

## **Sustainability of Hairdressers and Beauty Institutes: Do performance and private investor capability matter?**

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# **Sustainability of Hairdressers and Beauty Institutes: Do performance and private investor capability matter?**

## **Abstract**

This paper aims to research about the performance of hairdressing salons and beauty institutes considering that one of the ways that can measure the satisfaction in beauty salons is the service performance. The methodology used on the research starts with theoretical analysis about a systematic review of the literature about economic and financial sustainability, stakeholder theory and agency theory. After it has been developed an empirical analysis with focus on an exploratory qualitative analysis about the hairdressers and beauty institutes with the data has been collected from the SABI database in Portugal, between 2015 and 2019. The findings of the sustainability of hairdressers and beauty institutes suggests that performance provide evidence on this important issue. Indeed, one of the tax benefits that Portuguese citizens have in our annual revenue tax is related with sales made by hairdressers and beauty institutes. A novel feature of the empirical analysis is the related with operational and net result of these firms and subsequent growth of costs and instability of revenues due to crises or growth of economies.

**Keywords:** Economic Sustainability, Financial Sustainability, Hairdressers and Beauty Institutes

## **1. Introduction**

People all over the world are used to go to hairdressing salons and beauty institutes to take care of their personal appearance, get a makeover, relax, and enjoy pleasant social moments, among other things. According to [Teixeira \(2017, p.1\)](#), the professional in this area helps people to look and feel beautiful, so they will improve their self-esteem, among other things. Also, they play an important role in the benefit of the customers as psychologist and friends for life, because there are things that customers say to their hairdresser that they don't say to anyone else, not even family members.

The beauty industry is a growing sector that had an amount of revenue of US\$ 430 Billion in 2022, according to [McKinsey & Company \(2023\)](#). However, besides the size of the

industry, the small saloons promote a great part of this revenue, and these firms are belonging to the movement of social emancipation and produce a self-realization of entrepreneurs and private investors, especially women (Borzoo, 2023; Berry, 2023). Consequently, these firms, in order to promote sustainability, need economic and financial support to face cash flow difficulties due to the competition of the financial market (Segura et al. 2023), once they are compared with others as well as to create many essential services for society that create engagement from the stakeholders to them. In addition, these firms, due to the economic activity of hairdressers and beauty are demanded to be regenerative and the investor should pursuit other key performance indicators in terms of sustainability.

In most countries, this sector does not have specific higher education courses for hairdressers and beauty salons. Learning and training in this sector is provided to professionals through technical courses or vocational training programmes. The absence of adequate training can have a negative impact on the quality of services, as it can jeopardise client safety and make it difficult to adapt and innovate in trends. The lack of appropriate training in management can also jeopardise the hairdressing and beauty salon sector financially, which can lead to the establishment having to compete with lower prices, which can impact the positive net profit for the year and the financial sustainability of the company. The better trained the professionals, the better their knowledge of the right products and materials to use and advise clients.

This paper aims to research about the performance of hairdressing salons and beauty institutes knowing that "one of the ways to measure consumer satisfaction is by analysing product or service performance." (Aguilar, 2007, p.65). This topic has not been the subject of research in Portugal, so there are almost no projects in area the hairdressing salons and beauty institutes sector, as accounting and tax information is scarce. This paper aims to contribute to more detailed research into this sector.

The methodology developed focused, in the first framework, on a theoretical analysis through a review of the literature in the areas of accounting, taxation and law, as well as the regulations and standards applied to organisations in Portugal. The second framework allows to develop an empirical analysis was also carried out focusing on an exploratory quantitative analysis of hairdressing salons and beauty institutes in Portugal with

accounting data collected from the [SABI \(2022\)](#) database between the year 2015 and the year 2019. The empirical analysis uses the case study method ([Yin, 2022](#)) to understand the particularities of each company. In a second empirical focus, an analysis of national and international data was added, supported by the Banco de Portugal database, between 2015 and 2019, with the aim of analysing the financial position and performance of companies in this economic sector of hairdressing salons and beauty institutes, both nationally and internationally.

