

Balanced Scorecard in the commercial management of a telecommunication company

Balanced Scorecard na gestão comercial de uma empresa de telecomunicações

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Abstract

In order to remain in the market, organizations need to adapt to the changes that occur in the corporate environment, having mechanisms that enable good management, such as the Balanced Scorecard. Thus, the objective of the study is to analyze how the Balanced Scorecard indicators can help the managers of the commercial department in the decision making in a company in the telecommunications industry and for that, a descriptive, quantitative research was developed, through a survey with 102 managers of the commercial department of all the company's branches and the data treated by means of descriptive statistics and exploratory factor analysis. The results indicate that, through the indicators of the four perspectives of the BSC, it is possible to carry out more concrete analyses, identification of the root cause, from the three perspectives listed: internal processes, customers/learning and renewal and financial, allowing the creation of plans of effective actions for more assertive decision making in the commercial department.

Keywords: balanced scorecard, decision making, commercial department.

Resumo

Para manterem-se no mercado, as organizações precisam se adequar as mudanças que ocorrem no meio corporativo, dispondo de mecanismos que possibilitem boa gestão, como é o caso do *Balanced Scorecard*. Assim, o objetivo do estudo consiste em analisar como os indicadores *Balanced Scorecard* podem auxiliar os gestores do departamento comercial nas tomadas de decisões em uma empresa do ramo de telecomunicações e para tanto, foi desenvolvida uma pesquisa descritiva, quantitativa, mediante um levantamento com 102 gestores do departamento comercial de todas as filiais da empresa e os dados tratados por meio da estatística descritiva e análise fatorial exploratória. Os resultados apontam que, mediante os indicadores das quatro perspectivas do BSC, é possível realizar análises mais concretas, identificação de causa raiz, a partir das três perspectivas elencadas: processos internos, clientes/aprendizagem e renovação e financeira, possibilitando a criação de planos de ações eficazes para tomadas de decisões mais assertivas no departamento comercial.

Palavras-chave: *balanced scorecard*, tomada de decisão, departamento comercial.

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1 Introduction

In recent years, in order to remain competitive in the market, companies must adapt to the various changes that occur in the corporate environment, and it is necessary to have sufficient mechanisms that enable good business management, thus contributing to effective planning and control of organizational development, providing management focused on quality (Gomes, 2019). Therefore, to support the management process in an organization within these new times, it is essential that performance measurement processes exist, since what is not measured cannot be managed (Paton, 2000).

Among the various ways of measuring business performance, the Balanced Scorecard (BSC) is presented as a tool attributed to indicator evaluation systems with the ability to translate the mission and vision of companies into a comprehensive set of performance measures that serve as a basis for a system of strategic measurement and management, based on the evaluation of financial and non-financial indicators. Thus, this management tool can be used not only to measure organizational performance but also to establish goals, planning, budgeting, feedback, and strategic learning (Kaplan & Norton, 2000).

Therefore, one of the sectors that has been standing out in the market is the telecommunications sector, in which, when analyzing the current situation in Brazil and in the world, amidst a pandemic, the Brazilian Association of Internet and Telecommunications Providers (ABRINT, 2021) shows that during the pandemic, the demand for services from small providers grew 47%, that is, 29% more than the demand for large operators, and associated with this, the International Data Corporation (IDC) points out that the Brazilian telecommunications sector should grow 2% in 2021.

Consequently, one of the departments that becomes prominent in companies is the commercial department, which according to Czinkota (2001), sales are direct verbal communication designed to explain how goods, services, or ideas from a person or company serve the needs of one or more potential customers, and to understand the entire performance of this department, indicators will be necessary to guide the area managers in assembling strategies and making decisions with safety and efficiency.

In this sense, the present study aims to understand the following problem: How can Balanced Scorecard indicators assist commercial department managers in decision-making in a telecommunications company? Thus, the research aimed to analyze how BSC indicators can assist commercial department managers in decision-making in a telecommunications company.

Assuming that visual management demonstrates the situation of each of the sectors clearly, the justification for studying these commercial department indicators, based on the BSC, will bring relevance so that area managers can analyze data, processes, and make the most coherent decisions for each of their areas, contributing to discussions about performance measurement tools, the BSC, and how this will contribute to the studied sector.

Furthermore, there is a growth in the literature of studies that address the application of the BSC, with a view to increasing theoretical discussions and improving its operationalization in the organizational environment, as pointed out by Souza, Marinho and Sartori (2022). Thus, this reality can be identified both in the international literature, in studies such as Quesado *et al.* (2022), Govindan *et al.* (2022) and Sahu, Agrawal and Garg (2023), as well as in the national literature, citing the research of Pederneiras *et al.* (2022), Veraldo Junior *et al.* (2022), and Oyadomari *et al.* (2023), all focused on analyzing the BSC in the business environment and how this tool can assist in all company processes, which can reinforce the idea of its contribution to the commercial sector, which is still an incipient literature considering BSC



studies applied to the public sector or in the educational sector (SOUZA; MARINHO; SARTORI, 2022).

