MANAGEMENT MODEL FOR THE MANAGEMENT OF NON-FINANCIAL REPORTING FROM A SUSTAINABLE APPROACH

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Abstract *– The managers of organizations, as architects of management objectives and responsible for information, play a key role in the decision-making process of information users, including investors. However, it is observed that they lack the necessary competencies to represent non-financial information, resulting from the impacts that organizations generate on the environment. Taking the literature on the subject as a reference. This research measured the degree of knowledge of management on sustainability reporting models designed for the presentation of non-financial information. 10 surveys conducted to managers of organizations in the department of Cordoba, Colombia on their level of knowledge and perception of the topic allusive to non-financial information were quantified in 300 responses. This analysis made it possible to identify the structures that could form the basis for the future construction of a sustainable information model, based on common elements of the GRI Global Reporting Initiative and SASB Sustainability Accounting Standards Board standards, available for preparing and presenting non-financial information, These standards are aligned with the Sustainable Development Goals (SDGs), which were reviewed in order to provide the basis for the design of a management model to manage the preparation and dissemination of sustainable information relevant to the decisions of its users, environmental protection, social impact mitigation and corporate value.*
Keywords: *Non-financial reporting; sustainability; management model*

INTRODUCTION

Shareholders of entities located in developed and developing countries have considered investing in information as a priority, and in recent decades have shifted from demanding non-financial information to financial information. The first information, based on the consumption of exhaustible resources, social and economic issues, all aligned with the Sustainable Development Goals (SDGs), and the second demand for financially focused information, is summarized in four general-purpose financial statements, whose itinerary marks the route in terms of operational and financial decisions of users clearly identified in the accounting regulation, such as investors, creditors and lenders. The common focus of attention of these users is centered on the standardized accounting regulatory framework, which is characterized by the use of the best practices of worldwide acceptance, which are ascribed to the representation of events with future effects and which eventually have an impact on the financial structure of the organization. However, at present, the priority shared by investors is routed in the reporting of non-financial information in economically developed countries, or countries that have voluntarily considered this type of information convenient.

Referring to non-financial information, this is not part of the accounting regulation in Colombia, which is compiled in the single regulatory Decree 2420 of 2015.[1] Accordingly, the autonomous presentation of non-financial reports of entities that prepare this type of information leads to identify problems about the absence of regulation in some jurisdictions, in front of sustainability information models, which explains to a great extent, the scarce knowledge about these information structures.

In Colombia, one of the reasons that justifies the preparation of financial information responds to the requirements made by the supervisory entities, and because it is also an input for fiscal and tax information. This characteristic evidences an aspect that could be located in the cultural context of the businessmen, as regards the compliance derived from the established and punishable norms in the face of the omission that may affect them economically.

The aforementioned lack of non-financial representation elements within a regulatory framework explains the reasons why there is not enough knowledge on the subject and, consequently, the impossibility of establishing information aggregates with a view to identifying the use of water, energy, hazardous waste treatment, social and economic aspects that derive in ecological, social and economic consequences. However, the absence of regulation as an identified element would cease to be so in the short term, due to the fact that at this moment, the discussion drafts of sustainability standards issued by the International Accounting Standards Board (IASB) are already published, [2] which will probably become an official standard and in that sense, the effect would be its inclusion within the current regulations, and its due regulation if it is a decision of the legislator.

The regulator's approaches to sustainability standards guide this information as an extension of financial information, whose objective, in principle, is to prepare information with materiality criteria about the relevant risks and opportunities related to sustainability that affect an organization with respect to its business value and therefore, represents an input for decision making on providing or refraining from providing economic resources to the entity. The above leads to identify the problem of capitalist approach to the privilege of financial information over non-financial information, tending to a protectionist environment of corporate value, taking into account the impact that organizations generate on the environment, regardless of their activity.

Therefore, providing management with a model for the presentation of non-financial information provides a generalized outline of what the standards intend to guide in terms of sustainable information and, additionally, adds a bioethical component that represents a social commitment, which may well be related to corporate social responsibility, including environmental protection through the accounting representation of mitigation of ecological and social impacts.