In terms of the structure of the paper, it is divided into two complementary parts. In the first part, theoretical analysis, which allows to present the theoretical framework to support the empirical investigation with a literature review on economic and financial analysis of companies is developed, which stands out for the central focus of this project. Also, details the legal and organizational system of companies is characterized, as well as their accounting and tax system to understand the context in which they operate. The second part, the empirical analysis, presents the case studies of the economic sector of hairdressing salons and beauty institutes and characterized them to perceive the reality that is the object of investigation, and in the fourth chapter, an economic-financial diagnosis was developed, applied to hairdressing salons and beauty institutes. Finally, the conclusions, limitations and future developments of paper are presented.

## **2. Theoretical analysis**

This second section will develop the theoretical analysis through a review of the literature in the areas of accounting, taxation, and law, as well as the regulations and standards applied to organisations in Portugal. And the systematic review of the literature is regarding to develop about economic and financial sustainability, stakeholder theory and agency theory. It is important to understand the economy involved on this business activity. [Magro \(2014\)](#) points out that globalisation and the need to communicate with the external environment have led economies and business activities to resort to financial reporting. Globalisation has driven the growth of international and multinational companies, which means there is a need for harmonisation and transparent and comparable financial information. Financial analysis aims to extract financial statements and annexes for economic and financial comparisons.

Regarding to this point, [Grosu \(2009\)](#) emphasises that financial statements make it possible to read the financial situation and performance of companies. Ratio analysis is the main technique for financial evaluation and is considered the basic structure for interpreting financial statements. The literature mentions disadvantages and advantages of ratio analysis. Disadvantages include the analysis of past and outdated information, possible accounting distortions, differences in accounting policies, the need for comparison and the lack of harmonisation, especially in the case of small businesses. Advantages include summarising information, allowing comparisons, understanding profitability, solvency, and liquidity.

The financial statements, according to Decree-Law n° 158/2009 ([MFAP, 2009](#)), represent the financial position and performance of an entity, with assets, liabilities, and equity. The balance sheet and profit and loss account (P&L) are essential. The balance sheet presents the financial position, and the P&L evaluates economic performance, based on income and expenses. The notes complement the financial statements, and NCRF 1 and NCRF2 of the SNC ([CNC, 2023](#)) regulate these statements. Financial analysis is vital for management to make short- and long-term decisions, considering the sector and risks. Economic and financial risk indicators such as critical point, safety margin and leverage has been used to assess business risk. Economic risks indicate possible lower-than-expected results, while financial risks consider the company's ability to meet financial expenses with borrowed capital.

The aim is to guarantee the company's success and competitive advantages in the sector. In the hairdressing salon and beauty institute sector in Portugal, the application of legal, organisational, accounting and tax rules can vary based on the decisions of investors and the region in which the company is based. The legal constitution of these companies can take different forms, such as individual business, unipersonal company, or private limited company. About health and safety standards in this sector: hairdressing salon and beauty institute must also comply with the Labour Code and applicable collective agreements. On the other hand, this sector must be governed by the accounting and tax rules defined by the SNC ([CNC, 2023](#)) and the Value Added Tax Code ([AT, 2023a](#)). In the field of VAT ([AT, 2023a](#)), hairdressers and beauty institutes deduct VAT paid on commercial transactions, such as the purchase of equipment for a hairdressing salon or beauty institute.

Hairdressing salons and beauty institutes that choose the form of one owner have full control over business decisions. In addition, they can benefit from social security exemptions in the first year of activity, VAT exemption for income below €12,500 and tax deductions when opting for organised accounting, including expenses for raw materials, food, computer equipment, travel, and accommodation (AT, 2023c). It is relevant to notice that make the option for organised accounting means accepting more tax costs, such as paying for the services of a certified accountant. This requires annual accounts and provides more transparency. Hairdressers and beauty institutes taxed under IRC (AT, 2023b) have lower tax costs compared to IRS (AT, 2023c). In relation to social security, the rates for hairdressers and beauty institutes companies, managers and self-employed workers are lower. IRC companies can obtain tax credits for investment if they meet certain requirements, such as keeping organised accounts, complying with tax obligations, and maintaining jobs, among others (AT, 2023b). These benefits allow for the deduction of expenditure on fixed assets, health products, hygiene, professional training and may vary in regions with tax incentives.