2 Theoretical frame of reference

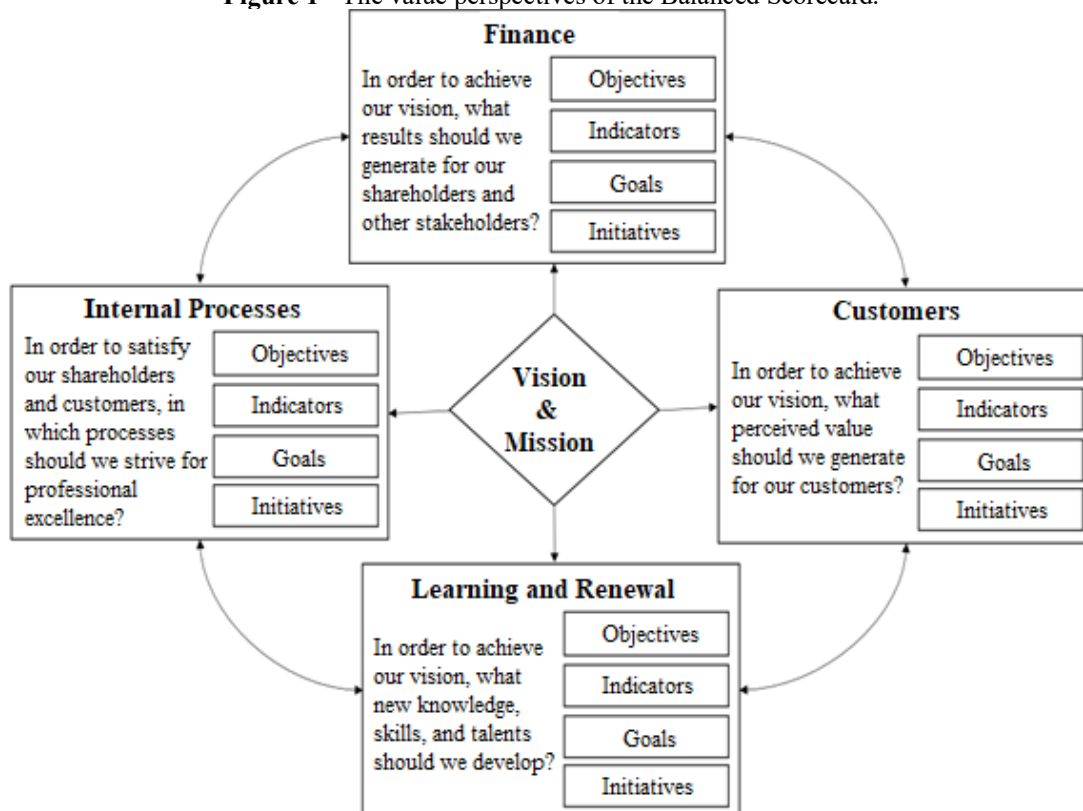
2.1 O Balanced Scorecard (BSC)

The strategic approaches and actions taken by organizations, indicating their success, are based on their business performance, as indicators are used to verify this performance, allowing for a visible management approach where indicators are "displays" of a given situation (Terribilli, 2021). Among these indicators, the Balanced Scorecard (BSC) can be mentioned, which has been implemented for three decades to evaluate and improve organizational performance (Amer *et al.*, 2022; Bohm *et al.*, 2021).

Herrero Filho (2019) states that, in today's knowledge society, measuring only a company's financial health is no longer sufficient; it is necessary to measure the long-term strategic health of organizations. Thus, Kaplan and Norton (2000) present the BSC tool that promotes the evaluation of the organization under four perspectives: customers, internal processes, finances, and learning and growth.

According to Herrero Filho (2019), it is through the BSC methodology where the organization's mission and vision need to be translated into objectives and measures that reflect the interests and expectations of its key stakeholders and can be grouped into four different perspectives, as presented in Figure 1.

Figure 1 - The value perspectives of the Balanced Scorecard.



Source: Adapted from Kaplan and Norton (2000).

In this sense, Kaplan and Norton (2000) defined each of the BSC perspectives as follows: Financial (demonstrates whether the execution of the strategy is contributing to improving financial results); Customer (evaluates whether the company's value proposition for target customers is producing expected results in terms of satisfaction); Internal processes (identifies whether the key business processes defined in the company's value chain are contributing to value generation); and Learning and Growth (verifies whether learning, acquiring new knowledge, and mastering competencies are playing the enabling role for the previous three perspectives).

The BSC is a management synthesis that translates a company's strategy into easily understandable objectives, measures, targets, and initiatives for organization participants and goes beyond a tool for tactical and operational measures. According to Kaplan and Norton (2000), the BSC is a tool capable of translating a company's mission and vision into a comprehensive set of performance measures that serve as the basis for a strategic measurement and management system. It is used as a strategic management system to manage long-term strategy (Tormena, 2011; Herrero Filho, 2019).

Frame 1 presents the main objectives within companies, according to Kaplan and Norton (2000).

