*Corresponding Author' Email: btissam.elghazi@edu.uiz.ac.ma
Proceedings of the International Conference on New Trends in Management, Business and Economics
Vol. 1, Issue. 1, 2023, pp. 12-35
DOI: https://doi.org/10.33422/icnmbe.v1i1.159

ISSN: 3030-0347 online

Contribution of socio-economic determinants to the management of sustainable performance: case study of Moroccan companies with Corporate Social Responsibility label

Btissam EL GHAZI
Professor, Doctorate in economics and social sciences
Faculty of economic and social legal sciences of Agadir – University Ibn Zohr – Agadir - Morocco

Abstract

In a dynamic environment marked by significant shifts in production and marketing systems across various industries, companies are compelled to adhere to national and international standards to meet evolving demands from both internal and external stakeholders. These emerging requirements have spurred companies to adopt strategic initiatives, such as emphasizing Corporate Social Responsibility (CSR), as part of their managerial actions. The primary aim is to integrate two key management science themes: indicators derived from management control systems and the management of sustainable performance. Consequently, our focus lies in the socio-economic approach, particularly the socio-economic cost-value of activities, which influences the diversity of indicators on one hand and the management of sustainable performance on the other hand, mediated through their variety. This underscores the importance of managing sustainable performance by utilizing measures and data tied to socio-economic fundamentals, prompting us to formulate our research question as follows: "To what extent does the cost-value of activities impact the management of sustainable performance?". The empirical investigation transitions from simply describing variables within our sample companies to conducting factor analysis via Principal Component Analysis-PCA. This aims to establish a robust factorial structure and subject several constructs to testing, assessing the internal consistency of the model, the quality and reliability of the sample, and the validity of research hypotheses. Our findings align with prior research, indicating that diverse indicators can inform managers about social and environmental practices, fostering positive effects on sustainable firm performance. However, excessive reliance on these indicators may lead to confusion and dispersion within companies. Hence, it's imperative to tailor indicators to the specific context and objectives of each firm, considering industry-specific nuances. Our study demonstrates that leveraging a diverse range of indicators is pivotal for enhancing sustainable performance dimensions and managing socio-economic factors amidst external pressures. Evaluating the measurement model is crucial for validating the reliability and validity of measurement instruments, as well as assessing the structural model's overall quality, which includes tests like coefficient of determination-R^2, Goodness of fit-GoF,

and others. It's important to note that our measurement model encompasses both reflective and formative constructs. The structural model's quality is gauged by its explanatory power, evaluated through R^2, indicating explained variance in the variables under scrutiny. To address this issue, we chose to examine the connections between key socio-economic factors and the management of sustainable performance in Moroccan companies certified with CSR labels. Through structural equation modeling, we found that effectively managing the cost-value of activities using diverse indicators plays a significant role in enhancing sustainable performance within CSR-certified companies.

Keywords: Corporate Social Responsibility-CSR; cost-value of activities; diversity of indicators; Socio-Economic Management Control-SEMC; sustainable performance management

1. Introduction

The advancement of management systems invariably leads to enhancements in performance management, prompting significant interest among researchers in exploring the relationship between management control and performance. In the study by Meyssonnier and Rasolofo-Dastler (2008), the objective is to investigate this relationship in situations where companies delineate their social or global responsibility objectives. Findings indicate that companies utilize financial and non-financial societal management indicators cohesively to drive economic performance.

Similarly, another study, conducted within the context of public companies operating akin to private enterprises, demonstrates the potential for achieving performance levels comparable to private firms through improvements in financial profitability and profit maximization. Cappelletti's work (2010) focuses on fostering the relationship between socio-economic management control and sustainable performance, emphasizing the enhancement of various aspects, processes, policies, and tools, resulting in a diverse range of indicators. This study serves as the primary foundation for our research.

Our investigation aims to comprehend how socio-economic management control systems, represented by multiple indicators, contribute to sustainable performance management within organizations. Efficiency remains a crucial consideration, with management control tools needing adaptation to each company's specificities. For instance, Kaplan and Norton (2001) suggest that the balanced scorecard or management dashboard can be effectively implemented in organizations, provided they are tailored to the company's unique characteristics.

2. Theoretical background

In contemporary organizational studies, the integration of socio-economic factors into management control systems has gained considerable attention as companies seek to navigate complex business environments while addressing broader societal concerns. This theoretical background explores the concept of the socio-economic management control model, which encompasses the integration of socio-economic considerations into traditional management control frameworks.

The socio-economic management control model recognizes that businesses operate within a broader socio-economic context, where their actions impact not only financial outcomes but also societal and environmental well-being. Thus, it seeks to align management practices with broader societal goals such as sustainability, social responsibility, and ethical conduct.

At its core, this model acknowledges that performance management cannot be solely focused on financial metrics but must also consider the broader implications of business activities on stakeholders and the environment. It emphasizes the need for a balanced approach that takes into account not only financial performance but also social and environmental impacts.

Drawing on various theoretical perspectives from management, economics, sociology, and environmental studies, this background establishes the theoretical underpinnings of the socio-economic management control model. It explores how concepts such as stakeholder theory, institutional theory, and systems thinking inform the development and implementation of this model within organizations.

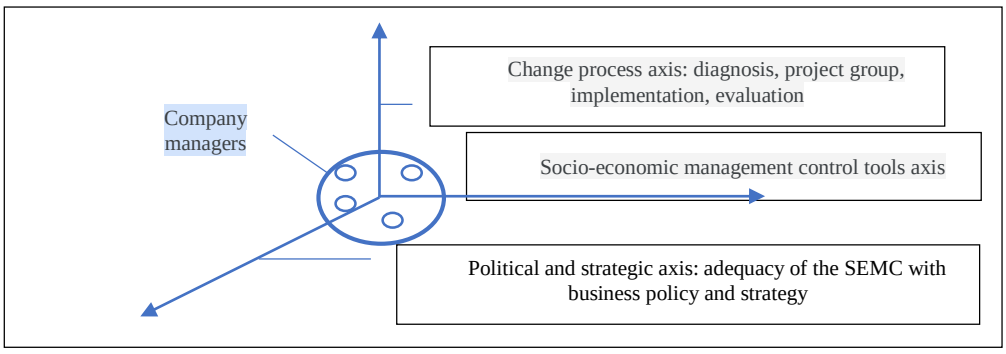
By understanding the theoretical foundations of the socio-economic management control model, organizations can better design and implement management control systems that promote sustainable and responsible business practices. This introduction sets the stage for further exploration into how this model can be applied in practice to enhance organizational performance while contributing to broader societal well-being.

2.1 The socio-economic management control model of Iseor (1974-2017)

The "SEMC" socio-economic management control has the originality of being a global management control method. The methodology aims to measure and develop the "sustainable performance" of companies and organizations by reconciling "economic dimensions" and "social dimensions". It is based on the hidden costs method which is a rather rare example of a French cost calculation method exported internationally (Savall, 1974, 1975), (Cappelletti, 2005, 2006) and (Savall & Zardet, 1987, 2008) [1]. The SEMC model is based on three axes, policy axis, process axis and tools axis, these are the dimensions that we will address in the following points.

These three axes represent the foundations of the socio-economic management control model, presented in the following figure:

Figure 1: Model of socio-economic management control by Iseor (1974-2017)



Source: Cappelletti and Levieux (2010)

One of the interesting contributions of the SEMC model for management control consists of encouraging managers to manage performance by means of socio-economic indicators. These turn out to be focused both on short-term performance with quantitative and financial indicators, but also on long-term performance with qualitative indicators (Cappelletti &

[1]In the first part of the article, Laurent Cappelletti presents the architecture and positioning of the methodology. In a second part, Pascal Levieux presents cases of application of the methodology with a focus on its most concrete and innovative contributions for management control (Cappelletti and Levieux, 2010).