Setting up a company involves assessing the most suitable form of incorporation. Financial and characterisation, products, market, strategy, organisation, and financial planning. Each business must assess its financial situation and objectives to choose the appropriate taxation, considering possible tax benefits such as VAT exemptions, reductions, or deductions. To summarise, being a sole proprietor or a company has advantages and disadvantages, and the choice depends on the specific situation of each business. According to stakeholder theory (Donaldson & Preston, 1995) it is suggest a balance of interests of different stakeholders, so all these contracts that the firm are involved should be complied and the existence of multiple interests create value (Donaldson & Preston, 1995; Freeman, 1984; Freeman et al., 2010).

The accounting numbers are fundamental as tool to make a company accountable. In case of investors, the Agency theory (Jensen and Meckling, 1976) is one of the most important theories to explain the needs of producing accounting information in order to make the company accountable. As Onjewu et al. (2023) explains, the contractual relationship between agent and principal was explained in many other disciplines (Demski and

Feltham, 1978, Spence and Zeckhauser, 1971; Fama, 1980, Basu et al. 1985; Eisenhardt, 1985, 1988; Kosnik, 1987; White, 1985), among others.

Regarding to the financial sustainability, according to (United Nations Global Impact, 2021), the need to develop the small business enterprises (SMEs) should follow the strategies: accountable companies, balanced growth, measurable impact in priority areas, and others, and these strategies are complying with the development of management and finance in SMEs. In this matter, SMEs plays an important role in the worldwide economy (Nasrallah and el Khoury, 2022; United Nations Global Impact, 2021; Kulathunga et al., 2020; Yazdanfar and Öhman, 2020) and the need of theory and developing practical research is urgent. In this way, financial planning, according to (Brealey et al., 2019) is necessary because financing and investment decisions must interact with other areas of the company and should not be handled alone. Also, Segura et al. (2023) call the attention that helping managers and financial managers to act in advance through uncertainties, could avoiding negative surprises in the company's cash flow and balance sheet.

### **3. Empirical analysis**

The methodology used on the research starts with theoretical analysis based on the systematic review of the literature about economic and financial sustainability, stakeholder theory and agency theory. After, it has been developed an empirical analysis with focus on an exploratory qualitative analysis about the hairdressers and beauty institutes with the data has been collected from the SABI database in Portugal, between 2015 and 2019.

Statistical analysis has an essential role to play in multivariate modelling for decision-making, making it possible to explore relationships between variables in the accounting information system. The authors agree with Fávero, Belfiore, Silva and Chan (2009) when they “emphasise that this analysis makes it possible to understand how variables are interconnected and how they can influence investment, financing, and operational decisions”. Multivariate analysis, using statistical techniques, examines correlation coefficients between various variables, offering insights into business management. This approach makes it possible to identify existing relationships or associations in sets of data, as pointed out by Silvestre (2007). The aim of statistics is to draw conclusions from the data to enrich our knowledge of reality. A frequently used statistical method is principal

component analysis. This technique reduces the size of the data while preserving as much information as possible (Reis, 2008). Principal component analysis is widely used in various areas, including accounting, which has its own particularities due to the extent of the variability of the variables. After selecting the statistical analysis to be carried out, the two research questions to be tested were defined:

H1: *Do business owners in the hairdressing salons and beauty institutes sector analyse performance to develop their business?*

H2: *Do business owners in the hairdressing salons and beauty institutes sector have the financial capability to develop their business?*

#### 4. Discussion

To validate the robustness of the principal component analysis, a set of statistics were carried out, specifically the correlation coefficient matrix, the anti-image matrix, the total explanatory variance, the Kaiser-Meyer-Olkin (KMO) statistic, and the percentage of variance of the principal components. Table 1 shows descriptive statistics of the variables in the sample. The study of each variable will be developed to understand the results and statistical analyses.

INSERT TABLE 1 HERE

Based on tables, the minimum value reached in one of the companies analysed was - €1,103,170.21 in total of equity of the year 2015. On the other hand, the highest value for one of the thirty companies was the 2019 turnover, which totalled €10,891,947.04. Based on the average of the thirty companies, the highest turnover figures were in 2017, 2018 and 2019. Negatively, the non-current liabilities of 2015, 2016 and 2018 stand out. Looking at Table 2, together with the literature, it can be said that when variables have values close to 1, they have a strong linear relationship. This means that as one variable increases, the other variable also tends to increase. This positive correlation suggests that the two variables are directly and consistently influencing each other. As explained by Lordelo, Hongyu, Borja and Porsani (2018), the Spearman-Rho correlation coefficient matrix reveals the correlation relationships between different descriptive variables. The Spearman-Rho coefficient, also known as the correlation coefficient or simply correlation, is used to determine the degree of relationship between two variables. This coefficient varies between -1 and 1, reflecting the level of linear dependence between two quantitative variables.