Frame 1 – Main objectives of the Balanced Scorecard

OBJECTIVE	DEFINITION
Clarify and translate the vision and strategy	The BSC process should be developed by top executives of the company, where everyone has contributed and reached a consensus in order to translate the business strategy into specific strategic objectives.
Communicate and link strategic objectives and measures	The BSC's strategic objectives and measures are disseminated throughout the entire company through bulletin boards, emails, videos, and internal newspapers. To disseminate means to make employees aware of the critical objectives that must be achieved in order to reach the company's strategy.
Plan, set goals, and align strategic initiatives	Three to five years in advance, the goals for the BSC objectives should be established by top executives. Through the management process of planning and goal-setting, the company can: quantify the results it intends to achieve in the long term; identify means and provide resources for achieving the results.
Improve strategic feedback and learning	This is the most innovative and important aspect of the whole method, where executive-level tools are created for strategic learning, which enables decision-making aimed at strategic achievements.

Source: Adapted from Kaplan and Norton (2000).

Fagundes *et al.* (2018) and Cunha and Kratz (2016) argue that the BSC allows organizations to communicate their objectives, setting goals for each indicator, promoting the dissemination of the organization's objectives among the teams and people who are in operation, transforming these objectives into meaningful tasks for the achievement of strategies. Therefore, from these perspectives, organizations adapt their indicators according to the branch of the organization and the company's needs, enabling better identification of performance in the corporate unit.

2.2 Performance Indicators

In general, Da Silva *et al.* (2018) state that the organization's survival requires agility and adaptability, with respect to changes in the corporate environment, the market as a whole, and considerable competitiveness. It is of paramount importance to improve strategies within



companies. It is necessary for business management to have flexibility so that the implementation of strategies is effective.

Therefore, Nascimento *et al.* (2011) explain that monitoring indicator results is the basis for decision-making and a new cycle of planning, which makes it possible to control the organization's processes, allowing the definition of goals and their stratifications at all levels and departments, thus enabling the establishment of standards, as well as monitoring their evolution.

In this sense, performance evaluation based on indicators is related to the synchronization between the organization's objectives and expectations regarding efficiency, and consequently, to increasing employees' productivity. Measuring results based on indicators aims to analyze the organization's processes and employees' performance in executing their tasks, seeking organizational development and aiming to achieve goals (Nascimento *et al.*, 2011).

Regarding the understanding of organizational behavior through the measurement of results, it is necessary to carry out verifications in order to understand what is truly important to the organization. Integrating performance indicators with the critical success factors of a company is relevant in retaining customers, enabling the analysis of effectiveness, efficiency, quality, cost, and profitability in the organization. Thus, based on the analysis of companies, their objectives, vision, and mission, it is possible to establish goals and standards that will allow for more effective monitoring, enabling managers to have more efficient management focused on process quality and strategic achievement of organizational objectives (Sandes *et al.*, 2019).

2.3 Telecommunications Sector in Brazil

According to Telecommunications Intelligence (Teleco, 2021), telecommunications services are the transmission, emission or reception of symbols, characters, signals, writings, images, sounds or information of any nature, by wire, radio, electricity, optical means or any other electromagnetic process. These telecommunications services are divided into six sub-segments: fixed telephony, mobile communication, multimedia communication, subscription TV, broadcasting, and other telecommunications services.

Through Law n°. 9.472/97, the first regulatory agency of this sector was created, called the National Telecommunications Agency (Anatel), which is seen as a state entity responsible for regulating the Brazilian telecommunications sector, supervising, editing norms and mediating conflicts between operators and consumers in which it is carried out, among other aspects, the discipline and supervision of the execution, commercialization and use of services and the implementation and operation of telecommunications networks.

The National Confederation of Information and Communication Technology (CONTIC), in 2020, mentions that R\$31.1 billion was invested in nominal values, 2.2% higher than the average of the last five years, due to restrictions caused by the Covid-19 pandemic. The telecommunications sector employed about 504,000 workers last year and even in the midst of the pandemic crisis, the sector achieved a 4.4% increase, while the unemployment rate in other sectors declined. In addition, fixed broadband grew by 10%, connecting 3.4 million new accesses, and mobile telephony also showed growth, with 7.4 million new accesses, reaching the mark of 234 million accesses.

As it is a sector that has been constantly growing in recent years and focused on technology, which enables information and communication that are enablers for the digital transformation of an economy and its basis is given by the existence of a modern and accessible



telecommunications infrastructure (Alves, Lima, & Madeira, 2018). From this, one of the departments linked to these changes was the commercial department, which presented a significant growth, considering that current customers are attentive to news and have become more demanding and cautious in acquiring products and/or services (Da Silva *et al.*, 2018).

As important as the technology used is how this service will be presented and negotiated, considering that identifying the strategy to maintain sales success is one of the determining factors in the long term, corroborating the proper promotion of the product/service and the inserted marketing process. And to adapt to the constant changes that occur in the consumer market, managers need plausible strategies that can be assertive for their business (Matos *et al.*, 2016).

