

## Article

# Financial-Economic Analysis of Cultural Companies in Small and Medium-Sized Cities in Spain

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**Abstract:** Cultural enterprises are today an important component in the development processes of many territories. In urban centers—particularly those located within metropolitan areas—cultural companies constitute a main element of the economy, due to their ability to activate new production chains and revitalize local regions. The objective of this work is to examine the traditional cultural sector (subsectors 18, 59, 60, 90 and 91 of NACE-09) of small and medium-sized cities from the perspective of the financial conditions of the particular companies involved. The use of multivariate techniques for reducing dimensions enables the specification of key factors within the financial structures of companies to assemble homogeneous groups of firms, in order to then determine which factors influence their profitability in both intra- and extra-metropolitan contexts. The results of the applied method indicate heterogeneity in the financial situations of these cultural industries in the activities and cities analyzed. Differences are marked in the financial profiles of cultural companies in intra-metropolitan environments in terms of business profitability, debt quality, financial stability, investment capacity, and costs of personnel. On the other hand, the economic-financial structures of companies in extra-metropolitan cities are determined through efficiency in the allocation of economic-financial resources, profit margins, and investment capacity. Belonging to one cultural sub-sector or another and a particular location within an intra- or extra-metropolitan urban environment also play some part in a company's economic and financial structure. Hence there is a need to differentiate the design of intervention strategies (instruments) aimed at promoting the system/environment to which the company belongs as well as the company itself.

**Keywords:** cultural industries; financial-economic analysis; small and medium cities; multivariate techniques; Spain



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## 1. Introduction

For several decades, studies have proliferated on the capacity of culture to generate processes of regional and urban development and social transformation [1–10]. Culture as a space for coexistence is considered to be among the engines of both local development and social change.

As regards urban areas, culture has contributed to the economic restructuring and rehabilitation of spaces in a broad assortment of cities around the world, prompting new investment and employment opportunities as well as the regeneration of urban areas, thereby improving the quality of life of citizens. The United Nations declaration of 2021 as the International Year of the Creative Economy for Sustainable Development offers strong proof of this assertion [11].

Cultural and creative industries are considered instruments of socio-economic development due to the employment, innovation, and social cohesion they can generate,

evidenced in their contributions to indicators such as Gross Domestic Product (GDP) per capita and in the large number of jobs and companies dedicated to creative and cultural activities. Cultural activities also play an important role in producing multiplier effects in other sectors, as well as promoting social and economic innovation [5,12,13].

These activities are concentrated into particular areas due to their development potential, with a territorial organization of production that tends toward the formation of local productive systems or clusters [14–16], further manifesting processes of diffusion toward contiguous zones. Although such characteristics are predominant in cultural activities, patterns of localization are also observed; these tend to adhere to models known in other sectors as “endogenous industrialization” [17] and are not the result of the spatial diffusion of metropolitan areas.

Escalona Orcao et al. [18] point out the existence of a positive relationship between the cultural dynamics of a city and the density of its cultural companies. In particular, results obtained on medium-sized Spanish urban centers (of 50,000 to 100,000 inhabitants) show that this relationship presents differences depending on their location within or outside metropolitan areas, as well as on socio-economic and functional characteristics. Cities located within metropolitan areas specialize in cultural activities that benefit from existing economies of agglomeration, presenting greater spatial concentration, larger company size, and better performance. On the other hand, small and medium cities located outside metropolitan areas tend to offer goods and services demanded by the public sector; these tend to pursue more traditional cultural activities (performing arts, crafts, heritage) and are much more present in cities that are capitals of autonomous communities or provinces [19]. Some of these findings coincide with those obtained by Montalto et al. [20], who considered the case of 168 European cities.

Therefore, it appears that the dual economic/cultural nature of the cultural industry differentiates it from other productive sectors (European Commission, 2010), and location patterns that can generate territorial imbalances—and that cause this sector to be viewed as a strategic axis of action through which to trigger socio-economic development—lead us to conjecture that the territorial component plays a significant role in an area’s specialization in certain cultural activities, thereby influencing the processes of territorial development.

Knowledge regarding the performance of cultural companies from a financial-economic or territorial perspective remains limited. Rarely examined also is the territorial dimension of cultural activities—an aspect that can contribute to knowledge of how economic development and regional disparities may occur in this sector [21]. Studies by Boal San Miguel and Herrero Prieto [22,23] have found that the localization patterns of cultural activities generate spatial imbalances between territories, as well as cases of spatial dependence where the externalities derived from interactions among neighboring territories drive the creative potential.

In that context, the purpose of this study is to analyze the traditional cultural sector from the perspective of the financial situations of diverse companies located in medium and small cities (Table A1), given that such cities were until recently marginalized within scientific analysis [24]. Examined also is the effect that location inside or outside a large metropolitan area may have on the financial structure of the cultural companies in these cities.

The use of multivariate techniques for reducing dimensions can enable the specification of key factors within the financial structures of companies, in order to form homogeneous groups of firms and then to determine which factors influence their profitability (again, in the territorial context of small and medium cities located either inside or outside metropolitan areas).

## **2. The Cultural Sector in Spain: Urban Concentration and Neglect of Small and Medium Cities**

The term ‘cultural industries’ refers to those industries that combine the creation, production, and commercialization of intangible and cultural content. All have in common

the use of creativity, cultural knowledge, and intellectual property to produce goods and services with social and cultural significance [25]. The set of cultural industries is made up of: (i) sectors dedicated to the industrial or semi-industrial generation of products with the possibility of large-scale reproduction and distribution; and (ii) sectors whose goods, services, and activities are not reproducible in an industrial way, operating on a small or medium scale. Many such products are unique or have prototype characteristics.

The results of the 2018-2019 edition of the Survey of Cultural Habits and Practices in Spain [26] reveal the most frequent cultural activities for persons over 15 years of age: listening to music (87.2%), reading (65.8%), and going to the cinema (57.8%). These activities were followed by visits to monuments (49.3%), museums (40.5%), or exhibitions (29.8%) and the use of libraries, whether in person or via the internet (26.8%). Meanwhile, on an annual basis, 46.8% of the population attended live performances, especially of current music (30.1%) and theater (24.5%). Among the most frequent artistic activities carried out by Spaniards were in plastic arts such as photography, painting, or drawing, as well as creative writing and playing musical instruments.

The set of variables collected in Table 1 offer an image of the current situation of the various cultural industries in Spain. They also bring us closer to knowledge and estimation of the socio-economic impacts that these productive activities generate.

**Table 1.** Basic indicators of Cultural Industries in Spain (2019).

Indicator <sup>(a)</sup>	Absolute Value	% of National Total (Spain)
Gross Domestic Product (GDP) <sup>(b)</sup>	€29,432 million (cultural activities)	2.4% (cultural activities)
	€40,838 million (activities related to intellectual property)	3.4% (activities related to intellectual property)
Gross Value Added (GVA) <sup>(b)</sup>	€28,181 million (cultural activities)	2.6% (cultural activities)
	€38,631 million (activities related to intellectual property)	3.3% (activities related to intellectual property)
Employment	710,200 persons	3.6% (of total employment in Spain)
Number of businesses	127,581	3.8% (of national companies)
Public investment (liquidated expenditure on culture) <sup>(b)</sup>	€696 million (Central Administration)	0.06% of GDP
	€1178 million (Autonomous Community Administrations)	0.10% of GDP
	€3476 million (Local Administrations)	0.29% of GDP
Household cultural consumption expenditure	€12,451.5 million	2.2% of the total estimated expenditure on goods and services
Foreign trade of cultural goods	€2054.4 million (Exports)	0.7% of total Exports
	€2165.0 million (Imports)	0.7% of total Imports

Source: authors' elaboration from the National Institute of Statistics (INE), the Ministry of Culture and Sports (MCD), and the Satellite Account of Culture in Spain (CSCE). <sup>(a)</sup> Official statistics do not present similar breakdowns by cultural industry sub-sectors for the variables considered. The 'Satellite Account of Culture in Spain' identifies seven areas, the 'Survey of Active Population' of the Ministry of Culture and Sports presents five economic activities in the cultural field, and the 'Central Directory of Companies' of the INE considers ten categories; <sup>(b)</sup> Year 2018.

In 2018, three cultural sectors generated 73.1% of Spain's cultural GDP: Audiovisual and multimedia, i.e., film, television, radio, and video game industries (28.3%); Books and publications (24.4%) and Plastic arts, i.e., activities related to painting, sculpture, photography, design, or architecture (20.4%). Some of these cultural activities are deeply rooted in the economy, such as the Books and publications sub-sector, which has undergone profound transformations since 2015 due to digitization and changes in reading habits. The remainder of the GDP percentage is distributed among the Performing arts, including live cultural shows such as theater, opera, *zarzuela*, dance, or musical concerts (10.8%), Heritage, archives, and libraries (8.5%), and the Interdisciplinary category, i.e., activities related to

various areas of cultural industry that cannot be broken down due to lack of sufficient statistical information (7.7%).