INSERT TABLE 2 HERE



Based on the analysis in Table 2, the variables with the highest correlation coefficients are net income for 2018 and 2019 and operating income for 2017 and 2018, with values between 0.990 and 1.000. On the other hand, the variables with the weakest correlation are turnover in 2016 and total equity in 2015 and 2019, with values between 0.701 and 0.766. As highlighted by Iskandar & Ishak (2023), the anti-image matrix is useful for determining which variables are suitable for factor analysis. This analysis helps to identify which variables have an adequate fit with the structure defined by the other variables. According to Pessanha (2004), the values on the diagonal of the anti-image matrix represent the measures of sampling adequacy (MSA) of each variable. Values less than 0.5 indicate that the variable may not fit well with the structure defined by the other variables and could perhaps be eliminated. Analysing Table 3, all the variables have MSA statistic values on the diagonal (marked "a") greater than 0.5. This suggests that all these variables are suitable and have a reasonable fit to the structure of the other variables, which indicates that they are suitable for use in factor analyses.

INSERT TABLE 3 HERE

Table 3 shows that the variables "Total Equity 2018" and "Net Profit 2015" have MSA statistics of 0.908 and 0.915, respectively. On the other hand, the "2017 Turnover" and "2018 Turnover" variables stand out negatively, with MSA statistics of 0.712 and 0.716. However, since all the values are above 0.5, all the variables are considered suitable for statistical analysis. The Kaiser-Meyer-Olkin (KMO) test is used in factor analysis to assess the suitability of the data for this type of analysis. According to [Li, Huang and Feng \(2020\)](#), this statistic indicates the proportion of variance in the variables that can be explained by underlying factors. Values close to 1.0 indicate that factor analysis can be useful for the data. If the KMO is less than 0.50, according to [Kaiser \(1974\)](#), the results of factor analysis are unlikely to be very useful. In addition, Barlett's test of sphericity, as explained by [Olinto \(2017\)](#), assesses whether the correlation matrix is similar to the identity matrix. A p-value of 0.05 or less indicates that the data is suitable for factor analysis.

INSERT TABLE 4 HERE

Table 4 shows the Kaiser-Meyer-Olkin (KMO) and Barlett's sphericity tests. The KMO result is 0.852, classified as excellent according to the literature. About Barlett's test of sphericity, the chi-squared value is 2139.310, with degrees of freedom (gl) equal to 171 and a significance value of 0.000 (extremely low). This indicates, in line with the literature, that the observed variables have a significant correlation with each other,

validating the suitability for factor analysis. Table 5 presents the results of the total variance factorial method, which obtained 2 principal components with a sum of rotation with 92,649% of the total variance.

INSERT TABLE 5 HERE

The coefficient matrix of the principal component analysis makes it possible to identify which variables have the greatest influence on each component. This matrix helps to interpret and assign meaning to each component. So, the component matrix present at table 6 is based on the extraction method of the principal component analysis with rotation method of varimax with kaiser normalisation and shows the component scores by increasing value of each variable (Hair et al., 2020).

INSERT TABLE 6 HERE

Table 6 displays the variables with the greatest influence on each principal component, which can be interpreted as: First Component Analysis will be called “Performance”, due to all the variables are related with net result of the years 2015 till 2019 and operational result of the years 2015 till 2019; Second Component Analysis will be called “Investor Capability”, because it is related with total of equity of the years 2015 till 2019 and the sales and service of the same years. On the one hand, the variable with the most relevance in terms of “Performance” is the “Net Profit for the year 2015” and in relation with “Investor Capability”, the most relevant variable is the “Total of Equity for the year 2019”. Thus, the higher the coefficient the greater the relevance of these variables on the components. And it is relevant to demonstrate the inverse relationship between them, because total of equity shows the development of the firm during the years. Indeed, the performance demonstrate that the less relevance of the net profit or even operational result. On the other hand, the variable with the less relevance in terms of “Performance” is the “Operating profit of the year 2019” (before COVID-Period) and in relation with “Investor Capability” is the “sales and services volume of the year 2015”. Indeed, the lesser the coefficient the lesser are the variables of the components.