Based on this, a successful strategy, based on its innovative character, is called an emergent strategy, considered essentially reactive, arising from competitive responses and threats, in which the speed of adaptation of the same will sustain competitive agility. From this, the commercial department seeks innovation and improvements for companies to remain competitive in the market and began to realize the numerous advantages of this tool, which include flexibility, the possibility of reaching a larger and global market, and new niches (Rodrigues, 2016; Cepa, 2019).

Therefore, regarding the current global situation, amid the COVID-19 pandemic, companies have increasingly had to use these digital tools to remain active, considering that the problems caused by the pandemic on humanity, particularly on the Brazilian population, forced companies of all sizes and all types of businesses to adjust very quickly to this new reality (Rezende, Marcelino, & Miyaji, 2020).

3 Methodology

In order to meet the objective of the study, which is to analyze how the BSC indicators can assist the managers of the commercial department in making decisions in a telecommunications company, the research is classified as descriptive, as it allows for the visualization of the commercial department indicators from the managers' perspective and from there, perform analyzes and studies. According to Gil (2008), the main objective of this type of research is the description of the characteristics of a particular population or the establishment of a relationship between variables.

Regarding the data collection procedures, it was characterized by a survey. Gil (2008) points out this technique as a means of direct interrogation of people whose behavior is desired to be known from a certain analyzed reality. With regard to the research approach, it is characterized as quantitative, in which according to Creswell (2021), it seeks to examine the relationship between variables, which in turn, are measured with instruments so that numerical data can be analyzed with statistical procedures.

The study was carried out in a large telecommunications company located in Pereiro, a city in the interior of the state of Ceará. The survey was conducted with the 102 managers of the commercial department of the aforementioned company, through a survey of information by means of an electronic questionnaire, via Google Forms, in a census manner.

The questionnaire was elaborated according to the studies of Farias and Petri (2016) and structured into three sections: the first one is composed of the respondents' profile; the second one comprises the importance of commercial indicators in management, especially when it comes to supporting decision-making and their level of relevance within the commercial department; and finally, the third section covers the support of indicators in measuring goals and results, aiming to seek improvements in this measurement and also its level of relevance



within the commercial department. For the last two sections, the respondents were presented with the Likert frequency scale (Never, Sometimes, Rarely, Frequently and Always) and relevance (Not relevant, Little relevance, Indifferent, Relevant, Very relevant). The questionnaire was applied in September 2021.

After the application of the questionnaire, the data was treated using the descriptive statistics technique, which according to Freund (2009) is the handling of data to summarize or describe them, without deducing anything that goes beyond the data itself, presenting them in the most common way, from tables or graphs. The Exploratory Factor Analysis (EFA) technique was also used, which according to Matos and Rodrigues (2019), is used to investigate patterns or latent relationships for a large number of variables and determine whether the information can be summarized into a smaller set of factors.

4 Research Results

This section presents the main results found in the research, mainly regarding the profile of the respondents, followed by the data of descriptive statistics and finally, the results related to exploratory factor analysis. Firstly, the profile of the respondents is presented, as described in Table 1.

Table 1 – Profile of research respondents

CHARACTERISTICS		FREQUENCY	PERCENTAGE
GENDER	Male	40	39,22%
	Female	62	60,78%
AGE	Up to 20 years old	1	0,98%
	Between 21 and 30 years old	48	47,06%
	Between 31 and 40 years old	38	37,25%
	Between 41 and 50 years old	15	14,71%
	Above 50 years old	-	-
MARITAL STATUS	Single	43	42,16%
	Married	44	43,14%
	Common-law married	6	5,88%
	Divorced	9	8,82%
	Widowed	-	-
LENGTH OF TIME WORKING FOR THE COMPANY	Less than 1 year	31	30,39%
	Between 1 and 2 years	12	11,76%
	Between 2 and 5 years	31	30,39%
	Between 5 and 10 years	19	18,63%
	Above 10 years	9	8,82%
EDUCATIONAL LEVEL	Elementary School	1	0,98%
	High School	48	47,06%
	Graduate Degree	38	37,25%
	Post-Graduate	15	14,71%
CURRENT POSITION IN THE COMMERCIAL DEPARTMENT	Manager	3	2,94%
	Coordinator	7	6,86%
	Supervisor	52	50,98%
	Leader	37	36,27%
	Specialist	3	2,94%
TOTAL		102	100%

Source: Research data (2021).



In order to outline the profile of the survey respondents, all of whom were allocated to tactical positions with their identities preserved, Table 1 presents information on gender, age, length of employment at the company, education level, and position in the organization's commercial department.

The results indicate that 39.22% of the respondents are female and 60.78% are male; the majority have a young profile, with 47.06% aged between 21 and 30, and the majority are married, represented by 43.14% of the respondents. Regarding length of employment at the organization, 30.39% have been with the company for less than a year, while 30.39% have been with the company for between 2 to 5 years. Of the respondents, on average, 47.06% have completed up to high school, and more than half of the respondents, specifically 50.28%, work as supervisors in the commercial department of the organization.