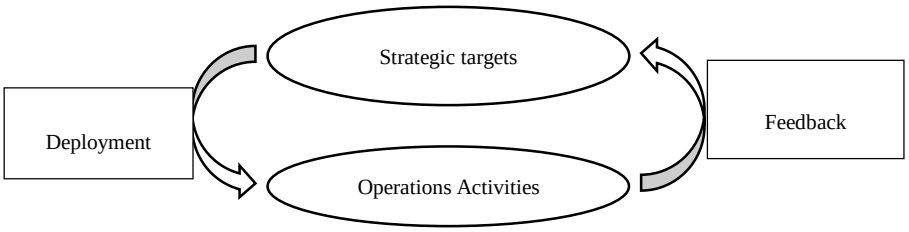
Levieux, 2010), and through the tool of "piloting dashboard" which we can describe as "SEMC piloting dashboard" » and which brings together the socio-economic dimensions of the company.

2.2 Performance towards the value-cost concept

Classic performance turns out to be economic and financial in nature. The economic and financial dimension reveals the accounting, financial and even stock market results (Cappelletti, 2010-2018). Regarding costs, the evaluation of this performance is carried out using quantitative indicators, such as profitability, productivity, return on assets, margin, effectiveness, efficiency.

Performance is at the heart of management control processes; implicitly, it refers to the hypotheses and precepts of management control, in particular those of evaluating the achievement of a pre-established action. This action is therefore subject to evaluation according to the objectives assigned to it. This meaning leads us to consider that there is no performance if we do not first define quantified objectives and the resources used (Blum, 2015). The resources consumed represent the "cost" of the action and the "value" refers to the satisfaction of social needs. In this perspective, (Lorino P., 2003) defines performance as "the deployment of the value-cost couple in the activities of the organization".

Figure 2: The performance management loop



Source: Lorino P. (2003)

In a contribution relating to the concept of performance, Bourguignon questions his inputs possible in the field of management.

In management, success corresponds to a positive, favorable result which refers to the concept of "value ". However, value is dependent on perceptions, internal representations of business success, which differ depending on the context, actors and parties stakeholders. Success implies a form of "positive external sanction", emanating from the " walk ". As for success, it depends on the objectives set, internal or external, sanctioned by the market (Blum, 2015).

2.3 Managing sustainable performance:

The sustainable performance management system refers to "all the systems (strategy, structure, management tools, remuneration system, indicators, etc.) allowing the managers of a company to manage the latter towards achieving the objectives that they have set for themselves" (Meyer, 2016). This management is based on the definition of a long-term performance monitoring system, provides us with a vision of several related concepts, and an application in several areas.

The management of sustainable performance in the context of sustainable development SD and a company's CSR social responsibility is distinct from the management of its purely economic performance. Thus, sustainable performance management is characterized by the

objectives sought, the deliverables that it allows to obtain, the communications to be carried out as well as the integration of stakeholders (Bergeron et al., 2014)..

Also, adequate management of sustainable performance makes it possible to maximize the economic functions of a company, while ensuring the preservation of the ecosystems which provide the natural resources to the company and the quality jobs necessary for a dynamic society. The resulting deliverables can be tangible such as the implementation of an energy management plan or intangible such as increasing employee engagement (Willard, 2012).

3. Research site and methodology

3.1 Research site

We have adopted a quantitative methodology to verify the hypotheses regarding the relationship between the cost-value factor of activities, the variety of indicators utilized, and the management of sustainable performance. This method entails distributing questionnaires to companies certified in Corporate Social Responsibility (CSR).

Through this study, we offer tangible insights into the impact of regulating key socio-economic factors to enhance the effectiveness of indicators in sustainable performance management. The quantitative survey is structured around sampling techniques, questionnaire design, and data collection procedures.

3.1.1 Data collection

The process of data collection raises various concerns regarding sampling, underscoring the strategic and pivotal role of selecting an appropriate sample. Recognizing the constraints observed in the field serves as justification for the chosen sample. Consequently, the type of sample chosen will influence, shape, and contextualize the interpretation of research results in terms of explanatory power, richness, and credibility.

This study specifically targets companies that embrace socially responsible practices. Therefore, the decision to opt for a smaller sample size aligns with the envisioned application of the structural equation method. In this context, employing a questionnaire survey as the method of data collection is recommended (Igalens & Roussel, 1998).

3.1.2 Quantitative method

The quantitative study carried out with the aim of monitoring the attitudes of managers, it is for this reason that the questionnaire is mainly composed of questions with responses on a Likert scale, which constitutes one of the most used tools in opinion studies. It consists of the interviewee ticking the level corresponding to their agreement or disagreement with the proposition on a scale of five possible responses (Evrard et al. 2003).

It is appropriate to present below the stages of construction of said questionnaire in order to argue our methodological choice. The survey using the questionnaire method makes it possible to process large samples and based on the figures statistical relationships or comparisons are established (Thietart, 2003).

3.2 Sampling methodology

After the clarification of several concepts in the literature in particular: Socio-economic management control, steering sustainable performance, the diversity of indicators, as well as as the different socio-economic theories. The formulation of hypotheses and the construction of the conceptual model of the research is a fundamental phase of the conceptualization of the study.

The choice of the socio-economic approach and the focus on socio-economic work, emanates that it is a fertile field of research, which has made it possible to study socio-economic management control tools. And the main socio-economic explanatory factors, namely, the cost-value of activities (Zardet et al., 2017), their impact on the diversity of indicators and on the management of sustainable performance.

3.2.1 Formulation of hypotheses

The development of hypotheses is the fruit of the theoretical framework mobilized, which is based on the one hand, on the socio-economic approach, on the research work of (Cappelletti, 2018), and those mobilizing other theories such as the contingency and neo-institutional theory of (Ilmen, 2018).

These CSR labeled companies are, according to the study, increasingly aware of the importance to adopt and integrate various indicators into strategies and policies that guarantee the sustainability of the company whose purpose is to control socio-economic factors, this concerns not only large companies but also small and medium-sized companies and affects the different sectors of activity as well.
Variable cost-value of activities: This variable is explained by four sub-variables, namely: hidden cost-performance resulting from endogenous and exogenous dysfunctions, individual and collective human productivity, contractualization between stakeholders and intangible investment in the qualitative development of human potential.

Dimension 1: Hidden cost-performance resulting from dysfunctions
H1: Taking into consideration the hidden cost-performance of dysfunctions improves the management of sustainable performance by involving the diversity of indicators.

H1a: The degree of consideration of the hidden cost-performance of dysfunctions directly and positively impacts the diversity of indicators.
H1b: The hidden performance costs of dysfunctions negatively impact the usefulness of indicators for managing sustainable performance.
H1c: The hidden performance costs of dysfunctions indirectly and positively impact the usefulness of indicators for managing sustainable performance through the diversity of these indicators.

In the same way the sub-hypotheses are determined for each hypothesis H2, H3, H4.
Dimension 2: Individual and collective human productivity
H2: The degree of individual and collective human productivity improves the management of sustainable performance through the diversity of indicators.
Dimension 3: Contractualization between stakeholders
H3: The choice of contractualization between stakeholders improves the management of sustainable performance by integrating the diversity of indicators.
Dimension 4: Intangible investment in the qualitative development of human potential "IIQDHP"
H4: The degree of intangible investment in the qualitative development of human potential improves the management of sustainable performance through the diversity of indicators.

These hypotheses present relationships between the cost-value variable of activities, as the main socio-economic factor and its dimensions, the diversity of indicators emanating from socio-economic management control tools and the management of sustainable performance.