INSERT FIGURE 1 HERE

In conclusion, the sustainability of the hairdresser and beauty institute is directly linked to its positive performance and the positive capability of the investor. The total of equity variable is crucial to its sustainability, exerting a greater influence in more recent years (such as 2019) and a lesser influence in previous years (such as 2015), although all variables have a negative impact. However, the statistical analysis presented on the Figure 1 reveal situations in which “investor capability” is negative, resulting in poor hairdresser

and beauty institute “performance”. This is seen in the cases of hairdressers and beauty institutes “2”, “3”, “12” and “16”, where high levels of expenditure and low-income result in net income that is insufficient for self-financing. In the same quadrant of the Figure 1, hairdresser and beauty institute “18” and others face negative “investor capability” and poor “performance”, due to negative results in the most influential variables, such as “net income” for the years 2015 and 2016, as well as, “operating income” for the years 2015 and 2016.

Analyzing the Figure 1, hairdressers, and beauty institutes “1” and “9” have a positive “performance” but they have very different tendency in “investor capability”. Hairdresser and beauty institute “9” has a negative “investor capability”, while hairdresser and beauty institute “1” has an excellent “investor capability” due to a more balanced financing structure. Hairdresser and beauty institute “18” the situation highlights difficulties faced by the beauty sector, with negative “performance” resulting from high expenses in relation to turnover, reaching high percentages such as 358% in 2015 (maximum) and 94% in 2017 (minimum). Finally, hairdresser and beauty institute “8” is particularly interesting because, despite its good “performance”, it has a negative “investor capability” due to negative and high values in the most influential variables, such as the net result. This requires a careful strategy on the part of the manager to balance investments and financing. Also, important is that the research confirms both hypothesis:

H1: Yes, *business owners of the hairdressing salons and beauty institutes sector analyse performance to develop their business.*

H2: Yes, *business owners of the hairdressing salons and beauty institutes sector have the financial capability to develop their business.*

Indeed, this analysis shows that the relationship between “performance”, “investor capability” and sustainability is complex and influenced by a series of financial and operational factors, emphasizing the importance of effective financial management to ensure the health and continuity of hairdressers and beauty institutes in the hair salon and beauty institute sector. However, the globalization of the economy led to the growth and internationalization of companies and national standards no longer correspond to investor requirements. Therefore, the accounting information system contributes to the transparency and reliability of financial statements, facilitating the comparison and evaluation of companies from different countries. According to [Lemos & Picchiali \(2014,](#)

p.282) as markets are increasingly competitive: “companies need management practices that are efficient.”

## **5. Conclusions**

Hairdressers and beauty institutes are establishments of trust and satisfaction for their clients. On the one hand, they are looking for a better image of themselves, making them feel good and boosting their self-esteem. On the other hand, there are customers who come to this type of establishment to relax and socialise. Fierce competition in the market, coupled with the demands of the financial markets, puts these companies under constant pressure. The analysis carried out in this research reveals that many companies in the sector struggle to balance spending with income, which results in difficulties in generating positive net results. This, in turn, threatens the sustainability of these companies. Inflation and the rising cost of living have a direct impact on the sector, as customers may reduce the frequency of services and products offered. This affects revenue generation and the sustainability of companies.

In both the creation and operation of these establishments, planning is key. Lack of proper planning can lead to imbalances in financial statements, liquidity difficulties and limitations on growth. Therefore, accurate and detailed financial planning from the outset is essential for the long-term success of businesses. In short, hairdressing salons and beauty institutes are an integral part of people's lives, providing important services for physical and emotional well-being. However, these businesses face significant financial challenges that require careful management, strategic planning, and detailed financial analysis to ensure their sustainability and success in the competitive market.

Promoting sustainable development through educational programmes and higher education initiatives is indeed a crucial approach to improving the management and operation of Hair Salons and Beauty Institutes. Integrating knowledge of the beauty field with accounting and management principles can help managers make more informed and strategic decisions to boost the economic value of their companies. Specialised training in both beauty and accounting is essential for professionals in this sector. Worrying financial indicators, such as high indebtedness and low financial autonomy, highlight the need for more in-depth management skills and financial knowledge. Lack of preparation

in management can result in operational inefficiencies and difficulties in generating positive results.

