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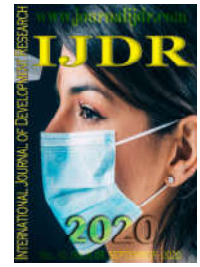
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RESEARCH ARTICLE

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ANALYSIS OF THE IMPACT OF HIDDEN COSTS ON THE OPERATING RESULT IN A GYM FOR PHYSICAL ACTIVITIES AND BODYBUILDING IN THE SOUTHERN CONE OF RONDÔNIA-BRAZIL

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ABSTRACT

Faced with an increasingly competitive market, controlling hidden costs allows companies to have a competitive market advantage. Keeping these costs measured by cost systems capable of providing clear information that can be used for possible decision making is contributing to the growth of companies compared to competitors. This study had as main objective to identify the hidden costs in a company that provides services in the field of physical activities and bodybuilding, located in the southern cone of the state of Rondônia. A hidden cost approach was used based on the method developed by Son and Park (1987) the IMPM (*Integrated Manufacturing Performance Measure*). The variables involved in the model and used in the research were: (a) Idleness; (b) Finished product inventory; (c) Absenteeism and (d) Medical Certificate; Through these, he identified the cause and effect of hidden costs and their relationship with productivity. The period analyzed was the years 2018 and 2019, where productivity was established under 5 financial values: direct labor, raw materials, electricity, depreciation and facilities. It was possible to identify hidden costs through research and quantify them, resulting in values that influence the company's economic productivity. Therefore, we emphasize that it will be important to contain and maintain measurable control of these variables, as they have relevant impacts on operating results and consequently imply wealth generation for the company.

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INTRODUCTION

There is a need for service providers to identify possible hidden costs in the exercise of the activity, quantify them and control them in cost systems together with the financial statements. Its discovery is of fundamental importance to minimize the impacts on operating results, thus obtaining a determined operating profit. Souza and Rocha (2018), emphasize that understanding and controlling costs currently generates advantages in the face of the intense marketing world, measuring hidden costs is providing more accurate and assertive information for decision making, when this information is poorly managed it can negatively impact the profit and performance of companies. In evidence of this, what motivated the accomplishment of the research, was to analyze the influence of the hidden costs in the accounting and management reports, causing, the following research question: What would be the impact of the hidden costs in the operational result in an Academy of physical activities and bodybuilding in the southern cone of Rondônia?

Therefore, the general objective was to analyze the impact caused by hidden costs in the operating result in a service provider in the southern cone of Rondônia. The specific objectives aim to verify and map the hidden costs in the provision of services present in the bodybuilding and gymnastics activities, calculating and composing values with schematic percentages, in addition to analyzing the impact caused on the company's operating result, helping to possible decision making. The research was carried out in a micro company in the gym segment, which serves physical and bodybuilding activities, operating in the market for over 2 years, installed in the Southern Cone region of the State of Rondônia. Facilitating the location, this region is composed of 7 municipalities totaling approximately a population of 158,113 people, over an area of 31,449.64 km² between the cities of Cabixi, Cerejeiras, Colorado do Oeste, Corumbiara, Chupinguaia Pimenteiros do Oeste and Vilhena, according to the IBGE 2019. Taking into account that the company, besides having an accounting bookkeeping, the control of intangible costs in the provision of services is not performed. In evidence of this, the study demonstrates the hidden cost points, in the light of the IMPM tool (*Integrated Manufacturing Performance Measure*) that directly impact the result, providing the gestures with relevant information for profitability, and consequently, the continuity of the company. We will use the method developed by Son and Park, applying the IMPM (*Integrated Manufacturing Performance Measure*), which involves a quantitative measurement of intangible elements. However, in this article we align the terms applied in the company that is the subject of the research that operates in the services segment to the terms indicated by the method for full understanding of the results.

Theoretical Framework: In this subdivision, aspects related to the introductory concepts of costs and hidden costs, of the IMPM method to be used in the research will be addressed, as well as, referencing the physical activities in the strength and gym academies, these being the core of the research.

