

Analysis Of The Economic-Financial Performance Of Community Universities Through Standard Financial Ratios

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Abstract:

The research aimed to analyse the economic-financial performance of community universities in Santa Catarina, through standard financial ratios, for the period from 2010 to 2017. To conduct the research, a quantitative approach was adopted. Thus, this is descriptive research, in which a multiple case study strategy was used. Regarding the literature, a bibliographic survey was carried out, in international and national databases, using the same selection criteria. Regarding the definition of the sample, those considered as public foundations were selected, resulting in 13 Community Higher Education Institutions - ICES, characterised as universities. The data for the research composition were collected from each institution's financial statements. As for the data processing, these were initially tabulated in Excel spreadsheets to perform the ratios calculations and evaluated according to the methodology used. The results indicated that these institutions operate with an average of 45.90% of external capital, 112.24% of equity capital immobilisation, and 87.62% of non-current assets immobilisation. They also pointed out that liquidity ratios have been operating with an indicator above 1.00, and profitability ratios have been operating with positive profitability, although entities with negative profitability were observed. In conclusion, it is observed that the scenario of the Santa Catarina ICES deserves attention from managers, considering that the ratios suggest a trend of low performance.

Keywords: Community Universities; Standard Financial Ratios; Performance Evaluation; ACAFE.

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I. Introduction

The analysis of financial statements of private companies is a traditional activity performed by accountants, economists, and investors in general, and there are many books written on the subject^{1,2}. The analysis of financial statements of public entities is less traditional, and fewer books discuss the subject^{3,4,5}. Analysis of financial statements of third-sector entities is rather incipient in Brazil. As a result, the Conselho Federal de Contabilidade - CFC, the Fundação Brasileira de Contabilidade - FBC, and the Associação de Procuradores e Promotores de Justiça e Entidades de Interesse Social - PROFIS have jointly published the book "Manual de Procedimentos para o Terceiro Setor - Aspectos de Gestão e de Contabilidade para Entidades de Interesse Social"⁶.

In Brazil, law 10.406/2002, which established the Civil Code, defines in Article 44: associations, societies, foundations, religious organisations, and political parties are internal public law legal entities. Societies are businesses and belong to the second sector while associations, foundations, religious organisations, and political parties belong to the third sector⁷. In Brazil, higher education institutions - HEIs (Instituições de Ensino Superior - IES) can be established in the first, second, or third sector.

First-sector universities can be created at the federal, state, or municipal level. The Universidade Federal do Rio de Janeiro - UFRJ is a federal university. The Universidade de São Paulo - USP is a state university. The Universidade Municipal de São Caetano do Sul - USCS is a municipal university. The HEI of the second sector may or may not be part of large business groups with open capital. The business groups in the educational services sector with open capital on the stock exchange today are Anima Holding S.A., Bahema Educação S.A., Cruzeiro do Sul Educacional S.A., Estacio Participacoes S.A., Kroton Educacional S.A., and Ser Educacional S.A. The HEIs of the third sector are typically established as foundations. The Fundação Getúlio Vargas - FGV is a foundation⁸.

Law 12.881/2013 defines that the HEI can be community ones: Instituições Comunitárias de Educação Superior - ICES. In this case, they must necessarily be constituted as associations or foundations and not have profit purposes⁹. In 2023, there are 66 ICES associated with the Associação Brasileira das Instituições Comunitárias de Educação Superior – ABRUC. Even though there are ICES in several Brazilian states, they are more concentrated in the states of Santa Catarina – SC and Rio Grande do Sul – RS, where there are two consolidated nets: the Associação Catarinense das Fundações Educacionais - ACAFE and the Consórcio das Universidades Comunitárias Gaúchas – COMUNG^{10,11,12}.

The economic-financial performance of the publicly traded private HEIs is the object of study by investors, investment analysis houses, and researchers^{13,14,15,16}. The economic-financial performance of the ICES from ACAFE is less frequently studied. Given this scenario, the following research question is proposed: What is the economic-financial performance of the community universities in Santa Catarina?

To answer the question, this research has set as its objective to measure and evaluate the economic-financial performance of the community universities in Santa Catarina through standard ratios, in the period from 2010 to 2017. It is understood that the contribution of this research is based on the evaluation of these institutions, relevant to society, by creating a set of standard indicators for the sector, offering their managers the opportunity to improve them. This, in turn, can generate alignment relationships applicable to a larger universe of institutions, significantly contributing to the management of other Brazilian ICES.

For the conduct of the research, a quantitative approach was adopted. This is descriptive research, in which the strategy was a multiple case study. As for the literature, a bibliographic survey was carried out, in international and national databases, using the same selection criteria. As for the definition of the sample, those considered public foundations were selected, resulting in 13 ICES characterised as universities. The data for the composition of the research were collected in the accounting statements of each institution. As for the treatment of the data, these were initially tabulated in Excel spreadsheets, for later calculations of the indicators and evaluations according to the methodology used.

To organise the work and thus have a better understanding of the study, this research was distributed into 5 sections: Introduction, Literature Review, Methodological Procedures, Results, and Conclusion.

II. Literature Review

The literature presents a series of indices calculated based on financial statements. These indices are typically grouped according to their nature. Some of the most common are capital structure ratios, liquidity ratios, and profitability ratios. Table 1 below presents the main ratios, their formulas, and how to interpret them.

