REVISTA ESPACIOS

Evaluation of the sustainability of a company for edification based on the ESA Model

Evaluación de la sostenibilidad de una empresa constructora basada en el modelo ESA

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Abstract
A civil engineering industry develops within a market range that is adaptable to sustainable conditions. It aims to assess the sustainability of a civil engineering company using the ESA model. Data were collected through documentary investigation, ESA questionnaire, unstructured interviews and on-site visits. The results show that paying attention to the indicators specified in the method structure allows the company management to assess the sustainability of the business presented in the ESA model.
key words: companies sustainability; sustainability evaluation; sustainability indicators

Resumen
Una industria de ingeniería civil se desarrolla dentro de un rango de mercado que se adapta a condiciones sostenibles. Su objetivo es evaluar la sostenibilidad de una empresa de ingeniería civil utilizando el modelo ESA. Los datos se recolectaron mediante investigación documental, cuestionario de la ESA, entrevistas no estructuradas y visitas in situ. Los resultados muestran que prestar atención a los indicadores especificados en la estructura del método permite a la gerencia de la empresa evaluar la sostenibilidad del negocio presentado en el modelo ESA.
palabras clave: sostenibilidad de las empresas; evaluación de sostenibilidad; indicadores de sostenibilidad

1. Introduction

The Brazilian civil engineering industry has grown quickly. Because of public and private building in the countrys arrangements for the world cup, which stimulated many changes related to environmental, economic, social and cultural issues (Neto; Alcantara, 2015). In this way, towards the competitive scenario in the civil engineering sector, lots of companies discarded their waste in the quickest and most economical way, without the owed responsibility to the environment (Yemal; Teixeira; Naas; 2011).

According to Degani (2003), in the building companies the initiatives towards the appropriate management of natural resources used in the productive process and the waste deposited in the environment are quite new; about this last item, it is remarkable how few concern there is about its great volume and final destination.

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In this sense, it is necessary to comprehend the need for environmental management with the knowledge about the dimension, which these actions can cause to the environment. Aiming to make knowledge and information available to building companies involved, because the knowledge about building companies is still not enough to unleash environmentally positive actions from the building companies, which still don't effectively care about the implementation of environmental managing systems (Degani; Cardoso, 2003).

This article has as aim to evaluate the sustainability of a civil engineering company located in the city of Passo Fundo - RS, through the ESA method.

1.1. ESA Model

The ESA model assumes the company, to ensure its sustainability, should maintain balance between: Economic, Social and Environmental (ESA) dimensions. The method was developed from the proposal of the ECP-T and ECP-A models. It evaluates the points of insertion of the social and environmental dimensions to the business strategy through a qualitative-quantitative analysis, evaluating the indicators of economic and environmental dimensions: the Triple Structure-Conduct-Performance model (Estrutura-Conduta-Performance Triplo – ECP-T) of companies in the textile industry; and the ECP-A, which involves only the environmental dimension, both models proposed by Abreu (2001).

The company's performance is influenced by the adopted conducts, which, in turn, are a reflection of the industry's structure, in which the company is inserted, its internal capabilities of organization and external shocks occurring over the industrial structure. Also, must be considered the context for which the model was developed: the civil construction industry, on its buildings sub-sector (Librelotto, 2006).

The ESA model established a control panel so that businessmen can view the industry structure indicators, the approaches adopted and the final performance as a way to guide the decision-making where one can view the Strong points (S) and Weak ones (W).

The form of measurement of industrial conduct indicators is qualitative, having as main goal to recognize the actions taken by the company. The verification frequency can be biannual or according to the evolutionary pace of the company. The individual response of each indicator helps to compose a general indicator that characterizes the company's conduct as weak, moderate or strong. The location of the measurement is the company itself and the responsibility of measuring lies with the appraiser.

Indicators must be verified by a questionnaire, the collection of evidence and usage of a checklist, as well as interview with the company's director. For all indicators is must be sought evidence within the evaluated company.

2. Methodology

2.1. Study object characterization

This study was conducted in the city of Passo Fundo (RS – Brazil); medium size town located in the Eastern Plateau, the northern region of Rio Grande do Sul, A Brazillian state. It has an approximate population of 185,000 inhabitants, with land area of 783.42 km² and a population density of 235.92 inhabitants / km², focusing 97.21 % of the population in urban areas (IBGE, 2015).

The construction and incorporation company studied is one of the oldest city's working construction companies, with over three decades of experience in real estate. It operates in the planning and development of residential and commercial buildings and is in the market since 1980. Its companies are located downtown and are targeted

to middle-class segments and upper-middle class, such as self-employed people, public agents, businesspersons and merchants, with monthly incomes between fifteen and forty minimum wages.