Costs and Hidden Costs: Martins (2003) defines that cost is "an expense related to the good or service used in the production of other goods or services". For Leone (2000), "Cost Accounting is the branch of Accounting that is designed

to produce information for the various managerial levels of an entity, as an aid to the functions of determining performance, planning and controlling operations and making decisions. decisions ". Bringing to the reality of the study, dealing with hidden costs means knowing the functionality of the entity as a whole, because in addition to the other costs already known as fixed and variable, direct and indirect, knowing how to identify, measure and recognize the hidden costs are of fundamental importance, as it can be defined as an expense related to the production activity, in which the main characteristic is that it is difficult to measure (SAVAL; ZARDET, 1991 *apud* FREITAS; SEVERIANO FILHO, 2007). Second, (FUREDY *apud* FREITAS; FILHO, 2007), "hidden cost is any cost that is not apparent in standard accounting, or, in general terms, that is not immediately apparent, but that is important for the production process". Hidden costs have as main characteristic the difficulty of measurement, they must be considered as essential for organizational competitiveness (SAVALL; ZARDET, 2008). The hidden cost is classified as non-systemic, it means that it is not measured and controlled and significantly affects the organizational performance, however it must be analyzed by the company so that it does not interfere negatively in the profit. (GIMENEZ, 2010). And soon, Neto (2009) says that the modern world is increasingly globalized and dynamized, in the various market and economic aspects, information plays an important role for the performance of activities and it is also the initiative to know and allocate their costs, because when knowing how to manage this data, the organization assumes an advantageous differential of making decision-making processes flexible and safe. It also highlights the great difficulty of being identified and measured, "the hidden cost", and also states that it can generate a direct or indirect impact on profit, minimizing it. The study of an entity's cost system is extremely important for effective decision making, as its poor management directly influences the profit and price of the product, and consequently, the company's permanence in the market.

Global Production Performance Measure "(IMPM - Integrated Manufacturing Performance Measure): The authors Son and Park (1987), developed an evaluation performance method called "Integrated Manufacturing Performance Measure" (IMPM), which aims to quantify the hidden hidden costs for the manufacture of a product or for the service provision. Severiano (2006) mentions that the IMPM model, assuming that the sum of the total cost of a productive system, involves costs that are clearly related to the productivity of operations; costs directly related to the quality variable; and, costs clearly oriented towards system flexibility. This model considers the combined performance of tangible and hidden resources to measure the company's overall performance. The fact that brought relevance to this model was that it took into account the hidden elements, which enabled a new alternative for measuring the invisible elements (NETO, 2009). In this way, still dialoguing with Son and Park (1987), the authors of the method, discuss performance measures as an alternative and useful method in strategic planning, because their usefulness not only assesses the past or the current manufacturing performance, but it also predicts the effect of capital investment on future performance. Therefore, the objective of the method aims to arrive at the existence of hidden costs, and if identified, quantify these costs. Since a gap is still latent, appropriate forms of measuring the global efficiency of the company's production system are soon

sought, taking into account the reality of the entity's most important resources, especially intangible factors (FREITAS, 2007). For Santos (2003), the majority of service companies, on the contrary, have never had the need to measure the costs of their products or customers and have operated for decades without cost systems. Of course, not without financial systems. For decades, this lack of accurate product and customer information was not a concern, as most service companies operated in benign, non-competitive markets.

Therefore, offering quality services is certainly one of the paths to success, and is entirely linked to consumer satisfaction. "[...] a customer satisfied with the service provider will perceive a quality service" (LAS CASAS, 2002).

Physical activities in the weight and fitness gyms:

According to Saba (2001), the practice of physical exercises comes from Prehistory, affirms itself in Antiquity, stands in the Middle Ages and is systematized in the beginnings of the Contemporary Age. Linked to the concern of modern man with the issues of the body, and to the development of man in all its aspects, in an attempt to overcome a less favorable previous condition, the concept of gymnastics emerges, based on the idea of the Greek pentathlon. The branch of fitness and gym centers has grown considerably in recent years, absorbing more and more Physical Education professionals (PEREIRA, 2004). Gymnastics "[...] is the set of rhythmic and systematized physical exercises through repeated movements, so that the proposed ideals are achieved" (SABA, 2001). Since its inception, academies have absorbed an increasing number of supporters, with different age groups and reasons for searching (MARCELLINO, 2003), demanding from Physical Education professionals knowledge that goes beyond the physical and biological aspects of human movement. For academia and management, it is essential to constantly keep abreast of market news and trends, always seeking improvement in the provision of services and customer service (BAADE, 2003). However, in addition to all aspects of strategy, investment and maintenance plans that a gym needs, it is necessary to maintain accurate cost accounting to avoid impacts on the company's operating results, as well as in all accounting reports. An entity's cost system is extremely important for effective decision making, as its bad management directly influences the product's profit and price, and consequently, the company's permanence in the market (SOUZA; GARVIM; PORTO; OLIVEIRA; MAIA, 2016).