Table 1: Main financial ratios

Ratio	Formula	How to Interpret
Capital Structure		
Third-Party Equity Participation	$\frac{\text{Third_party Capital}}{\text{Equity}} * 100$	The smaller, the better.
Debt Composition	$\frac{\text{Current Liabilities}}{\text{Third_party Capital}} * 100$	The smaller, the better.
Equity Immobilisation	$\frac{\text{Non_current Assets}}{\text{Equity}} * 100$	The smaller, the better.
Non-Current Resources Immobilisation	$\frac{\text{Non_current Assets}}{\text{Equity} + \text{Long_term Liabilities}} * 100$	The smaller, the better.
Liquidity		
Overall Liquidity	$\frac{\text{Current Assets} + \text{Long_term Receivables}}{\text{Third_party Capital}}$	The larger, the better.
Current Liquidity	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	The larger, the better.
Quick Liquidity	$\frac{\text{Cash} + \text{Accounts Receivable} + \text{Other Quick Convertibility Assets}}{\text{Third_party Capital}}$	The larger, the better.

Profitability		
Asset Turnover	$\frac{\text{Net Sales}}{\text{Assets}}$	The larger, the better.
Net Margin	$\frac{\text{Net Profit}}{\text{Net Sales}} * 100$	The larger, the better.
Return on Assets	$\frac{\text{Net Profit}}{\text{Assets}} * 100$	The larger, the better.
Return on Equity	$\frac{\text{Net Profit}}{\text{Average Equity}} * 100$	The larger, the better.

Source: Adapted from Matarazzo (2010)¹⁷.

However, such indicators were created and are used with a focus on private, for-profit companies. Brazilian law stipulates that the ICES must be established as non-profit⁹. Thus, these indicators cannot be indiscriminately used to assess the economic-financial performance of non-profit HEIs. The CFC, FBC, and Profis, together, developed and published in 2015 the book entitled "Manual de Procedimentos para o Terceiro Setor – Aspectos de Gestão e de Contabilidade para Entidades de Interesse Social" to assist accountants and administrators of third sector entities⁶. In its "Chapter X – Financial Statements," the book provides models of financial statements in accordance with Brazilian legislation and in its "Chapter XI – Operational and Financial Management" the book presents a list of suggested performance evaluation ratios⁶, reproduced in Table 2 below:

Table 2: Main financial ratios for the third sector

Ratio	Formula	Purpose
Current Liquidity	$\frac{\text{Current assets}}{\text{Current liabilities}}$	Current Assets available to settle short-term obligations.
Specific Liquidity	$\frac{\text{Cash on hand}}{\text{Project Balance}}$	Expresses the number of resources available to fulfil project activities in the next period.
Degree of Immobilisation of Net Equity	$\frac{\text{Net Equity}}{\text{Fixed Assets}} * 100$	Indicates the percentage of immobilisation of Net Equity.
Degree of Net Equity's resources in Non-Current Assets	$\frac{\text{Non – Current Assets}}{\text{Net Equity}}$	Shows the percentage of Net Equity invested in Non-Current Assets.
Short-term Indebtedness Degree	$\frac{\text{Current Liabilities}}{\text{Total Liabilities} + \text{Net Equity}} * 100$	Reflects the percentage of short-term indebtedness.
Overall Indebtedness Degree	$\frac{\text{Total Liabilities}}{\text{Total Liabilities} + \text{Net Equity}} * 100$	Portrays the total indebtedness percentage.
Ratio of realised project expenses and received revenues	$\frac{\text{Expenses realised}}{\text{Revenue received}} * 100$	Demonstrates the percentage of Expenses effectively realised in relation to Revenues received during the period.
Ratio of Gratuitousness to Total Expenses	$\frac{\text{Gratuitousness}}{\text{Total Expense}} * 100$	Assesses the percentage of gratuitousness granted during the period in relation to Total Expenses.
Ratio of Gratuitousness to Total Revenues	$\frac{\text{Gratuitousness}}{\text{Total Revenue}} * 100$	Examines the percentage of gratuitousness received during the period in relation to Total Revenues.
Share of Each Activity in Total Expenses	$\frac{\text{Expense by Activity}}{\text{Total Expense}} * 100$	Evaluates the level of representation of each activity in Total Expenses.

Share of Each Activity in Total Revenues	$\frac{\text{Revenue by Activity}}{\text{Total Revenue}} * 100$	Analyses the level of representation of each activity in Total Revenues.
Effort to Raise Own Funds	$\frac{\text{Own Revenues}}{\text{Total Revenue}} * 100$	Assesses the entity's ability to generate its own income in relation to Total Revenues.

Source: Adapted from CFC; FBC; Profis (2015)⁶.

It can be noted that some of the presented indices have versions identical to the indices used in private companies, like liquidity ratios. Additionally, there are correspondences between terminologies used in private companies and non-profit entities, as per the standard issued by the CFC: ITG 2002¹⁸:

Table 3: Difference in terminology of financial statements in private companies and third sector organisations

Private companies	Third sector organisations
In the Balance Sheet	
Share Capital	Social Capital
Accumulated Profit or Loss	Accumulated Surplus or Deficit
In Income Statement	
Net Profit for the Year	Surplus or Deficit for the Period
In the Cash Flow Statement	
Net Profit for the Year	Surplus or Deficit for the Period
In the Statement of Changes in Equity	
Share Capital	Social Capital
Accumulated Profit or Loss	Accumulated Surplus or Deficit
Net Profit for the Year	Surplus or Deficit for the Period

Source: Adapted from the standard ITG 2002 (R1)¹⁸.