Cultural employment presents significant differences by sex (60% men and 40% women), similar to but less marked than those of total employment. The level of training of cultural workers is more extensive, with greater rates of higher education (69.1% in 2019) than those in the overall national group (43.8% in 2019). Salaried employees make up 69%; of these, 84.3% work full time and more than half work under permanent contract. The proportion of self-employed workers is high in some sub-sectors. The largest volumes of employment are concentrated in the activities of Design, creation, translation, art, and entertainment (22.4%) and in the Visual arts sub-sector, i.e., graphic arts, recording, media reproduction, music publishing, manufacture of image and sound supports and apparatus, musical instruments (15.1%), without considering “Other economic activities” (39.8%) [27].

The business fabric is largely comprised of small and medium-sized enterprises (SMEs) employing an average of five workers. Among cultural enterprises, 67% have no employees and just 0.5% have more than 50 workers. Viewed by cultural sub-sector, differences in size are found in terms of employment. Audiovisual companies tend to be larger, while the smallest correspond to activities of design, creation, translation, art, and entertainment. Activities of publishing, libraries, archives, museums, cinema, video, radio and television or artistic spectacles together account for 85% of branches, while the remaining 15% of productive branches relate to trade or rental of cultural goods [27].

This cultural sector presents a territorial organization of production—i.e., the formation of specialized clusters concentrated into a few regions—with 65% of Spanish cultural companies located in just four autonomous communities: Madrid, Catalonia, Andalusia, and Valencia. This tendency toward concentration occurs not only on a regional scale, but also at the urban level, with Madrid and Barcelona clearly predominant, followed by the other main metropolitan areas of Spain [16,28–34].

Therefore, the localization patterns that favor agglomeration economies and concentration into large metropolitan areas [1] are clearly confirmed in the case of Spain. However, when descending to cities of lower demographic rank (in this case, due to medium or small size), some such as Santiago de Compostela, Mérida, A Coruña, Valladolid, San Sebastián, and Pamplona [33,35] stand well above others of similar size, and even some cities of higher rank [33].

Unfortunately, the potential significance in the economy of culture of these small and medium-sized cities has been generally obscured by the greater attention paid to metropolises and cities more connected to global flows [20,24,36–38]. Nevertheless, recent years have seen an explosion of studies examining the role of the culture economy in non-central systems, with an eye to its potential effects of diffusion and diversification within the overall economy. In this vein, our analysis will focus on the specific characteristics of traditional cultural enterprises operating within this urban model, in order to continue advancing knowledge of the possibilities of spreading economic development outside of large urban areas.

### 3. Data, Methodology and Hypotheses

The objective of this work is fundamentally aimed at presenting empirical evidence of the existence of differences in the economic and financial behavior of companies that compete in the culture sector in small and medium-sized cities. At the same time, we seek to identify the distinctive features of each of the culture sub-sectors that contribute to these observed differences in behavior.

In order to achieve the objective, we propose the following hypotheses:

- (1) Distinctive financial-economic characteristics of companies will exist depending on the sub-sector in which they operate.
- (2) Certain financial-economic variables of the companies will permit profiles of the various culture sub-sectors to be drawn.
- (3) Significant differences in the financial-economic variables will be found between intra- and extra-metropolitan cities.

Given that each of the culture sub-sectors is expected to have different characteristics, the methodology followed in this work consists of applying a discriminant analysis, in order to specify the features that differentiate companies based on their inclusion in one specific sub-sector or another. Thus, starting from the values of a set of variables (ratios) that describe the financial-economic aspects of a company, this methodology permits us to obtain a synthetic function of company characteristics in a given sub-sector and, consequently, to design a profile for that sub-sector.

For our object of study, we have chosen 144 Spanish cities with between 50,000 and 200,000 inhabitants (see Appendix A). This is an interesting group of cities given that, despite their relatively homogeneous size, they present highly disparate socio-economic and functional characteristics that can give rise to nuances in the relationship between culture and urban development [39]. Within the group are seven cities declared World Heritage by UNESCO (Santiago de Compostela, Segovia, Ávila, Toledo, Cuenca, Cáceres, and Mérida) as well as some recognized tourist destinations on the Mediterranean coast (Estepona, Fuengirola, Benidorm) and the Canary Islands (San Bartolomé de Tirajana). Numerous cities belong to one of the twelve main Spanish metropolitan areas (Madrid, Barcelona, Valencia, Seville, Bilbao, Malaga, Zaragoza, Murcia, Alicante, Santa Cruz de Tenerife, Vigo-Pontevedra, and Oviedo-Gijón); others located outside of these areas have the administrative functions of a provincial or regional capital.

The data used in this work are drawn from the database of the Iberian Balance Analysis System (SABI) of the Bureau van Dijk. Although SABI offers detailed financial information only on Spanish and Portuguese companies, this can be considered the Iberian equivalent of the AMADEUS and ORBIS databases, which refer to European and global companies. A company under the umbrella of Moody's Analytics reports the financial statements (balance sheet and income statement) of approximately three million Spanish and Portuguese companies, as taken from the Mercantile Registries of each region. Searches can be focused by company or by groups of companies, and detailed statistical and/or comparative analyses can be carried out according to financial variables and the period of time chosen by the user. Access to individualized data from the companies allows the construction of aggregates (by municipality, group of municipalities, productive sector, etc.), facilitating a perspective on the evolution of cultural companies recommended by UNESCO [40].

For the purposes of this study, a sample of Spanish companies (active at the time the search was carried out) has been selected from this database, in accordance with the following criteria: a company must meet the requirements of being located in one of the 144 cities of between 50,000 and 200,000 inhabitants selected, and it must belong to one to the branches of activity specified by the National Classification of Economic Activities (NACE-09): 18. Graphic arts and reproduction of recorded media; 59. Cinematographic activities, video and television programs, sound recording, and music publishing; 60. Radio and television programming and broadcasting activities; 90. Creative, artistic, and entertainment activities; and 91. Activities of libraries, archives, museums, and other cultural activities. Since we seek to study the different financial-economic characteristics of these companies, we have endeavored to obtain a refined and stable sample, to avoid errors and permit analysis. The final resulting sample contained 2936 companies for the years 2018 and 2019. The initial sample of companies (5965 firms) was subjected to a review process, discarding certain companies in two phases: first, those that did not provide information on business assets, with negative equity and incomplete information; secondly, those whose latest available data was prior to 2018. The objective of this elimination was to reduce the

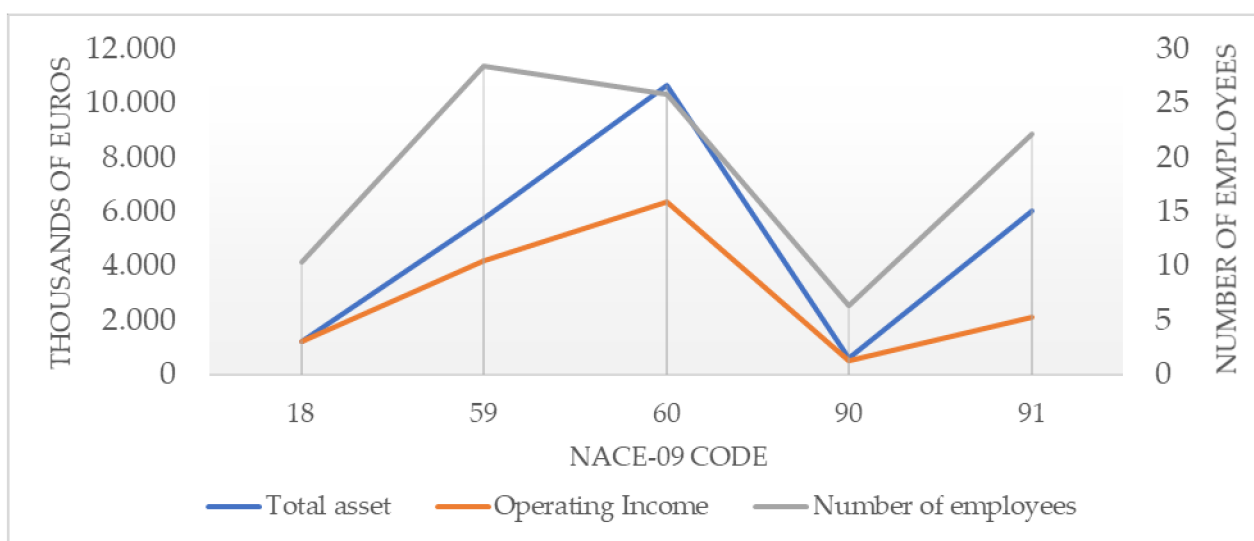
notable dispersion of companies according to the last year of available information and to account for the impact of the economic cycle on business activity.

Regarding distribution of the companies in the sample by Autonomous Communities (CCAA), the Community of Madrid accounts for 33.82% of total observations, followed by Catalonia with 17.06% and Andalusia with 9.74%. The remaining 14 Autonomous Communities do not exceed 10% of the observations in the sample (Aragon 0.61%, Asturias 1.26%, Canary Islands 3.99%, Cantabria 1.29%, Castilla-León 6.47%, Castilla-La Mancha 4.22%, Valencian Community 6.85%, Extremadura 2.62%, Galicia 6.88%, Murcia 1.12%, Basque Country 2.52%, and La Rioja 1.53%).