METHODOLOGY

The research design is based on a case study, where according to Yin (2009) it represents an empirical investigation and comprises a comprehensive method, with the logic of planning, data collection and analysis. In the understanding of Goode and Hatt (1979), the case study is a means of organizing the data, preserving the unitary character of the object studied:

[...] therefore, through the study of the case what is intended is to investigate, as a unit, the important characteristics for the object of study of the research. It will present a qualitative and quantitative approach, and quantitative research, which has its roots in logical positivist thinking, tends to emphasize deductive reasoning, the rules of logic and the measurable attributes of human experience. On the

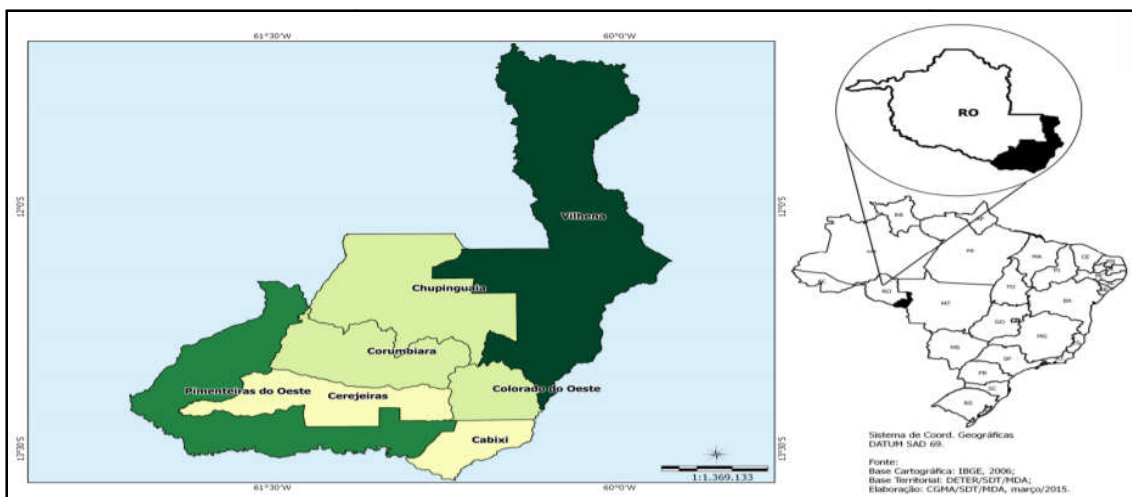
other hand, qualitative research tends to highlight the dynamic, holistic and individual aspects of the human experience, in order to apprehend the totality in the context of those who are experiencing the phenomenon (POLIT; BECKER AND HUNGLER, 2004, p. 201).