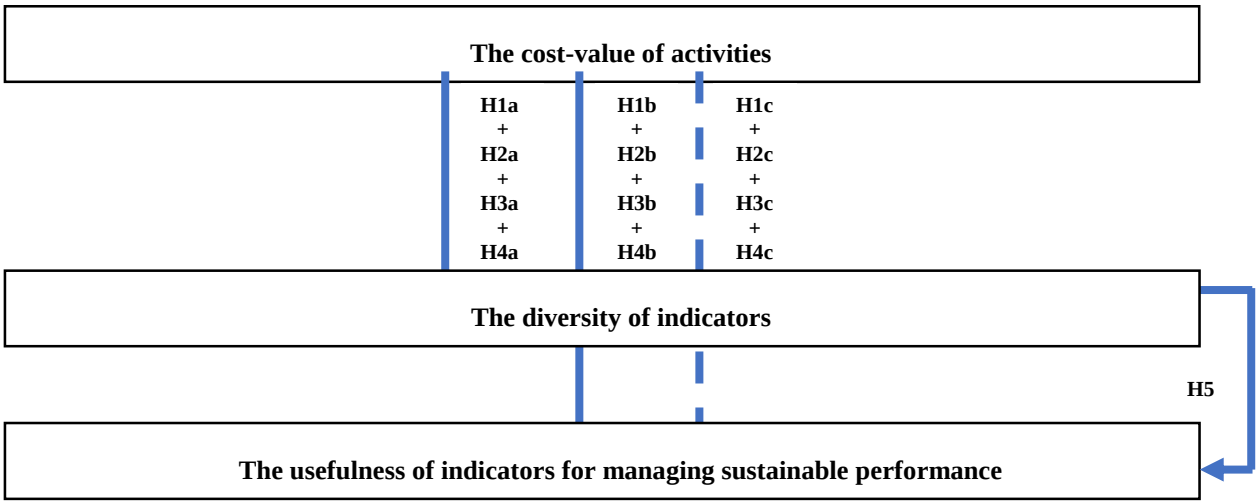
3.2.2 Construction of the conceptual model

A research model is presented as a set of links based on a coherent and understandable explanation of a management phenomenon (Roussel et al., 2002). Each link between the variables in the model is supported by a hypothesis which is based on a theoretical framework, a literature review and exploratory study developed as part of the research work.

The research model is structured around two key constructs, namely: the cost-value factor of activities, the diversity of indicators and their impact on the management of sustainable performance, the case of companies with the CSR label.

The conceptual model which illustrates what is detailed above is as follows.

Figure 3: Conceptual model



Source: Personal elaboration

This reflects a whole conceptual and methodological sequence. After finalizing the construction of the conceptual model, comes the step of operationalizing the measurement variables.

3.2.3 Operationalization of measurement variables

In view of the literature review carried out this leads us to return to each of these variables and on each hypothesis. Our conceptual research model to be tested empirically highlights the links between the cost-value of activities (divided into four sub-variables), the diversity of indicators used and the management of sustainable performance.

- *Operationalization of explanatory variables: Socio-economic factors*

The initial measurement scales of the main socio-economic factors taken in the conceptual model, those of the cost-value of activities are presented by the measurements relating to this socio-economic factor, as detailed at the level of the theoretical foundations of control of socio-economic management.

The measures of the main socio-economic factors are summarized in the following table.

Table 1: The number of items of measurement variables of socio-economic factors

Variables representing the main socio-economic factors	Measurement variables (Measuring scales)	Number of items	Item coding
The cost-value of activities	The degree of hidden cost-performance resulting from dysfunctions	1	DegCVA_1
	The degree of individual and collective human productivity	1	DegCVA_2
	The degree of contractualization between the stakeholders	1	DegCVA_3
	The degree of intangible investment in the qualitative development of human potential	1	DegCVA_4

Source: Personal elaboration

Following the summary of the number of items of the measurement variables (measurement scales) and their coding, the operationalization of the variable of the diversity of indicators appears in the next step.

- *Operationalization of the moderating variable: the diversity of indicators*

The measurement of the variable which conditions the relationship between the explanatory factors of the indicators and their usefulness at the level of sustainable performance management, the reference to the management dashboard presents in this context, significant advantages, particularly in the fact that the indicators presented to top management can be of several types (financial and non-financial indicators).

The evaluation section of performance management tools includes financial indicators and non-financial indicators. In this regard, dashboards and in particular the socio-economic management control dashboard take into account intangible and non-pecuniary criteria in the process of economic valorization (Kaplan & Norton, 1996), of the realization strategic and operational objectives.

In order to measure the diversity of indicators, those involved are asked to respond on a Likert scale ranging from 1 (Very weak: Indicators of this type are rarely used) to 5 (Very strong: Indicators of this type are very used). The higher the overall score of the seven areas of performance (out of 35 points), the more "diversified" the indicators in the labeled companies are and vice versa; this method is also used in the work of (Germain, 2003-2004).

The number of items for the variables measuring the diversity of indicators and their coding are presented in the following table.

Table 2 : The diversity of indicators

Moderating variable	Measurement variables	Number of items	Item coding
The diversity of indicators	The degree of use of financial indicators	1	DivInd_1
	The degree of use of environmental indicators	1	DivInd_2
	The degree of use customer performance indicators	1	DivInd_3
	The degree of use internal process indicators	1	DivInd_4
	The degree of use indicators of innovation and organizational learning	1	DivInd_5
	The degree of use of socio-economic indicators	1	DivInd_6
	The degree of use indicators of sustainable economic value creation	1	DivInd_7

Source : Personal elaboration

After operationalizing the moderating variable of our conceptual model, the usefulness of indicators for the management of sustainable performance taken as the variable to be explained.

- *Operationalization of the variables to be explained: Managing sustainable performance*

Measurements of the usefulness of indicators for managing sustainable performance represent the variable explained. Sustainable performance, which is the balanced combination and aggregation of economic-financial, organizational, societal-environmental performances, which contribute to the survival and development of the organization in the long term (Blum, 2015), leads to verifying the The usefulness of indicators for managing sustainable performance on several dimensions starting from vision and strategy, the financial axis, the customer axis, the internal process and innovation axis and the learning axis.
Consequently, to assess the usefulness of indicators for managing sustainable performance, we question managers as follows, "*Please indicate the level of influence of the diversity of indicators on the variables which materialize the management of sustainable performance*. ". To answer this question, the respondent has the choice between 5 different methods. These start with "1- Not at all strong" to "5- Very strong".

The measures of the usefulness of indicators for managing sustainable performance can be summarized as follows.

Table 3: The measurement of the variable to be explained

Variable explained	Measuring scale	Measurement variables	Number of items	Corresponding item
The usefulness of indicators for managing sustainable performance	The use of indicators to manage sustainable performance	Staff satisfaction	**9**	DegPPD_1
		Good working conditions		DegPPD_2
		Customer satisfaction		DegPPD_3
		The efficiency of processes and infrastructures		DegPPD_4
		Improving productivity		DegPPD_5
		Improved financial results		DegPPD_6
		The reduction of pollution		DegPPD_7
		Investment in R&D and innovation		DegPPD_8
		Monitoring the strategic vision		DegPPD_9

Source: Developed as part of our study

After specifying the different measurement variables of the research model, the descriptive statistical study is presented by the operationalization of the variables relating to the general information of the companies studied.

A more in-depth analysis is required using a quantitative approach to evaluate the foundations of the study carried out. As a result, exploratory factor analysis (PCA) allows the validation of measurement scales, which is presented in the following point.

3.2.4 Validation of measurement scales: The PCA approach

The examination of the data in order to synthesize it precedes the validity of the structural model and that of the hypothesis tests. It is also a matter of ensuring reliability and internal consistency for each factor (set of variables). This analysis is carried out using a PCA approach on all the instruments in isolation.

Principal components analysis (PCA) is chosen to extract the minimum number of factors while maximizing the variance explained by the items. Also, the variables used in the study were the subject of a factor analysis, which made it possible to purify the measurement scales. Therefore, it is necessary to respect several phases taking into account the recommendations of (Evrard et al., 2003).

All of criteria used to validation of measurement scales are summarized in the following table.