Next, a descriptive statistics technique was performed on the perspectives and indicators present in the BSC, in order to identify the mean and standard deviation of the analyzed variables, according to the responses of the survey participants. Through the data in Table 2, the perceptions of managers from the four hierarchical levels are described, regarding the importance of the BSC indicators in decision making in the commercial department, where it is possible to note the items with the highest averages.

Table 2 – Descriptive statistics

V	Item	Average	Standard Deviation
1	Product growth and mix	4,25	0,849
2	Sales x Costs	4,20	0,912
3	Strategies for investments in sectors	4,02	0,985
4	Results participation in the department	4,22	1,001
5	Customer retention	3,96	0,994
6	Customer satisfaction	4,33	0,905
7	Customer profitability (less cancellations x more installations)	4,21	1,008
8	Effective Product Generation (registered successfully)	4,29	0,863
9	Installed Product Generation	4,41	0,749
10	Shared vision (common goals and objectives)	4,28	0,837
11	Group learning	4,30	0,793
12	Capacity of your employees	4,32	0,692
13	Capabilities in information systems	4,22	0,812
14	Motivation and alignments	4,36	0,781
15	Decision making	4,43	0,777
16	Creativity	4,19	0,805
17	Strategic Vision	4,41	0,848
18	Visual Management	4,29	0,839
19	Knowledge	4,44	0,803
20	Leadership	4,41	0,848
21	Argumentation	4,37	0,820
22	Ease	4,20	0,901
23	Practicality	4,23	0,889
24	Networking (Exchange of relevant information)	4,27	0,956
25	Improvement in results	4,30	0,931

Source: Research data (2021).

Thus, 4.44% of the employees indicate that "knowledge" is possible through the measurement of indicators, and in sequence, 4.43% of the managers point out that the indicators are of great relevance for "decision-making," while 4.41% of the managers consider the



indicators to be significantly important for both aspects related to "leadership," "generation of installed product," and for the "strategic vision" of their areas.

Based on the results obtained, it is noticeable that the BSC indicators translate the importance of decision-making and strategy as pillars for organizational development within the organization. Additionally, according to the results obtained in the survey, it is noticeable that, according to Silva (2003), managers cannot restrict themselves to monitoring indicators solely to attest whether they have achieved established goals or not, but should also be able to question the validity of the strategy. This is evident when the highest averages recorded are focused on aspects of knowledge, decision-making, and leadership itself.

Subsequently, in order to identify the main variables that represent the studied items, the Exploratory Factor Analysis (EFA) statistical technique was performed to understand the relevance of the main BSC indicators for decision-making. To develop it, the following tests were applied based on Cronbach's Alpha indices, superior to 0.6, Kaiser-Meyer-Olkin (KMO), equal to or greater than 0.5, and Bartlett's Sphericity, less than 0.5, highlighted in Table 3, and also, the Communalities, equal to or greater than 0.5 (Hair JR. *et al.*, 2009).

Tabla 3 – Consistency test results of observable variables for use of the EFA

Alpha de Cronbach	Esfericidade de Bartlett Sig.	KMO	Var. Explained (%)
0,970	0,00	0,935	72,36

Source: Research data (2021).

After conducting the evaluation test, it was possible to perceive that, according to Table 3, the Cronbach's alpha was 0.970, presenting a high authenticity of the factors according to the treated variables. Bartlett's sphericity test indicated statistical significance and enabled the application of EFA. Regarding KMO, the obtained result is in line with acceptable standards, and as for explained variance, a high degree of explanation was obtained. As all results were positive, it promotes relevance to the research, and also contributes to a better understanding of the variables in decision making within the commercial department.

It is worth noting that, of the 26 variables analyzed in this study and presented in the questionnaire, one of them was extracted as it had a Communalities value below 0.5 (Table 5), which was the variable "Customer Retention". Therefore, it was considered that it does not fit the other variables explained by the factors attributed after the factorial analysis, and this attribution was possible through the application of the total explained variance test, which aimed to detect the number of factors from the base of variables, as shown in Table 4 below.

Table 4 – The Total Explained Variance Test

Factor	Initial Eigenvalues			Square loadings extraction sums			Sums of squared loadings after rotation		
	Total	% of variance	% Cumulative	Total	% of variance	% Cumulative	Total	% of variance	% Cumulative
1	14,61	58,44	58,44	14,61	58,44	58,44	8,55	34,19	34,19
2	2,35	9,39	67,84	2,35	9,39	67,84	6,23	24,92	59,11
3	1,13	4,52	72,36	1,13	4,52	72,36	3,31	13,25	72,36

Source: Research data (2021).

As shown in Table 4, a grouping was formed into three factors based on the variables, which explain 72.36% of the total variability of the data obtained. The completed factorial



formation and its respective commercial department indicator variables are presented in Table 5 below.