It should be noted that the biggest limitations were access to the database and the strong constraint of the quality of accountability, affecting not only the collection but also the processing of data on the hairdressing and beauty parlour sector, which limited the scope of the research. Among other limitations, it is also worth mentioning the difficulties in accessing the SABI database, which began with the process of learning how to access the database and was subsequently found to have serious shortcomings in the hairdressing and beauty parlour sector, which conditioned the robustness of the research.

Also, the limited information on updated indicators developed by national and international organisations had repercussions on the length of the analysis. It should also be noted that, as this is an exploratory study, it is not possible to generalise the results, but as there are few studies, it is important to highlight its scientific relevance. This paper uses an interdisciplinary approach to tackle the financial challenges facing hairdressing salons and beauty institutes. Through specialised training and detailed analysis, the aim is to improve the sustainability of these companies, making them more resilient to economic fluctuations and market demands.

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**Table 1 - 5 – Descriptive Statistics Variables, in the year 2015 till 2019**

2015	Minimum	Maximum	Average	Standard deviation	2016	Minimum	Maximum	Average	Standard deviation
VN15	6 746,91	9 357 766,84	1 604 213,36	2 016 589,87	VN16	63 125,96	9 779 805,38	1 776 886,59	2 086 645,71
RO15	-17 269,94	2 697 804,20	213 802,38	566 163,37	RO16	-22 073,60	2 877 542,36	245 026,46	573 035,04
RLE15	-17 605,32	2 047 275,50	156 145,23	431 947,97	RLE16	-22 405,92	2 185 016,68	181 924,73	435 728,54
ANC15	0	1 464 136,36	257 435,54	341 786,69	ANC16	0	1 185 701,21	277 565,94	253 470,10
AC15	8 497,86	4 762 635,59	711 572,14	1 077 859,63	AC16	23 236,25	3 705 560,53	743 795,71	951 436,76
TA15	10 897,86	5 024 921,59	969 007,67	1 216 124,43	TA16	23 236,25	3 943 000,24	1 021 361,65	1 097 769,69
PNC15	0	412 615,89	48 416,04	99 978,22	PNC16	0	412 615,89	53 507,63	96 325,21
PC15	1 782,15	4 165 880,98	618 425,09	864 018,47	PC16	14 468,49	4 255 789,65	683 053,70	866 317,49
TP15	23 218,80	4 578 496,87	666 841,13	927 297,31	TP16	43 175,89	4 668 405,54	736 561,33	922 061,47
TCP15	-1 103 170,21	3 317 137,89	302 166,54	796 777,91	TCP16	-1 003 400,98	2 202 154,57	284 800,32	627 579,32

	2017	Minimum	Maximum	Average	Standard deviation
VN17		343 747,79	10 409 439,52	1 934 611,75	2 195 696,12
RO17		2 071,71	3 037 470,93	240 806,94	578 083,91
RLE17		754,75	2 303 773,36	179 608,48	438 693,76
ANC17		0	2 901 828,12	406 531,66	615 092,05
AC17		37 265,80	3 788 880,29	751 889,93	983 938,76
TA17		73 540,76	4 822 255,91	1 158 421,59	1 254 156,27
PNC17		0	450 608,68	51 122,52	97 419,19
PC17		16 235,28	4 127 733,48	761 387,14	947 064,27
TP17		61 444,75	4 578 342,16	812 509,66	1 010 708,40
TCP17		-970 053,68	2 315 927,93	345 911,93	668 352,43

	Minimum	Maximum	Average	Standard deviation		Minimum	Maximum	Average	Standard deviation
VN18	406 185,90	10 737 575,02	2 095 704,09	2 290 701,01	VN19	531 351,90	10 891 947,04	2 194 457,05	2 328 359,88
RO18	-238 981,01	3 199 259,76	240 057,25	625 235,38	RO19	-150 285,83	3 325 648,61	253 027,05	655 085,31
RLE18	-243 291,09	2 424 086,92	174 690,71	475 066,68	RLE19	-157 984,83	2 519 277,47	188 318,34	497 221,39
ANC18	0	2 863 724,19	398 311,76	582 877,43	ANC19	14 945,15	4 724 050,93	690 077,67	981 636,06
AC18	27 513,11	4 604 060,85	907 690,68	1 191 666,09	AC19	8 674,43	4 908 715,40	957 172,56	1 188 525,88
TA18	118 084,25	5 888 442,77	1 306 002,44	1 434 934,64	TA19	80 263,40	9 632 766,33	1 647 250,24	1 920 605,74
PNC18	0	450 608,68	74 496,93	117 314,74	PNC19	0	2 126 359,00	260 253,60	434 960,88
PC18	20 481,41	4 260 456,69	774 082,64	971 344,55	PC19	0	4 648 804,92	925 260,67	1 118 499,73
TP18	60 982,77	4 711 065,37	848 579,57	1 026 031,65	TP19	0	6 035 039,91	1 185 514,27	1 472 380,30
TCP18	-705 442,95	3 640 014,85	457 422,88	886 296,05	TCP19	-725 889,12	3 597 726,42	461 735,97	847 236,18

