of the content already and to be produced, adding significant market risk to the movies' primary distribution channel (Gaustad et al., 2021). According to a study by Copenhagen Economics (2020), the Arts, Entertainment and Recreation sector in Europe, which includes the production of audiovisuals, saw an 84% reduction in its activity in 2020 as a share of the total Gross Value-Added. Hence, it is understandable why it is crucial

to analyse a company's performance and financial continuity.

Due to the growth in company collapses and the difficulties experienced when facing periods of crisis, the bankruptcy prediction topic is increasingly arousing the interest of researchers (Peres, 2014), which came up with models to determine an enterprise's proximity to default. If aligned with the analysis of indicators that monitor a company's financial situation, these models can provide an adequate report of how the institution is labouring (Brealey et al., 2020). This research, besides carrying a literature review on the topics of accounting, economic-financial analysis of a company, and the going concern assumption, aims to focus on the audiovisual production sector in Portugal and Spain and how it was affected by the pandemic crisis's emergence. This assessment will be done by answering the following research questions:

**Initial Research Question** — What was the audiovisual production sector's financial situation in both countries prior to the pandemic?

**Derived Question 1** — Regarding financial issues, how did the pandemic impact the companies in the sector?

**Derived Question 2** — Was there an impact of the crisis on the going concern assessment of this sector's companies?

## 2. Literature Review

### 2.1. Accounting

Portugal and Spain follow the international directives of accounting and, as such, possess a system comprising a set of norms to which companies must comply.

After being prepared and approved by a board meeting, financial information and other required documents are handed over by the company every year to competent authorities. In Portugal, this set of documents includes the management report and the annual financial statements, as the Balance Sheet, the Income Statement, and the Cash Flow Statement. It can also be added, when applicable, the non-financial report of the company, the supervisory body's feedback if it exists, and the Legal Certification of Accounts if the company is compelled to it.

In Spain, companies are required to file annual accounts, which comprise, other than the three mentioned, the statement of changes in equity and the notes to the financial reports (PGC, 2007). The Legal Certification of Accounts would also be required in some cases.

Nevertheless, the obligation to audit accounts is not mandatory for all enterprises, depending on the type of company and its size. In Portugal, along with all listed companies, every public limited company and private limited company that does not have a fiscal council and which, for two consecutive years, exceeds at least two of the following limits, is compelled to have their accounts audited (CSC, 1986):

1) Total assets: 1 500 000 €;
2) Total net sales and other income: 3 000 000 €;
3) Number of employees on average during the fiscal year: 50.

In its turn, in Spain, companies must have their accounts audited if they exceed at least two of the following limits (LSC, 2010):

1) Total assets: 2 850 000 €;
2) Total net sales and other income: 5 700 000 €;
3) Number of employees on average during the fiscal year: 50.

### 2.2. Financial analysis

From a financial perspective, the evaluation of performance intends to assess how a company is working financial-wise.

There are five levels of operating performance and financial condition that can be analysed to assess a company's performance: return on investment and profitability, liquidity, leverage, and activity (Fabozzi, 2012). These different aspects can be assessed using univariate or ratio analysis (Beaver, 1966), which was initially created to predict corporate bankruptcy. However, its limitations have led to disregarding this method for predictive purposes. As Carvalho das Neves (1998) states, one of the main assumptions of this approach is that it does not allow an

integrated analysis of the indicators, which weakens the accuracy of the classification. Nevertheless, this analysis is still highly prominent in assessing a company's performance. According to Brealey et al. (2020), these ratios are a convenient way of summarising large quantities of financial data and help management in the decision making process.

The significant advantage of financial ratios is the possibility to compare them with ratios of the firm's industry, competitors, the economy in general, and even the company's past performances (Samonas, 2015).

### 2.2.1. Profitability

Corporate profitability studies aim to assess how efficiently the company's resources are applied to generate income (Fabozzi, 2012). These studies are executed using indicators that relate several accounts in the financial statements, such as Assets, Equity or Net Sales.