In this sense, the management will know that the complementary information to the financial statements has effects on society, the environment, the economy and the business value whose ignorance may cause risks related to the future cash flow of the entity, leverage opportunities, the cost of capital, all this, as a result of the direct link between renewable and non-renewable resources, as well as the ignorance of the share that affects global warming, product of the development of the economic activities of the entities. Accordingly, the design of a model to generate non-financial reports on sustainability has a significant impact on the mitigation of environmental damage, the quality of life of workers and the risks and opportunities in relation to the management of information complementary to financial information, providing a worldview of the reporting entities, which helps the decision making of capital providers and public policies that mitigate the ecological detriment, thanks to the addition of non-financial information for sustainability purposes. It also contributes significantly to the involvement of management in the practice of sustainable accounting, guiding management's objectives in an integral manner.

In consideration of the above, this research in the first instance is structured based on the findings made from the bibliographic exploration on sustainability reports of the department of Córdoba, Colombia, which evidences a scarce number of sustainability reports reported by the entities, with the exception of business groups such as Postobón, which includes within the departments, sustainability information of the department of Córdoba in a generalized manner. This situation reinforces to a greater extent, the lack of knowledge of non-financial information reports for sustainability purposes, a situation that justifies the development of a management model for non-financial reporting, first, through the analysis of two large groups of standards under the Global Reporting Initiative (GRI) [3] and Sustainability Accounting Standards Board (SASB), [4] which in turn, are congruent with the SDGs; secondly, the research seeks to identify the priorities of the information of these models through the tabulation of the items present in each of the standards. Thirdly, it seeks to identify the target users of the standards, their objectives, the criteria for their elaboration and

fourthly, to propose some bases for the development of a model for the presentation of non-financial information, which a manager should report in a complementary manner to the financial information to mitigate environmental impacts, generate a more complete vision of the business model, possible social impacts, risks and opportunities for the entities and mitigation of environmental deterioration. The model in question is not intended to displace a standard or existing models. Therefore, the scope of this study is to build a model or reference guide based on existing models to serve as a reference for managers of organizations, although the regulations in this area have become a priority for regulatory bodies.

In harmony with the importance and the ecological and social impact of this research, the following question arises: how to design a management model for reporting non-financial information for sustainability purposes in order to provide users with relevant information that facilitates decision making by users?

1. Management models

Management models [5] are part of the organizational strategy to provide permanent information on different areas of the organization in order to identify elements for proper business management. In this order of ideas, some models have been identified in the literature, such as the complexity model, based on the construction of new realities inexcusably due to the complexity of the business phenomenon with several variables that converge simultaneously, its degree of uncertainty and the multiple valid answers to business problems. [5]

It can be associated then, sustainability models to the paradigm of complexity that visualize new realities, such as the factors that affect the value of the company, the mitigation of the ecological and social effects of business activity and the robustness of information for decision making. However, these realities are not new in their occurrence, but the incorporation of sustainable information in the agenda of the different stakeholders is.

Another management model that should be mentioned in the context of management models and that could well be related to sustainable information standards due to its structure aimed at achieving objectives, considering exogenous situations, whose domain is not within the scope of the organization and, in contrast, the identification of internal variables such as resource management, is the SWOT model [6], which is a manifestation of strategic planning through the search for solutions, previously identifying weaknesses and opportunities for improvement and strengthening all those factors that lead to improving business value.