Table 4: Summary of validation criteria for measurement scales according to principal components factor analysis PCA

Hint	Choice criteria
Statistical tests: • Significance threshold (Sig)	• Sig < **0.05** (Fisher RA (1925))
Data can be factorized: • Bartlett's test of sphericity • Kaiser-Meyer-Olkin (KMO) test for measuring sampling quality	• |R| is **less than 0.00001** (Significant) • KMO > **0.6** > **0.7** (Bartlett MS; Kaiser and Rice (1974))
Number of factors: • Own value • Percentage of variance explained • Component matrix	• **1** • % of variance explained > **0.6** • Saturation of each item in the new factor (or extracted factors) > **0.4** (Jolibert and Jourdan, 2006)
Selection of items: • Communities (Qualities of representation) • Factor loadings (correlations between factors and variables)	• Extraction > **0.3** • Correlation > **0.5** (Jolibert and Jourdan, 2006)
Scale reliability: • Cronbach's Alpha	• Items measure the latent construct > **0.7** (Cronbach., 1961)

Source : Personal elaboration

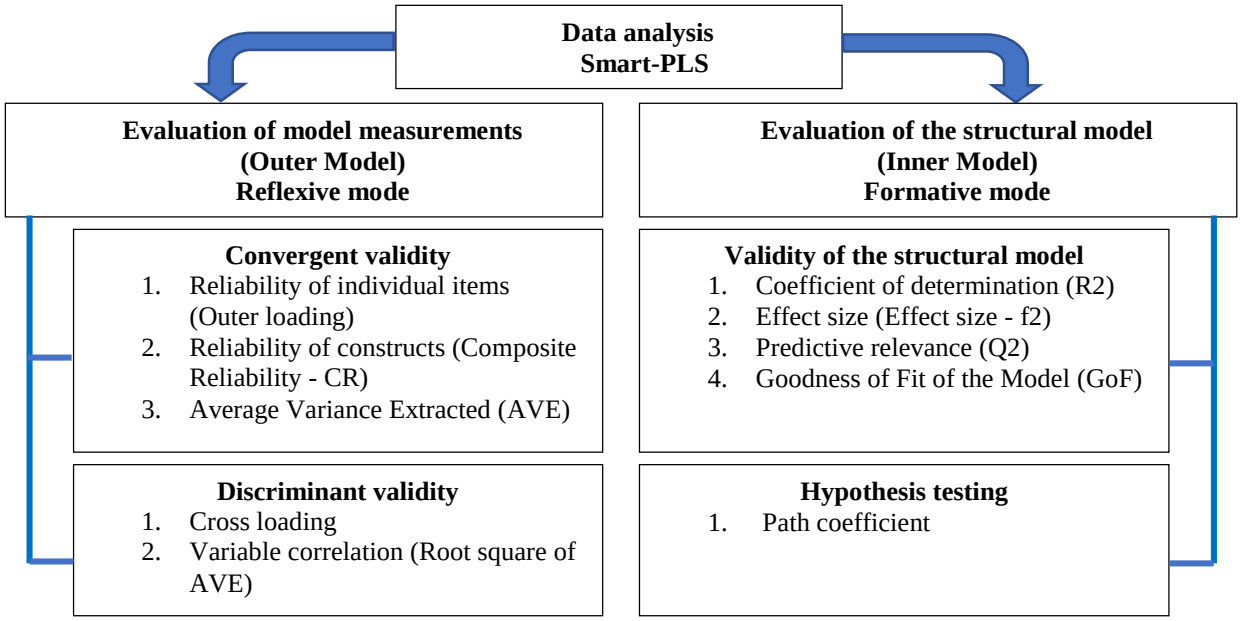
To have a unique dimension (unidimensionality), it is sometimes necessary for the initial results of the PCA to rotate through iterations of the extracted components.
The following point presents the results of this exploratory factor analysis by distinguishing the elements characterizing the degree of cost-value of activities, divided into four dimensions.

3.3 Assessing the validity of the research model

We proceed to verify the validity and reliability of the measurement scales of the constructs of our research model, using the Smart PLS software. In the same vision, several contributions from the authors were made, that of (Diamantopoulos & Winklhofer, 2001) and supplemented by more recent additions from (Beatson et al., 2008), (Urbach & Ahlemann, 2010) and (Kante M. et al., 2018). These authors stipulate two different approaches for verifying this validity, depending on the type of reflective versus formative construct.

The diagram presents the structure of analysis and evaluation of the validity of the model, through the analysis of the data by Smart-PLS. Prior to this analysis, the choice of the partial least squares method - PLS has foundations, is presented.

Figure 4: Data analysis framework with Smart-PLS



Source : Personal elaboration

3.4 The choice of the Partial Least Squares method - *PLS*

Structural equation modeling involves four stages. Firstly, the specification aims to develop a conceptual model that can be processed by statistical software; then comes the estimation of the parameters according to the chosen algorithm; then the evaluation of the model which is done through different indicators; and finally, modifying the model based on the information given by the evaluation indices in order to obtain the best possible model.

PLS method which is the most used in management and marketing studies, and the most suitable for our case study. It gets its name from the use of least squares regression techniques to estimate models. The goal of PLS modeling is to maximize the explained variance of the dependent latent variable. (Badaoui M. & Chettih A., 2017). Despite the absence of a global model evaluation indicator which is seen as a drawback of the PLS method, (Tenenhaus M., 2003) proposed the "Goodness of Fit of the Model- GoF" index and partially resolved this. problem even if no threshold can be set (Mourre ML., 2014).

Based on the above, the following table summarizes the characteristics of the PLS method.

Table 5 : Characteristics of the PLS method

Features	***PLS* method**
Objective	Tests of models in development Or Exploratory model analyzes
Type of models	Recursive models only
Type of variables	Nominal, metric or continuous Formative and reflective variables
Estimation method	Analysis of variance Partial least squares
Distribution	No normality required
Estimation process	Measurement model and structural model are estimated simultaneously
Model evaluation	Measurement model: Communality Structural model: R^2, Q^2 Total model: GoF

Source: Inspired from the Mourre's ML.study (2014)

3.5 Evaluation of model measurements

One of the greatest advantages of confirmatory factor analysis (CFA)/structural equation modeling (SEM) is their ability to assess the construct validity of a proposed measurement theory. Construct validity is the extent to which a set of measured items actually reflects the latent theoretical construct for which they are designed.
Construct validity is made up of two important elements: Convergent validity, which is based on three approaches: Factor loading, extracted variance and reliability; Discriminant validity.

3.5.1 Reflexive mode

As part of the reflective mode (also called mode A), indicators are created with the perspective of measuring all the same underlying phenomenon. Each manifest variable reflects its latent variable and is related to it by a simple regression. In other words, the latent variable exists theoretically but remains unobservable. It influences the indicators, explaining their inter-correlations.
Internal validity is measured using the Cronbach's alpha criterion which makes it possible to judge the internal consistency of our measurement scales. The threshold accepted by researchers, to conclude that a scale is reliable or not, is 0.70 (Nunnaly & Bernstein, 1994).
The reflective variables of our research model are the intensity of piloting activities, the cost-value of activities, the time devoted to carrying out activities and the diversity of indicators, and on which the assessment of convergent validity is based. And discriminant detailed below.

- *Convergent validity* is the degree to which multiple items measuring the same constructs agree, in other words converge. According to the criteria for evaluating convergent validity are: External loading, construct reliability and AVE. Item reliability consists of each item sharing more variance with its construct than with its error. With the exception of the reliability of the item relating to a dimension of the diversity of indicators (DivInd-1), with an Outer loading below the threshold of **0.7** recommended by (Nunnally & Bernstein, 1994), all the items and constructs of the model meet the required reliability and validity criteria.

- *Discriminant validity* according to the criteria of (Fornell & Larcker, 1982), a latent variable should better explain the variance of its own indicators than the variance of other latent variables. It represents the result of the comparison between the correlations of its own variables with other variables (Constructs Intercorrelations). This situation indicates that the variance shared between the construct and its indicators is greater than that shared with the other constructs (excluding the diagonal). It is based on two approaches, that of cross loading (Cross loading) and variable correlation – Square root of AVE (Variable correlation – (Root square of AVE)). The Cross Loading of an indicator on its assigned latent variable must be higher than its loading on all other latent variables.