As for the research objective, it is characterized by descriptive and exploratory. Descriptive research requires a lot of information from the researcher about what they want to research. This type of study aims to describe the facts and phenomena of a given reality (TRIVIÑOS, 1987). The exploratory objective stands out for providing greater familiarity with the problem, with a view to making it more explicit or to building hypotheses. The vast majority of these researches involve: (a) bibliographic survey; (b) interviews with people who have had practical experiences with the researched problem; and (c) analysis of examples that encourage understanding (GIL, 2007). The method used is inductive reasoning, which according to Marconi and Lakatos (2006), induction is a mental process through which, starting from private data, sufficiently verified, it is inferred a general or universal truth, not contained in the parts examined. Therefore, the purpose of inductive arguments is to lead to a conclusion whose content is much broader than that of the premises on which they were based. Following the method, to calculate hidden costs, the methodology developed by Son and Park was used, applying the IMPM (*Integrated Manufacturing Performance Measure*), which involves a quantitative measurement of intangible elements. An adaptation of this method will be necessary, given the reality of the company, enabling a better way to express the results. The research techniques used consist of direct observation and analysis of accounting and management documents. Observation is a data collection technique to obtain information and uses the senses to obtain certain aspects of reality. It is not just about seeing or hearing, but also about examining facts or phenomena that you want to study. However, in a more specific way, systematic observation was implemented, where instruments were used to collect data or observed phenomena. As well as a participant observation, which consisted of the researcher's real participation with the community or group (MARCONI and LAKATOS, 2006). In addition to team observation, where everyone observed the same, with which one seeks to correct the distortions that may arise from each particular investigator (ANDER-EGG, 1978). Accounting and management documents provided by the company were analyzed, in which the Balance Sheets stood out with the respective income statements, cash flow reports, where it was possible to identify and measure hidden costs in the company's operational routines and pointing out a differential for the organization.

DATA VERIFICATION AND DISCUSSION

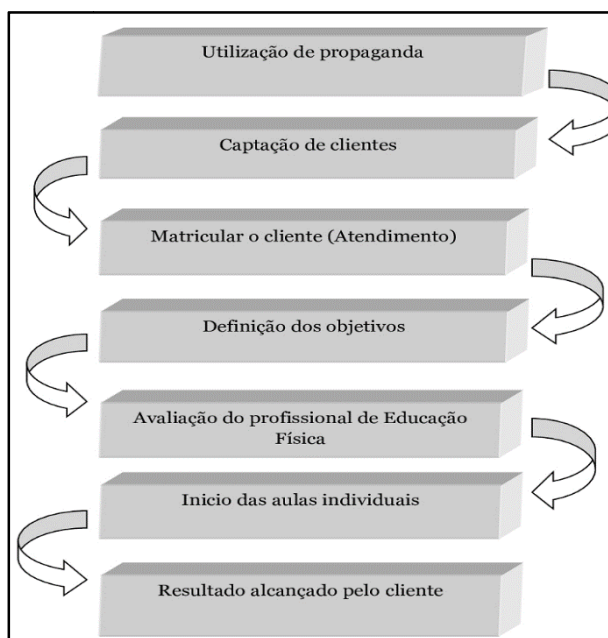
In this subdivision, the results obtained through the analyzes performed will be exposed, describing the service rendering process of Academia Beta, which is its production, where hidden costs were evidenced and measured and after completing these calculations, the effects of hidden costs on the economic productivity.

Beta Academy Service Delivery Process: We will use the pseudonym "Academia Beta" to quote the company object of this research, following the ethics of preserving the name.



Source: Cartographic Base: IBGE, 2006.

Figure 1. Map of the Southern Cone of Rondônia Region



Source: Research data - prepared by the authors.

Figure 2. Steps in the Company's Service Delivery process

It is a micro company in the gym segment that has been operating in the market for over 2 years, installed in the Southern Cone region of the State of Rondônia. The service provided by this Academy is focused on two aspects that can be explored by gyms, which are, Bodybuilding and Physical Activities. It comprises a staff of five and six servers, respectively, between 2018 and 2019. In order to generate the academy's operating revenue, expenses with: labor, raw materials, electricity, depreciation and installation are generally highlighted and with greater added value. We highlight, figure 2 below, which demonstrates the service process of Academia Beta, and it is through this process that it was possible to identify hidden costs and using the research method to quantify them. The present company uses it by means of advertising in order to attract its customers. The service delivery process starts after this stage, where the client goes through the attendance so that enrollment can be performed, so that it can be included in the academy's control system and be part of the number of active students. After this procedure, the client's goals are defined together with the

Physical Education professional, where the desired targets will be defined in a certain period. With these objectives defined, the client will undergo an evaluation by the Physical Education Professional, so that their real physical conditions are evaluated, taking into account the desired objectives and the time determined to achieve them, this stage of the service is considered essential. With these previously described processes completed, the client will be able to start their classes, following their individual schedule. The last stage of service provision is the result achieved, this can vary from student to student, making service provision at an academy an ongoing process.