Table 5 – Exploratory Factor Analysis

V	Constructs	Com.	F1	F2	F3
15	Perspectives on Internal Processes	0,702	0,749		
16		0,758	0,801		
17		0,826	0,862		
18		0,777	0,785		
19		0,754	0,735		
20		0,817	0,755		
21		0,796	0,811		
22		0,732	0,793		
23		0,807	0,819		
24		0,791	0,825		
25		0,838	0,850		
6	Customer Perspectives / Learning and Renewal	0,709		0,610	
7		0,675		0,737	
8		0,656		0,629	
9		0,678		0,637	
10		0,748		0,688	
11		0,751		0,671	
12		0,738		0,790	
13		0,759		0,806	
14		0,653		0,668	
1	Financial Perspectives	0,546			0,587
2		0,638			0,736
3		0,744			0,744
4		0,714			0,656

*Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax.
Source: Research data (2021).

Based on the data displayed in Table 5, it is noticeable that Factor 1 (F1) was named "Perspectives on Internal Processes" as it consists of the following variables V15, V16, V17, V18, V19, V20, V21, V22, V23, V24, and V25, which are all related to the Balanced Scorecard (BSC) indicators assigned to the internal processes perspective of the BSC. According to Galindo (2005), the internal processes of the BSC group into organizational processes, such as cycles, quality, skills, and productivity, and also into core competencies, such as critical technologies necessary to ensure continuous market leadership. These internal processes are identified through the main business processes defined in the company's value chain and are contributing to the generation of this value (Kaplan & Norton, 2000).

Next, Factor 2 (F2) is presented, which was named "Customer Perspectives / Learning and Renewal," bringing together the following variables V6, V7, V8, V9, V10, V11, V12, V13, and V14, where all variables present characteristics related to the BSC perspectives, entitled customer and learning and renewal perspectives. Reinforcing the mentioned construct, according to Amer *et al.* (2022), the BSC demonstrates positive results for customer satisfaction, and this perspective encompasses commercial relations, service, quality, loyalty measures, indicators related to time, performance, service, and cost, all aimed at seeking excellence in service and exceeding customer needs. Furthermore, these improvements enable the generation of loyal customers, as well as an increase in the customer base that directly affects the company's revenue, as pointed out by Bohm *et al.* (2021).



In addition to the previous idea and regarding the learning and renewal perspective, Costa and Miranda (2002) and Galindo (2005) point out that they are factors addressed through the perspective of knowledge management, including strategic recruitment, training, team development, motivation, information systems, knowledge management, and networking, given that learning and development are considered as the key to the strategic success of the company.

Next, Factor 3 (F3) is mentioned, named "Financial Perspectives," consisting of the following variables V1, V2, V3, and V4, where it is notable that all variables present characteristics related to the financial perspective of the BSC. Corroborating this classification, Cunha and Kratz (2016) mention that the financial perspective of the BSC is considered the final source of information that shows whether the implementation and execution of strategies are contributing or not to the improvement of results, seeking to establish various indicators that reflect the final performance of the company at each evaluation stage.

Through the Exploratory Factor Analysis technique, where the set of 24 variables were grouped and divided into three factors (F1, F2, and F3), it was demonstrated that these variables have significant relevance for the commercial department managers, enabling the measurement of results and consequently helping them assertively in the decision-making process and in the elaboration of strategic action plans for the company's development.

The research findings were based on the BSC, more precisely on its four perspectives, which are reinforced through its constructs, where the BSC is divided into four main perspectives and is assigned to each one of the following areas: internal processes, customer, learning and renewal, and financial. The combination of these perspectives allows the department to achieve its goals and objectives with more assertiveness, as well as more visible business management.

5 Final Remarks

Considering the research objective of analyzing how BSC indicators can assist commercial department managers in decision-making in a telecommunications company in the state of Ceará, questionnaires were applied to commercial department managers. Overall, the results showed a division of variables into three factors based on BSC perspectives, named "F1: Internal Process Perspectives," "F2: Customer/Learning and Renewal Perspectives," and "F3: Financial Perspectives," with the aim of analyzing these perspectives and their respective variables.

It is noteworthy that, through descriptive statistics, commercial department managers present significant relevance in the perspectives of internal processes, highlighting three variables: "strategic vision," "improvement in results," and "networking." This indicates that the indicators are significantly important for decision-making regarding the internal processes of the commercial department of the company.

In the customer/learning and renewal perspectives, the variables "information system capability," "employee capability," and "customer profitability (less cancellations x more installations)" stand out, promoting the importance of customer/learning and renewal indicators. Through the measurement of indicators in this aspect, it is possible to understand the behavior of employees in terms of improving their skills. Regarding customer perspectives, customer profitability promotes an increase in revenue, resulting in a lower number of cancellations and a higher number of active customers, for example.

As for the financial perspectives, the following variables can be highlighted: "strategies for investment in sectors," where, through indicator measurement, strategies can be developed



that can provide investments in sectors, either in terms of cost or how much can be invested in acquiring new customers. The variable "sales x costs" also deserves significant attention, where the quantity of sales and its associated costs can be measured, leading to more effective decision-making.

Overall, it is evident that BSC indicators promote a more effective analysis in each of its perspectives. Managers, based on their responses, demonstrated a clear understanding that the indicators enable assertive management in various aspects of the sectors, which will promote more efficient decision-making regarding the challenges faced during management practice.