The Return on Assets (ROA), according to Rakićević et al. (2016), measures the degree of efficiency with which a company's management uses its assets to generate earnings, regardless of its form of financing. The reference value for a good indicator is believed to be 5%.

$$Return\ on\ Assets = \frac{Net\ income}{Total\ assets}$$

From the investors' point of view, it is more beneficial to assess the return the firm can generate on their investment rather than the company's total investment of debt and equity (Fabozzi, 2012). That is done through the Return on Equity (ROE) ratio. It also evaluates whether the return on their investment (equity) outweighs the risk of holding capital in the company. The reference values for this indicator lie between 15 and 20%.

$$Return\ on\ Equity = \frac{Net\ income}{Total\ equity}$$

Apart from the rates of return, other profitability indicators measure margins, that is, the effectiveness with which revenue is converted into profit. Then, on the one hand, the Operating Profit Margin measures the profits earned on the company's operations (Samonas, 2015).

$$Operating\ Profit\ Margin = \frac{EBIT}{Net\ sales}$$

On the other hand, the Net Profit Margin evaluates the efficiency of converting revenue into profit through the value-added management processes (Fabozzi, 2012).

$$Net\ Profit\ Margin = \frac{Net\ income}{Net\ sales}$$

### 2.2.2. Financial equilibrium and liquidity

A company's liquidity reflects a firm's ability to satisfy its short-term liabilities using the assets that can be converted into cash the quickest (Saleem & Rehman, 2011). Therefore, in a liquidity analysis is important to assess the cash flow situation and potentially related problems. That can be done through the Cash Position (CP) indicator, which relates current assets and liabilities with assets and liabilities of cyclical nature.

$$Cash\ Position = Working\ capital - \\ Working\ capital\ requirements$$

Other indicators, such as Current (CR), Quick (QR), and Cash Ratios, portray how many times the company would be able to pay its short-term obligations with the conversion of relatively liquid assets (Fridson & Alvarez, 2011). While CR relates current assets with current liabilities, QR and Cash Ratio relate more liquid assets Cash, Marketable Securities and Receivables) with current obligations. It is considered that 1.20 is a good indicator of the CR.

$$Current\ Ratio = \frac{Current\ assets}{Current\ liabilities}$$

### 2.2.3. Leverage

To complement the liquidity analysis, leverage ratios help assess a company's medium and long-term obligations, like bank or bond loans (Samonas, 2015). According to the author, these ratios allow an analysis of the company's capital structure and, thus, evaluate the business's vulnerability to risk and the degree of debt burden.

To evaluate a company's capital structure, the Total Debt Ratio is the accurate

indicator. Although it is not consensual, according to some authors, this indicator should assume values lower than 0.70.

$$Total\ Debt\ Ratio = \frac{Total\ liabilities}{Total\ assets}$$

It can also be important to differentiate liabilities in terms of their distribution over time. According to Rist and Pizzica (2014), the Debt Structure Ratio relates long-term debt with total liabilities, and the outcome of it indicates the proportion of liabilities in the form of long-term debt.

$$Debt\ Structure\ Ratio = \frac{Long\ term\ liabilities}{Total\ liabilities}$$

### 2.2.4. Activity

Activity ratios gauge a company's relative efficiency depending on how its assets, leverage, or other balance sheet items are used (Rist & Pizzica, 2014). For example, the Assets Turnover ratio shows how many times the value of a firm's total assets is generated in revenues (Brealey et al., 2020). According to Carvalho das Neves (1989), a high ratio of this value can mean a company is over utilising its assets. On the other hand, a low value may indicate that company assets are underperforming.

$$Asset\ Turnover = \frac{Net\ sales}{Total\ assets}$$

The Cash Conversion Cycle (CCC) attempts to convey the length of a company's operational cycle, from the purchase and transformation of stocks to the sale of goods or services. A high value of the CCC may signal difficulties in collecting money from customers or in selling products in inventory. On the contrary, low values of this ratio mean that suppliers are financing the company's operations.

$$CCC = Inventory\ Holding\ Period + \ Receivable\ Period - Payable\ Period$$

### 2.3. Going concern

First of all, bankruptcy can be defined as the "inability of a company to continue its current operations specifically when: (i) the company's operating cash flow is insufficient to meet obligations already assumed; or (ii) the company is unable to obtain resources for the maintenance of its current operations" (Peres, 2014, p. 7).

The going concern underlying assumption is, therefore, the premise that the company will continue to operate normally in the foreseeable future and that there is no intention to cease activity or to significantly reduce its operations (Mutchler, 1985). That said, management must proceed to ascertain the entity's ability to continue to operate in order to prepare its financial statements based on this assumption.