The company has produced 790 housing units, with an area equivalent to 60,000 m². During the present study, it had two projects under construction. Its workforce consists of, approximately, forty employees performing technical, administrative and operational functions at the construction site.

The company is divided into sectors; the attendance sector, composed by the managing director, secretary and administrative assistant. This sector works directly with the company's customers, so the friendliness and professionalism of all the employees is essential for the service to be perfect. Another sector is the Human Resources, which handles the hiring and effectuation of staff, mainly employees which work in construction sites. The department of projects execution consists of the following professionals: a manager of works and a student of Civil Engineering, an engineer and an architect. They supervise and guide the professionals for the service to run in the company's standards, all sectors and departments are managed by its CEO.

2.2. Choice of model for sustainability evaluation

Upon the study of the main methods of evaluation of sustainability for companies, verification was made to check on their applicability in the studied company.

The MAIS method presented some deviations from the intended objectives, being based on quality standards such as ISO 14000, BS 8800 and ISO 9000, environmental management and safety; it is more focused on social responsibility. The method also evaluates the company in unsustainable in search of sustainability and sustainable in a corresponding score range.

The Equator Principle is used by financial institutions for the approval of business projects, which hindered its application in the proposed study, since it only assesses the company to prevent funded projects from bringing harm to the environment and/or from being environmentally irresponsible, as it also evaluates the company on three concepts or categories.

The GAIA method is inconsistent for only focusing on the environmental factor, not fully covering the necessary scope. The method evaluates the company in five steps divided by percentage and color varying from critical to excellent; in this method the company is assessed with 79 questions in relation to environmental management.

The IDEA method is used by construction companies, focusing in the subsector of buildings and agricultural policies; this method is a tool for the farmer to take decisions focused on sustainability at the level of his/her farm, reflecting the sustainability of the company, not the company.

The National Quality Award (PNQ) for not having sufficient information to apply to the study object was discarded.

The Dow Jones Sustainability Index (2006) is used by companies operating in the stock market, what does not fit within the studied company profile, because it evaluates indexes such as: leadership, strategy, customers, society, information, people, processes, among others, fleeing the focus on economic, social and environmental sustainability.

The difficulty of obtaining the questionnaire information and the application method, the model Exame Sustainability Guide (2017), proved to be impractical for this study, since the method is applied in large Brazilian companies which are adapting their business to nowadays sustainability expectance, what does not reach the reality of the company.

The ESA model broadens the scope of performance and competitive advantage, by integrating economic, social and environmental spheres, considering the conditions of sustainability in its design.

When compared to other models that evaluate sustainable performance, it presents, as advantages, the fact of having an application method that allows the implementation of performance management; the elaboration of a diagnosis for the company, about its acting upon in sustainability, revealing if the company adopts, it is implementing or not certain procedures and at what level it is being done.

Thus, the ESA model covers this study's intended objectives and is the chosen method.

2.3. Methodological procedure

The development of this work was divided into three phases, described below:

Phase 1: Evaluation of conduct items: Qualitative analysis

In this first phase, a summary has been produced, with the qualitative analysis of general indicators for the questionnaire, for the interview and the evidence found, respectively.

In the questionnaire and in the interview, the entrepreneur or engineer's view of the adoption of certain conduct is predominant to the other employees; nevertheless, the evidence is restricted to detecting of proof of action, which prevails.

It must be emphasized that beside of the indicator's result, the letter "W" was introduced as a way to signal one aspect of performance as weak, "S" as strong and "I" as an intermediary, becoming a reference as pre-established standards.

The letter "X" represents an analysis of the responses provided by the Director and/or company engineer in the questionnaire. When more than one element was analyzed within a certain conduct, the result refers to the positioning which prevails over the others.

The symbol "♦" represents the company's positioning as a result of the information provided in the interview, and the symbol "●" refers to the evaluation made by the researcher, based in the found evidences, prevailing over the others.

The questionnaire, the interview and the evidences have a chance of not having the same evaluation every time, because it deals with different perspectives, prevailing General Analysis.

Phase 2: Evaluation of the general indicator of performance.

The analysis of the evaluation of the company's performance on the general indicator was done according to the ESA model. The data was collected from interviews with company's engineering sector, and simulations with data presented by the company; the method presents guidelines for calculations and formulas for each of the indicators.

The information extracted from the bibliographical review along with data collected by questionnaire, interview with the company's director and evidence collection for business' conduct indicators, performance indicators and analysis of market structure indicators for the studied sector, assisted in the evaluation procedure.

Phase 3: Positioning the company in relation to sustainability

Through the assessment of the company's positioning on the procedure, it was possible to determine its positioning in relation to sustainability, based on the answers provided by the company.