After evaluating the measurements of the model, through its convergent and discriminant validity, for constructs of a reflective nature, the evaluation of their validity and reliability of the formative component is necessary, and it is detailed in the following point.

3.5.2 Formative mode

Formative mode (or mode B) assume that the latent variable is generated by its own manifest variables. The latent variable is then a linear function of its manifest variables plus a residual term. In this model, the block of manifest variables can be multidimensional. However, the formative mode should not be used as a simple alternative to a problem of unidimensionality of a construct. Indeed, unlike the reflective mode, the direction of causality goes from the

measurement variables to the latent variable and the indicators, as a group, jointly determine the conceptual and empirical meaning of the construct.

The indicators act on the construct and are not, as in the reflective mode, caused by a single underlying construct. Compared to mode A, the deletion of one of the indicators can cause serious problems by seriously modifying the meaning of the latent variable. This is why in such a mode, the indicators are not subject to the conditions of unidimensionality of the constructs and can then be correlated. It specifie that in this context, much attention must be paid to the robustness of the theory (which helps to identify appropriate measures) and to the use of several measures for a single construct (in order to ensure a content validity that is acceptable).

Therefore, the evaluation of the model is based on the verification of the validity of the structural model and that of the total model, according to a formative analysis. Also the analysis of the predictive power of our model determines the power of the model to explain other samples, in other words its generalization. The verification of the structural model is done by indices and tests, the coefficient of determination (R^2), the size of the effect (f^2), the test of predictive relevance of the model (Q^2) and the quality of adjustment of the model (*GoF*), which we detail in the following development:

- *The determination coefficient (R^2)* according to the PLS method, the goodness of fit test is carried out by the coefficient of determination (R^2), which shows the portion of variance explained by the endogenous latent variables. The values of (R^2) are interpreted by the following thresholds, suggested that the value of (R^2) above **0.67** considered high, while values ranging from **0.33** to **0.67** are moderate, while values between **0.19** and **0.33** are low and any value (R^2) less than **0.19** is unacceptable. (Falk & Miller, 1992) propose a value (R^2) of **0.10** as the minimum acceptable level.

In the table below, the values of (R^2) of our endogenous latent variables are presented.

Table 6 : Determination coefficient R^2

	R^2	**Thresholds and translation**	**R Square Adjusted**
The usefulness of indicators for managing sustainable performance	0.748	> 0.67 **Pupil**	0.740
The diversity of indicators	0.586	Between 0.33 and 0.67 **Moderate**	0.547

Source : Personal elaboration (Output Smart PLS)

The value (**R^2**) of the endogenous variables, the usefulness of the indicators for managing sustainable performance and the diversity of the indicators, are respectively **0.748** and **0.586** which are significant. Thus, our model explains approximately **74%** of the variance in the usefulness of indicators for managing sustainable performance and approximately **54%** of the variance in the diversity of indicators in the sample.

- *The size of the effect (f^2)* in this effect size indicates the relative effect of a particular exogenous latent variable on the endogenous latent variable(s) through changes in the **R square** (**R^2**). It is calculated as the increase in **R^2** of the latent variable to which the path is connected, relative to the latent variable's proportion of unexplained variance. The interpretation of the effect size (**f^2**) is based on the following thresholds :
    - **f^2** greater than **0.35** is considered a large effect size.
    - **f^2** ranging from **0.15** to **0.35** are medium effect sizes.
    - **f^2** between **0.02** to **0.15** considered a small effect size.
    - **f^2** values less than **0.02** are considered with no effect size.

The coefficient of determination (**R^2**) allows you to evaluate the contribution of several independent variables to the explanation of a dependent variable, while the effect size

coefficient (f^2) allows you to examine how much each independent variable was able to explain of the dependent variable.

Table7 : Effect size (f^2)

	Cost-value of activities	The usefulness of indicators for managing sustainable performance	The diversity of indicators
Cost-value of activities			**1.015**
The usefulness of indicators for managing sustainable performance			
The diversity of indicators		**2,962**	

Source : Personal elaboration (Output Smart PLS)

According to the table above, (**f^2**) of the independent variables, cost-value of activities, diversity of indicators, are respectively **1.015, 2.962,** and are therefore greater than **0.35**; therefore (**f^2**) considered **a large effect size**.

3.5.3 The validity of the total model

The use of PLS for prediction purposes requires a measure of predictive capacity, concretized by (Q^2). (Tenenhaus et al., 2005) defined GoF as the overall adjustment measure.

- *Predictive relevance of model (Q^2)* suggested approach to test the predictive relevance by the redundancy index (**Q^2**). This test is carried out using the *Blindfloding procedure* on *Smart PLS*. According to Wold 1982 p.30 "The cross- validation test of (Stone, 1974) and (Geisser, 1975) fits soft modeling like hand in glove". The model is considered to have predictive validity only if (**Q^2**) is greater than **0**. The procedure removes data from the dataset based on a predetermined distance value called D. The D can be any number from 5 to 10. The only requirement is that the sample size n divided by D be a rounded number.

There technical *Blindfloding* on *Smart PLS* gave us the following results.

Table 8: Cross-redundancy of the construct

	SSO	ESS	Q^2 (=1-SSE/BSP)
Cost-value of activities	144,000	144,000	
The usefulness of indicators for managing sustainable performance	288,000	130,940	**0.545**
The diversity of indicators	216,000	147,639	**0.316**

Source : Personal elaboration (Output Smart PLS)

The redundancy index (Q^2) measures the quality of the structural model for each latent variable, the variables that we have, the usefulness of indicators for managing sustainable performance and the diversity of indicators, have values of 0.545 and 0.316 greater than 0. Therefore, the model prediction objective is well achieved, since these values are relevant.

- *Quality Goodness of Fit of the Model (GoF)* is the geometric mean of the average variance extracted (*AVE*) and the mean of (R^2) of the endogenous variables. The goal of *GoF* is to account for the study model at both levels, namely the measurement and the structural model with emphasis on the overall performance of the model, (Henseler & Sarstedf, 2013).

The formula for calculating *GoF* is as follows : $Gof = \sqrt{[\ (Average\ of\ R^2\ )*(Average\ AVE\ )]}$ (1). *GoF* criteria to determine whether its values are unadjusted, small, medium or large to be considered a valid overall PLS model were given by (Wetzels et al., 2009). The table below presents these criteria.

Table 9: GoF criteria

Thresholds	Assessment
GoF less than 0.1	**No adjustment**
GoF between 0.1 to 0.25	**Little**
GoF between 0.25 to 0.36	**Average**
GoF greater than 0.36	**Big**

Source: Works by Wetzels et al. (2009)

According to the table above, the value of *Gof* , according to the formula for its calculation, is **0.768** , according to this measurement the capacity for the model to be applicable is **great** .

Table 10: Calculation of the Gof of the model

Indices	Average of R^2	Average *AVE*	Average of R^2 * Average of *AVE*	*Gof*
Results	0.667	0.884	0.590	**0.768**

Source: Personal elaboration

It can be concluded that, the overall model fit measure, the *GoF* of this study is large enough to consider an overall validity of the *PLS model* interesting.

4. Results and discussions

After validating the model, we proceed to test our hypotheses. This crucial step enables us to utilize the model to gauge correlations and affirm the proposed hypotheses. In essence, we scrutinize the direct effects of the hypotheses, which empowers us to either accept or reject them based on empirical evidence. Through this rigorous testing process, we aim to deepen our understanding of the relationships between variables and validate the theoretical constructs under investigation.

4.1 Summary of hypothesis tests

The summary of hypothesis testing results are presented in the following table.