From the study, it is noticeable that management reaches various organizational aspects, enabling BSC indicators to promote facilities, measurement, visual management, and consequently more concrete decision-making. Thus, the results obtained can contribute to other departments in the organization, enabling an understanding of indicator practices in other areas of the company.

Despite the significance and relevance found through the statistical tests performed, the development of the research presents limitations, as it was carried out only in a single department, which cannot be generalized to other areas of the company. In this sense, as a contribution to future studies, more in-depth analyses are recommended regarding the BSC perspectives that show deficits compared to the realities of other perspectives or in companies from other sectors and located in different regions.

References

- ABRINT. (2021). Crescimento das Prestadoras de Telecomunicações de Pequeno Porte (PPPs). <http://www.abrint.com.br/sala-de-imprensa/abrint-aponta-que-demanda-por-ppps-cresce-47-durante-a-pandemias>
- Alves, C. E. A., Lima, R. R. S., & Madeira, R. F. (2018). Telecomunicações e inclusão digital.
- Amer, F., Hammoud, S., Khatatbeh, H., Lohner, S., Boncz, I., & Endrei, D. (2022). The deployment of balanced scorecard in health care organizations: Is it beneficial? A systematic review. *BMC Health Services Research*, 65(22), 22-65. <https://doi.org/10.1186/s12913-021-07452-7>
- Bohm, V., Lacaille, D., Spencer, N., & Barber, C. E. (2021). Scoping review of balanced scorecards for use in healthcare settings: Development and implementation. *BMJ Open Quality*, 10(3). <https://doi.org/10.1136/bmjopen-2020-001293>
- Brasil, Lei nº 9.472, de 16 de julho de 1997. Emenda Constitucional nº 8, de 1995. http://www.planalto.gov.br/ccivil_03/leis/L9472.htm
- Cepa, C. A. (2019). *As expectativas do consumidor na distribuição de produtos por e-commerce B2C* (Tese de Doutorado, Universidade do Minho, Braga, Portugal).
- CONTIC. (2020). Desempenho do Setor de Telecomunicações. <https://www.contic.org.br/wp-content/uploads/2021/05/desempenho-do-setor-de-telecom-2020.pdf>



- Costa, E. C. C. M., & Miranda, L. C. (2002). O Balanced Scorecard como uma ferramenta de gestão estratégica: Estudo de caso. *Anais do Congresso Brasileiro de Custos*, 9, São Paulo.
- Creswell, J. W., & Creswell, J. D. (2021). *Projeto de pesquisa: Métodos qualitativo, quantitativo e misto*. Penso Editora.
- Cunha, M. R., & Kratz, L. (2016). Fatores críticos de sucesso no processo de implementação do balanced scorecard: Um estudo de caso nas instituições federais de ensino superior. *Revista de Ciências da Administração*, 18(46), 96-108.
- Czinkota, M. R. (2001). *Marketing: As melhores práticas*. São Paulo: Bookman.
- Da Silva, A. R., Callado, A. A. C., & Callado, A. L. C. (2016). Análise das relações entre o uso de indicadores de desempenho e fatores contingenciais de empresas do setor da construção civil. *Anais do Congresso Brasileiro de Custos-ABC*.
- Da Silva, J. C. R., Leite, A. A. V., Zardo, C. R., & Bianchet, T. D. S. A. (2018). Análise comercial e estratégica no departamento de vendas em uma distribuidora. *Anais Centro de Ciências Sociais Aplicadas/ISSN 2526-8570*, 5(1), 77-99.
- Da Silva, L. C. (2003). O Balanced Scorecard e o processo estratégico. *Caderno de Pesquisas em Administração*, 10(4), 61-73.
- Fagundes, E., Wiggers, H. M., Innocenti, R. M., & Petri, S. M. (2018). Contribuições decorrentes da implementação do BSC para o alcance dos objetivos estratégicos: Um estudo de caso. *NAVUS - Revista de Gestão e Tecnologia*, 8(3), 137-151.
- Farias, R. A. S., & Petri, S. M. (2016). Desenvolvimento do Balanced Scorecard em uma empresa de consultoria tributária. *Caderno Profissional de Administração da UNIMEP*, 6(1), 44-67.
- Freund, J. E. (2009). *Estatística aplicada: Economia, administração e contabilidade*. Bookman Editora.
- Galindo, A. G. (2005). Balanced Scorecard como sistema de alinhamento e controle estratégico da gestão. *Anais II Simpósio de Excelência em Gestão e Tecnologia-SEGET*, Resende, 57-71.
- Gil, A. C. (2008). *Métodos e técnicas de pesquisa social* (6ª ed.). Editora Atlas.
- Gomes, E. S., Oliveira, J., Vale, J. A., Nakazaki, M. E., Costa, R. O., & Neto, T. D. (2019). Aplicação da metodologia de gestão à vista para monitoramento e controle dos indicadores de performance de uma empresa de duas rodas do Polo Industrial de Manaus.
- Govindan, K., Nasr, A. K., Heidary, M. S., Nosrati-Abarghoee, S., & Mina, H. (2022). Prioritizing adoption barriers of platforms based on blockchain technology from balanced scorecard perspectives in healthcare industry: A structural approach. *International Journal of Production Research*, 60(1), 1-15. <https://doi.org/10.1080/00207543.2021.2013560>