The company could have taken any of the positions on the sustainability of its business – defeated, sufferable, responsible, pioneering, opportunistic or indifferent – as was the assessment of the market structure pressures, their conduct and performance.

The company called defeated is one that faces strong pressures from the industry structure, the segment in which it operates. However, their conduct and their performance are always below the level of competition, considering the economic, social and environmental dimensions.

The sufferable position refers to the company which faces strong pressure from the structure, being for its performance, or the fact that the adopted conducts are above the average of competitors.

The pioneering company operates in a less competitive market and leads it, with conduct and economic, social and environmental performances above the average of its competitors. Opportunistic companies face the same pressures, but are highlighted in either the actions (behaviors), or their performance.

As the ratings were obtained for the indicators for the structure, conduct and performance, a correlation process was made between these aspects, in order to determine the company's position. Thus, the positioning is given by the three-dimensional model.

To identify the quadrant for the company's positioning in relation to sustainability, one should find the results in the three chart axes. So, the company is identified in the axis of the structure pressures, the axes of conduct and performance, and the intermediate weak and strong ratings.

4. Results

4.1. Evaluation of conduct items: Qualitative analysis

Table 1 summarizes the results for the indicators of business conduct, making a qualitative analysis of general indicators for the questionnaire, the interview and the evidence found, respectively.

Beside the result of the indicator letters, was introduced "W" as a way to signal one aspect of performance as weak, "S" as strong and "I" as intermediary.

The letter "X" represents the analysis of the responses provided by the company's director and engineer in the questionnaire. The symbol "♦" is the company's position on the basis of information provided in the interview, and the symbol "n" refers to the assessment by the researcher, based on found evidence, predominantly over the others. The extreme cases, where it is possible to evaluate the resulting behavior as intermediary, were accepted.

Shading in gray shows the final evaluation for that indicator, considering the overall data analysis.

Table 1
Evaluation of the conduct indicators

INITIALS	Indicator's name	Conduct evaluation			INITIALS	Indicator's name	Conduct evaluation		
		Weak (W)	Interm (I)	Strong (S)			Weak (W)	Interm (I)	Strong (S)
DP	Development of products/processes				GAQM	Quality management system		♦ ●	
DPEFP	Environmentally friendly products	●	X		GAHWS	Health and work safety management system		♦ ●	X
DPLCPS	Analysis of the life cycle of products and services	X		●	GAIM	Information management	♦	●	
DPDIT	Development and introduction of technologies	●	X ♦		GASPS	Strategic planning aimed at sustainability		X ♦ ●	
DPQP	Quality products		X	♦ ●	GADDC	Documentation and document control		♦ ●	♦
DPFP	Flexibilization of products		X ●		GASD	Evaluation of sustainable development		X ♦ ●	
DPDP	Differentiation of products		X ●	♦	GACPA	Corrective and preventive actions		●	♦
DPDPL	Diversification of product line	♦ ●	X		GARO	Evaluation of risks and opportunities		X	
DPDPP	Development of production projects			● X	GACC	Evaluation of the company's competitivity		X ●	
DPCCP	Compatibility and coordination of projects		♦ ●		GAER	Environmental role in the administrative structure	♦ ●		
DPSE	Simultaneous engineering	●	♦		GASERAS	SER's function in the administrative structure	♦ ●		
	TOTAL on the function	3 W	4 I	3 S	GAQAS	Quality function in the administrative structure			♦ ●
PM	Production and maintenance				GAIT	Involvement of top management		X ●	
PMEI	Aspects and environmental impacts	X	♦ ●		GAEI	Generation of employment and income		X ●	
PMSI	Aspects and social impacts		X ♦ ●		GAPA	Participation in professional associations	X		●
PMAEI	Aspects and economical impacts		X ♦ ●		GAOC	Organization's commitment		X ♦ ●	
PMSFC	Provision of services to the final consumer		♦ ●		GACI	Continuous improvement		X ♦ ●	
PMPM	Equipment preventive maintenance			● X	GAEOC	Practice the exercise of organizational citizenship		X ●	
PMOC	Operational controls		●	X	GACN	Control of nonconformities		♦ X	●
PMAES	Attendance to emergency situations	●	♦		GAAI	Adequate infrastructure			♦ ●
PMOC	Organization and cleanliness		X ●			TOTAL on the function	3 W	15 I	3 S
PMLP	Lean production		X ♦ ●		F	Financial			
PMPP	Production planning		X ♦ ●		FEI	Environmental investments	X ♦ ●		
	TOTAL on the function	1 W	8 I	1 S	FSI	Social investments		X ♦ ●	
P	Purchases				FOI	Other investments		X ♦ ●	
PES	Environmental standards for suppliers	X ♦ ●				TOTAL on the function	1 W	2 I	
PQS	Quality standards for suppliers			X ♦ ●	L	Juridical			
PSS	Social Standards fo suppliers	X ♦ ●			LLT	Legal tactics	●	X	
PSE	Suppliers evaluation			X ♦ ●	LEL	Environmental legislation			X ♦ ●
PSD	Supply delivery planning			X ♦ ●	LLSER	Labor and SER legislation		X	♦
	TOTAL on the function	2 W		3 S	LHS	Health and Safety Legislation		♦ ●	X
HR	Human Resources				LTF	Tax and fiscal legislation		X ●	♦
HREP	Environmental education program	♦ ● X			JCPC	Consumer Protection Code			X ♦
HRADP	Accident and diseases prevention programs		♦ ●			TOTAL on the function	1 W	3 I	2 S
HRTDP	Training and developing people			X ♦ ●	MS	Marketing and Sales			
HRQOL	Programs to improve the quality of life		♦ ●		MSCS	Communication with stakeholders		♦ ●	
HRSP	Social projects		●	X	MSMR	Market research	♦ ●	X	
HRWS	Socially accepted work system		X ●		MSCI	Company's image			X ♦
HRCL	Encouraging creativity and leadership	X ●			MSEDS	Environmental demands of stakeholders	●	X	
HROC	Generating a organizational culture		X ♦ ●		MSSDS	Social demands of stakeholders		X ●	
HROL	Organizational learning	♦ ●	X		MSES	Economic demands of stakeholders		X ●	
HROE	Organizational ethics		X ●		MSIS	Interaction with society	♦ ●		
	TOTAL on the function	3 W	6 I	1 S	MSDS	Differentiation of services		♦ ●	X
GA	General Administration					TOTAL on the function	3 W	3 I	1 S
GAEM	Environmental management system	♦ ●			D	Distribution			
GASER	SER management system	♦ ●			DDC	Distribution channels		♦ ●	
						TOTAL on the function		1 I	