Table 11: Summary of hypothesis testing results

Assumption/ Validation or Rejection	Relationship	Hypothesis testing	Importance of the relationship	Meaning of the relationship
H1 Validated	**The hidden cost-performance of activities improves the management of sustainable performance by involving indicators.**			
H1a	The hidden cost-performance of activities directly and positively impacts the diversity of indicators.	Valid	Strong	Positive
H1b	The hidden performance costs of activities negatively impact the usefulness of indicators for managing sustainable performance.	Valid	Strong	Positive
H1c	The hidden performance costs of activities indirectly and positively impact the usefulness of indicators for managing sustainable performance through the diversity of these indicators.	Valid	Strong	Positive

Assumption/ Validation or Rejection	Relationship	Hypothesis testing	Importance of the relationship	Meaning of the relationship
H2 _ Rejected	**Individual and collective human productivity improves the management of sustainable performance through the diversity of indicators.**			
H2a	Individual and collective human productivity directly and positively influences the diversity of indicators.	Valid	Strong	Positive
H2b	Individual and collective human productivity negatively influences the usefulness of indicators for managing sustainable performance.	Rejected	Weak	Positive
H2c	Individual and collective human productivity influences indirectly and positively through the diversity of these indicators.	Rejected	Weak	Positive
H3 Validated	**Contracting between stakeholders improves the management of sustainable performance by integrating the diversity of indicators.**			
H3a	Contracting between stakeholders directly and positively influences the diversity of indicators.	Valid	Strong	Positive
H3b	Contracting between stakeholders negatively influences the usefulness of indicators for managing sustainable performance.	Valid	Strong	Positive
H3c	Contracting between stakeholders indirectly and positively influences the usefulness of indicators for managing sustainable performance through the diversity of these indicators.	Valid	Strong	Positive
H4 Validated	**Intangible investment in the qualitative development of human potential improves the management of sustainable performance through the diversity of indicators.**			
H4a	Intangible investment in the qualitative development of human potential directly and positively influences the diversity of indicators.	Valid	Strong	Positive
H 4b	Intangible investment in the qualitative development of human potential negatively influences the usefulness of indicators for managing sustainable performance.	Valid	Strong	Positive
H4c	Intangible investment in the qualitative development of human potential indirectly and positively influences the usefulness of indicators for managing sustainable performance through the diversity of these indicators.	Valid	Strong	Positive
H5 Validated	**The diversity of indicators directly and positively influences the usefulness of indicators for managing sustainable performance.**	Valid	Strong	Positive

Source: Personal elaboration

After summarizing the hypothesis tests, we move on to the synthesis and discussion of the results.

4.2 Discussion of hypothesis results

The objective of developing this part is to frame the chapter and at the same time close our research, by discussing the results of this study in the light of the theoretical and empirical foundations, devoted to the confirmatory analyzes which contributed to the results of this research work, focusing on the statistical results relating to the empirical tests, of the links between the explanatory variables and the variable to be explained by taking into consideration the effect of the moderation, in order to discuss the main results of the validated hypotheses.

H1: Taking into consideration the hidden cost-performance of activities improves the management of sustainable performance by involving the diversity of indicators => Validated Hypothesis.

The hidden costs then constitute a shortfall in turnover and a reduction in expected financial performance in relation to sales forecasts. Highlighting the calculation of some of these costs helps create stimulation among company stakeholders to undertake improvement actions. However, some of these costs are incorporated into the different lines of existing information systems, such as fees paid for late delivery, while others are not included in the visible costs.

The mobilization of extra-accounting methods of hidden costs considering that traditional accounting systems are centered, unlike other cost management methods which rely on traditional accounting systems, on visible and non-visible cost-values. hidden aspects of human activities, such as the costs of non-quality which are based on the values created by quality improvements (Cappelletti, 2012).

H2: The degree of individual and collective human productivity improves the management of the company's sustainable performance through the diversity of indicators =>Hypothesis Rejected.

Currently facing a difficult economic context, leads to plan measures to develop the productivity of the company, also to increase the rate of growth, to maximize working time and to meet the needs of customers. However, certain difficulties relating to achieving the targeted results, associated with a problem of loss of time and productivity (Lambert et al., 2009).

And in order to identify this problem and obtain possible solutions to overcome it, several relative preliminary elements present themselves, namely: supervision (supervision), organizational culture, technological infrastructures, relationships and work organization. Which represents factors impacting individual and collective human productivity, different from the diversity of indicators emanating from socio-economic management control tools.

H3: The choice of contractualization between stakeholders improves the management of sustainable performance by integrating the diversity of indicators =>Validated Hypothesis.

The expectations of stakeholders represent a basis for sustainable performance, given that it is a multi-actor and multi-criteria performance, which differs from unidimensional approaches, global approaches have the merit of emphasizing not on a single factor, but rather on a large number of factors that can explain the performance of an organization, (Akrich et *al.*, 2017).

Also, in the search for sustainable performance, it is important to take into account the impact of decisions taken by the organization on environmental protection, resource control,

satisfactory economic results for all stakeholders, social practices, the fight against inequalities in access to employment and promotion, ethical funds and others (Helluy & Durand, 2003). These different concerns represent sustainable performance.

The challenge to be met is to be able to "bring together, if possible, the conditions conducive to environmental improvement without deterioration of economic performance" (Ambec & Lanoie , 2009). Furthermore, (Capron & Quairel-Lanoizelée, 2006) distinguish a diversity of CSR practices ranging from one-off or symbolic actions aimed at gaining acceptance of the company's behavior, without modifying its foundations, to substantial strategies intended to effectively match the objectives, methods of companies to the expectations and concerns of stakeholders. The latter require a stronger commitment from management to corporate responsibility, an analysis of the sustainability and sustainability of the business model and a dialogue with stakeholders (Toure, 2019).

H4 : The degree of intangible investment in the qualitative development of human potential improves the management of sustainable performance through the diversity of indicators => Validated Hypothesis.

The intangible investment in the qualitative development of human potential represents an activation of the hidden human potential of the actors by which a release of the force available to each actor and which does not consider the need to make it available to the organization. Consequently, and according to the authors (Savall & Zardet, 2015), the recycling or conversion of part of the hidden costs is achievable through investment in human potential, which is qualified as intangible and is integrated into development. qualitative human potential (IIDQPH), at the same time it is an effective lever for defining and managing sustainable development strategies for the company.

The IIDQPH is based on an individual and collective learning process which manifests a multiplier effect of social and economic performance (Savall & Zardet , 2014), which is qualified as a process of socio-economic innovation, which takes the implementation value of the organization through the enhancement of human potential which leads to the creation of value.

H5: The diversity of indicators directly and positively influences the usefulness of indicators for managing sustainable performance => Validated Hypothesis.

The majority of research on this topic utilizes the balanced scorecard as a benchmark for sustainable performance measurement systems. Typically, the management dashboard serves as a structured tool to present indicators and information crucial for company management. These indicators represent key success factors and are categorized into operational variables and financial, quantitative, and qualitative metrics (Berland N., 2010).

In this context, performance management is closely linked to organizational strategic management. It enables companies to effectively manage their activities using a limited set of diverse indicators, both financial and non-financial, in the short and long term. These indicators are grouped to assist managers in company management and decision-making. Despite the emphasis placed on financial and non-financial indicators in performance measurement systems, studies such as those by (Ittner et al., 2003) have shown that managers often disregard financial information, deeming it too subjective and manipulable.

Results from an experimental study conducted by (Cauvin et al., 2007-2010) indicated that evaluators considered financial indicators more relevant, reliable, easily comparable, and generally more useful than non-financial indicators. However, experienced financial managers tend to pay more attention to non-financial indicators (Cauvin et al., 2007; Ittner et al., 2003). Moreover, financial indicators are given precedence when performance measurement pertains to specific areas of activity, while non-financial measures become crucial when companies aim to forecast future financial performance. These experimental studies primarily focused on the relative usefulness of financial and non-financial indicators in management control systems.