Analysing the content of Tables 1, 2, and 3 together, it is concluded that the Liquidity and Capital Structure ratios proposed by Matarazzo (2010) are also applicable to non-profit entities¹⁷. However, Profitability ratios are not directly applicable, given that in a non-profit entity, there is no profit, in the original sense of the word. What exists is the difference between the sum of revenues and the sum of expenses, resulting in this subtraction which is called Surplus or Deficit for the Period. Thus, mathematically, by substituting the numerator Profit or Loss with the numerator Surplus or Deficit, the division still has a numerator. However, it should be noted that the difference between Profit and Surplus is not just in form, but also in content. The effort made by managers to increase profit by undertaking actions to increase revenues and to reduce costs is not a perfect equivalent to the effort of managers to achieve a surplus in foundation institutions.

Alexander Wall, considered the father of balance sheet analysis, already highlighted the need for reference standards to assist in the evaluation of financial statements. Starting in 1931, Dun & Bradstreet began to develop standard ratios for various business sectors in the USA. The non-utilisation of standard ratios leaves balance sheet analysis subject to the opinion and even the mood of the analyst¹⁷. It is only possible to state that a ratio is good, bad, satisfactory, reasonable, or deficient if it is compared with standard ratios. According to the author, good or bad doesn't exist in an absolute form, as one can only make this relation when comparing one ratio with others¹⁷.

The construction of standard ratios consists of four stages¹⁷:

1. Companies are separated into sectors of activity.
2. From each company, within the same sector, a specific financial ratio is taken.
3. The ratios thus obtained are arranged in ascending order of magnitude.
4. The standard ratios are given by deciles.

These were the steps adopted in the present research, as shown in the following sections¹⁷.

III. Methodological Procedures

The focus of this research was to evaluate the economic-financial performance of community universities in Santa Catarina, through the use of standard ratios, in the period from 2010 to 2017. Therefore, with regards to defining the sample, community universities associated with the ACAFE system were sought,

choosing from these, universities constituted as private foundations. This scope was necessary to make data analysis possible, since universities constituted as public foundations have an accounting characteristic different from institutions constituted as private foundations.

Thus, the sample was defined among private foundations, and organised according to the conceptual standardisation established by the accounting standards of the sector. The sample was composed of Unifebe, Unibave, Unidavi, Católica SC, Uniplac, Unesc, Univille, Univali, UnC, Unoesc, Unochapecó, Uniarp, Unisul. For this research, data were collected from the financial statements for the period from 2010 to 2017 directly from the university websites.

In executing data analysis, the method of applying standard ratios was adopted¹⁹. The standard ratios of the 13 selected entities for the period from 2010 to 2017 were calculated, annually. Having defined the standard ratios for each year, a score was calculated for each indicator, and through this score, these indicators were classified as excellent, good, satisfactory, reasonable, weak, deficient, and poor.

After identifying a score for each indicator, within its relative position, weights were used for each indicator to calculate the weighted average, by multiplying the weight by the score of each indicator. The sum of the product of each indicator allows for a weighted average for each group to be reached. To calculate the weighted average of each indicator, the following weights were used¹⁹:

- a) Capital Indicators: TPC/E 0.06, CL/TPC 0.01, NCA/E 0.02, NCA/E+LTL 0.10.
- b) Liquidity Indicators: OL 0.30, CL 0.05, QL 0.2.
- c) Profitability Indicators: NS/A 0.2, NP/NS 0.1, NP/A 0.10, NP/AE 0.6.

The calculation of averages, using the weights, was conducted for each year, and within each year, a calculation was made for each university, arriving at the calculation of each ICES, their respective scores, and weights. After calculating the weighted averages of each indicator, the result of the sum of each group was used to calculate the weights for each group of indicators. To calculate the weights for each group, the weights defined by Matarazzo (2017) were used: capital weight 0.4, liquidity weight 0.20, and profitability weight 0.4¹⁹.

The analysis began with the standard ratios, to evaluate how the ICES were in relation to the standard ratios, initiating an analysis on the aspect of the economic sector, region, moving on to categories, according to the presented scores, the groups of indicators, and the indicators themselves. For the analysis of the standard ratios, the average standard ratio for each region was considered, comparing the ICES¹⁹.

IV. Results

The analysis began by assessing standard financial ratios, which were subsequently transformed into categorical evaluations: excellent, good, satisfactory, fair, poor, deficient, or terrible.

Table 4: Standard Financial Ratios

Type	Ratio	2010	2011	2012	2013	2014	2015	2016	2017
Capital Structure	Third-party Capital Participation (Indebtedness)	52.55	54.10	55.37	52.72	43.96	35.53	34.70	38.25
	Debt Composition	61.81	67.56	52.52	34.50	35.58	49.82	65.47	56.46
	Social Equity Immobilization	129.67	128.65	110.89	112.71	118.03	96.98	98.43	102.52
	Non-current Resources Immobilization	94.33	97.16	92.83	88.32	82.33	85.49	79.42	81.07
Liquidity	Overall Liquidity	0.60	0.65	0.64	0.67	0.72	3.69	0.76	0.78
	Current Liquidity	0.89	0.86	1.09	0.91	1.01	1.13	1.84	1.78
	Quick Liquidity	0.87	0.80	0.97	0.80	0.79	1.11	1.66	1.33
Profitability	Asset Turnover	0.72	0.72	0.55	0.53	0.02	0.67	0.72	0.72
	Net Margin	0.30	1.34	-0.09	6.62	3.04	3.96	4.88	3.00
	Return on Assets	0.15	0.82	-0.08	2.95	2.33	2.89	3.13	2.06
	Return on Social Equity	0.19	1.42	-0.09	4.68	5.64	6.06	3.70	3.07

The debt ratios provide insight into the extent of third-party capital participation in the entities. The current research ascertained an average of 45.90%, implying that 45.90% of the debts are associated with third-party capital. For every \$100 in equity, the entity has \$45.90 of third-party capital. This ratio has been on a downward trend throughout the period under study. It should be noted that the ratios are proximate, with no considerable annual variation. A declining trend can be identified, oscillating between the year 2012, which presented the highest ratio, and the year 2016, with the lowest indicator, before rising again in 2017.