These management models become input for the basis of a management model aimed at the presentation of non-financial reports referring to sustainability whose essential objective is the production of information on the risks and opportunities related to sustainability inherent to an organization that prepares information, with the purpose of evaluating the entity's value, the pertinence of the provision of resources and the decision making of interested parties. [2]

1.1. Non-financial reporting of sustainable information.

Non-financial reports on sustainable information arose from the need to reflect on social and ecological issues at the end of the 1980s, leading to the initiative of the Brundtland report, which proposed economic development from a sustainability approach and with it, the emergence of the globally disseminated term known as sustainable development. Its approach is aimed at ensuring the sustainability of economic development, which depends on social aspects and ecological components. [7] By virtue of this model that achieved its positioning and worldwide acceptance, subsequently and as a result of the complementarity of the reports that are rendered within the organizations, various models for the preparation and presentation of information related to the topic of sustainability emerged. However, for this proposal, two of them have been chosen, taking as criteria their characteristics of comparability, consistency, reliability and acceptance by data providers and rating agencies. [8] The importance of the presentation of these reports can be evidenced in the research conducted by KPMG in 2020 to companies, whose classification criterion was the income of the financial reports reported, in order to select a sample in the countries where KPMG is present,

generating a total of five thousand two hundred companies surveyed, of which the 250 largest (96%) present sustainability reports. [9]

Taking into account this result, it can be said that the need for information reports obeys to recent information needs of the users for the effect of decision making aimed at providing capital to organizations from the perspective of external user, and from the management approach because sustainability reports provide a considerable input for corporate governance, internal customers such as human talent and environmental impacts that may affect business value.

In summary, the SASB and GRI sustainable information reporting models are generators of comprehensive and globally recognized sustainability standards for corporate reporting. These two models complement each other and meet the information expectations of users and stakeholders. [10] SASB standards

These standards constitute a guide for disclosure for sustainability purposes with a financial focus, represented by the entity and aimed primarily at its existing or potential capital providers. Its design is aimed at 77 industries [4] and the standard basically identifies 3 dimensions: an environmental one, a social one and finally a governance one, related to the financial performance of the industries for which the basis of the model is elaborated. The sponsor of this reporting initiative is the Value Reporting Foundation, a non-profit organization whose purpose is to support a comprehensive understanding of the value of the company at the beginning, during and after the company's performance, mainly aimed at investors. This information can be prepared and presented following the SASB model or can be combined with another model, depending on the regulation of your jurisdiction and your needs. [11]

The aforementioned standards constitute a guide for disclosure for sustainability purposes with a financial focus, represented by the entity and aimed mainly at its existing or potential providers of capital. The standard identifies the three dimensions. The sponsor of this reporting initiative is the Value Reporting Foundation, a not-for-profit entity whose purpose is to support a comprehensive understanding of enterprise value at the beginning, during and after the performance of the business, primarily aimed at investors. This information can be prepared and presented following the SASB model or can be combined with another model, depending on the regulation of your jurisdiction and your needs. [11]

This framework for sustainable accounting reporting is understood as the set of corporate events on which the permanence or capacity to generate an increase in corporate value in the long term depends. Its operating method integrates the functions of measurement, management and reporting of activities carried out by the organization. It can be said then, that the activities developed by the entity, have inevitable impacts on the environment and society, and are susceptible to representation through sustainable accounting, to evidence the management of these capitals and their relationship with the generation of value in future prospects, in addition to the effects on innovation, business structures and corporate governance, which allows understanding the structure of the reports supported in three dimensions, addressed by the SASB model: Human capital, business model and innovation, leadership and governance [12].

This recent sustainable reporting paradigm (SASB), is circumscribed in an apparent concern for social and environmental impacts, but its ontological background is inevitably anthropocentric and works as a dynamizing axis of capitalism and its cavil depends on the capitalist teleology itself directed towards the value of the entity.

The reference framework for sustainable accounting reporting, understanding the latter term as the set of corporate events on which the permanence or capacity to generate an increase in corporate value in the long term depends, is developed through an operational method that integrates the functions of measurement, management and reporting of activities carried out by the organization. However, a weakness of sustainability accounting is the reconciliation of data from various systems [18]. From the perspective of the proposed bases for the management model, the systems referred to in this paper are the product of the dynamics of the social, economic and ecological dimensions.