#### 4. Financial-Economic Analysis of Cultural Companies

The productive fabric of the total number of companies in the sample is largely comprised of SMEs, mostly limited companies (90.46%), with only 7.09% being public limited companies. This difference indicates a significant proportion of companies that do not exceed 30 workers. Many companies manage projects, productions, and so on through subsidiaries created for purposes of management (e.g., a film production company may have as many companies as films, with one or no employees).

Regarding company size, Figure 1 shows the distribution by cultural sub-sectors of the representative variables of size, including assets, number of employees, and sales. Given that these are variables with high dispersion, the median of the data has been analyzed, as this is more representative than the mean. The number of employees is not found to present significant variability in any of the analyzed sub-sectors, while assets and sales show positive growth in branches 18 and 60 and continuous declines in the rest, especially in terms of total assets.



**Figure 1.** Size of companies by cultural sub-sectors. Source: authors' elaboration from SABI data.

Enterprises can be classified into micro, small, medium, or large companies according to volume of sales, total assets, and number of employees, under the recommendation of the European Commission (2003/303/EC). Each of the companies in the sample has been classified into one of these four categories when it has met two of the three required criteria in a given year (see Table 2). In the sample (Table 3), around 86% of the companies are micro or small, 0.8% are medium, and only 0.2% are large.

**Table 2.** Criteria for classifying companies by size.

	Criteria		
	Balance Sheet	Annual Turnover	Staff
Micro	<1,000,000 €	<2,000,000 €	<10
Small	<10,000,000 €	<10,000,000 €	<50
Medium	<43,000,000 €	<50,000,000 €	<250
Large	≥43,000,000 €	≥50,000,000 €	≥250

Source: European Commission [5].

**Table 3.** Company age by size.

Statistics	Age in Years of the Company	Size of the Company			
		Microbusiness	Small	Medium	Large
Mean	16	16	23	27	23
Median	15	15	22	20	24
Maximum	100	82	82	100	37
Minimum	1	1	2	10	3
Standard deviation	10	9	13	20	12
No. of firms	2543	2318	195	23	7

Source: authors' elaboration from SABI data.

As a preliminary step to contrasting the hypotheses raised in this work on the possible existence of differentiating features within the economic and financial structure of companies in the cultural sector in small and medium-sized cities in Spain, a description of the main characteristics of said structure will now be offered according to the various activity sub-sectors. To this end, we apply a traditional financial analysis from a set of ratios (see Table 4) that describe the various aspects of a company and allow it to be characterized. These ratios simultaneously constitute the explanatory variables to be used in the multivariate analysis.

**Table 4.** Financial-Economic Ratios by cultural sub-sectors.

	CNAE Code 2009				
	18	59	60	90	91
<b>Leverage coefficient, liquidity, and solvency</b>					
Leverage coefficient (%)	83.008	106.052	97.959	97.255	66.402
Cost of Debt ratio (%)	2.077	4.034	1.205	7.381	1.391
Guarantee ratio (%)	1.472	1.632	2.122	1.540	2.521
Debt Quality ratio (%)	76.418	78.395	81.060	78.738	79.125
Financial Expenses on Sales (%)	1.896	114.693	18.911	2.594	1.107
Liquidity ratio (%)	1.080	1.254	1.685	1.241	1.171
Solvency ratio (%)	4.965	8.314	7.461	22.641	4.386
Short-term Solvency (%)	3.832	8.061	7.520	23.058	4.684
Acid Test (%)	1.069	1.264	1.707	1.241	1.255
Payment Period (days)	149.593	637.322	767.747	392.308	153.293
Working Capital ratio (%)	16.050	15.600	21.850	14.200	14.950
Self-financing ratio generated by Assets (%)	0.167	4.772	−0.197	−6.627	−3.708
Self-financing ratio generated by Sales (%)	−0.011	−151.228	−284.207	1.719	2.508
<b>Efficiency</b>					
Personnel expenses (%)	22.299	86.229	19.641	79.608	15.303
Worker Costs over Operating Income (%)	36.746	61.786	141.135	69.537	48.380
Fixed Assets ratio (%)	32.336	326.123	8.563	74.208	143.281
Sales ratio over Total Assets (%)	1.391	1.238	0.962	1.685	1.489
Ratio of Participation of Current Assets over Total Assets (%)	61.857	60.381	62.853	62.128	54.546

Table 4. Cont.

	CNAE Code 2009				
	18	59	60	90	91
<b>Profitability</b>					
Economic Profitability (ROA) (%)	3.920	4.954	3.623	5.804	8.870
Operating Profitability (%)	6.199	6.418	6.316	5.589	2.435
Financial Profitability (ROE) (%)	7.941	10.406	8.025	11.331	3.607
Asset Turnover ratio	1.089	0.718	0.614	1.095	0.829
Profit Margin (%)	0.036	0.069	0.059	0.053	0.107

Source: authors' elaboration from SABI data.

The descriptive analysis is broken into three stages. First, a synthesis is made of the main characteristics of the debt, both regarding its levels and its structure by terms. Second, the main differentiating features of the economic and financial structure are presented. Finally, the consequences that these differences have in determining the economic and financial profitability of the cultural sub-sectors that comprise the sample are highlighted.

Regarding the level of leverage coefficient, approximating from the debt ratio (borrowing/equity), notable disparities are detected between sub-sectors. The companies in sub-sector 59 (Cinematographic, video and television programming, sound recording, and music publishing activities) carry the highest levels of Leverage coefficient (106%). Comparatively, the lowest Leverage coefficient rate corresponds to sub-sector 91 (Libraries, archives, museums, and other cultural activities) (66%). Companies engaged in other activities show rates of borrowing above 83% with respect to owned resources. (Access to external financing is made difficult due to the risk of cultural projects; the usual approach is recourse to producers, subsidies, or capital contributions from investors).

The term structure of companies' indebtedness shows a certain degree of heterogeneity, depending on the activity sector. While the debt of companies in activity sector 90 (Creative, artistic, and entertainment activities) is characterized by being mostly short-term (23% of total resources), the proportion of short-term financing is much lower in other sectors, corresponding to the highest current investments made by cultural companies (around 60%).

The cost of debt, as defined by the quotient between financial expenses and the volume of debt, has remained similar in all companies analyzed in these cultural sub-sectors except in activity 90; however, this does not seem to constitute a problem in the financing of these companies.

One very significant ratio considers the debt quality (that is, the proportion of short-term debt)—the lower the value, the better the quality of debt in terms of period of repayment. In any case, it must be borne in mind that, due to size or activity, some companies cannot easily access long-term financing; thus they accumulate a higher proportion of short-term debt. All the companies considered display a high ratio, especially those in activity sector 60 (Radio and television programming and broadcasting activities) (81%).

The guarantee ratio gives an idea of the security enjoyed by creditors in collecting debts. The recommended values for this ratio are between 1.5 and 2.5—the lower the result, the greater the difficulty for the company in dealing with debts and, therefore, the greater proximity to bankruptcy. All companies are in the interval, so they have few difficulties in facing their debts (companies in 'technical bankruptcy' have been excluded).

The liquidity ratio is the quotient between the current assets of a company and liabilities of the same nature. This reflects the ability of the company to convert its investments into entirely liquid means of payment, and it offers insight into whether it is possible to ensure the diligent payment of debts. The more liquid an asset, the more easily it can be converted into money to pay off debts, so the liquidity ratio is closely linked to working capital. Values of less than 1 indicate that a portion of the company's fixed assets is being financed with current debt. In this case, current assets are insufficient to cover short-term debts, and therefore liquidity problems may arise. A value equal to 1 would indicate that



current assets are equal to current liabilities (zero working capital), so that the company would not face liquidity problems if able to convert current assets into money at the same rate as it must make payments. However, this scenario carries high risk, since unexpected situations can occur within a short period of time, such as client insolvency or difficulties in selling stocks. Values above 1 would indicate that a portion of the company's ordinary activity is financed with permanent funds. Values between 1.5 and 2.0 are usually considered appropriate for this ratio (a value of 2 would mean that half of current assets are financed by short-term debt).

For its part, the immediate liquidity ratio or 'acid test' excludes inventories from current assets and, therefore, measures a company's ability to meet its short-term payment obligations with its most liquid assets. Values well below 1 could reflect difficulties on the part of the company in meeting its commitments in the short term, lacking the cash to make immediate payments. If the ratio is well above 1, the company is seen as having excess liquidity (and therefore idle or underused resources). The optimal value of this ratio would be between 0.7 and 1.0.

Turning to the median values of these ratios (see Table 4) in the sub-sectors considered, the first ratio presents values greater than 1, which indicates that current assets are greater than current liabilities; therefore, all sectors appear to enjoy financial stability. However, the short-term payment capacity is quite limited, falling short of 1.5 except in the case of sub-sector 60.