The composition of debt reveals that, on average, entities have 52.97% of short-term liabilities. This ratio is correlated with the current ratio, as the entity will require short and long-term resources to repay its debts. If 52.97% of the debt is short-term, the remaining debt is long-term; in this case, entities have 47.03% of long-term liabilities. This indicator has also shown a downward trend over the analysed period. Although there

has been an increase in the last three years, the trend line continues to decline; the debt composition has been reducing, even though it had increased in the years 2014, 2015, and 2016.

The immobilisation of social equity represents how much of the entity's own capital is allocated to fixed assets. In this study, the average resources destined for fixed assets, for the period under study, stood at 112.24, noting that, in most years, these entities allocated resources beyond their own capital to fixed assets. The research found that these entities invested a substantial portion of their resources in tangible assets, such as buildings, laboratories, and physical structures, to serve the students. This indicator is related to the liquidity ratio, given that, once resources are allocated to fixed assets, there may be a shortage of resources to meet short-term liabilities, leading the entity to raise funds from the market. This ratio has shown a slight downward trend, yet these ratios, according to the literature, remain high and should be viewed with some concern by the management. It can also be observed that these ratios do not exhibit dispersion or significant variation that would necessitate separate analysis, as the figures cluster around the line of best fit.

The standard ratio that deals with the immobilisation of non-current resources is related to the indicators of social equity immobilisation, as this ratio measures how much the company is allocating from its own capital and long-term third-party capital to fixed assets. In this research, it was not possible to assess this aspect, but it was found that 87.62% of non-current resources, on average, are destined for fixed assets, meaning that 12.38% of these resources are financing the operations of these universities.

The standard ratios of capital are at levels considered high, with the graphs indicating a decrease over the study period. This indicates that the entities, despite high investments and, consequently, high indebtedness, have been servicing their debts.

Liquidity analysis was performed using the ratios: general liquidity, current liquidity, and quick ratio. Considering the indicators calculated in this research, an average of 1.06 was obtained, i.e., for each \$1 of total debt, the sector has \$1.06 to settle short and long-term debts. Although this indicator, through the standard ratio, points to a healthy condition, some entities lack the resources to settle their debts, as the calculated ratios are below 1.

In the year 2015, a result of 3.69 was recorded, which is out of the norm when compared with the other years. This standard ratio is somewhat distorting the average result for the period, so much so that, when the average is simulated without this value, a result of a standard ratio average of 0.69 is obtained.

Upon analysing the standard ratios of current liquidity, the indicators fluctuated between 0.89 and 1.78, presenting an average of 1.19. Based on the calculated figures, it can be said that the sector has a current liquidity that enables the settling of short-term liabilities. The numbers, over this evaluated period, showed an evolution, which has been occurring with the capital indicators and similarly with the liquidity indicators chosen for this study.

The quick ratio presented an average standard ratio of 1.04, suggesting that entities have liquidity within expected levels, a liquidity higher than 1, but this is not the rule for all years. In the years 2010 to 2014, the standard ratio was below 1; and in the years 2015 to 2017, it was greater than 1, raising the average to 1.04. Logically, the presented standard ratio reflects an overview of the sector, yet it cannot be asserted that all entities have ratios above 1. Thus, the most significant fact is that the sector has shown progress over the years.

The suite of profitability ratios for Higher Education Non-Profit Institutions (HENPI) facilitates a detailed understanding of the returns and financial outcomes stemming from their operational activities. A scrutiny of the asset turnover ratio does not show a discernible trend, as the data appears stable, with the ratio averaging at 0.58. This signifies that for each \$1 invested by the entity, on average, the assets of these institutions are generating a return of 0.58.

Upon reviewing the ratios under consideration, it is noted that the data points are consistently uniform, except for 2014, which yielded a result of 0.02, necessitating targeted analysis. A negative trend can also be discerned, suggesting a general reduction in returns over the evaluated period. When the 0.02 value for 2014 is excluded from the analysis, an upward trend emerges in the remaining data. Therefore, this outlier significantly impacts the overall picture, as the mean increases to 0.66 without its inclusion.

In analysing the net profit margin ratio, the average ratio exhibited a value of 2.88. Despite a positive mean, there were instances of negative values, with 2012 marking the most unfavourable outcome. In that year, only five HENPIs posted positive results, leading to an overall negative sector average. A noteworthy aspect is that in 2013, the ratio surged to 6.62. The average ratio calculated for return on assets yielded a return of 1.78, while the return on equity ratio was 3.08.

Reviewing the data trends, it is evident that the capital ratios have been on a downward trajectory, while liquidity ratios have displayed growth. Moreover, profitability indicators suggest an upward trend in profitability, except for asset turnover which indicates a downward trend. This reinforces Matarazzo's (2017) emphasis on the significance of reducing debt, which is reflected in the standard ratios; his assertion that liquidity ratios should ideally be higher is also mirrored in the data trends. Among the profitability ratio suite, the only indicator that exhibited a downward trend was the return on assets.