Source: Authors

Analyzing the table, with the summary of conduct for business functions, can be carried by two arguments, which get to the same result. In the first case, analyzing the average of functions (shaded in the table) prevails the adoption of intermediate conducts.

In the second case, the results of summing up the indexes and considering each with the value of a point, has an absolute majority of intermediate conduits 42 points, followed by weak, with 17 points and strong, with 14 points. In both cases it is evident the adoption of behaviors facing some dimensions of sustainability, mostly focused on the economic dimension, as shown in Figure 1

Figure 1
Development of the company towards
qualitative evaluation of indicators
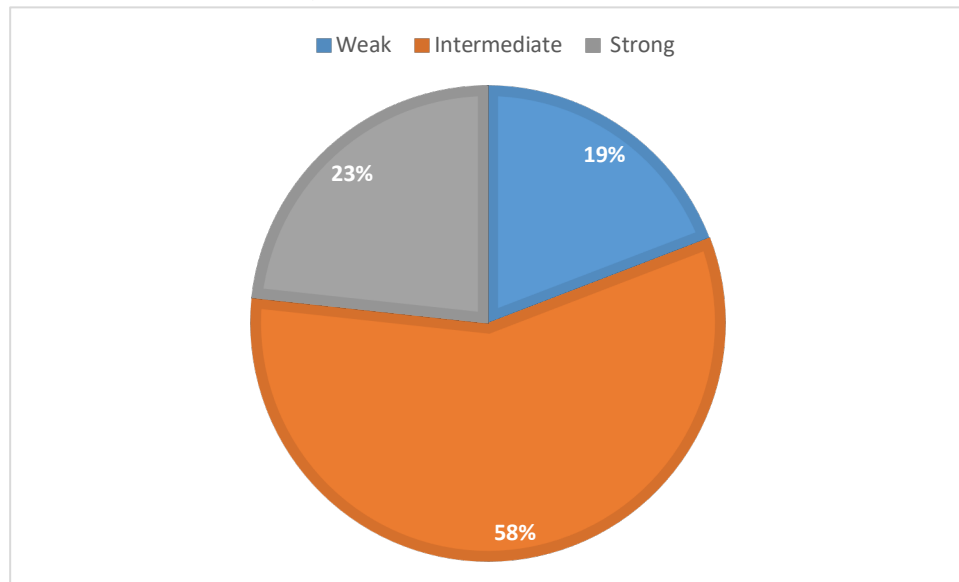
Source: Authors

It is observed that the qualitative analysis, where the detection of proven action prevails in relation to the answers provided in the questionnaire, there is a small increase in the proportion of company's strong conducts (11% to 19%), and also weak ones, which get from 20% to 23%, with a consequent decrease in the percentage of intermediate conducts (from 69% to 58%).