Looking at the immediate liquidity ratio, which is a stricter indicator, we observe a substantial weight of inventories in short-term assets.

The solvency ratio shows the proportion of non-current assets financed with a company's own resources. The higher the value here, the greater the solvency of the company, which will finance a higher percentage of its long-term investments using its own resources. Clearly, this ratio is not very high, indicating that the solvency of companies in the cultural sub-sectors analyzed is reduced, except for those in sub-sector 90.

The personnel expenses in real terms oscillate between 20% and 76%. The weight of worker costs on operating income is high, reaching 141.135% in companies in sub-sector 60. This is logically a consequence of the fall in operating income, given that personnel costs are lower than other costs.

Several measures can be used to quantify the profitability of a company. The economic profitability (Return on Assets or ROA) values the generation of profits from operations through the use of a company's assets. ROA is obtained by dividing the net results (before taxes) by the volume of assets. This profitability measure has two components: the gross profit margin, and the asset turnover ratio. The first compares the generation of net profit (before taxes) with the operating income, while the turnover ratio relates operating income to the assets used to obtain them. The financial profitability (Return on Equity or ROE) includes the profitability of a company shareholder or owner; ROE is the quotient between results (before taxes) and equity.

From the data collected in Table 4, all these companies present a low return on investment, with the exception of the companies in sub-sector 91 (with operating profitability also well below the other companies).

Regarding the profitability of owned resources, it is observed that the companies in sub-sector 90, based on an economic profitability of 5.804%, enjoy higher financial profitability (11.331%). This is the result of the lower pressure that financial charges exert on results, given that Leverage coefficient is carried for shorter terms and thus at lower cost.

## 5. Differentiating Features in the Financial-Economic Structure of Cultural Companies

In order to classify the companies in the sample into different groups (cultural sub-sectors) based on the values of the set of ratios that describe their financial-economic characteristics, we carry out a discriminant analysis. Prior to this, a factor analysis is applied to identify which of the defined variables can provide the most relevant and independent information. In some cases, more than one of these ratios may approximate the same aspect of the economic or financial structure, while others may act as determinants of other potentially explanatory variables of the dependent variable (i.e., belonging to a cultural sub-sector); factor analysis allows a reduction of their number without a significant loss of information. This technique transforms the set of original inter-correlated variables into another, smaller set of variables that are uncorrelated, as well as linear combinations of the former set.

From the available information, and for the purposes of this study, a set of ratios that describe the financial-economic structure of the companies were selected as potentially independent explanatory variables. These ratios have been grouped into blocks for explanatory and methodological reasons, to facilitate the coding of each and every variable. The pertinence of a particular indicator to one group or another should not be understood as exclusive.

The specialized literature has proposed various classifications of financial ratios based on the characteristics considered most relevant when defining a company's situation [41]. However, there is no general theory of financial analysis by way of ratios that allows for identification of the interrelationships between them, or that explains how they should be used to define the main characteristics of companies [42]. Therefore, when selecting the ratios, we have depended mainly on the characteristics of our intended analysis, and for each of the ratios the average value has been taken from the years 2018 and 2019. We consider this information to be adequate to our analysis, with the objective of presenting empirical evidence on the differentiated behavior of companies based on their sectorial assignment.

### 5.1. Results of the Factor Analysis

The formulation of this work consists of performing a factor analysis of the initial information matrix composed of 2936 companies and 23 variables. The objective is to construct new variables from the initial set, provided that they are not correlated with one another and that they explain the highest possible percentage of joint variance of the original variables. These new variables (or factors) are obtained using the principal components method, with Varimax rotation to improve the interpretation of the results.

First, strong correlations are indeed present among the chosen variables, confirming the opportunity to perform factor analysis in order to reduce dimensions. Table 5 shows the results of the various tests of adequacy of factor analysis for the data. Bartlett's test of sphericity checks whether the correlation matrix is the identity. In our case, the hypothesis is rejected, giving evidence that the variables of the model are correlated. The Kaiser-Meyer-Olkin Measure compares the correlation coefficients with the partial correlations; with a value of 0.735, the performance of factor analysis is deemed acceptable.

**Table 5.** KMO and Bartlett test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.735
Bartlett's test of sphericity	Approx. Chi squared	65,587.616
	df	231
	Sig.	0.000

Source: authors' elaboration.

This analysis (the principal components method is used in the extraction of the factors) was initially applied to the 23 defined variables, and it was established as a precondition that the number of factors to be extracted should explain a percentage greater than 85% [41]

of the total variance, retaining those with an eigenvalue greater than unity (Kaiser's rule). Likewise, to guarantee an adequate representation of the variables in each factor, we consider only those whose commonality or proportion of variance of each variable explained by the factorial solution is greater than 50%. Compliance with these requirements leads us to eight factors that together explain 87.14% of the total variance. The rest of the variables are well explained, with commonality oscillating between 59.7% of the Leverage coefficient variable and 99.3% of the ratio of sales over total assets and asset turnover ratio (see Table 6).

**Table 6.** Commonalities/total variance explained.

Variables	Commonality	Factors	Own Value	% of Variation	% Accumulated
Leverage coefficient (%)	0.603	1	6.037	26.246	26.246
Cost of Debt ratio (%)	0.793	2	4.474	19.453	45.699
Guarantee ratio (%)	0.901	3	3.296	14.331	60.031
Debt Quality ratio (%)	0.597	4	2.167	9.421	69.452
Financial Expenses on Sales (%)	0.754	5	1.151	5.006	74.458
Liquidity ratio (%)	0.969	6	0.992	4.312	78.770
Solvency ratio (%)	0.968	7	0.975	4.239	83.009
Short-term Solvency (%)	0.968	8	0.950	4.132	87.142
Acid Test (%)	0.969				
Payment Period (days)	0.760				
Working Capital ratio (%)	0.748				
Personnel expenses (%)	0.992				
Worker Costs over Operating Income (%)	0.831				
Fixed Assets ratio (%)	0.934				
Sales ratio over Total Assets (%)	0.983				
Self-financing ratio generated by Assets (%)	0.945				
Self-financing ratio generated by Sales (%)	0.827				
Ratio of Participation of Current Assets over Total Assets (%)	0.761				
Economic Profitability (ROA) (%)	0.939				
Operating Profitability (%)	0.946				
Financial Profitability (ROE) (%)	0.968				
Asset Turnover ratio (%)	0.983				
Profit Margin (%)	0.903				

Source: authors' elaboration. Extraction method: principal component analysis.

In order to facilitate interpretation of the results, an orthogonal factorial rotation is carried out with the Varimax method. The Varimax rotation method seeks to minimize the number of variables with high saturations in a factor. Variables strongly correlated with one another show high saturation (in absolute values) in the same factor, and losses in the rest. Rotation is an iterative process that continues until improvements are very small. In the rotated factor matrix, the ratios grouped into each of the factors are ordered from highest to lowest weight (correlation) in the definition of the factor (Table 7). This facilitates interpretation of the eight factors, each of which has been assigned a name based on the variables it contains. All of the variables (ratios) are highly correlated with their factors (very close to 1), each proving relevant in the explanation of the factor to which they pertain. Most of the variables are positively correlated with their associated factors, in a range that oscillates from 0.735 in debt quality (factor 5) to 0.994 and 0.981, respectively, in personnel expenses (factor 8) and financial profitability (factor 6). However, in factors 2 and 3 the debt ratio is opposed—in factor 2 against the profitability of operations and the ratio of self-financing generated by assets, and in factor 3 against the profit margin, while the ratio of self-financing generated by sales opposes worker costs over operating income.

**Table 7.** Rotated factor matrix.

Factor 1. Solvency		Factor 2. Profitability		Factor 3. Margins		Factor 4. Rotation	
Liquidity ratio	0.972	Operating Profitability	0.963	Profit Margin	−0.926	Sales ratio over Total Assets	0.962
Acid Test	0.972	Self-financing ratio generated by Assets	0.963	Worker Costs over Operating Income	0.892	Asset Turnover ratio	0.962
Solvency ratio	0.971	Economic Profitability (ROA)	0.961	Self-financing ratio generated by Sales	−0.876		
Short-term Solvency	0.971	Working Capital ratio	0.744	Payment Period	0.845		
Guarantee ratio	0.949	Leverage coefficient	−0.711	Financial Expenses on Sales	0.843		
Cost of Debt ratio	0.888						
Factor 5. Management		Factor 6. Financial Structure		Factor 7. Immobilization		Factor 8. Personnel	
Ratio of Participation of Current Assets over Total Assets	0.842	Financial Profitability (ROE)	0.981	Fixed Assets ratio	0.959	Personnel expenses	0.994
Debt Quality ratio	0.735						

Source: authors' elaboration.

Factor 1, solvency, is made up of ratios that reflect the balance between the most liquid assets and those with the most immediate enforceability in terms of liabilities. In addition, this factor relates the company's internally generated resources to its short-term financial liability, thus approximating the ability of the company to meet its short-term debts through the generation of resources and reflecting its capacity to survive.