Verification and calculation of hidden costs: The Beta Academy, its accounting is managed by an accounting office, it is up to the company to send its movements for each period to collect the accounting records by the accounting office. With the accounting and managerial data provided by the academy, after constant analysis and observations in the field, it was possible to identify the hidden costs between the years 2018 and 2019, years object of the analyzes.

Table 1. Reference values for hidden cost calculations

Dados	Valores/Quantidades	
<u>Year 2018</u> <u>Year 2019</u>		
Fixed Cost Provision of Services	R\$ 124.031,47	R\$ 165.903,74
Variable Cost Provision of Service	R\$ 189.835,80	R\$ 241.252,26
Total Services Rendered Cost	R\$ 313.867,27	R\$ 407.156,00
Labor / Total	R\$ 96.452,00	R\$ 120.005,50
Enrolled Student	412	498

Source: Research data - prepared by the authors.

Table 2. Equipment Inefficiency in Service Delivery

Equipment Inefficiency (I. Equip.)

$$I \text{ Equip.} = \frac{\text{Downtime per day in hours}}{24} \times 100 \quad I \text{ Equip.} = \frac{100}{24} = 41,67\%$$

Source: Research data - prepared by the authors.

Table 3. Idleness

Variables	Year 2018	Year 2019
Average volume of daily service provision (VMPSd)	1,14	1,38
Average Cost of Provision Unit Service (CMPSun)	R\$ 761,81	R\$ 817,58
Average time worked in the year (TMTa)	360	360
Inefficiency Equip (I. Equip.)	41,67%	41,67%
Idleness = (VMPSd)x(CMPun)x(TMTa)x(I.Ind)	R\$ 130.279,93	R\$ 169.252,60

Source: Research data - prepared by the authors.

Table 4. Finished product inventory

VARIABLES	Year 2018	Year 2019
Average value of product stocks for provision of services (VMEPS)	R \$ 45,712.00	R \$ 62,450.00
Amortization value index (Ind. Am.)	6.24%	5.79%
Product stock Provision of Service = (VMEPS) x (Ind. Am.)	R \$ 2,852.43	R \$ 3,615.86

Source: Research data - prepared by the authors.

Table 5. Absenteeism

VARIABLES	Year 2018	Year 2019
Average daily cost of the worker (VCMDT)	R \$ 53.58	R \$ 55.56
Average time off work days (TMADT)	21	22
Absenteeism = (VCMDT) x (TMADT)	R \$ 1,125.18	R \$ 1,222.32

Source: Research data - prepared by the authors.

Table 6. Medical certificate

VARIABLES	Year 2018	Year 2019
Average daily cost of the worker (VCMDT)	R \$ 53.58	R \$ 55.56
Average time off work days (TMADT)	16	26
Medical certificate = (VCMDT) x (TMADT)	R \$ 857.28	R \$ 1,444.56

Source: Research data - prepared by the authors.

Table 7. Hidden Costs

VARIABLES	Year 2018	Year 2019
COSTS	PRICE (R\$)	PRICE (R\$)
Idleness	R\$ 130,279.93	R\$ 169,252.60
Inventory Products for Resale	R\$ 2,852.43	R\$ 3,615.86
Absenteeism	R\$ 1,125.18	R\$ 1,222.32
Medical certificate	R\$ 857.28	R\$ 1,444.56
TOTAL	R\$ 135,114.82	R\$ 175,535.34

Source: Research data - prepared by the authors.

Table 8. Company financial values

VARIABLES	PRICE (R\$)	
	Year 2018	Year 2019
Total revenue	R\$ 392,400.00	R\$ 479,880.00
Labor	R\$ 96,452.00	R\$ 120,005.50
Material + Direct labor	R\$ 336,205.00	R\$ 343,585.00
Electricity	R\$ 4,200.00	R\$ 5,040.00
Depreciation	R\$ 10,631.47	R\$ 10,631.47
Installations	R\$ 42,114.00	R\$ 54,867.12

Table 9. Economic Productivity

MEASURES	FORMULA	INDEX	
		Year 2018	Year 2019
MOI Economic Productivity (P1)	Rt / MOD	4.07	4.0
Economic Productivity of MD + MOD (P2)	Rt / MP	1.17	1.40
Economic Electricity Productivity (P3)	Rt / Electric Power	93.43	95.21
Economic Depreciation Productivity (P4)	Rt / Depreciation	36.91	45.14
Economic Productivity of Facilities (P5)	Rt / Facilities	9.32	8.75

Source: Research data - prepared by the authors.