Assessment of financial groups using performance rating

The preceding assessments were premised on financial ratios, incorporating an examination of the benchmark ratios to facilitate a quantitative perspective of the ICES and their respective financial indicators. This was then followed by a qualification analysis of these indicators to determine whether they can be classified as superior, good, satisfactory, moderate, weak, poor, or inadequate.

The evaluation process initiated with the economic group then proceeded to scrutinise the categories and ratios, which ultimately yielded results with the allocation of weights to category groups. These weights were designated as follows: capital structure - 0.40; liquidity structure - 0.20; and profitability structure - 0.40. This weighting of categories facilitated the identification of the ICES' status within each category, and crucially, the overall condition of each category for the sector under study. The ensuing table represents a consolidated analysis of the sector.

Table 5: Sector's consolidated position, per rating

Year	1 - Unoesc	2 - Uniplac	3 - Unibave	4 - Unochapecó	5 - Unisul	6 - Unesc	7 - Católica	8 - Unidavi	9 - Unc	10 - Univille	11 - Uniarp	12 - Univali	13 - Unifebe	Average
2010	6,92	1,54	2,08	5,92	4,70	3,56	3,40	8,08	3,22	5,60	8,06	5,74	5,18	4,92
2011	7,26	1,84	4,76	5,60	4,66	5,14	4,24	8,44	3,32	5,08	3,98	6,00	3,68	4,92
2012	6,70	4,70	4,00	5,10	4,88	4,04	3,00	7,68	2,62	5,40	7,12	4,96	3,80	4,92
2013	7,22	4,84	4,78	4,42	4,36	5,70	4,00	7,28	3,68	3,62	6,78	2,30	5,02	4,92
2014	7,56	2,50	5,80	4,86	4,38	4,26	7,76	8,68	2,44	3,74	4,68	3,42	3,92	4,92
2015	5,32	6,28	3,84	7,42	2,92	3,08	6,66	7,00	3,40	2,90	5,76	3,50	3,10	4,71
2016	6,30	5,42	3,52	7,54	3,04	1,76	6,22	7,72	3,90	4,08	7,04	5,54	1,92	4,92
2017	6,84	4,60	3,80	6,38	2,76	2,22	6,52	8,78	4,64	5,34	5,06	3,50	3,56	4,92
Average	6,77	3,97	4,07	5,91	3,96	3,72	5,23	7,96	3,40	4,47	6,06	4,37	3,77	

The data in the above table indicate a weighted mean of 4.92, suggesting the sector's performance is satisfactory, with a score range of 4.00 to 6.01, defined as satisfactory per Matarazzo (2010). Despite the sector's satisfactory profile, variation is observed in individual university performances, with some scoring above and others below the sector average.

Following the holistic category analysis, a detailed analysis was carried out for individual categories, illustrating each university's position for each category. This approach enabled an evaluation of each institution by comparing their averages to the overall mean. The overall mean helped determine the relative standing, as presented by each entity, in the subsequent table.

Table 6: Entities' weighted mean per category, annually

Year	1 - Unoesc	2 - Uniplac	3 - Unibave	4 - Unochapecó	5 - Unisul	6 - Unesc	7 - Católica	8 - Unidavi	9 - Unc	10 - Univille	11 - Uniarp	12 - Univali	13 - Unifebe	Average
Índices de capital														
2010	5,90	1,50	2,10	5,30	3,60	3,00	5,50	8,40	4,70	7,40	7,10	7,30	8,20	5,38
2011	7,50	2,00	2,10	5,70	3,60	3,60	6,10	8,90	3,90	6,70	4,60	7,60	7,70	5,38
2012	7,50	1,80	2,00	5,00	3,40	5,20	4,80	8,80	4,60	6,30	6,40	7,30	6,90	5,38
2013	7,70	1,90	7,90	4,90	3,10	5,20	4,50	8,50	4,70	5,60	6,10	2,70	7,20	5,38
2014	7,80	1,90	8,20	5,00	3,30	4,40	5,90	8,80	4,40	5,50	6,40	2,50	5,90	5,38
2015	5,80	9,30	7,60	6,70	3,40	2,70	7,20	8,20	3,30	4,80	5,70	1,20	4,10	5,38
2016	8,00	1,80	6,00	7,80	3,20	2,40	6,80	9,00	3,70	5,40	6,60	5,50	3,80	5,38
2017	8,50	1,70	6,60	8,40	2,50	3,00	6,50	8,40	3,80	5,40	5,10	5,80	4,30	5,38
Average	7,34	2,74	5,31	6,10	3,26	3,69	5,91	8,63	4,14	5,89	6,00	4,99	6,01	
Índices de liquidez														
2010	7,20	1,10	1,40	6,80	4,30	3,60	2,00	10,00	4,70	7,00	6,10	5,30	0,50	4,62
2011	7,30	2,40	2,00	7,40	4,50	4,50	1,20	10,00	5,00	6,80	3,70	5,00	0,20	4,62
2012	7,30	1,90	2,00	7,10	3,80	5,80	1,20	10,00	2,90	6,20	5,60	6,00	0,20	4,62
2013	7,70	2,60	2,30	6,70	3,80	6,30	0,60	10,00	3,80	5,70	5,10	4,10	1,30	4,62
2014	8,00	1,10	2,20	6,70	4,70	3,10	7,00	10,00	3,40	5,70	4,00	2,90	1,20	4,62
2015	5,60	0,00	1,60	4,90	2,80	1,40	4,90	7,00	3,80	4,50	3,80	2,50	3,10	3,53
2016	7,70	5,90	2,00	7,30	2,20	1,60	5,30	10,00	3,10	6,20	5,60	3,10	0,00	4,62
2017	8,00	6,40	2,20	7,90	2,20	1,90	5,40	9,10	3,60	5,70	5,30	2,30	0,00	4,62