A valuable tool in verifying the going concern assumption of a company is called "prospective information", that is, any future financial information (Pereira, 2006, p. 57). Some of these tools can be bankruptcy prediction models.

### 2.3.1. Bankruptcy prediction models

According to Bellovary et al. (2007), the literature on these models dates back to the 1930s, with univariate discriminant models. These, as mentioned above, lost some importance in predicting failure due to their limitations. Their limitations paved the way for the introduction of multivariate models developed from methods such as multivariate discriminant analysis (MDA), which use a variety of variables to forecast possible outcomes.

The pioneer of this method was Altman (1968), introducing his bankruptcy prediction model in 1968 named Z-Score. The author then revised this model in 1983 and 2002 to address some of its limitations. The model combined a set of financial indicators that would result in a score. The threshold of bankruptcy for this revised model (2002) is zero.

$$Z'' = \ 3,25 + \ 6,56x_1 + 3,26x_2 + 6,72x_3 + 1,05x_4$$

Where, $x_1 = \frac{Working\ capital}{Total\ assets}$; $x_2 = \frac{Retained\ earnings}{Total\ assets}$; $x_3 = \frac{EBIT}{Total\ assets}$ ; $x_4 = \frac{Book\ value\ of\ equity}{Book\ value\ of\ total\ liabilities}$ .

Other authors developed many other models. For the Portuguese companies, a model was developed by Carvalho das Neves and Silva (1998). Companies with scores below 0.37 are considered bankrupt.

$$Z_2 = \ -0,950 + \ 2,518x_2 + 1,076x_6 + 5,566x_7 + 0,00254x_8 + 0,156x_9$$

Where, $x_6 = \frac{Current\ assets}{Total\ assets}$; $x_7 = \frac{Cash\ Flow}{Total\ assets}$;
$x_8 = \frac{State\ and\ other\ public\ entities\ [assets-liabilities]}{Net\ sales} \times 365$;
$x_9 = \frac{Financing\ and\ bank\ loans}{Current\ assets}$.

Also, Lizarraga (1998) developed a model for Spanish companies, adapting Altman's model variables to the Spanish reality. According to Peres and Antão, in 2018 and 2019, this model also effectively predicts bankruptcy for Portuguese companies in some sectors. The threshold of bankruptcy is zero.

$$Z_3 = -0,928 - 0,257x_1 + 1,222x_2 + 6,148x_3 + 0,471x_4 - 0,045x_5$$

Where, $x_5 = \frac{Net\ sales}{Total\ assets}$.

### 3. Case Study

### 3.1. Economic contextualisation

At the beginning of 2020, in Portugal, although there were still some structural problems and a heavy heritage from the previous crisis — such as (i) high levels of public, private and external debt, (ii) low wages, (iii) high-income inequalities, and (iv) high segmentation in the labour market — there was a great economic situation compared to the most recent past (Mamede et al., 2020).

In Spain, even though there has been a decrease in the GDP since 2017, the country's economic situation was also favourable. Spain was enjoying a robust and job-rich recovery, improving its economic resilience after the 2008 financial crisis with a more balanced growth pattern and a healthier financial sector (OECD, 2021).

### 3.2. COVID-19's impact on the audiovisual industry

During this favourable period for both Portugal and Spain, the pandemic crisis escalated, profoundly affecting numerous sectors and industries. One of the most affected was the cultural sector, which comprises the audiovisual industry and its production sector.

The pandemic affected the audiovisual sector in many ways: (i) it directly affected the sources of revenue of this sector — television advertising and cinema box-office; (ii) the mandatory lockdown imposed that productions had to be postponed, which triggered additional expenses (Blásquez et al., 2020); (iii) social distancing measures originated several changes; (iv) production time increased (Gaustad et al., 2021).

### 4. Methodology

The abovementioned impact will be studied, in the first instance, at the level of profitability, liquidity, capital structure, and efficiency of the selected firms and, in the second part, by verifying the going concern assumption.

Therefore, data regarding companies in the Portuguese and Spanish audiovisual production sector will be used to achieve the proposed objectives and answer the research questions.

The Portuguese companies in this sector are included in CAE (Rev. 3) 5911. The Spanish companies in the same sector are included in two CNAEs: CNAE 5915 and 5916.

To obtain the average sectorial data between 2016 and 2020, data will be accessed through the Bank of Portugal and the Bank of Spain databases.