Table 10. Costs of the Service Provided

ITEMS	COST OF SERVICE PROVIDED			
	2018		2019	
	IN R\$	%	IN R\$	%
MOI	R\$ 96,452.00	19.70%	R\$ 120,005.50	22.47%
MD + MOD	R\$ 336,205.00	68.67%	R\$ 343,585.00	64.33%
Electricity	R\$ 4,200.00	0.86%	R\$ 5,040.00	0.94%
Depreciation	R\$ 10,631.47	2.17%	R\$ 10,631.47	1.99%
Installations	R\$ 42,114.00	8.60%	R\$ 54,867.12	10.27%
Total	R\$ 489,602.47	100%	R\$ 534,129.09	100%

Source: Research data - prepared by the authors.

Paint 1. Steps to find economic productivity with hidden costs:

- 1° Determine the percentage of the tangible cost involved in the Px;
- 2° Calculate this percentage of the total hidden costs;
- 3° Apply this value to the Px denominator and add it to the tangible cost;
- 4° Perform the mathematical operations to find Px.

Source: Freitas (2007)

Table 11. Economic Productivity Index with hidden cost - Year 2018

INDEX WITH HIDDEN COST	P1	P2	P3	P4	P5
Determine the percentage of tangible cost	19.70%	68.67%	0.86%	2.17%	8.60%
Calculate this percentage of total hidden costs	R\$26,617.62	R\$92,783.35	R\$1,161.99	R\$2,931.99	R\$11,619.87
Apply this value to the Px denominator and add it to the tangible cost	R\$123,069.62	R\$428,988.35	R\$5,361.99	R\$13,563.46	R\$53,733.87
Perform mathematical operations to find Px	3.19	0.91	73.18	28.93	7.30

Source: Research data - prepared by the authors.

Table 12. Economic Productivity Index with hidden cost - Year 2019

INDEX WITH HIDDEN COST	P1	P2	P3	P4	P5
Determine the percentage of tangible cost	22.47%	64.33%	0.94%	1.99%	10.27%
Calculate this percentage of total hidden costs	R\$39,442.79	R\$112,921.88	R\$1,650.03	R\$3,493.15	R\$18,027.48
Apply this value to the Px denominator and add it to the tangible cost	R\$159,448.29	R\$456,506.88	R\$6,690.03	R\$14,124.62	R\$72,894.60
Perform mathematical operations to find Px	3.01%	1.05%	71.73%	33.97%	6.58%

Source: Research data - prepared by the authors.

Table 13. Economic Productivity Indexes - Year 2018

ECONOMIC PRODUCTIVITY	INDEX WITHOUT HIDDEN COST	INDEX WITH HIDDEN COST	VARIATION (S / CO) - (C / CO)
P1	4.07	3.19	0.88
P2	1.17	0.91	0.26
P3	93.43	73.18	20.25
P4	36.91	28.93	7.98
P5	9.32	7.30	2.02

Source: Research data - prepared by the authors.

Table 14. Economic Productivity Indexes - Year 2019

ECONOMIC PRODUCTIVITY	INDEX WITHOUT HIDDEN COST	INDEX WITH HIDDEN COST	VARIATION (S / CO) - (C / CO)
P1	4.0	3.01	0.99
P2	1.4	1.05	0.35
P3	95.21	71.73	23.48
P4	45.14	33.97	11.17
P5	8.75	6.58	2.17

Source: Research data - prepared by the authors.

The method used to raise and measure hidden costs is the IMPM (*Integrated Manufacturing Performance Measure*) developed by Son and Park (1987), however, some adaptations of the nomenclatures were necessary to provide services to meet the reality of the Beta academy. Next, the calculations raised will be exposed to show the hidden costs present in the company, seeking to identify them through idleness, finished product stock, absenteeism and medical certificate.