Average	7,35	2,68	1,96	6,85	3,54	3,53	3,45	9,51	3,79	5,98	4,90	3,90	0,81	
Índices de rentabilidade														
2010	7,80	1,80	2,40	6,10	6,00	4,10	2,00	6,80	1,00	3,10	10,00	4,40	4,50	4,62
2011	7,00	1,40	8,80	4,60	5,80	7,00	3,90	7,20	1,90	2,60	3,50	4,90	1,40	4,62
2012	5,60	9,00	7,00	4,20	6,90	2,00	2,10	5,40	0,50	4,10	8,60	2,10	2,50	4,62
2013	6,50	8,90	2,90	2,80	5,90	5,90	5,20	4,70	2,60	0,60	8,30	1,00	4,70	4,62
2014	7,10	3,80	5,20	3,80	5,30	4,70	10,00	7,90	0,00	1,00	3,30	4,60	3,30	4,62
2015	4,70	6,40	1,20	9,40	2,50	4,30	7,00	5,80	3,30	0,20	6,80	6,30	2,10	4,62
2016	3,90	8,80	1,80	7,40	3,30	1,20	6,10	5,30	4,50	1,70	8,20	6,80	1,00	4,62
2017	4,60	6,60	1,80	3,60	3,30	1,60	7,10	9,00	6,00	5,10	4,90	1,80	4,60	4,62
Average	5,90	5,84	3,89	5,24	4,88	3,85	5,43	6,51	2,48	2,30	6,70	3,99	3,01	

The aggregate mean of the groups suggests that the institutions fall within a similar economic context. However, despite the overall trend of ICES as suggested by the aggregate averages across indicator groups, these indicators cannot definitively claim that all entities are in a satisfactory economic condition.

The ratios were categorised in terms of relative position, enabling an analysis of group data. Table X, presented below, reveals the classification of ratios as satisfactory. These indicators should adhere to the principle of "the lower, the better", as stated by Matarazzo (2010). Hence, referring back to Figure 14, it can be observed that entities have a debt ratio average of 5.38, considered a satisfactory mean.

Table 7: Relative position of capital ratios

Capital Structure Ratios - The Lower, The Better									
Relative Position		2010	2011	2012	2013	2014	2015	2016	2017
De 0,00 a 1,00	Terrible								
De 1,01 a 2,00	Poor								
De 2,01 a 3,00	Weak								
De 3,01 a 4,00	Fair								
De 4,01 a 6,00	Satisfactory	X	X	X	X	X	X	X	X
De 6,01 a 8,00	Good								
De 8,01 a 10,00	Excellent								

The indebtedness analysis of ICES led to their classification as satisfactory. However, it is not possible to definitively assert that all institutions are indebted. As such, this result can be juxtaposed with the outcomes derived from the standard ratios and the average of these standard ratios, by region.

The liquidity ratios showed an average of 4.62, rendering this analysis relative indicators, indicating a fluctuation between satisfactory and weak. Even though the indicator, on average, remained consistent across all years, considered satisfactory by Matarazzo (2017), a more granular analysis, summarised in Table X, verifies the result per institution. These outcomes demonstrate variability among these indicators, verifiable by comparing each institution with the table of relative ratios, as suggested by Matarazzo (2017). In this context, there are universities with superior indicators, and simultaneously, others with inadequate ones.

To enhance understanding of the sector's relative position, the liquidity ratios were aggregated, as depicted in the subsequent Table X. Thus, about the relative position of liquidity indicators, it was possible to formulate a general conclusion about the entities. While Figure 14 showcased the weighted averages of each indicator for each institution, Table 8 exclusively illustrates the liquidity ratio category scenario.

Table 8: Relative position of liquidity ratios

Liquidity ratios - The larger, the better									
Relative Position		2010	2011	2012	2013	2014	2015	2016	2017
De 0,00 a 1,00	Terrible								
De 1,01 a 2,00	Poor								
De 2,01 a 3,00	Weak								
De 3,01 a 4,00	Fair						X		
De 4,01 a 6,00	Satisfactory	X	X	X	X	X		X	X
De 6,01 a 8,00	Good								
De 8,01 a 10,00	Excellent								

Liquidity metrics reflect the firm's available resources to meet its liabilities. In this analysis, such indicators earned a 'satisfactory' classification, suggesting an above-average performance compared to the

median, which represents a reasonable relative position. The broader outlook for Santa Catarina suggests that university administrators must remain vigilant regarding their short-term financial stewardship, given the merely satisfactory status of these metrics.

Upon evaluation of liquidity ratios, which exhibited an average 'satisfactory' classification, it remains inappropriate to assert that all entities conform to the same benchmark. For these metrics, some higher education institutes (HEIs) demonstrated exceptional weighted averages, while others showed decidedly lacklustre results. This landscape is also depicted in Figure 14.

Continuing with profitability indicators, the picture was not substantially different. The surveyed universities indicated a 'satisfactory' level of profitability in their respective financial disclosures. However, according to Matarazzo's (2017) methodology, this 'satisfactory' rating assumes all entities adhere to the norm for the sector, as demonstrated in the subsequent table.