1.1.1. The GRI standards

Organizations have used different types of sustainability reports, based on criteria that are defined by the economic context, the political and economic situation according to the development and development of the business activity. However, the current situation leads to generate information that is universally comparable and understandable in light of stakeholder expectations. From this perspective, the Global Reporting Initiative (GRI) is beginning to generate a model for the preparation of sustainability reports, based on standardized guidelines. [14]

The GRI sustainability standards are a framework of indicators that are interrelated and used together, with the purpose of providing organizations with a model for the design of sustainability standards, based on principles that are considered under the criterion of materiality for the organization. These sustainability standards include issues related to the presentation of information on the impacts of organizations on the environment, society and the economy. [15]

2. METHODOLOGICAL ASPECTS

In order to develop the objective of this research and taking into account the data of the selected sample, a factorial study was carried out, with the purpose of reviewing the relationships of the variables that are correlated. The information was compiled by means of 10 surveys conducted to the managers of the largest SMEs in the department of Córdoba, taking into account the environment close to the scope, time and resources of this research. The companies, represented in each of the surveyed managers, belong to different sectors of the economy, considering that regardless of their economic activity, they generate social, economic and ecological impacts. The information was reviewed and processed the first 15 days of June 2022 and analyzed through Excel.

The applied instrument consists of questions based on the indicators developed in the SASB and GRI sustainable information standards, in the social, economic and ecological dimensions with indicators with their corresponding forms of measurement and representation. Thirty questions were developed, corresponding to indicators common to both models, which in turn are aligned with the sustainable development objectives. A Likert scale [16] of five possible answers was used, the first option being totally disagree and the last totally agree.

The criterion for assessing the effectiveness of the measurement instrument applied was Cronbach's alpha, [17] whose formula is as follows:

$$a = \frac{k}{k-1}\left(1 - \frac{\sum v_i}{vt}\right)$$

The variance criteria and analysis of variance are detailed in Table 1.

TABLE 1 CALCULATION OF CRONBACH'S ALPHA

α (ALPHA) =	0,9484183
K (NUMBER OF ITEMS) =	10
ΣVi (VARIANCE OF EACH ITEM) =.	17,1655556
Vt (TOTAL VARIANCE) =	117,232222

Source: own elaboration

The search for information on management models and sustainability standards was carried out in different scientific databases such as scopus, science directives and other bibliographic sources such as corporate documents.

3. ANALYSIS OF RESULTS

It was observed that the 10 businessmen surveyed have a very low level of knowledge about sustainability standards, with 70% of the respondents being totally unaware of the existence of the reporting models and 30% claiming to have heard about their existence in a succinct manner.

However, 70% of company managers know that business activity has an impact on the environment and 30% are indifferent to this impact.

50% are aware of the sustainable development objectives and the other half have heard of some indicators, but not all of them are identified.

40% do not know that ecological, economic and social impacts have an impact on the value of the company and 60% relate the value of the company only to the economic dimension.

3.1 SASB indicators

TABLE 2. SASB STANDARD INDICATORS

SASB dimension	Number of indicators	Proportion
ECOLOGICAL INDICATORS	121	0,19
ECONOMIC INDICATORS	414	0,65
SOCIAL INDICATORS	102	0,16
TOTAL	637	1

Source: own elaboration

In identifying the SASB sustainability standards, it is found that the sum of the indicators developed in each of the standards is 637, of which 19% measure the ecological impacts of the industries, 65% refer to economic impacts on the industries and 16% to the social impacts of the industries, in terms of business value.