Idleness: The provision of services occurs in six days a week, specifically, from Monday to Saturday, during the week the equipment can be used 14:00 hours a day, the use of the equipment in the provision of services is essential for there to be performance you want from the customer. The time of equipment stopped during the day is 240 minutes, it was also considered the period when the equipment is stopped in the period when the gym has no activity, the total was 10:00 hours, although there are no activities in the academic full-time, it is understood that the equipment is at a standstill, but could be used, it is an available capacity that does not generate revenue for the business and suffers a linear depreciation effect. The methodology applied to the cost of idleness is obtained through the downtime in equipment hours per year and / or day, according to Neto (2009). The formula below quantifies idle costs, based on equipment inefficiency.

Product inventory for service provision: The stock of product for the provision of services refers to the storage of a product that has a high share in fixed assets, as it generates a reduction in the opportunity of the capital that was invested, stocking implies costs, as stated by Freitas (2007). If the amount invested in the stock were applied in another way, how much is left to gain due to the fact that the amount invested in the stock is immobilized, this cost can be found by multiplying the value of the stock by the minimum rate of attractiveness for the company, it is common to use of financial market rates such as SELIC (Special Settlement and Custody System), as stated by Arozo (2002). In table 4, we use the base rate of the SELIC interest rate for 2018 and 2019. Thus, as also developed by Souza and Rocha (2018), that to calculate the hidden cost of finished product inventory, the SELIC index of a period was used, as he understands that if the stock value was applied it would generate returns at a step that it does not happen when it is immobilized in stock.

Absenteeism: Absenteeism, as highlighted by Freitas (2007), corresponds to absences in the workplace for unjustified reasons. Neto (2009) states that to calculate absenteeism, the average cost of the employee's working day is necessary in relation to the average number of absences during the period under study. In the table below the value of the average daily cost of the worker, the value of labor mentioned in table 1 was used, divided by 5 and 6, the number of workers in the year 2018 and 2019, subsequently, the referred value is in days in the table.

Medical certificate: This topic is similar to the one carried out previously, however this refers to absences for justified reasons, under the presentation of the medical certificate, Neto (2009) mentions that only justified absences for health reasons are part of this item. Following the IMPM method, in table 7 we have the hidden costs of the period in which we searched found in Academia Beta:

Economic productivity: Freitas (2007) reported that the relationship between costs and productivity is intrinsic and inseparable, so that any increase / reduction in costs has an effect on the entity's productivity. Therefore, Son and Park (1987) creators of the IMPM method, say that productivity is a measure of performance and manufacturing that indicates the efficiency of a company, productivity should not only measure the past or the current manufacturing performance, but that it should predict the future, this efficiency is the result of the introduction of the IMPM methodology. On the other hand, it is possible to adapt this method to measure performance in the provision of services using the same measurement points, direct labor, raw material, electricity, depreciation and facilities. In the table below, the data indicated are for the 2018/2019 period and are in agreement with the documents that were collected at the Beta Academy and make up the economic productivity calculations and at the end the values will be compared according to the hidden cost-productivity ratio. with productivity at no hidden cost. Bringing it to the side of service providers, Neto (2009), says that productivity is associated with efficiency in the use of resources in the production of a good or service, by comparing the use of resources at the input and the results at output. In this way, it can be said that productivity serves as a measure of a company's performance. And he continues to report that, in order to identify the impact of the invisible hidden costs of the researched company, the hidden costs and the productivity necessary to provide the service of the observed process are listed, based on the formula:

Economic Productivity = Total Revenue / Px
Px are the tangible costs shown in table 9.

The table above shows the economic productivity indexes for providing the service, calculated based on the tangible costs of the process.

Relationship between Hidden Costs and Economic Productivity: In order to obtain the values of the indices with hidden costs and define their impact on the company, Neto (2009) says that initially it is necessary to identify the percentage of each of the tangible costs on the total cost of providing the service. Adapting the nomenclatures for the provision of services, being the activity that the Beta Academy provides, to find economic productivity with hidden costs follows the same idea that was used in the calculation of economic productivity for the provision of the service without

hidden costs, the difference is the addition of a new value to the denominator, which will be the hidden cost, Freitas (2007). The same author in his research presented the steps.