This difference is due to the fact that when evaluating the director's and engineer's responses with the company, there were different answers to the same items of the questionnaire, as the evaluation made by the researcher. Thus, the qualitative analysis on the evidence found predominates over the other analysis.
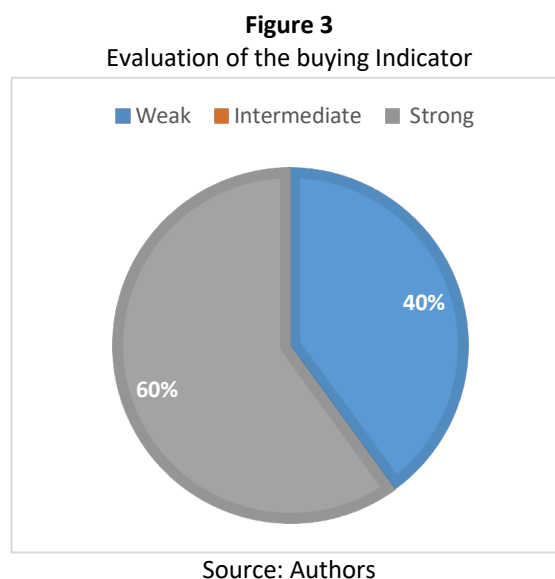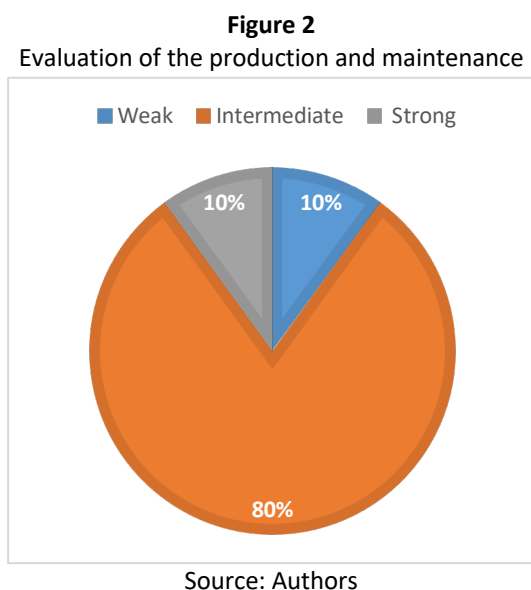
As for research on the development of products and processes, the company's position is intermediate; production and maintenance; financial; human resources, general management, and legal and distribution, most of the indexes show an intermediate position. In marketing and sales, there is equality in weak and intermediate conducts. So the research makes it clear that the company adopts intermediate conducts mostly.

In the development of products and processes, we highlight the environmentally friendly products, technological innovations of competitors, the strong trend towards industrialization of construction, durability of buildings and financial income derived from other sources such as strong indicators, which represent 30%.

The optimization of production in housing units, the flexibility of product and development projects for the production were evaluated as a weak indicator, requiring the company to reevaluate and study a way to improve these questions.

Regarding the assessment of the indicators in the production and maintenance, in most cases, the company presented an intermediate conduct (Figure 2), with a need for the matters of organization of work teams and the importance of raw materials, where the company has poor conduct, to be reviewed. A good index was obtained in interpersonal indicators and employee training in the diversification of functions.

In assessing the buying indicator, the obtained conduct was strong (Figure 3). With regard to social standards for suppliers, the form of treatment and negotiation should be restudied with suppliers themselves. However, in relation to the indicator planning the delivery of supplies to conduct obtained it was strong, which is a positive for the company.

Figure 2
Evaluation of the production and maintenance

Source: Authors

Figure 3
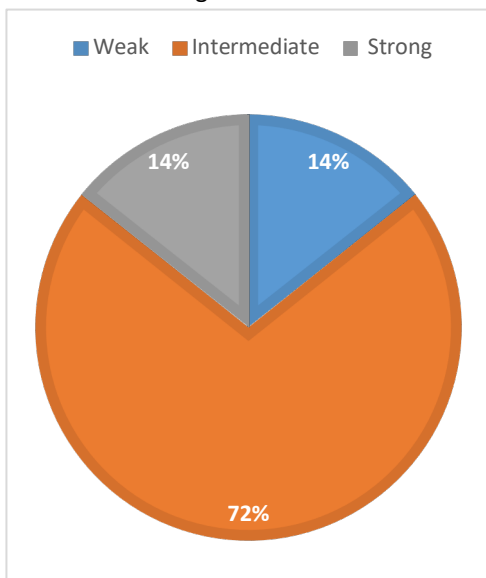Evaluation of the buying Indicator

Source: Authors

Faced with indicators of human resources assessed as social projects; socially accepted working system; encouraging creativity, leadership and organizational ethics, the company presented itself as intermediary. In indicator of generation of organizational culture and organizational learning, the company is weak. The indicators of available information and values from the company to employees, participation of those in decision making, room for discussion of ethical issues and citizenship, employee training diversification of functions, developing leaders, shows that the company has a strong conduct (Figure 4).