Factor 2, profitability, is formed by variables that directly approximate the performance of the company in economic terms by way of results, and that indirectly signal its financial profitability through alternative measures of the leveraging effect of Leverage coefficient on economic profitability. This factor allows assessment of the efficiency of the company when allocating its economic and financial resources.

Factor 3, margins, summarizes information on the profit margins obtained by companies, measured at different levels of results in order to approximate the gross or operating margin as well as the profit margin of ordinary activities, not including the effects of taxes or financial charges associated with debt.

Factor 4, rotation, includes two variables that explicitly measure the capacity of a company's investments to generate operating income, taking into account both overall investments and those directly linked to its main activity. This factor reflects the intensity with which a company uses its own assets.

Factor 5, management, includes information referring to the quality of a company, such as the weight of the share of current assets over total assets (the relationship between the company's current assets and total investments). This varies according to the activity carried out, and in principle firms with larger current assets will obtain higher profits. Additionally, this factor provides information on quality of debt; more short-term financing accessed by a company suggests lower quality, given that within a short time-frame (1 year at most) the company will need to dispose of financial resources to meet payment terms.

Factors 6, 7 and 8, each comprised of a single variable, have been designated financial structure, immobilization, and personnel, respectively. The first collects information related to the gains obtained on resources used; the second approximates the stability of the company; and the third speaks to personnel expenses that represent labor costs on the

added value of the company. These factors constitute a proxy for the relevant aspects that the company supports.

In general, the various factors can be expected to present a high degree of homogeneity in relation to the variables that form them; the eight factors together significantly explain more than 87% of the total variability of the data.

The financial characteristics of the companies by cultural sub-sector (see Figure 2) are as follows:



**Figure 2.** Measures by cultural sub-sectors. Source: authors' elaboration.

18. Graphic arts and reproduction of recorded media, comprising 49.5% of the companies in our dataset. These firms occupy a leading position in the cultural sector due to their size, and they exhibit above-average ratios for rotation, management, and financial stability, all of which reflects good financial management.

59. Cinematographic, video, and television program activities, sound recording, and music publishing, representing 21.1% of the companies analyzed (618 firms). These companies are characterized by being highly profitable, with above-average margins; they

tend to use their assets and carry a significant weight of immobilization and personnel expenses.

60. Radio and television programming and broadcasting activities. Just 219 companies comprise this sector (7.5% of the firms analyzed). Below-average solvency and profitability ratios in this sub-sector are indicative of financial mismanagement.

90. Creative, artistic, and entertainment activities, amounting to 20.1% of the companies analyzed. These are characterized by solvency and profitability figures above the average, together with above-average rotation that implies efficiency, good financial management, and the use of all assets, reflected in high personnel costs.

91. Libraries, archives, museums, and other cultural activities. This sub-sector includes the smallest number of companies (56 firms) but exhibits the greatest dispersion or variability. These companies show low levels of solvency, profitability, margins, and rotation but high levels of immobilization, which indicates significant stability.

Next, we proceed to the application of discriminant analysis in order to check differences in the financial-economic structures of the companies based on their sectoral affiliations. As seen in the univariate tests of equality of means (Table 8), the most significant differences between the companies in the cultural sector are found in the factors of profitability, margins, rotation, management, immobilization, and personnel expenses, as presumed from the earlier analysis. The financial structure factor does not significantly contribute to the differentiation of companies in the cultural sector. Therefore, we find that the application of the discriminant analysis is justified.

**Table 8.** Equality test for group means.

	Wilks' Lambda	F	g1	g2	Sig.
Solvency	0.993	2.088	4	1276	0.080
Profitability	0.991	2.816	4	1276	0.024
Margins	0.987	4.360	4	1276	0.002
Rotation	0.964	11.844	4	1276	0.000
Management	0.992	2.694	4	1276	0.030
Financial Structure	0.997	1.111	4	1276	0.350
Immobilization	0.987	4.345	4	1276	0.002
Personnel	0.991	2.832	4	1276	0.024

Source: authors' elaboration.

For resolution of the analysis, the step-by-step method was applied to the variable selection criteria using Wilks' lambda. In this procedure, in each step, a variable can be entered and retained in the selected set, depending on the value of the F statistic corresponding to Wilks' lambda. Before application of the procedure, it is necessary to set a minimum F value for entry and a maximum F value for exit, as well as a minimum tolerance level as a measure of the degree of linear association between the variables. The parameters applied by default by SPSS include: a minimum tolerance level of 0.001, meaning that the variables included in the equation must exceed this figure; an F-min for entry of 3.84; and an F-max. for exit of 2.71. This method permits extraction from the proposed variables of all those that present a greater degree of homogeneity in terms of company attributes within the same sub-sector, meanwhile collecting the main differences with respect to companies in other sub-sectors.

The soundness of the results obtained is confirmed by observing the proportion of cases correctly classified by the discriminant functions, with 53.5% found to be adequately classified (see Table 9). Analysis of the percentage of companies adequately classified by sub-sector shows that in sector 18, 99.4% of firms have been classified correctly; this figure is 8.7% in sector 91 and much lower in the other sub-sectors.

**Table 9.** Results of the classification and coefficients of Fisher’s linear discriminant functions.

CNAE Code 2009		Predicted Group Membership					
		18	59	60	90	91	
Original		18	99.4	0.0	0.0	0.1	0.4
		59	95.7	0.4	1.2	1.6	1.2
	%	60	93.9	0.0	5.1	1.0	0.0
		90	94.9	0.0	0.4	4.3	0.4
		91	91.3	0.0	0.0	0.0	8.7

Note: 53.5% of original grouped cases classified correctly. Source: authors’ elaboration.

In our opinion, this weak result can be attributed to the degree of heterogeneity among the companies assigned to the sub-sectors under consideration, given that these companies present very different investment patterns and financial structures.

As a whole, the results show that differences do exist in the economic and financial structures of the companies in sub-sector 18 (Graphic arts and reproduction of recorded media) as well as in the firms in other sub-sectors, given their greater uniformity; thus, one of the hypotheses of the study is confirmed.

To characterize the economic and financial profiles of companies belonging to the various activity sub-sectors, we use the coefficients of Fisher’s discriminant functions. Analysis will be carried out from Table 10, on a dual level. At the first level, corresponding to analysis by columns, certain conclusions can be drawn about the variables that discriminate to a greater extent between companies within the same sub-sector. At the second level, corresponding to analysis by rows, an attempt will be made to show the differences between different sub-sectors, taking into account the classification variables.

**Table 10.** Coefficients of the classification function.

Variables	CNAE Code 2009				
	18	59	60	90	91
Rotation	0.0315 (4.656%)	−0.076 (4.64%)	−0.572 (20.42%)	0.254 (14.46%)	−0.170 (3.91%)
Immobilization	−0.068 (10.42%)	0.103 (6.25%)	−0.121 (4.31%)	0.072 (4.12%)	0.644 (14.77%)
Personnel	−0.076 (11.56%)	0.0364 (2.21%)	0.011 (0.38%)	0.178 (10.12%)	−0.042 (0.96%)
Management	0.015 (2.25%)	−0.102 (6.17%)	0.152 (5.44%)	0.051 (2.92%)	−0.485 (11.12%)
Margins	−0.074 (11.30%)	0.130 (7.88%)	0.313 (11.19%)	−0.052 (2.96%)	−0.088 (2.01%)
Profitability	−0.053 (8.12%)	0.118 (7.17%)	−0.199 (7.11%)	0.101 (5.76%)	0.077 (1.77%)
(Constant)	−0.656 (51.69%)	−1.647 (65.68%)	−2.801 (51.15%)	−1.756 (59.66%)	−4.361 (65.47%)

Note: Fisher’s linear discriminant functions. In parentheses is the % figure that represents the relative discriminant capacity of each variable. Source: authors’ elaboration.

The results obtained from this analysis show that the ‘rotation’ variable explains the behavior of the companies to a greater extent in two of the five cultural activities considered (sub-sectors 90 and 60). Secondly, ‘immobilization’ appears as a discriminating variable that considerably discriminates between activity sub-sectors 91 and 18. The variables ‘personnel’, ‘management’, and ‘margins’ discriminate between sub-sectors 18 and 91, while ‘profitability’ differentiates sub-sectors 18, 59, and 60 from the rest. An analysis of the positions of the sectors in relation to these variables shows how, in the companies of sub-sector 18, the variables ‘personnel’ and ‘margins’ have greater weight. For sub-sector 59, greater weights correspond to ‘margins’ and ‘profitability’, with the latter showing the highest score for this ratio and expressing greater weight here than in any other sub-sector. Those with the greatest weight in absolute value in the firms of sub-sector 60 are ‘turnover’ and ‘margins’; in sub-sector 90, ‘rotation’ and ‘personnel’; and in sub-sector 91, ‘immobilization’ and ‘management’.

From analysis of the relationship between each discriminant variable and the dependent variable (activity sub-sector), the financial-economic profile of each sector can be

deduced. Thus, the negative relationship between ‘margins’ and ‘immobilization’ and activity branch 18 indicates a lower share in relative terms of profit margins and company stability, as compared to the other sub-sectors. Meanwhile, sub-sector 60 is characterized by the capacity of a company’s investments to generate operating income, taking into account both investments as a whole and those directly linked to the company’s main activity.