- Hair Jr., J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2009). *Análise multivariada de dados* (6ª ed.). Porto Alegre: Bookman.
- Herrero Filho, E. (2019). *Balanced Scorecard e a gestão estratégica: Uma abordagem prática*. Alta Books Editora.
- IDC. (2021). Previsões da IDC Brasil para 2021 apontam que mercado de TIC crescerá 7%. <https://www.idc.com/getdoc.jsp?containerId=prLA47452221>
- Kaplan, R. S., & Norton, D. P. (2000). *Organização orientada para a estratégia: Como as empresas que adotam o balanced scorecard prosperam no novo ambiente de negócios*. Gulf Professional Publishing.
- Matos, J., Nakano, J., Frota, C., & Nascimento, W. (2016). A gestão estratégica de vendas como ferramenta de sucesso ao processo de produção: Um estudo de caso. *Anais do XII Congresso Nacional de Excelência em Gestão*.
- Matos, D. A. S., & Rodrigues, E. C. (2019). Análise fatorial.
- Nascimento, S., Bortoluzzi, S. C., Dutra, A., & Ensslin, S. R. (2011). Mapeamento dos indicadores de desempenho organizacional em pesquisas da área de Administração, Ciências Contábeis e Turismo no período de 2000 a 2008. *Revista de Administração (São Paulo)*, 46, 373-391.
- Oyadomari, J. C. T., Bido, D. S., Mendonça Neto, O. R., Aguiar, A. B., & Dultra-de-Lima, R. G. (2023). Relacionamentos entre indicadores de desempenho, controles e desempenho estrategicamente alinhados. *R. Cont. Fin. – USP*, 34(91), 1-18. <https://doi.org/10.1590/1808-057x20221618.pt>
- Paton, C., Mastelari, D. A., Nogueira, J. A., Teixeira, S. A., Martins, V. F., & Veiga, W. F. (2000). O uso do “Balanced Scorecard” como um sistema de gestão estratégica. *UNOPAR - Revista de Ciências Jurídicas e Empresariais*, 1(1), 173-186.
- Pederneiras, M. M. M., Silva, R. V., Menezes, P. D. L., & Soares, J. M. (2022). Indicadores de desempenho utilizados pelas empresas hoteleiras da cidade de Braga/PT à luz do balanced scorecard. *Revista Brasileira de Pesquisa em Turismo*, 16, 1-17. <https://doi.org/10.7784/rbtur.v16.2331>
- Quesado, P., Marques, S., Silva, R., & Ribeiro, A. (2022). The Balanced Scorecard as a strategic management tool in the textile sector. *Administrative Sciences*, 12(1), 38. <https://doi.org/10.3390/admsci12010038>
- Rezende, A. A., Marcelino, J. A., & Miyaji, M. (2020). A reinvenção das vendas: As estratégias das empresas brasileiras para gerar receitas na pandemia de COVID-19. *Boletim de Conjuntura (BOCA)*, 2(6), 53-69.
- Rodrigues, D. (2016). *Alinhamento interno de estratégias emergentes: Um estudo de caso em operadora de telecomunicações* (Tese de Doutorado, Universidade de São Paulo).



- Sahu, A., Agrawal, S., & Garg, C. P. (2023). Measuring circularity of a manufacturing organization by using sustainable balanced scorecard. *Environmental Science and Pollution Research*, 30, <https://doi.org/10.1007/s11356-023-25896-8>
- Sandes, A. S. T., & Loos, M. J. (2019). Implementação de uma rotina de acompanhamento de indicadores de performance como base para a tomada de decisão. *Exacta*, 17(2), 1-16.
- Souza, C. L., Marinho, S. V., & Sartori, S. (2022). Operacionalização do planejamento estratégico através do Balanced Scorecard. *Revista da Micro e Pequena Empresa (RMPE)*, 16(1), 145-165.
- Teleco. (2021). Privatizações e Produtividade I: Setor de Telecom. Disponível em https://www.teleco.com.br/tutoriais/tutorialprivprod1/pagina_4.asp. Acesso em 18 de agosto de 2021.
- Terribilli Filho, A. (2021). *Indicadores de gerenciamento de projetos: Monitoração contínua*. M. Books.
- Tormena, M. D. G. (2011). *O Balanced Scorecard e o processo de gestão: Um estudo de caso em uma empresa moageira de Antônio Prado - RS* (Monografia de Bacharelado, Universidade de Caxias do Sul).
- Veraldo Junior, L. G., Pontes, L. O., Pirtouscheg, A. L. O., Silva, A. L. N., & Correa, M. A. S. (2022). Aplicação do balanced scorecard em uma empresa de festas infantis. *Brazilian Journal of Business*, 4(4), 1667–1685. <https://doi.org/10.34140/bjbv4n4-007>

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