The company's conduct assessment in general management indicators was evaluated mostly as intermediary, according to Figure 5; the financial indicators presented themselves as mostly weak. Thus, the company should do a better studying in the financial and social investments and its revenues.
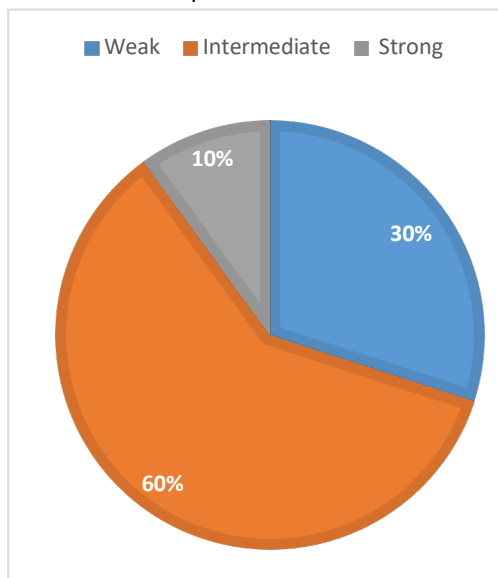
Figure 4
Evaluation of the general
management matter

Source: Authors

Figure 5
Evaluation of the human resources
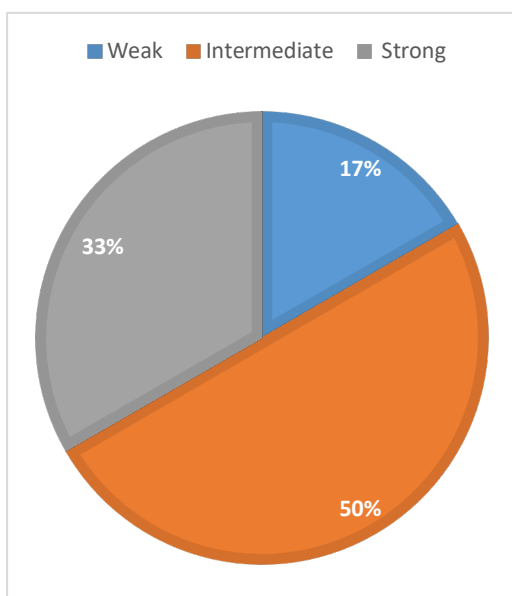questionnaire

Source: Authors

In the legal indicator, the company stands out as strong in the benefits of tax exemptions, but, in general, his conduct can be classified as intermediate (Figure 6).
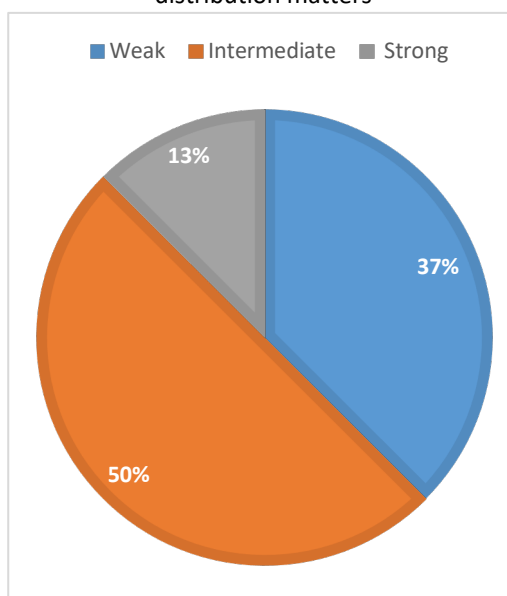
As for marketing indicators, sales and distribution, the company's conduct was presented as intermediate (Figure 7).

Figure 6
Evaluation of the juridical matter

Source: Authors

Figure 7
Company's positioning on marketing, sales and
distribution matters

Source: Authors

3.2. Evaluation of the general performance indicator

Company X in the analysis of economic data did not provide some numerical values of financial returns in recent years, but made an assessment of the indicators according to data developed by the ESA Model.

Table 2 shows the results of applying the ESA model on the studied company.