On the other hand, the SABI database of Bureau van Dijk will be used to obtain individual data on companies.

To achieve a feasible, thus representative sample, there will be the need to restrain the scope of the analysis during the period under study. That will occur in two phases: (i) applying the requirements for Legal Certification of Accounts to all companies in the audiovisual production sector in each country; (ii) implementing a procedure that not only reduces the sample size but also eliminates potential outliers.

To compare the companies to the sectorial averages, one will calculate sample averages through the mean of each indicator.

Therefore, the four sets of data analysed were: Portuguese sample — PT's sample averages; Spanish sample — ESP's sample averages; Portuguese sectorial averages — Sector 59 PT; and Spanish sectorial averages — Sector 59 ESP. For simplicity reasons, they will be referred to as entities.

Then, with the entities already defined and using Microsoft Excel, one will calculate

financial ratios from the accounts present in the accounting statements and implement the bankruptcy prediction models reviewed above (Altman's, 2002, Carvalho das Neves and Silva's, 1998, and Lizarraga's, 1998).

These samples and sectorial ratios and models will generate results, which will be discussed. There will be particular emphasis on the evolution over time and, evidently, on the impact of the pandemic in the year 2020. From there, conclusions will be drawn in line with the research questions and the purpose of this dissertation.

## 5. Results

### 5.1. Profitability

Starting with ROA, it can be said that, except for the last two years in Sector PT 59, the values of this indicator were positive. The Spanish companies presented the best performance for this indicator, with values above 8.04%.

In 2020, only the Portuguese sector behaved differently than expected. While the other three entities suffered a drop in 2020, the Portuguese sector improved its ROA. That happened because, in 2020, despite a considerable decline in revenue values, the operating costs decreased significantly compared to 2019.

Turning to ROE, the sample of Spanish companies presented values considerably higher than the other three entities (and above the reference values).

In terms of evolution, the samples and their respective sector did not behave congruently. In the Portuguese scene, there were yearly variations — the sector taking a significant drop in 2019. In the Spanish entities, while the sector behaved relatively constantly, the sample presented an increasing trend (except for the reduction in 2019).

In 2020, all the entities presented growth in this ratio except the Spanish sector. In the samples, however, these increases were due to specific overperforming companies and not the sample overall.

In terms of margins (Operating and Net Profit Margins), one can say that the Spanish entities evolved similarly in both ratios, with higher values for the sample. In the

Portuguese reality, there were distinct evolutions, mainly due to: (i) an overperforming company in the sample — SPI, S.A.; (ii) and the sector's 2019 considerable decrease.

In 2020, the Spanish entities reported a decline in both ratios' performance. The Portuguese sector registered an increase since it reported a significant hit already in 2019. Finally, the Portuguese sample would register a decline in both ratios if SPI, S.A. was removed.

### 5.2. Liquidity

Regarding Cash Position, one can conclude that the tendency across all entities was to have positive values for both WC and WCR, with 75.00% of the total scenarios. From this scenario, 66.67% resulted in negative values of CP.

Overall, the Working Capital was being pressured by the exploration cycle in the sector, even when it resulted in positive values.

From the analysis of the samples' companies, it can be ascertained that, for the Portuguese sample, there were more companies with positive values of CP for all years but the first. As for the Spanish sample, only in 2020 did most companies register positive CP values.

In terms of the Current Ratio, all the entities registered values above the reference level (1.20), except for the Portuguese sector for all the years under study.

From the analysis of the Current, Quick and Cash ratios, one can note that there are high values of receivables in the four entities. In both sectors, there were also high inventory values, which may reflect the companies in other sections of the audiovisual industry rather than production.

In 2020, the three indicators behaved similarly in all four entities. There was a decrease in the Portuguese sample and the Spanish sector. The Spanish sample increased considerably due to overperforming companies (would decrease if they were to be removed). Finally, the Portuguese sector registered a slight increase.

### 5.3. Leverage

The Total Debt Ratio indicates that, apart from PT's sample averages in 2017, most companies registered values below the desirability threshold for outside investors, which is a good indicator.

In terms of evolution, this ratio's values were relatively constant in the sectors, registering a decreasing trend in Spain.

In 2020, there were no signs of drastic changes in the capital structure of companies in the sector, except for one company in the Portuguese sector.