Elsewhere, the positive relationship between ‘rotation’ and activity branch 90 (Creative, artistic, and entertainment activities) shows greater dependence on investments in order to generate operating income. On the other hand, sub-sector 91 exhibits predominance in those ratios that measure business stability. Finally, in relation to ‘rotation’, it should be noted that the higher rotation of assets owned by companies in sub-sectors 18 and 90 takes a positive sign in this variable, whereas companies in the other sub-sectors are characterized by lower rotation.

### 5.2. The Intra–Extra-Metropolitan Situation as a Factor of Differentiation

In order to verify whether the analyzed patterns are related to the intra- or extra-metropolitan situation of the cities where the companies are located, and to study whether this is statistically significant, we have contrasted the mean values of the factors of each sub-sector, differentiating in each case between intra- and extra-metropolitan cities. The results are presented in Table 11.

**Table 11.** Equality test for group means intra–extra-metropolitan cities.

Tests of Equality of Group Means					
Location	Variables	F	df1	df2	Sig.
Extra	Solvency	1481	4	554	0.207
	<b>Profitability</b>	<b>2948</b>	<b>4</b>	<b>554</b>	<b>0.020</b>
	<b>Margins</b>	<b>6996</b>	<b>4</b>	<b>554</b>	<b>0.000</b>
	<b>Rotation</b>	<b>6328</b>	<b>4</b>	<b>554</b>	<b>0.000</b>
	Management	1891	4	554	0.110
	Financial Structure	0.151	4	554	0.963
	Immobilization	0.896	4	554	0.466
Intra	Personnel	0.892	4	554	0.468
	Solvency	2264	4	717	0.061
	Profitability	0.344	4	717	0.848
	Margins	1559	4	717	0.183
	<b>Rotation</b>	<b>6222</b>	<b>4</b>	<b>717</b>	<b>0.000</b>
	<b>Management</b>	<b>2379</b>	<b>4</b>	<b>717</b>	<b>0.050</b>
	<b>Financial Structure</b>	<b>5777</b>	<b>4</b>	<b>717</b>	<b>0.000</b>
<b>Immobilization</b>	<b>15,632</b>	<b>4</b>	<b>717</b>	<b>0.000</b>	
<b>Personnel</b>	<b>3512</b>	<b>4</b>	<b>717</b>	<b>0.008</b>	

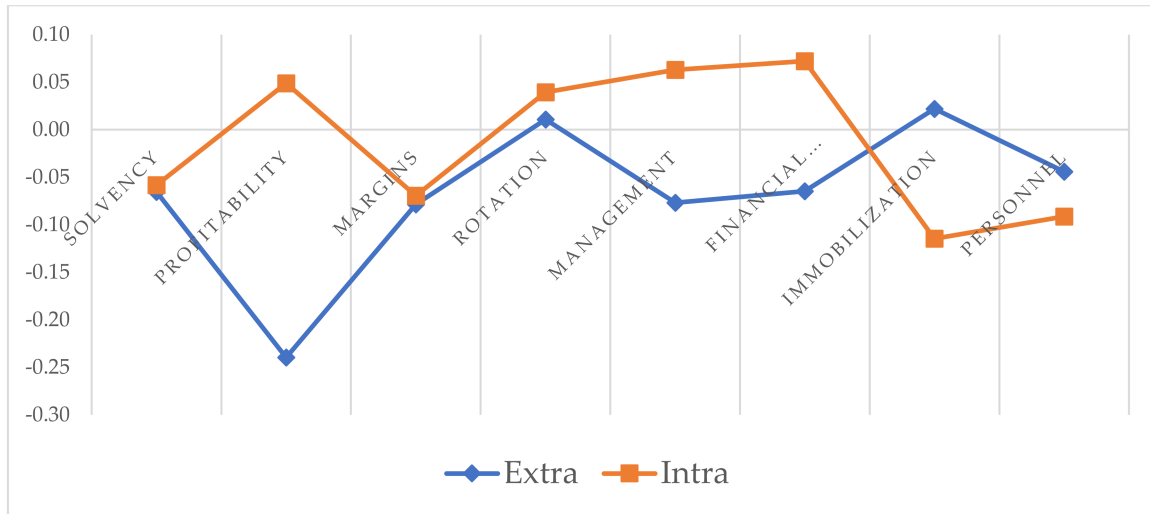
Source: authors’ elaboration.

The results for the set of sub-sectors of activity in the extra-metropolitan cities show significant differences in efficiency in the allocation of financial economic resources (Profitability), in profit margins (Margins), and in investment capacity (Rotation). In intra-metropolitan cities, a greater number of factors influence differentiation of the economic and financial structure, including investment capacity (Rotation), quality of the debt (Management), business profitability (Financial Structure), financial stability (Immobilization), and personnel costs (Personnel). These urban environments are affected, to a greater or lesser extent, by economies of agglomeration.

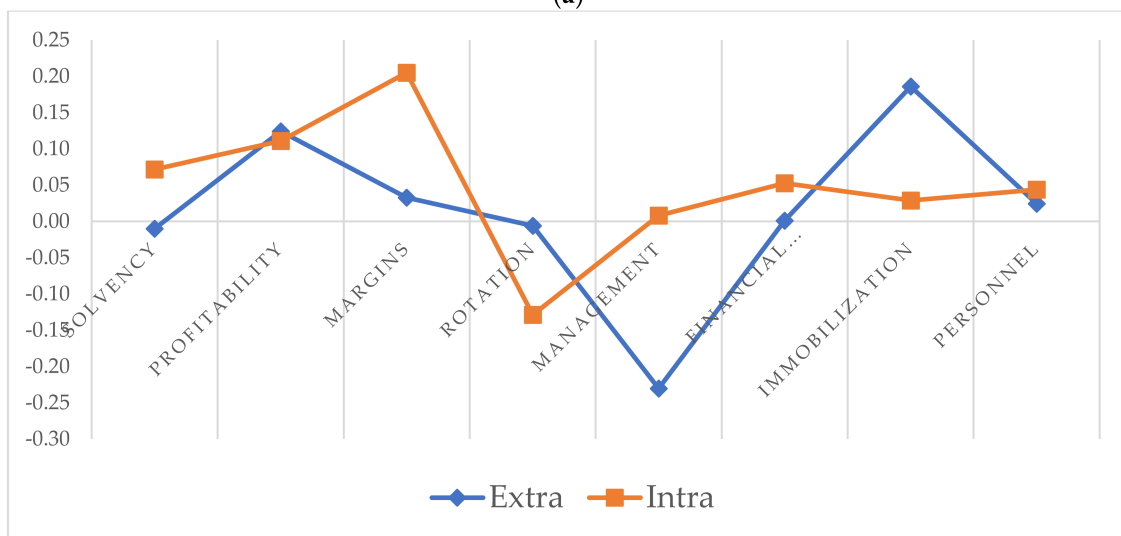
The findings individualized by sub-sector (Figure 3a–e) allow us to observe, from prior univariate contrasts of the equality of means, certain differences in the allocation of economic and financial resources (Profitability), the quality of debt (Management), and business profitability (Financial Structure) within sub-sector 18. These are efficient companies demonstrating good financial management. Corporate profit margins (Margins) and debt quality (Management) are the differentiating elements within sub-sectors 59 and



60, where companies are characterized by higher levels of indebtedness and difficulties in accessing long-term financing according to their size and activity. Solvency or business survival (Solvency) and personnel expenses (Personnel) are the differentiating factors within activity branch 90, which includes solvent, profitable, and efficient companies with good financial management but high personnel costs. Finally, sub-sector 91 reveals its main differences in the financial stability (Immobilization) of the company; these are not especially solvent companies with low profit margins and a return on investment well below others. A large proportion of these firms are publicly owned or supported.