Overall, our results suggest that several socio-economic factors positively and indirectly influence the utility of indicators in sustainable performance management (H1, H3, H4), corresponding to hypotheses related to hidden cost performance, stakeholder contractualization, and qualitative investment in human potential development. However, hypotheses (H2) regarding activity and actor synchronization and individual and collective human productivity were rejected due to their non-significant paths during the analysis.

The diversity of indicators serves as a moderating variable (H5), positively contributing to both the utility of indicators for sustainable performance management and the depiction of the link between these socio-economic factors and indicator utility for sustainable performance management. This generates significant improvements across various dimensions of sustainable performance, including strategic, economic, social, and environmental aspects.

4 Conclusion

Our study was developed in a Moroccan context, more particularly that of CSR-labeled companies, thus presented methodological choices in order to achieve the objectives of our research. As a result, the empirical analysis allows the delimitation of our research problem and justifies the choice of measurement scales. We thus proceeded by questionnaire transcribing all the variables and research hypotheses in order to determine the links and study their contributions.

The empirical study thus moves from the descriptive analysis and concerns certain variables relating to the companies in our sample, to the factor analysis by PCA to develop a stable factorial structure and several tests of the constructs in order to 'evaluate the internal consistency of the model and the measure of sample quality and their reliability and the validity of the research hypotheses.

Our results are consistent with previous work, to the extent that the diversity of indicators and their use allows managers to be informed about the social and environmental practices of activities and the relationship with stakeholders, which has positive effects on sustainable performance. of the firm, others consider it as a real managerial innovation (Gherra et al., 2013) and (Blum, 2015). On the other hand, the overuse of these indicators can create situations of dispersion and confusion that are difficult to manage by companies (Ilmen, 2019).

In this orientation, it is necessary to adapt the indicators to the context and objectives of the firm by taking into account all the particularities, particularly those of the sector of activity. In our study, we were able to show that the diversity of indicators constitutes the key to improving the dimensions of sustainable performance by ensuring control of the socio-economic factors linked to its management in a complex internal environment marked by external pressure.

It should be realized that the evaluation of the measurement model with the objective of validating the reliability and validity of the measurement instruments used and the structural model which makes it possible to evaluate the overall quality of the constructs (R^2 test, GoF and d 'others) knowing that in our measurement model, we had both reflective constructs and formative constructs. The quality of the structural model can be understood on the basis of its explanatory capacity, which is evaluated by the coefficient of determination (R^2: explained variance) of the variables to be explained.

This research presents contributions, first of all of a theoretical nature, it makes it possible to build bridges between two concepts, management control and the management of sustainable performance, by taking the particularity of studying it through a socio-economic approach. economical, which has an effect of renovation and conceptual development. This study presents methodological contributions characterized by the diversity of the empirical methods used. And on a managerial level, this research work is likely to arouse the interest of several actors and companies, given that it develops a construct integrating socio-economic management control tools and the management of sustainable performance.

There are limits, like any research work, taking into consideration the limits relating to the quantitative study, these are the operationalization of several concepts, the variation of the companies in the sample (legal status, size, degree of maturity) and the difficulties of administering the questionnaire. While these limitations offer new perspectives for reflection, we can translate them into future research projections. First of all, the broadening of the field of investigation outside the CSR labeling, the opening of research internationally, the development of comparative studies in the medium and long term, also studies of intervention in the implementation of socio-economic management control tools, the integration of other management control theories and the deepening of studies in sustainable performance management which remains a fertile field of research and development.

Acknowledgment

I extend my heartfelt gratitude to the members of the teaching team at the Laboratory of Studies and Research in Economics and Management - LEREG, for their gracious support and guidance throughout the research endeavor.

I am deeply thankful to the professors and collaborators who have honored me with their participation in this scientific study. Their willingness to evaluate this work and invest their time and energy into it is greatly appreciated.

A special thanks goes out to all the managers who generously received me, responded to my emails and phone calls, entrusted me with their insights and experiences, and dedicated their time to complete my questionnaire. Your cooperation and support have been invaluable.

References

Journal Artical

Akrich S., Ouabouch L., El Ghazi B. (2017). Pilotage de la performance durable : Nouveau champs d'application du contrôle de gestion ? , *Finance & Finance Internationale,* [S.l.], n°7, pp. 6-8, ISSN 2489-1290.

Ambec S. Lanoie P., (2009). Performance environnementale et économique de l'entreprise, *Revue Economie et Prévision*, n° 190-191, pp : 71-94.

Badaoui M., Chettih A. (2017). "La modélisation par des équations structurelles et leurs applications en management (Le rôle de l'intelligence économique dans le management stratégique des PME)", *Revue Marocaine de Recherche en Management et Marketing*, n°16, Janvier-Juin.

Beatson, Amanda, Lings, Ian, & Gudergan, Siegfroed (2008). Service staff attitudes, organisational practices and performance drivers, *Journal of Management and Organization*, 14(2), pp. 168-179.

Berland N., Ponssard J.P. et Saulpic O. (2005). Une typologie des systèmes de contrôle inspirée du cadre théorique de Simons, *Cahier de recherche,* n° 2005-024. École Polytechnique, Laboratoire d'Économétrie.

Cappelletti, L., Voyant, O. et Savall, H. (2018). *Quarante ans après son invention : la méthode des coûts cachés.* ACCRA, 2(2), 71-91. doi:10.3917/accra.002.0071.

Cappelletti L. (2010). "Le management de la relation client des professions: un nouveau sujet d'investigation pour le contrôle de gestion", *Revue Management & Avenir*, n°31, pp: 339-363.

Capron M. et Quairel-Lanoizelée F. (2006). Evaluer les stratégies de développement durable des entreprises: l'utopie mobilisatrice de la performance globale, *Revue de l'Organisation Responsable*, n°1 pp :5-17, ed. Eska.

Diamantopoulos, A., & Winklhofer, H. M. (2001). "Index construction with formative indicators: An alternative to scale development", *Journal of Marketing Research*, n°38, pp.269-277. doi:10.1509/jmkr.38.2.269.18845.

Fornell, C. and Bookstein, F. (1982). *Journal of marketing research*. 19(4): 440-452.

Ilmen F. et Benchakroun B. (2019). *Réflexion théorique sur l'instrumentalisation de la performance globale*. Revue Internationale de Management, Entrepreneuriat et Communication – RIMEC, Maroc.

Ittner C.D., Larcker D.F., et Meyer M. W., (2003). Subjectivity and the weighting of performance measures: Evidence from a Balanced Scorecard, *The Accounting Review*, vol.78, pp. 725-758.

Ittner C.D., Larcker D.F. et Randell T. (2003). Performance implications of strategic performance measurement in financial services firms, *Accounting, Organizations and Society*, 28(7-8), pp. 715-741.

Kaplan R.S. et Norton D.P. (2001). *Le tableau de bord équilibré : un bilan*, Echanges, n°181, Octobre, pp. 20-23.

Lambert C.B., Sponem S. (2009). La fonction contrôle de gestion : proposition d'une typologie. *Comptabilité-Contrôle-Audit*, vol .15, n°2, p. 133-144.

Lorino P. (2009). Le contrôle de gestion après la crise. Expertise obstinée du chiffre ou métier d'enquête complexe ?. *Revue Française de Gestion*, n° 193, p. 29-35.

Shields M.-D. (1995). An Empirical Analysis of Firms'Implementation Experiences with Activity-based Costing. *Journal of Management Accounting Research*, Vol.7, p.148-166.

Book

Berland N. et De Rongé Y. (2010). *Contrôle de gestion. Perspectives stratégiques et managériales*. Pearson Education, Paris.

Berland N., Chevalier C. et Sponem S. (2008). *On ne gère bien que ce que l'on mesure* . in Petit bréviaire des idées reçues en management, Ed. La découverte, p. 159-168.

Berland N. (2007). *A quoi servent les indicateurs de la RSE ? Limites et modalités d'usage*. Ed. L'Harmattan, . in Espace Mendès France.