Regarding the composition of debt, there were few companies during the study's timeframe to present higher values of long-term debt rather than current.

In Portugal, long-term debt increased yearly, while the Spanish decreased until 2018, the year from which it rose.

The pandemic's emergence prompted increases in long-term debt in all entities.

### 5.4. Activity

The Asset Turnover ratio indicates higher efficiencies in the samples compared to the respective sectors.

In terms of evolution, one can note a parallel between sectors and respective samples. Both the Spanish sector and sample have shown a downward trend over time, while the Portuguese entities presented a more rising tendency, with both sectors registering lower variations.

In 2020 there was a decrease in the Asset Turnover ratio across all entities, mainly because of a reduction in revenue values, compared to a relatively stable value of assets from 2019 to 2020.

Finally, from the Cash Conversion Cycle analysis, one can note a significant difference between sample and sector values. While both samples had their values positive (Accounts Receivable Period > Accounts Payable Period), the sectors registered negative values for this indicator (Accounts Receivable Period < Accounts Payable Period). That may indicate that the remaining companies in the sector, mostly micro-companies, have higher payables periods than receivables.

In 2020, there was no global trend among entities for the CCC. Both the Portuguese sample and Spanish sector increased their values slightly, while the other entities registered slight declines.

### 5.5. Bankruptcy prediction models

From the separate analysis of the three models, one can conclude that Z''-Score presented predominantly Non-Bankrupt classifications for every entity under study. Carvalho das Neves and Silva's model produced more Bankrupt results for the Portuguese sector, contrarily to what happened to the other three entities. Lizarraga's model, in turn, presented mostly Bankrupt values for the Portuguese sector and sample, as does the Spanish sector, while the respective sample recorded more Non-Bankrupt outputs.

From the joint analysis of the models, one can state that for the Portuguese sample, there was an increasing number of Non-Bankrupt companies over the years, despite 2017's decrease — the only year with more defaulting companies. As for the Spanish sample, there were more than 75% of Non-Bankrupt companies for all years under study.

In 2020, only the Spanish sector registered a different classification from 2019 due to a decrease in the cash flow values. All the other entities presented the same result and percentages of healthy and defaulting companies.

It can also be ascertained that the concordance of the three models was lower in Portugal than in Spain, especially in the year 2020 — 14.29% of concordance for Portugal while 66.67% for Spain.

### 6. Conclusions

**Research Question**

In terms of profitability, there was a difference between the sector's behaviour in both countries before 2020. The Spanish sector presented relatively constant and solid values for the rates of return, with ROA tendentially increasing and ROE not suggesting a particular trend. On the other hand, the Portuguese sector presented more variations, especially in the year before

the pandemic, 2019, when it registered a considerable hit in the rates of return due to higher operating expenses and, consequently, lower Net Income values.

Liquidity-wise, one can say that the Spanish sector indicated coverage of their current liabilities in the short term, with constant values over the years. As for cash availability, the sector presented positive values in the first two years of the study and negative in the following two. In turn, the Portuguese sector only registered full coverage of current obligations by liquid assets in 2019. That means its overall liquidity was unsatisfactory even though it reported positive cash values from 2016 to 2019.

Both countries' sectors presented minor variations in their capital structure over time. From the analysis of the capital structure of both countries' sectors, one can state that they are mainly composed of debt rather than equity. It is also possible to note that most of the debt is for the short term.

Finally, there was a relatively constant efficiency in turning assets into sales over this timeframe in both countries, with the Spanish sector presenting higher values. It is also important to note that there was a higher payables period than receivables for all years under study in both countries' audiovisual production sectors.

### Derived Question 1

Regarding profitability, one can note a decline in the returns and margins in the Spanish sector, corroborated by data from both the sample and sector, due to considerable declines in revenue values from 2019 to 2020. The Portuguese companies in the sample also presented a decrease in the rates of return and margins, even though slight. On the contrary, the Portuguese sector highlighted a different scenario. This sector's analysis alerted a considerable decline in these indicators' value in 2019 due to higher operating expenses. A considerably lower value of operating expenses in 2020 explains the increase in the profitability indicators' performance that year, even though there was a reduction in revenue values from 2019 to 2020 in the sector.