**Table 2 - Spearman-Rho Correlation Coefficient Matrix of the Sample Variables**

	RLE19	TCP19	TCP18	TCP17	TCP16	TCP15	VN19	RO19	VN18	RO18	RLE18	RO17	RLE17	VN16	RO16	RLE16	VN15	RO15	RLE15
RLE19	1																		
TCP19	0,719	1																	
TCP18	0,87	0,931	1																
TCP17	0,739	0,927	0,965	1															
TCP16	0,743	0,859	0,951	0,976	1														
TCP15	0,816	0,74	0,913	0,879	0,949	1													
VN19	0,864	0,781	0,846	0,766	0,713	0,701	1												
RO19	1	0,72	0,87	0,74	0,743	0,814	0,867	1											
VN18	0,86	0,762	0,838	0,755	0,707	0,706	0,996	0,863	1										
RO18	0,99	0,695	0,864	0,731	0,736	0,815	0,872	0,991	0,872	1									
RLE18	0,987	0,681	0,856	0,72	0,728	0,812	0,862	0,987	0,863	0,999	1								
RO17	0,989	0,689	0,863	0,74	0,748	0,833	0,863	0,989	0,863	0,992	0,99	1							
RLE17	0,988	0,68	0,858	0,734	0,744	0,832	0,853	0,988	0,853	0,991	0,99	1	1						
VN16	0,85	0,717	0,813	0,727	0,69	0,709	0,98	0,853	0,989	0,867	0,859	0,859	0,848	1					
RO16	0,968	0,629	0,834	0,696	0,741	0,859	0,818	0,966	0,822	0,972	0,973	0,977	0,979	0,828	1				
RLE16	0,962	0,61	0,822	0,682	0,732	0,856	0,802	0,96	0,806	0,967	0,969	0,973	0,975	0,812	0,999	1			
VN15	0,846	0,718	0,816	0,733	0,698	0,719	0,966	0,849	0,975	0,863	0,856	0,858	0,848	0,994	0,829	0,814	1		
RO15	0,918	0,549	0,781	0,638	0,719	0,871	0,736	0,916	0,746	0,923	0,925	0,931	0,933	0,762	0,983	0,985	0,766	1	
RLE15	0,913	0,536	0,771	0,627	0,711	0,867	0,717	0,911	0,726	0,918	0,921	0,926	0,929	0,741	0,98	0,984	0,745	0,999	1