3.2. GRI indicators

TABLE 3 GRI STANDARDS INDICATORS

GRI Standards	Ind.	% Ind.
ENVIRONMENTAL	8	0,24
SOCIALS	19	0,58
ECONOMIC	6	0,18
TOTAL	33	1

Source: own elaboration

3.3 GRI and SASB Standards

If the SASB GRI indicators are compared, the variation in the participation of measurable priorities through their indicators would result as follows:

TABLE 4. COMPARISON OF GRI AND SASB INDICATORS

Indicators	% gri	% sasb	Difference
ENVIRONMENTAL	0,24	0,19	0,05
SOCIALS	0,58	0,16	0,42
ECONOMIC	0,18	0,65	0,47
	1,00	1,00	

Source: own elaboration

As can be seen in Table 4, the SASB standards, unlike the GRI standards, show a marked priority for economic effects. The economic indicators are 47% higher than the GRI indicators; the social indicators also show a marked difference of 42% and the environmental indicators only have a difference of 5%. It is evident that the social dimension structurally occupies 58% of the total GRI indicators and in contrast SASB privileges economic indicators with a greater portion.

3.4 Sustainable Development Goals

TABLE 5. ODS INDICATORS

Dimension	%
ECONOMIC	0,29411765
ENVIRONMENTA	0,29411765
SOCIAL	0,41176471

Source: own elaboration

According to Table 5, the highest proportion of indicators within the sustainable development goals is social, and economic and environmental indicators have an equal share of 29%. From this evidence it can be inferred that the model of standards most aligned with the SDGs is the GRI.

4. MODEL FOR THE PREPARATION AND PRESENTATION OF SUSTAINABLE INFORMATION

The model resulting from the study is based on the distinction between sustainable and sustainable. The explanation for this lies in economic objectives: developed countries, such as those of North America, are moving towards a sustainable development that depends on the growth of the economy as the main source of quality of life for the community, while Europeans focus on the relationship between human beings and the environment, on which the living conditions of a region depend. Sustainability then is external to the environment and the capacity of ecosystems to produce and maintain themselves over time. [7]

Thus, perceiving the components of nature as resources that can be exploited in the long term by organizations, has triggered a bioethical problem, caused by capitalism that raised its economic interests above society and ecology, which can only be mitigated by placing life itself at the core as a possible way out of the current crisis. [18]

In this sense, the basis for the proposed managerial model has as its foundation the ecological dimension in its first level, and the subsequent layers contain the environmental, social and economic dimensions, in order to mean that the basis of the model should be of a biocentric ontology to propose a more equitable development model. [19]

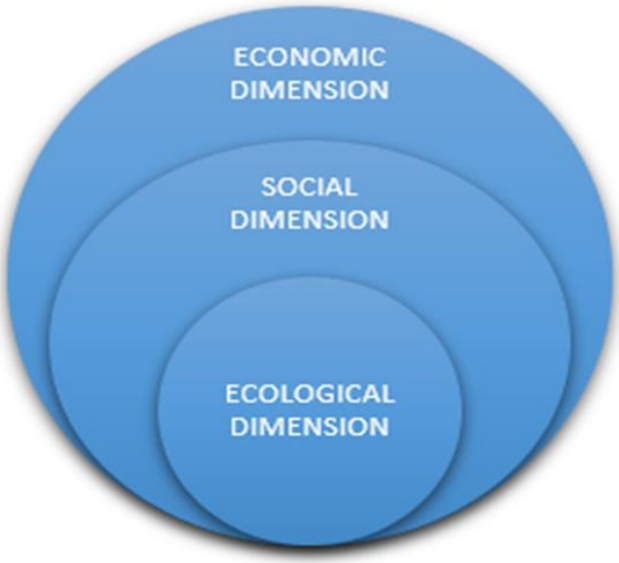

Fig. 1 Sustainability model proposal

Figure 1 shows layers that resemble the model of OMR reality proposed by Mattessich, [20] made up of different levels, where the inclusion of one layer in the other is clearly distinguished. The core, in the proposed model, is the ecological dimension considered of greater permanence than the other levels that succeed it. Based on this premise, the model shown in Table 5 is proposed.