In terms of liquidity, even though one can mention a slight decline in these indicators for both Portuguese and Spanish companies in the sector, there was no alarming drop caused by the pandemic. Another liquidity indicator was studied, the Cash Position, whose values indicated some cash problems in the sector. However, in 2020, the number of companies with positive values of this measure increased by almost 15 pp in Portugal and nearly 10 pp in Spain. Overall, the pandemic did not significantly affect the sector's liquidity in both countries in 2020.

Assessing the sector's capital structure, one can note that there was an increase in the proportion of liabilities in the companies of both countries' samples, especially in Portugal. From the analysis of each country's sector values, one can ascertain that they showed greater values of liabilities than the respective samples. That means that the remaining companies in the sector, most of them micro-companies, contributed to these higher debt values in their capital structure. It can also be seen that debt was mainly for the short term. In 2020, there was an increase in the values of long-term debt for the entities in both countries.

As previously stated, the sector saw a decline in revenue values in 2020. That is why the efficiency of generating revenue from assets decreased that year. In terms of the collection and credit periods, there was a difference in this sector between Portugal and Spain. While in Portugal, the collection and credit periods increased, there were slight decreases in Spain.

### Derived Question 2

From the analysis of these models, one can note that the only entity to register an impact in 2020 was the Spanish sector, which encompasses the totality of the companies from the audiovisuals sector in Spain — large, medium, small and micro-companies. All the other entities registered the same results as the year 2019.

That said, one can ascertain that the pandemic did not affect the going concern assumption much. Both samples presented the exact percentages of healthy and defaulting companies from 2019 — more

than 70% being healthy — and the Portuguese sector remained in a state of bankruptcy as in 2019, meaning that the pandemic did not cause it.

While in the Portuguese reality, one can say that the pandemic did not change the outcome of the bankruptcy risk, in the Spanish, since there were conflicting results, one can only conclude that: the sample constituted of small-to-medium and large enterprises presented the same number of healthy and defaulting companies; the sector, which includes much more diverse companies in terms of size, was affected.

However, it is important to note that in 2020 both sectors presented themselves as bankrupt. That means that companies in the sector other than those studied contributed to this result.

### 6.1. General conclusions

First and foremost, it was noted that the sector in Portugal and Spain, despite the difference in size and, consequently, values, behaved with some degree of similarity.

From the results obtained and their analysis, it can be concluded that there was a global decline in the performance of the indicators studied in 2020. The revenue of this sector showed a considerable decrease from 2019 to 2020, as reviewed in the literature, because of (i) the long inactive period of most productions, (ii) decrease of TV advertising, and (iii) the closure of cinemas. This motivated reductions in both profitability and efficiency indicators. Regarding the sector's liquidity, one can mention that it was not endangered by the pandemic, even with some indicators' performance declines. In terms of the sector's capital structure, there was a slight increase in the proportion of debt compared to equity. The composition of debt also saw an increase in long-term debt compared to current debt that year, which may signal that the companies in the sector resorted to financing and loans in a period of economical constraints.

From the bankruptcy prediction models analysis, one concluded that in terms of verifying the going concern assumption, only the Spanish sector indicated a different result in 2020, not verifying it. That diverges from the analysis of the respective sample, which remained unaffected in 2020. The remaining analyses (Portuguese sector and sample) showed results equal to 2019.

It is also crucial to point out that in 2020, while both countries' sectors were labelled as Bankrupt, the respective samples presented over 70% of their constituting companies as verifiers of the going concern assumption. These different outcomes may result from the different compositions of the sectors — composed mainly by micro-companies — and respective samples — medium-sized companies.

### 6.2. Insights for future research

The first, one of the most important, is related to the scope defined in the impact assessment. In this dissertation, the economic-financial dimension was chosen as an essential dimension to study during a crisis. However, there are other dimensions equally important in this case, such as the social dimension, due to this crisis's direct effect on the population and ways of life. Thus, it is thought that a study on the social implications of the crisis on the sector would bring added value to the analysis.

Due to the latest data availale, this dissertation only studies the impact in 2020, the year of the pandemic's emergence. Therefore, it does not study the long-term effects of the pandemic that might have been felt later, in 2021 or even 2022. That would be another recommendation for future research.

Finally, the last three recommendations address an extension to the scope of the analysis already advocated: (i) the use of other economic and financial metrics and models; (ii) the application of this methodology to a broader and more variate sample; and (iii) the replication of the analysis to other countries.

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