Table 2
Results of applying the ESA model on company

	INDICATOR'S NAME	PERFORMANCE EVALUATION					INDICATOR'S NAME	PERFORMANCE EVALUATION		
		WEAK	INTERM	STRONG				WEAK	INTERM	STRONG
AEV	1 Aggregated economic value	Relevant - NO DATA				SI 2	40 Social image 2	x		
POP	2 Profitability over patrimony		x			SC 1	41 Social costs		x	
LC			x			CHWF	42 Conformity in health and work safety - driver		x	
IG	4. Income growth	x				ISR	43 Investment in social responsibility - driver	x		
GM	5 Gross Margin			x		ICS	44 Internal client satisfaction– outcome			x
CG	6 Cash generation	Relevant - NO DATA				VAPP	45 Value added per person – outcome	Relevant - NO DATA		
S	7 Sales	Relevant - NO DATA				IT	46 Investment in training		x	
PM	8 Market share		x			TE	47 Training efficiency – driver			x
GI	9 General image			x		RE	48 Remuneration equipment - driver		x	
K	10 Knowledge		x			QL1	49 Quality of life 1- driver		x	
DEC	11 Dissatisfaction of external customers		x			QL2	50 Quality of life 2- driver			x
SEC	12 Satisfaction of external customers			x		QL3	51 Quality of life 3- driver		x	
F	13 Fidelity	IrRelevant - NO DATA				S 1	52 Safety 1- driver			x
PAV	14 Product attributed value	Relevant - NO DATA				S 2	53 Safety 2 - driver			x
CM	15 Customer manifestations		x			S 3	54 Safety 3 - driver			x
R	16 Relationship	IrRelevant - NO DATA				S4	55 Safety 4 – driver	x		
PN	17 Project nonconformity	Relevant - NO DATA				SoP	56 Social purchases- driver	Relevant - NO DATA		
PA	18 Product acceptance	Relevant - NO DATA				SaP	57 Safe purchases- driver	x		
PC	19 Product conformity		x			RWS	58 Relationship with suppliers- driver	x		
GP	20 General productivity	Relevant - NO DATA				SL	59 Satisfaction with the leadership – driver			x
OE	21 Operational efficiency	Relevant - NO DATA				LS	60 Leaders' skills - driver	Relevant - NO DATA		
PQ	22 Planning quality	Relevant - NO DATA				LGP	61 Labor's general productivity – driver	Relevant - NO DATA		
F	23 Flexibility	Relevant - NO DATA				LCT	62 Labor's changing rate – driver	Relevant - NO DATA		
SQ	24 Suppliers' quality			x		S5	63 Safety- driver	Relevant - NO DATA		
CB	25 Critical buying	x				AI	64 Absenteeism index - driver	Relevant - NO DATA		
AP	26 Acquisition productivity	Relevant - NO DATA				EC	65 Environmental conformity – driver	Relevant - NO DATA		
SW	27 Efficiency in suppliers warranties	Relevant - NO DATA				ECost	66 Environmental cost - outcome	Relevant - NO DATA		
SC	28 Suppliers' commitment	x				IA	67 Environmental investments	x		
I1	29 Informations 1		x			OCDE 1	68 Operational carbon dioxide emission 1 – outcome	Relevant - NO DATA		
I2	30 Informations 2	x				OCDE s	69 Operational carbon dioxide emissions - outcome	Relevant - NO DATA		
MP	31 Monitoring of projects		x			W1	70 Water- outcome	Relevant - NO DATA		
ML	32 Monitoring losses	Relevant - NO DATA				D	71 Waste (mullock) – outcome	Relevant - NO DATA		
AS	33 Average time of sale	Relevant - NO DATA				B1	72 Biodiversity 1- outcome	Relevant - NO DATA		
AE	34 Administrative efficiency		x			B2	73 Biodiversity 2- outcome	Relevant - NO DATA		
RIR	35 Rate of investment return			x		T	74 Transportation- outcome	Relevant - NO DATA		
PC	36 Production cost	Relevant - NO DATA				A2	75 Water 2-outcome	Relevant - NO DATA		
CF	37 Cash flow	Relevant - NO DATA				OCDE 2	76 Operational carbon dioxide emission 2 – outcome	Relevant - NO DATA		
SC	38 Social conformity	Relevant - NO DATA				HNc	77 Health nonconformity – driver	Relevant - NO DATA		
SI 1	39 Social image	Relevant - NO DATA					**TOTAL**	**10 W**	**16 I**	**12 S**

Source: Authors

Business performance: of the 77 indicators established for the ESA Model, 39 were not measured. The overall index performance was characterized as intermediary, because it was possible to perform the calculation of 16 indicators, which had as result of the evaluation, intermediate, but relevant for future measurements by the company. In the other indicators, 10 showed weak results, and 12 strong performances.

This result is not by all means conclusive, as 39 relevant indicators did not have data for evaluation, and thus, there may be, a change in the result. It is observed that for the application of ESA Model and as a starting point for monitoring business performance the result is considered satisfactory, given that it is recommended to establish a control panel of about 30 indicators.