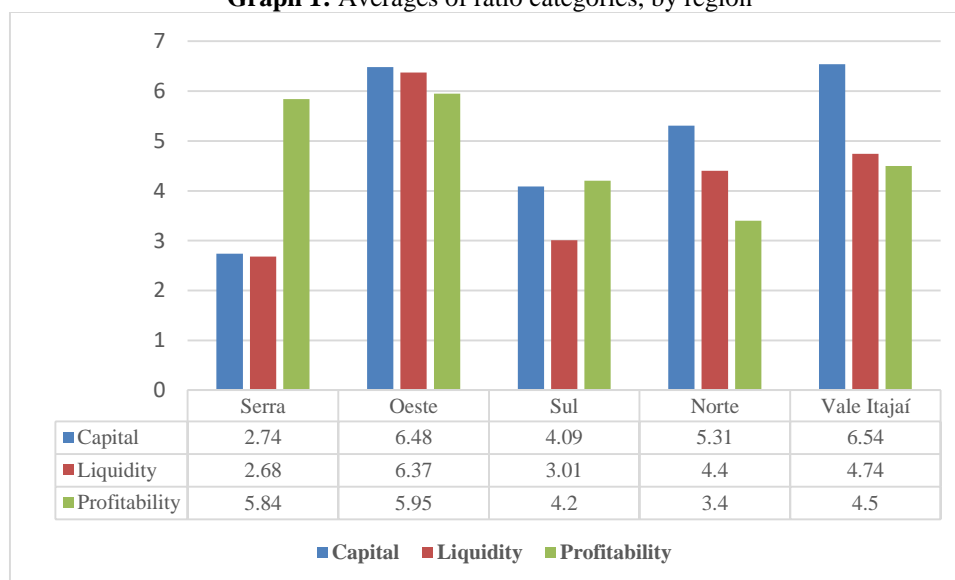
Table 9: Relative position of profitability ratios

Profitability ratios - The larger, the better		2010	2011	2012	2013	2014	2015	2016	2017
De 0,00 a 1,00	Terrible								
De 1,01 a 2,00	Poor								
De 2,01 a 3,00	Weak								
De 3,01 a 4,00	Fair								
De 4,01 a 6,00	Satisfactory	X	X	X	X	X	X	X	X
De 6,01 a 8,00	Good								
De 8,01 a 10,00	Excellent								

Despite profitability indicator averages being tagged as 'satisfactory', these do not capture the heterogeneity of the sector. Entities fluctuate between peak positions, regarded as 'superior', and the poorest ratings categorised as 'very poor'.

Analysing the indicator groupings to conclude this section, the graph below offers a regional distribution of these entities. Consequently, Graph 29 provides a vision of the category averages, enabling comprehension of the current scenario of to liquidity ratios, profitability, and the capital structure conditions.

Graph 1: Averages of ratio categories, by region



Observing Graph 1 in the context of capital structures, the sector at large yielded an average of 5.38, deemed 'satisfactory'. The Vale region outperformed the broader landscape, achieving 6.54. Only the Sul, Serrana, and Norte regions trailed the general indicator, thus pulling down the overall rating, whilst the Vale region stands prominent within the category set.

For liquidity indicators, the Oeste and Vale do Itajaí regions outperformed the sector's satisfactory average of 4.62, earning a 'good' rating. Conversely, the Sul, Serrana, and Norte regions fell short of the group average, with the Serrana region landing the most disappointing score of 2.68.

As for profitability ratios, which achieved an overall 'satisfactory' rating of 4.62, the Oeste and Serrana regions posted above-average indicators. Despite exceeding the average, these regions still received a 'satisfactory' rating. On the contrary, the Sul and Vale do Itajaí regions, even though they scored below average, also obtained 'satisfactory' grades. Meanwhile, the Norte region has a 'moderate' standing, presenting an average of 3.40.

To conclude the analysis of ratios, after applying the weighted average and identifying each indicator's relative standing, it's clear that the scenario for the HEIs surveyed in this research falls below the median, signified by the 'moderate' category. Hence, within this context, the indicators cannot be regarded as the best. Although some HEIs exhibit strong indicators, there also exist universities with very poor indicators. The Oeste region deserves special mention for securing the state's highest ratings across all three indicators – capital, liquidity, and profitability, thus enhancing this average.

V. Conclusion

The purpose of this research was to evaluate the financial performance of community universities in Santa Catarina, using standard indices, for the period from 2010 to 2017.

Regarding the standard indices, the capital ratios revealed a declining trend; liquidity indicators suggested a rising trend throughout the period under review, mirroring the pattern observed for profitability indices. The analysis further verified that entities have been operating with an average external capital of 45.90%, immobilising their own resources by an average of 112.24%, and assessed the immobilisation of non-current resources with a result of 87.62%, demonstrating that all these indicators trend downwards over the period.

The overall liquidity indicators showed an average of 1.06. Based on these figures, it is feasible to assert that the entities have the potential for long-term repayment, albeit with a very slim margin. The current liquidity exhibited an average of 1.19, indicating that the entities have a greater capacity to meet short-term liabilities. The quick liquidity averaged at 1.04, and even though it wasn't consistent throughout the period, this indicator showed growth, similar to all liquidity indicators.

Regarding profitability indices, the asset turnover averaged at 0.58, with this indicator showing a downward trend in the line graph. The net profit margin, despite some entities displaying negative outcomes, exhibited a positive average of 2.88. The return on assets demonstrated an average result of 1.78, and the return on equity a mean yield of 3.08. It was not possible to determine if these indicators were deemed poor. However, within the context, it was more crucial to identify a positive evolution throughout the studied period.