Berland, N. (2004). *Mesurer et piloter la performance*. Editions de la Performance, pp.10-11.

Berland N. (2002). *Le contrôle budgétaire*. Collection Repères, Editions La Découverte.

Blum B. (2015). *L'innovation comme levier de la performance durable dans la profession comptable libérale en France*, Conservatoire national des arts et métiers - CNAM. France.

Capron M., Quairel-Lanoizelee F. (2007). *La responsabilité sociale d'entreprise*. Editions La Découverte, Collection Repères, Paris, pp. 122.

Capron M. et Quairel-Lanoizelée F. (2004). *Mythes et Réalités de l'Entreprise Responsable*. Paris : La Découverte.

Capron M. (2000). *Comptabilité sociale et sociétale*. in Colasse B. (ed.), Encyclopédie de Compatibilité, Contrôle de gestion et Audit, Ed. Economica, pp. 407-419.

Evrard Y., Pras B., Roux E. (2003). *Market Etudes et recherches en marketing*. 3ème édition. Dunod.

Igalens et Roussel, (1998). *Méthode de recherche en gestion des ressources humaines*. Economica, Paris.

Kaplan R.S. et Norton D.P. (2001). *Comment utiliser le tableau de bord prospectif ? Pour créer une organisation orientée stratégie*, Éditions d'organisation.

Lambert C.B (2005). *La fonction contrôle de gestion. Contribution à l'analyse de la place des services fonctionnels dans l'organisation*. Gestion et management. Université Paris Dauphine - Paris IX. France.

Lorino P. (2003). *Méthodes et pratiques de la performance*. 3 ed, Éditions d'Organisation, Paris. France.

Meyer F.A. (2016). *Piloter l'ajustement stratégique permanent: l'ingénierie collective au service du développement durable*, AFNOR Éditions. La Plaine Saint-Denis, France.

Morin E. M., Savoie A., Beaudin G. (1994). *L'efficacité de l'organisation, théories, représentations et mesures*. Gaëtan Morin Editeur.

Nunnally, J.C. and Bernstein, I.H. (1994). *The Assessment of Reliability*. Psychometric Theory, 3ed, pp.248-292.

Roussel P., Durrieu F., Campoy E., El Akremi A. (2002). *Méthodes d'équations structurelles : recherche et applications en gestion*. Edition Economica, Paris.

Savall, H. et Zardet, V. (1987, 2008). *Maîtriser les coûts et les performances cachés*, 1e and 5e edition. Economica, Paris.

Savall H., Zardet V., (1987). *Maîtriser les coûts et les performances cachées*. Le contrat d'activité périodiquement négociable, 5e éd, 2004. Économica.

Thiétart R.A. (dir.) et coll. (2003). *Méthodes de recherche en management.* 2ème édition. Dunod.

Toure J.M. (2019). *La contractualisation revisitée par la RSE*. ffhalshs-02103766, pp. 3.

Book Chapter

Gherra, S., Jaeck, M., Joly, C., Marais, M. & Meyer, M. (2013). *Chapitre 10. La responsabilité sociale source d'innovations managériales*. Annabelle Jaouen éd. L'innovation managériale, pp. 229-253. Paris, Dunod.

Print Report

Akrich S. (2006). *Contribution à la compréhension de l'apport du contrôle de gestion à la performance des entreprises marocaines*. Sciences de gestion, Université Cadi Ayyad, FSJES Marrakech. Maroc.

Online Working Paper or Report

Kante M., Chepken C.K., Oboko R. (2018). Partial Least Square Structural Equation Modelling' use in Information Systems: an updated guideline of practices in exploratory settings. Kabarak Journal of Research & Innovation, vol 6 Number 1 (2018). ISSN 2305-784X [print] ISSN 2410-8383 [online]. https://www.researchgate.net/publication/323783882

Urbach, N., & Ahlemann, F. (2010). Structural Equation Modeling In Information Systems Research Using Partial Least Squares. Journal Of Information Technology Theory And Application. 11(2). pp.5-40. https://Doi.Org/10.1037/0021-9010.90.4.710

Conference Paper

Bergeron, H., Marchand, M. et Roy, C. (2014). Pilotage de la performance durable et PME. Dans Labelle, F., Hervieux, C. et Turcotte, M.-F. (dir), *Les PME en marche vers le développement durable.* Québec, Canada, Québec : Presses de l'Université du Québec, p.207-233.

Berland et Simon (2010). Le contrôle de gestion en mouvement. *Ouvrage collectif Sous la direction de Nicolas Berland et François-Xavier Simon,* Université Paris-Dauphine, France.

Berland N. et Loison M.C. (2005). « Responsible Care » et management durable: comportement volontaire ou réaction adaptative ? Généalogie et pratiques dans l'industrie chimique. *Actes du 26ème congrès de l'AFC,* France.

Capron M., Quairel-Lanoizelee F. (2005). Evaluer les stratégies de développement durable des entreprises : l'utopie mobilisatrice de la performance globale. *Journée Développement Durable*- AIMS – IAE d'Aix-en- Provence, pp.1-22.

Cappelletti L. et Levieux P. (2010). Le contrôle de gestion socio-économique : convertir les coûts cachés en performance durable. *Le contrôle de gestion en mouvement* (Eds) Nicolas Berland et Françoais-Xavier Simon. Eyrolles.

Cauvin E. B. R. Neumann et M. L. Roberts (2008). Indicateurs financiers et indicateurs non financiers. Importance des indicateurs financiers, et ordre de présentation des indicateurs : effets sur l'évaluation de la performance des managers. *Actes du congrès de l'AFC*, France.

Cauvin E. B. R. Neumann et M. L. Roberts (2007). Financial measures bias in evaluating corporate managers' performance. *Working paper*, University of Colorado at Denver and Health Sciences Center.

Cauvin E. et Bescos (2004). L'évaluation des performances dans les entreprises françaises : une étude empirique. *Actes du 25ème Congrès de l'Association Francophone de Comptabilité*, Orléans.

Germain C., Trébucq S. (2004). La performance globale de l'entreprise et son pilotage : quelques réflexions. *Semaine sociale Lamy*, pp. 35-41.

Helluy A., Durand X. (2003). Repères pour un contrôle de gestion orienté développement durable. *Communication à l'atelier développement durable de l'AIMS*, pp. 10-11.

Lorino P. (2011). Le Balanced scorecard revisite : dynamique stratégique et pilotage de performance, exemple d'une entreprise énergétique. *Centre Européen de Recherche en Management des Organisations « CEREMO »*, Entreprises sans frontières version 1-9.

Meyssonnier F. et Rasolofo-Dastler F., 2008, Le contrôle de gestion entre responsabilité globale et performance économique : le cas d'une entreprise sociale pour l'habitat. *Comptabilité, contrôle et audit*. 14(2) : 107-124.92

Mourre ML. (2014). La modélisation par équations structurelles basée sur la méthode PLS : une approche intéressante pour la recherche en marketing. Institut Supérieur de Gestion-Université Paris-Est Créteil.

Savall H, Zardet V., Voyant O., Ennajem C. (2017). Mesure et analyse sectrale des réserves de productivité socio-économique : les coûts cachés. 101 Cas. *Congrès Institut International des Coûts (IIC) en partenariat avec Iséor*. Jun, Lyon, France.

Tenenhaus, M., (2003). Comparison between PLS and LISREL approaches for structural equation modeling: Application to the measure of customer satisfaction. In: Vilares, M., Tenenhaus, M., Coelho, P., Esposito Vinzi, V., Morineau, A. (Eds.), PLS and Related Methods. *Proceedings of the International Symposium PLS'03*. Decisia, pp. 111-126.

Willard B. (2012). The New Sustainability Advantage: Seven Business Case. *Benefits of a Triple Bottom Line*. Gabriola Island, Colombie -Britannique: New Society Publishers.