3.3. Company's position over sustainability

After obtaining the ratings for structure, conduct and performance indicators, they were correlated between each other in order to determine the company's position. Thus, the positioning is given by a three-dimensional model.

The quadrant where the company is located was highlighted in gray in Figure 8, as it corresponds to the cube with the number 17.

By the number of the positioning quadrant (17), the company may be classified as responsible (an evaluation reflecting the performance in a market with strong pressure), a company which performs well in the face of economic, social and environmental dimensions, but in which the actions taken also have some disadvantages compared to market leaders.

Figure 8
Positioning of the company X in relation to sustainability

Source: Authors
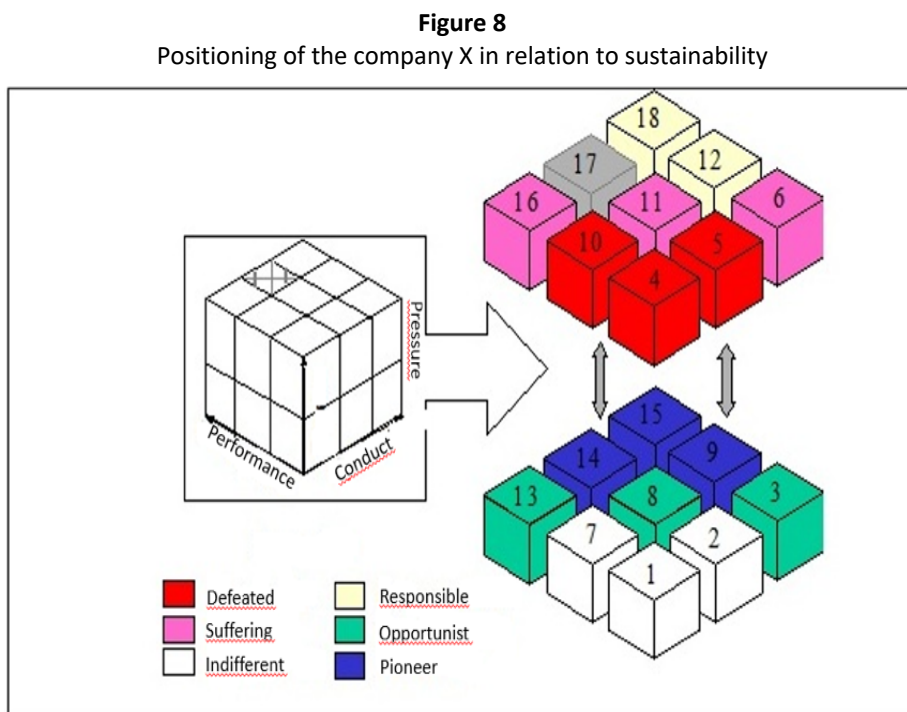
The states represented in the figure are transient. It is as if a snapshot was taken at a certain time of the business life cycle. There is a theoretical trend to shift companies to quadrants on the cube's extremes. However, it is difficult for a company to move from the bottom of the cube to the top of it, or vice versa, without the occurrence changes in market conditions.

The ESA model provides the company with a control panel where indicators can be constantly monitored. On control panel market conditions are visible (in order to control the incidence of shocks), together with the procedures adopted by the company (and points of possible improvement) and business performance.

4. Conclusions

Dysfunction in the process to become a sustainable company opens the need for an implementation methodology for companies operating in the construction industry, it presents a great opportunity to study, considering the treatment of issues related to social, environmental and economic spheres.

This work enabled the view of the position held by Company X on the variables of the market structure, in which it operates.

In assessing the construction company's activities from the ESA model, the assessment of the conduct of the indicators of development of products and processes, production, maintenance, purchasing, human resources and general administration was held as intermediary by the evaluation, the financial indicator as weak.

The control panel established in the ESA model allows the strategical guidance of companies, because its leaders can meet their performance, check what behaviors are being adopted and viewing conditions in the industry structure, where the company is inserted. So you can check whether the goals are being met, the conducts are having the desired effect, and if it does not happen, re-planning for achieving the organization's goals.

The construction area can enjoy the moment of motivation (rise on the market) for the improvement of sustainability, as they generate a large environmental and social impact, assuming a strategic role in the country's development, through the generation of employment and income. It is expected that companies find in the ESA Model a tool to improve the quality of their product development and management of their business.

There were some difficulties in implementing the ESA model because it has limitations when considering a predefined set of variables. There is still a lack of national data to deal with the social and environmental performance of construction companies.

Among the difficulties encountered in this work, it is the lack of updated bibliographical material focused on sustainability of construction companies, and concrete data on the construction of Passo Fundo city and its region, a subject which is still new.

Thus, this issue is presented as a great opportunity to scientific literature and field research aimed at students of not only engineering, but also administrative and economic areas.

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