Following the steps of Freitas (2007), the second step will make use of the indices in table 10, where the service cost cost indices will be applied to the total hidden costs in 2018 (R\$ 135,114.82). Here is an example with the tangible cost of indirect labor, $R\$ 96,452.00 \times 19.70\% = R\$ 26,617.62$. About the second step Freitas (2007) points out: "In this way, the hidden cost applied to the productivity formula, will have the same proportion as the tangible cost." In the third step, the value found in the second step will be added to the tangible cost. Following the same example of MOI, the transaction is: $R\$ 26,617.62 + R\$ 96,452.00 = R\$ 123,069.62$. The last step to define the productivity index with hidden cost follows the same method that was used to find the value of productivity without hidden cost, then divides the Total Revenue by the value previously found ($R\$ 392,400.00 / R\$ 123,069.62 = 3.19\%$). The following table contains the results of the operations carried out with each tangible cost. After all the necessary operations, the following table shows the variation in economic productivity indexes with and without hidden costs.

CONCLUSION

The results obtained in this research were analyzed using the IMPM method of Son and Park (1987), based on the financial and accounting data between the years 2018 and 2019 provided by the Beta academy, in order to identify, measure and verify the impact of hidden costs in operating income. The methodology used provided the achievement of the objectives expected for the provision of services, with some adaptations of nomenclatures, as it is a method usually used to quantify companies with production activity. The hidden costs of: idleness, inventory of the finished product, absenteeism and medical certificate, and the impacts that these costs generate on economic productivity were raised. The hidden cost of idleness related to the time of not using the equipment available for the provision of services stood out with economic expressiveness. The equipment is stationary for ten hours out of the total of twenty four possible hours of work, of this quantity of ten hours, four hours are during the day, which are from eleven in the morning to three in the afternoon, and the gym has in order to operate continuously during this period, for this it needs to develop special proposals to reach specific customers for stocking this important time for the business. Between the hours, from twenty-three o'clock at night to five o'clock in the morning, there is no service provision, taking into account that the company's location is in a not very populous region, and with cultural habits not linked to the use of these schedules for physical exercise, the reality of gyms installed in small and micro regions of the country, the Beta gym is unable to provide services twenty-four hours a day. In this reality, the search for time optimization can be suggested, such as, for example, carrying out promotional campaigns that start the awakening of the gym occupation at the time of four and five o'clock in the morning, thus minimizing the representativeness of this hidden cost impact on the results.

The representativeness of equipment stopped by default during the peak hours of service provision in the Beta academy is another important finding in the research, this because there is no basic planning of scheduled maintenance and that takes a

relevant representation in the total hidden costs with idleness. The absence of a preventive maintenance program, occupying the intervals of non-use of equipment to carry out such maintenance, points out to be a great opportunity for optimization of hidden costs, it is highlighted that the company comparing the year 2019 and 2018 presents a growth in customer portfolio, an element that signals greater equipment occupancy, which represents greater wear and tear on this equipment, an element that signals greater need for maintenance. As the main activity of the Beta academy is the provision of physical activity services, the hidden cost with finished product stock for sale does not represent a relevant impact on the business, as an opportunity the company can reevaluate the conditions and opportunities to expand products for sale aiming collaboration with the business result. The hidden cost of absenteeism, which represents absences from work without justification and justified absences, appear to be controlled in the company, as they have a low impact on the results for both 2018 and 2019, but it is opportune to signal that the monitoring these occurrences must be periodically analyzed considering that their reflexes can generate impacts that in the medium and long term can compromise the quality of the service provision and generate relevant impacts on customer satisfaction leading to impacts on the company's results. We highlight as limitations of the study the absence of managerial controls that guarantee more assertive information and the method used in the research, which, as a priority, emphasizes the production line and we try to apply it for the analysis in a service provider, we observed that In general, meeting the objectives proposed in the research was achieved, however, we recognize that there are variables that can present and / or change with the application of other methodologies with specific emphasis on service provision. We recommend for future research that other methods be applied to the gym segment to measure hidden costs and compare them with the present method presented in this work, which will certainly allow for more detailed analyzes.

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