**Table 3 - Anti-Image Matrix of the Sample Variables**

	RLE19	TCP19	TCP18	TCP17	TCP16	TCP15	VN19	RO19	VN18	RO18	RLE18	VN17	RO17	RLE17	VN16	RO16	RLE16	VN15	RO15	RLE15
RLE19	,834 <sup>a</sup>																			
TCP19	-0,192	,789 <sup>a</sup>																		
TCP18	0,27	-0,241	,908 <sup>a</sup>																	
TCP17	-0,338	-0,45	-0,626	,784 <sup>a</sup>																
TCP16	0,353	0,504	0,555	-0,989	,780 <sup>a</sup>															
TCP15	-0,339	-0,421	-0,639	0,88	-0,912	,798 <sup>a</sup>														
VN19	0,231	-0,594	-0,005	0,37	-0,417	0,428	,814 <sup>a</sup>													
RO19	-0,989	0,16	-0,262	0,365	-0,379	0,35	-0,242	,822 <sup>a</sup>												
VN18	-0,328	0,589	-0,015	-0,236	0,286	-0,38	-0,828	0,335	,716 <sup>a</sup>											
RO18	0,428	-0,451	-0,133	0,155	-0,181	0,346	0,55	-0,481	-0,738	,721 <sup>a</sup>										
RLE18	-0,428	0,455	0,059	-0,101	0,133	-0,295	-0,533	0,481	0,725	-0,995	,724 <sup>a</sup>									
VN17	0,316	-0,434	0,054	0,002	-0,046	0,214	0,524	-0,319	-0,875	0,709	-0,705	,712 <sup>a</sup>								
RO17	-0,219	0,435	0,019	-0,066	0,114	-0,315	-0,432	0,235	0,751	-0,773	0,772	-0,838	,734 <sup>a</sup>							
RLE17	0,292	-0,308	0,173	-0,195	0,146	0,056	0,315	-0,312	-0,652	0,667	-0,683	0,788	-0,958	,759 <sup>a</sup>						
VN16	-0,323	0,278	-0,026	0,152	-0,126	-0,077	-0,355	0,351	0,602	-0,705	0,707	-0,831	0,684	-0,652	,736 <sup>a</sup>					
RO16	0,495	-0,375	-0,11	-0,007	-0,005	0,21	0,287	-0,52	-0,557	0,638	-0,613	0,622	-0,667	0,623	-0,56	,749 <sup>a</sup>				
RLE16	-0,573	0,349	0,018	0,093	-0,088	-0,082	-0,25	0,592	0,492	-0,548	0,526	-0,547	0,594	-0,589	0,483	-0,978	,765 <sup>a</sup>			
VN15	0,329	-0,06	0,133	-0,39	0,375	-0,174	0,158	-0,377	-0,35	0,614	-0,635	0,566	-0,489	0,519	-0,874	0,417	-0,371	,784 <sup>a</sup>		
RO15	-0,146	-0,032	0,09	0,214	-0,213	0,009	0,058	0,194	0,134	-0,333	0,332	-0,242	0,206	-0,197	0,325	-0,572	0,557	-0,463	,853 <sup>a</sup>	
RLE15	0,061	0,061	-0,115	-0,086	0,109	-0,043	-0,108	-0,097	0,053	0,101	-0,094	-0,034	0,074	-0,088	-0,039	0,339	-0,373	0,224	-0,907	,915 <sup>a</sup>



**Table 4 - Analysis of KMO and Barlett Statistics**

Kaiser-Meyer-Olkin measure of sampling adequacy.		0,852
Barlett's test of sphericity,	Approx. Chi-squared	2139,310
	gl	171
	Sig.	0,000

**Table 5 - Total variance explained.**

Component	Initial values			Sums of squared load			Sums of rotation of squared		
	Total	% of variance	% cumulative	Total	% of variance	% cumulative	Total	% of variance	% cumulative
1	16,224	85,387	85,387	16,224	85,387	85,387	10,537	55,460	55,460
2	1,38	7,262	92,649	1,380	7,262	92,649	7,066	37,189	92,649
3	0,937	4,932	97,581						
4	0,29	1,525	99,106						
5	0,078	0,412	99,518						
6	0,032	0,166	99,684						
7	0,02	0,103	99,787						
8	0,017	0,088	99,876						
9	0,013	0,066	99,942						
10	0,004	0,02	99,962						
11	0,003	0,016	99,978						
12	0,002	0,012	99,990						
13	0,001	0,006	99,996						
14	0	0,002	99,998						
15	0	0,001	99,999						
16	6,39E-05	0	99,999						
17	5,70E-05	0	100						
18	4,08E-05	0	100						
19	1,91E-05	0	100						

Extraction method: Principal Component Analysis.

**Table 6 - Principal Component Analysis coefficient matrix**

	Component	
	Performance	Investor Capability
RLE15	0,186	-0,145
RO15	0,179	-0,135
RLE16	0,163	-0,112
RO16	0,154	-0,099
RLE18	0,128	-0,066
RLE17	0,127	-0,064
RO18	0,121	-0,057
RO17	0,121	-0,056
RLE19	0,112	-0,046
RO19	0,111	-0,044
TCP19	-0,209	0,343
TCP18	-0,100	0,220
TCP17	-0,190	0,324
TCP16	-0,146	0,270
TCP15	-0,022	0,117
VN19	-0,014	0,109
VN18	-0,006	0,098
VN16	0,014	0,073
VN15	0,012	0,075

**Figure 1 - Distribution of the Hairdressers and Beauty Institutes in the Sample by Principal Components: Investor Capability versus Performance**