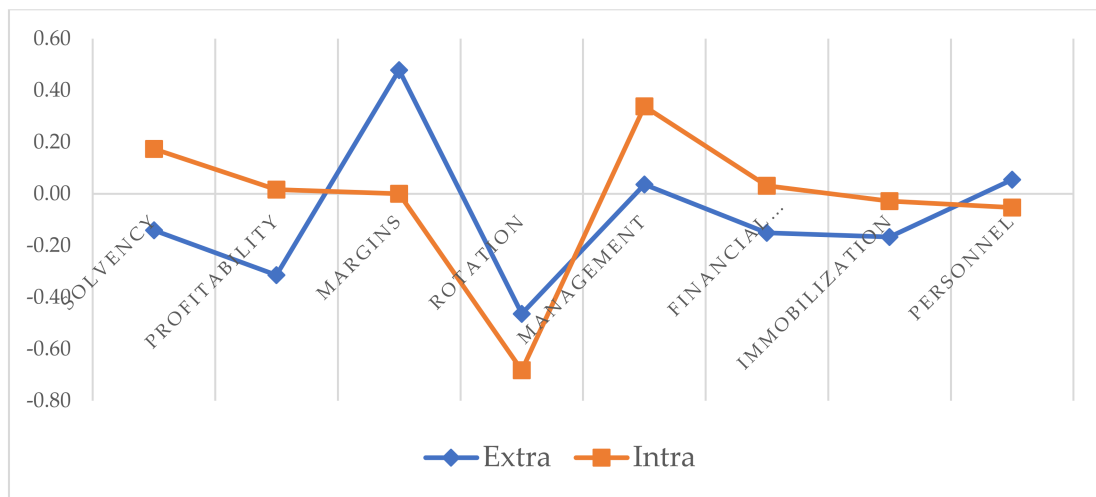


(a)

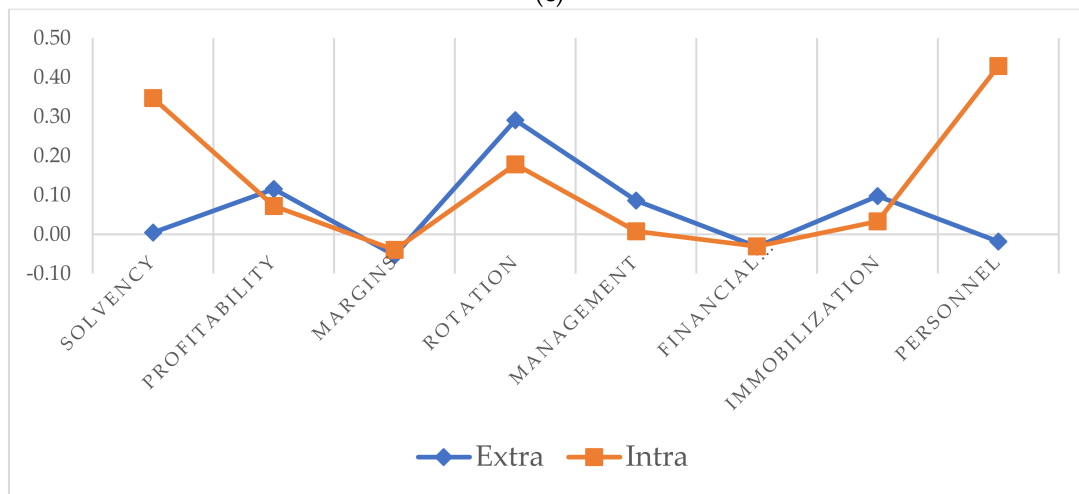


(b)

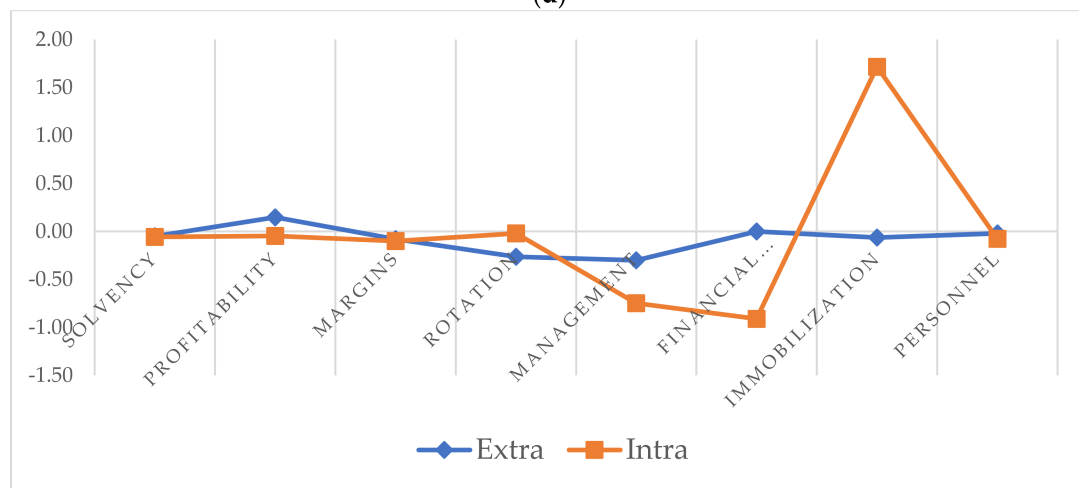
Figure 3. Cont.



(c)



(d)



(e)

**Figure 3.** (a). Marginal measures of factors for sub-sector 18 in extra-metropolitan and intra-metropolitan cities. Source: authors' elaboration. (b). Marginal measures of factors for sub-sector 59 in extra-metropolitan and intra-metropolitan cities. Source: authors' elaboration. (c). Marginal measures of factors for sub-sector 60 in extra-metropolitan and intra-metropolitan cities. Source: authors' elaboration. (d). Marginal measures of factors for sub-sector 90 in extra-metropolitan and intra-metropolitan cities. Source: authors' elaboration. (e). Marginal measures of factors for sub-sector 91 in extra-metropolitan and intra-metropolitan cities. Source: authors' elaboration.

The solvency factor presents significant differences between the two types of cities. In intra-metropolitan areas, all of the sub-sectors are in keeping with the average except for branch 90 (Creative, artistic, and entertainment activities), which is above the average. In extra-metropolitan urban centers, all the branches of activity are below the average. The factors of profitability and margins do discriminate between extra-metropolitan cities, but not between intra-metropolitan cities. Sub-sectors 59 (Film, video, and television production, sound recording, and music publishing) and 90 exhibit profitability above the average, which differentiates these from the other branches of activity. On the other hand, the margins factor clearly differentiates sub-sector 60 (Programming and broadcasting activities) from the rest.

The rotation factor is highly significant in both extra- and intra-metropolitan cities. In both cases, it presents an above-average value in sub-sector 90, clearly differentiating itself from the others, but this effect is even more pronounced in extra-metropolitan cities.

In management, the difference between intra-metropolitan cities is more significant, with sub-sector 60 presenting a differentiating value with respect to the others; in extra-metropolitan cities, activity branch 90 shows greater differentiation in this regard.

The immobilization factor is significant only among intra-metropolitan cities, with sub-sector 91 (Libraries, archives, museums, and other cultural activities) clearly differentiated from the rest. Finally, the personnel factor is significant only among intra-metropolitan cities and discriminates sub-sector 90 from other cultural activities.

In summary, intra-metropolitan cities differ among themselves through the factors for solvency, rotation, management, immobilization, and personnel, while extra-metropolitan cities do so in terms of profitability, margins, and rotation. Rotation is the factor that presents the greatest explanatory power in extra-metropolitan cities in sub-sectors 60 and 90, but with opposite signs. A higher rotation of assets by companies in sub-sector 90 is manifested in the positive sign, in contrast with the lower rotation that characterizes companies in activity branch 60. The latter observation is also true of companies in intra-metropolitan cities.

Margins likewise exhibit high discriminating power in companies located in extra-metropolitan cities, with a positive sign. Greater direct benefits obtained by companies in sub-sector 60 are also indicated. The weight of profitability on firms in sub-sector 18 should not be overlooked, as this indicates the beneficial development of investments and the capacity of companies in this sub-sector to remunerate the financial resources employed.

In companies in intra-metropolitan cities, the significant weight of the immobilization variable stands out in sub-sectors 18 and 91. The positive relationship between the immobilization factor and activity 91 indicates the greater dependence of this sub-sector on elements of cultural heritage, which are permanent assets not intended for sale. The opposite is observed in sub-sector 18, given the negative sign presented. Furthermore, sub-sector 18 opposes sub-sector 91 in the management variable (positive for branch 18, negative for branch 91). The positive relationship between this variable and sub-sector 18 indicates greater participation, in terms relative to the rest of the sub-sectors and in particular sub-sector 91, with greater dependence on external resources over longer terms, as well as the relationship between a company's working capital and its total investments.

Therefore, the results obtained can be said to confirm those found by traditional economic-financial analysis which allowed the characterization of profiles of companies belonging to different activity sub-sectors.

## 6. Conclusions

Due to their contribution to macro-indicators such as GDP and employment, and their resilience in the face of both the 2008 financial crisis and the current COVID-19 health crisis, cultural industries can be considered strategic actors in territorial development. The ongoing acceleration of digitization processes and the appearance of new innovative models of digital production, distribution, and consumption all support this assertion [41]. Nevertheless, both the supply and consumption of the most traditional cultural activities in Spain remain far below values observed before the latest financial-economic crisis, as evidenced by data for 2018 and 2019. As indicated by Muro [43], budget cuts to culture, orientations of public cultural offerings away from demand, and the loss of purchasing power by citizens all contribute to explaining these declines.

This research has served to verify the effectiveness of the method used to examine the financial-economic situation of a quantity of firms from the Spanish cultural sector for the period 2018–2019. The procedure here employed can be a useful instrument when designing promotion strategies for the cultural sector in the small and medium-sized cities considered. However, the classifications drawn in this study have not allowed us to define a ranking of the companies analyzed; this issue could conceivably be addressed in the future through the use of synthetic indicators.