Concluding and correlating the standard indices, the entities that displayed good indicators as assessed by the standard indices, scored the highest grades.

References

- [1]. Gitman LJ, Zutter CJ. Principles Of Managerial Finance. 14th Ed. Harlow: Pearson; 2019.
- [2]. Ross SA, Westerfield RW, Jaffe J, Jordan BD. Corporate Finance. 13th Ed. New York: Mcgraw Hill; 2021.
- [3]. Silva MC. Análises Das Demonstrações Contábeis Públicas. São Paulo: Biblioteca 24horas; 2019.
- [4]. Mauss CV. Análise De Demonstrações Contábeis Governamentais. Instrumento De Suporte À Gestão Pública. São Paulo: Atlas; 2012.
- [5]. Lima SC, Diniz JA. Contabilidade Pública - Análise Financeira Governamental. São Paulo: Atlas; 2016.
- [6]. Conselho Federal De Contabilidade - CFC, Fundação Brasileira De Contabilidade – FBC, Associação De Procuradores E Promotores De Justiça E Entidades De Interesse Social - PROFIS. Manual De Procedimentos Para O Terceiro Setor – Aspectos De Gestão E De Contabilidade Para Entidades De Interesse Social. Brasília; 2015.
- [7]. Brazil. Lei No. 12.881, De 12 De Novembro De 2013. Diário Oficial Da União. 2013. Disponível Em: [Http://Www.Planalto.Gov.Br/Ccivil_03/_Ato2011-2014/2013/Lei/L12881.Htm](http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2013/lei/L12881.htm)
- [8]. B3. Empresas Listadas. [Acesso Em 2023 Jul 26]. Disponível Em: [Https://Www.B3.Com.Br/Pt_Br/Produtos-E-Servicos/Negociacao/Renda-Variavel/Empresas-Listadas.Htm](https://www.b3.com.br/pt_br/Produtos-E-Servicos/Negociacao/Renda-Variavel/Empresas-Listadas.Htm)
- [9]. Brazil. Lei No. 12.881, De 12 De Novembro De 2013. Dispõe Sobre A Definição, Qualificação, Prerrogativas E Finalidades Das Instituições Comunitárias De Educação Superior - ICES, Disciplina O Termo De Parceria E Dá Outras Providências. [Internet]. Disponível Em: [Http://Www.Planalto.Gov.Br/Ccivil_03/_Ato2011-2014/2013/Lei/L12881.Htm](http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2013/lei/L12881.htm)
- [10]. Associação Brasileira Das Instituições Comunitárias De Educação Superior. Nossas Associadas. [Acesso Em 2023 Jul 26]. Disponível Em: [Https://Site.Abruc.Org.Br/Nossas-Associadas](https://site.abruc.org.br/nossas-associadas)
- [11]. Associação Catarinense Das Fundações Educacionais - ACAFE. Associadas. [Acesso Em 2023 Jul 26]. Disponível Em: [Https://Acafe.Org.Br/Site/](https://acafe.org.br/site/)
- [12]. Consórcio Das Universidades Comunitárias Gaúchas – COMUNG. Instituições. [Acesso Em 2023 Jul 26]. Disponível Em: [Https://Comung.Org.Br/Instituicoes/](https://comung.org.br/instituicoes/)
- [13]. Silvestre CG, Santos BFN, Santos RF, Rodrigues JLK, Coelho FA. Gestão: Análise Do Desempenho Econômico-Financeiro De Organizações Brasileiras De Capital Aberto De Ensino Superior. Sci Hum Act. 2018;3(2):216-241.
- [14]. Xavier AKNA. Desempenho Econômico-Financeiro De Empresas Do Setor De Educação Listadas Na B3 Durante A Pandemia Do Covid-19 [Trabalho De Conclusão De Curso]. João Pessoa: Universidade Federal Da Paraíba, Departamento De Finanças E Contabilidade; 2022. Disponível Em: [Https://Repositorio.Ufpb.Br/Jspui/Handle/123456789/24171](https://repositorio.ufpb.br/jspui/handle/123456789/24171)
- [15]. Aguiar JF. Análise Do Desempenho Econômico-Financeiro Das Instituições De Ensino Superior Brasileiras Privadas Listadas Na B3 Durante A Pandemia Da Covid-19 [Trabalho De Conclusão De Curso]. João Pessoa: Universidade Federal Da Paraíba, Departamento De Finanças E Contabilidade; 2021. Disponível Em: [Https://Repositorio.Ufpb.Br/Jspui/Handle/123456789/20812](https://repositorio.ufpb.br/jspui/handle/123456789/20812)

- [16]. Alves E Souza J, Mendonça J, Da Silva DC, De Benedicto GC. Desempenho Econômico Da Maior Empresa De Serviços Educacionais Do Mundo: Um Estudo Da Kroton Educacional Com Base Em Seus Segmentos Operacionais. *Cuad Contab.* 2017;18(46):83-103. DOI: 10.11144/Javeriana.Cc18-46.Deme
- [17]. Matarazzo DC. *Análise Financeira De Balanços: Abordagem Gerencial.* 7th Ed. São Paulo: Atlas; 2010.
- [18]. Conselho Federal De Contabilidade. Resolução CFC N°. 1.409/12. Aprova A ITG 2002 (R1) - Entidade Sem Finalidade De Lucros. Brasília (DF), 2012.
- [19]. Matarazzo DC. *Análise Financeira De Balanços: Abordagem Gerencial.* 8th Ed. São Paulo: Atlas; 2017.