TABLE 6. MANAGEMENT MODEL FOR THE PREPARATION AND PRESENTATION OF REPORTS

DIMENSIONS	INDICATOR	PERIOD 1	PERIOD2	UNIT	MONETARY AMOUNT	HORIZONTAL ANALYSIS
Ecological Environmental Social Economic		Period previous	Current period	Unit of measure	Valuation in functional currency	(p2/p1)-1*100

Source: own elaboration

The basis for the management model for non-financial reporting is structured as follows:
The first column of the model described in Table 6, refers to the ecological, social and economic dimensions [22] in order to identify the evaluation of these riches that are under the control of the organization.
The second column refers to the indicators that are born in each of these dimensions, it is proposed to identify specific elements, such as water management, waste, greenhouse gases, employee benefits and human talent management, economic impacts, anti-corruption, company profitability among others. [23]
The third and fourth column, refers to period one, or lapse in which users are informed in a comparative manner in a defined spatio-temporal context in order to establish measures focused on the achievement of regulated or self-regulated standards, allusive to organizational responsibility spatio-temporal context and measures can be adopted tending to achieve the ideal situations from the normative frameworks of organizational responsibility. [24]
La columna unidad de medida se refiere a la identificación de la magnitud utilizada para establecer mediciones, que depende de las características del objeto a medir, mediante reglas establecidas para atribuir numerales a los objetos. [25]
La columna Valoración[8] se refiere a la homogeneización de las magnitudes procedentes de la medición a través de un coeficiente de conversión como moneda funcional y se caracteriza por su subjetividad, [26]. Los indicadores adscritos a las dimensiones son en su mayoría intangibles que proporcionan ventajas competitivas sostenibles. [27]
La columna de análisis horizontal se refiere a la tendencia de las mediciones y valoraciones en un periodo determinado [28] y, en el modelo, pretende ser un elemento de análisis de la fluctuación generada por la gestión de los indicadores contenidos en cada dimensión.

TABLE 7. DISCLOSURE AND OFFSETTING IN THE MODEL

Disclosure	Compensation
An entity shall disclose for each dimension of the corresponding indicator, the fluctuations from one period to another and explain the origin of the comparative result, through the cause-effect relationship. It shall also disclose the measurement and valuation techniques used in each case and the source information for the estimates made.	The entity shall establish the methodologies to be implemented immediately, for the fluctuation of the dimensional indicators, the measures tending to lessen the impacts explained in the disclosure, such as improvement plans, resource optimization strategies, reengineering in the processes involved in the activities that produce effects on the ecosystems including the social ones. The entity shall establish a" mitigation hierarchy" in the following scale: avoidance, minimization, restoration and compensation measures. [21]

Source: own elaboration

Table 7, referring to disclosure, expresses the need for disclosure of non-financial information [29] and the immediate methodologies, with the purpose of identifying the cause and effect of the fluctuation in measurement and valuation, beyond the quantitative evidence expressed in the non-financial reports. However, in the absence of regulation, the discretion of the preparer of the information requires a concrete explanation of the techniques used to evaluate each dimension [30].
Regarding the right column of Table 7. On compensation, it is suggested to establish an immediate itinerary in the methodology used by the preparer of the information, in order to establish institutional measures as a purpose in two ways that are the increase of the business value and the increase of the quality of response allusive to the management of the reports.[31]

CONCLUSION

The SASB and GRI standards have traditionally been used for the presentation of non-financial or sustainable information, and have been widely used by organizations on a voluntary basis, in compliance with legal requirements or at the request of interested parties. However, it is noted that

there are other models for integrated reporting of sustainable information, but in this case, the SASB and GRI standards were used as a reference for the construction of the basis of the management model for reporting non-financial information, due to their widespread acceptance and their shared structure with the objectives of sustainable development.

The bases of the management model for the presentation of non-financial information constitute an input for feedback, reengineering and mitigation of impacts on the social, economic and ecological dimensions in the organization, prior to the preparation and presentation methodologies proposed here.

The SWOT management model shares an operational structure with the current non-financial information models for sustainability, from a teleological perspective, i.e. its background or ultimate goal is the identification of strengths, opportunities, weaknesses and threats of the impacts that economic activity produces on the social, economic and ecological dimensions. Consequently, the SWOT model is a coupling instrument between the sustainable model and the managerial model.

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