The findings obtained permit us to highlight the heterogeneity of the cultural industry in the activities and cities selected. Our empirical study of 2936 companies in the database has permitted the extraction of eight factors that together explain 87.14% of the total variance. These factors are: Solvency, Profitability, Margins, Rotation, Management, Financial Structure, Immobilization, and Personnel. A classification of companies based on these eight determined factors allows us to discriminate by sub-sectors of activity and, in turn, in order to differentiate between intra- and extra-metropolitan firms.

Intra-metropolitan cities are found to differ from each other in factors of Solvency, Turnover, Management, Immobilization, and expenses related to Personnel, while extra-metropolitan cities are differentiated in terms of Profitability, Margins, and Rotation. Therefore, corporate profitability, debt quality, financial stability, investment capacity, and personnel costs mark the differences in the financial profiles of cultural companies located in intra-metropolitan environments. In extra-metropolitan cities, the different economic-financial structures of companies are determined through efficiency in the allocation of economic-financial resources, profit margins, and investment capacity.

Rotation is the factor that presents the greatest explanatory power in extra-metropolitan cities in sub-sectors 60 and 90, but with opposite signs: the higher rotation of assets by companies in sub-sector 90 is manifested positively, in contrast with the lower rotation typical of companies in activity branch 60. The latter is also true of companies in intra-metropolitan cities.

Margins likewise exhibit high discriminatory power in companies located in extra-metropolitan cities, with a positive sign. Greater direct benefits are also found to be obtained by companies in sub-sector 60. The weight of profitability for firms in sub-sector 18 should not be overlooked, as this indicates the beneficial development of investments as well as the capacity of companies in this sub-sector to remunerate due to the financial resources employed.

In companies in intra-metropolitan cities, the significant weight of the Immobilization variable stands out in sub-sectors 18 and 91. The positive relationship between this factor and activity 91 indicates the greater dependence of this sub-sector on elements of cultural heritage, which are permanent assets not intended for sale. The opposite is found for sub-sector 18, which shows a negative sign. Furthermore, sub-sectors 18 and 91 are opposed in the Management variable (positive for branch 18, negative for branch 91). The positive relationship between this variable and sub-sector 18 indicates greater participation relative to the other sub-sectors, and sub-sector 91 in particular, with greater dependence on external resources over longer terms; also significant is the relationship between a company's working capital and its total investments.

The results of this financial-economic analysis permit us to draw certain conclusions as to how territorial components and productive sectors influence the financial-economic profile of a cultural company. These factors generate heterogeneity in the structures and financial results of firms located in small and medium-sized, metropolitan and non-metropolitan cities, and differences are manifested in companies within the same sub-sector and from different sub-sectors, as well as among companies from intra- and extra-metropolitan cities of small or medium size. It is suggested that extra-metropolitan cities should support the creation and growth of companies linked to sectors more oriented toward the development of cultural consumption (traditional cultural activities), due to their inherent specialization. In addition, it is suggested that extra-metropolitan cities should support the creation and growth of companies linked to those sectors more oriented to the development of cultural consumption (traditional cultural activities), due to their inherent specialization.

Differences in the relationship between culture and urban development (due to unique functional and socio-economic characteristics) as well as locations either outside or within a metropolitan area make it necessary to design and implement cultural policies and instruments with an approach that takes territorial aspects into greater account. The analysis undertaken here allows for the design of instruments and policy measures aimed at minimizing the weaknesses of cultural companies, and can assist the managers of such companies to better understand their behavior, in consideration of the idea that the prosperity and proper functioning of cultural companies will result in improvements to cultural heritage.

To further contribute to the knowledge of cultural companies, future research might undertake longitudinal analyses of the variables examined in this study, also incorporating other variables related to governance into the territorial scope of small and medium-sized cities in order to determine the degree of influence on the financial-economic results of cultural firms. During the present stage of recovery of the cultural sector following COVID-19, deeper knowledge can only facilitate the design of better-adjusted strategies with a more sensitive territorial approach.

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## Appendix A

Table A1. Extra-metropolitan and intra-metropolitan cities.

Province	Municipality	Extra- vs. Intra-Metropolitan City
A Coruña	FERROL	Extra
	SANTIAGO DE COMPOSTELA	Extra
Albacete	ALBACETE	Extra
Alicante	ALCOY/ALCOI	Extra
	BENIDORM	Extra
	ELDA	Extra
	ORIHUELA	Extra
	TORREVIEJA	Extra
	ALMERÍA	Extra
Almería	EL EJIDO	Extra
	ROQUETAS DE MAR	Extra
	ASTURIAS	Intra
	AVILES	Intra
Asturias	SIERO	Intra
	AVILA	Extra
Avila	AVILA	Extra
Badajoz	BADAJOZ	Extra
	MÉRIDA	Extra
Barcelona	CASTELLDEFELS	Intra
	CERDANYOLA DEL VALLES	Intra
	CORNELLA DE LLOBREGAT	Intra
	EL PRAT DE LLOBREGAT	Intra
	GRANOLLERS	Intra
	MANRESA	Extra
	MATARO	Intra
	MOLLET DEL VALLES	Intra
	RUBI	Intra
	SANT BOI DE LLOBREGAT	Intra
	SANT CUGAT DEL VALLES	Intra
	SANTA COLOMA DE GRAMENET	Intra
	SITGES	Intra
	VILADECANS	Intra
	VILANOVA I LA GELTRU	Extra
Burgos	BURGOS	Extra
Cáceres	CACERES	Extra
Cádiz	ALGECIRAS	Extra
	CADIZ	Intra
	CHICLANA DE LA FRONTERA	Intra
	EL PUERTO DE SANTA MARIA	Intra
	LA LINEA DE LA CONCEPCION	Extra
	SAN FERNANDO	Intra
	SANLUCAR DE BARRAMEDA	Extra
	SANTANDER	Extra
	TORRELAVEGA	Extra
	VILA-REAL	Extra
Castellón	CASTELLÓN	Extra
Ciudad Real	CIUDAD REAL	Extra
Cuenca	CUENCA	Extra
Girona	GIRONA	Extra
	TORRENT	Intra
Granada	MOTRIL	Extra
Guadalajara	GUADALAJARA	Extra

Table A1. Cont.

Province	Municipality	Extra- vs. Intra-Metropolitan City	
Guipuzcoa	DONOSTIA-SAN SEBASTIAN	Extra	
	IRUN	Extra	
Huelva	HUELVA	Extra	
Huesca	HUESCA	Extra	
Jaen	JAEN	Extra	
	LINARES	Extra	
	LOGROÑO	Extra	
La Rioja	ARRECIFE	Extra	
Las Palmas de Gran Canaria	SAN BARTOLOME DE TIRAJANA	Extra	
	SANTA LUCIA DE TIRAJANA	Extra	
	TELDE	Intra	
León	LEON	Extra	
	PONFERRADA	Extra	
	LLEIDA	Extra	
Lleida	LLEIDA	Extra	
Lugo	LUGO	Extra	
Madrid	ALCALA DE HENARES	Intra	
	ALCOBENDAS	Intra	
	ALCORCON	Intra	
	ARANJUEZ	Extra	
	ARGANDA DEL REY	Intra	
	BOADILLA DEL MONTE	Intra	
	COLLADO VILLALBA	Intra	
	COSLADA	Intra	
	FUENLABRADA	Intra	
	GETAFE	Intra	
	LAS ROZAS DE MADRID	Intra	
	LEGANES	Intra	
	MAJADAHONDA	Intra	
	PARLA	Intra	
	PINTO	Intra	
	POZUELO DE ALARCON	Intra	
	RIVAS-VACIAMADRID	Intra	
	SAN SEBASTIAN DE LOS REYES	Intra	
	TORREJON DE ARDOZ	Intra	
	VALDEMORO	Intra	
	Málaga	BENALMADENA	Extra
		ESTEPONA	Extra
		FUENGIROLA	Extra
MARBELLA		Extra	
MIJAS		Extra	
TORREMOLINOS		Extra	
VELEZ-MALAGA		Extra	
Murcia	LORCA	Extra	
	MOLINA DE SEGURA	Intra	
Ourense	OURENSE	Extra	
Palencia	PALENCIA	Extra	
Pontevedra	PONTEVEDRA	Extra	
Salamanca	SALAMANCA	Extra	

Table A1. Cont.

Province	Municipality	Extra- vs. Intra-Metropolitan City
Santa Cruz de Tenerife	ARONA	Extra
	SAN CRISTOBAL DE LA LAGUNA	Intra
Segovia	SEGOVIA	Extra
Sevilla	ALCALA DE GUADAIRA	Intra
	DOS HERMANAS	Intra
Tarragona	UTRERA	Extra
	REUS	Extra
	TARRAGONA	Extra
Toledo	TALavera DE LA REINA	Extra
	TOLEDO	Extra
Valencia	GANDIA	Extra
	PATERNA	Intra
	SAGUNTO/SAGUNT	Extra
Vizcaya	TORRENT	Intra
	BARAKALDO	Intra
Zamora	GETXO	Intra
	ZAMORA	Extra

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