In the framework of the Corporate Social Responsibility: Proposal of a methodology of selection of performance indicators

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Abstract

To reach the global performance, the current company focuses on the Corporate Social Responsibility. Having a global performance implies having a balance between the economic, environmental and social performances.

Once the objectives of the company are defined and the actions are implemented; the company needs to measure its global performance in order to rule its situation and make the necessary decisions.

The measurement of the global performance of the company could be made throught performance indicators. However, the choice of indicators could be complex; because it depends on several factors as the scope and the nature of the objectives.

It is in this context that our work, aims at proposing a method for selecting performance indicators in the framework of the Corporate Social Responsibility.

Keywords

Corporate Social Responsibility; Sustainable Development; global performance; indicator; dashboard; selection .

1. Introduction

During the years, the current companies are forced to define their strategies of Sustainable Development through their Corporate Social Responsibility. Adopting the Corporate Social Responsability allows the company to guarantee a global performance making a balance between three types of performance: economic, social and environmental (Chardine – Baumann, 2011).

The evaluation of the global performance of the company is made by means of several tools as the multi-criteria decision support methods (Tsoulfas and Pappis, 2008) and the methods of aggregation of indicators (Krajnc and Glavic 2005); (Singh et al. 2007). Indicators allow giving an objective judgment about a company (Bertland, 2007).

The propagation of the concept of the Corporate Social Responsibility is accompanied by the publication of a large number of the scientific works concerning indicators (Bertland, 2007). These scientific works study the notion of indicators and their importance in order to evaluate the global performance of the company, because indicators can define if a company is societal or not by giving an objective judgment about the company (Bertland, 2007); (Berubé et al, 2003). However, there is a big lack in terms of methodology of the choice of indicators making company in front of a big challenge. Because the existing methods for selecting indicators are dedicated to choose quality indicators or to evaluate the financial performance, but for selecting the Corporate Social Responsibility there is no known method. It is in this context that our article aims at proposing a methodology of selection of indicators to evaluate the global performance of the company.

2. Corporate Social Responsibility and the global performance of the company

2.1. Corporate Social Responsability

These last years, companies begin more and more to take into account the notion of the corporate social responsibility (CSR) (Mathieu, 2008). The CSR is presented sometimes as a voluntary approach and sometimes as a compulsory approach of the company towards society (Bonopha Tengbe, 2001). Two common ideas are connected with the definition of the CSR: The first idea is that companies have responsibilities exceeding the profit motive and the respect for the law, the second idea is that these responsibilities concern all the stakeholders (Swaen, 2008).
The Corporate Social Responsibility (CSR) of the company is connected with the Sustainable Development (Chardine – Baumann, 2011). Because, the CSR is the means allowing the company to realize the objectives of Sustainable Development (Chauveau, 2003). Therefore, the adoption of an approach of CSR allows the company to contribute to the objectives of the sustainable development.
Most of the definitions connected to the CSR give a big importance to the commitment of the company (Dejean, 2004). The concept of the Corporate Social Responsibility of the company is developed with the consideration that the interests of the company and those of the society converge in the long term (Ayoub and Djerbi, 2013). The CSR means that the company has to generate at first, some profit and respect the law, while having an ethical behavior in the business world, and a citizenship towards the community (Caroll, 1997). The CSR can be defined as "the voluntary integration, by companies, social and environmental concerns in their commercial activities and in their relations with their stakeholders " (Renaud and Berland, 2007).

The basic idea of the Corporate Social Responsibility of the company is that the company has to work on the improvement of the social aspect (Wood and. Jones, 1995). However, the CSR must be always connected with the economic aspect, because it is a question of integrating the social and environmental concerns into the strategic and operational aspects (Commission européenne, 2001).
The strategies of the CSR are developed to address the imperfections of the market. (Crifo and Forget, 2013) The aforementioned imperfections are (Crifo and Forget, 2013):

➢ The existence of the public goods and the externalities: prevention of the pollution, the improvement of the working conditions to avoid the pressure of the civil society.

➢ The imperfect competition: offer of the ethical products for a niche ready to pay more. Furthermore, the company gets involved into the greenwashing to create a good brand image.

➢ The incomplete contracts: during the establishment of contracts, it is impossible to plan all the scenarios. The future events can influence the contractual relations.

In the literature, regarding the impact of the CSR on the company, we find contradictory points of view. There are some researchers who confirm the positive aspect of the CSR on the economic performance (Hines, 2009); (Corbett and Klassen, 2006); (Bergmiller and McCright, 2009); (Benhamou et al, 2016) and others deny it: researchers declare that the process environmental purchase has a positive impact on the environmental performance to the detriment of the economic performance (Chardine – Baumann, 2011).

The United Nations General Assembly of 1997 defines eight points as the roles of the company in the framework of the CSR as following (Chardine – Baumann, 2011):

- Include the triptych of the sustainable development in all the strategies of the company for all its divisions and for all its operations.
- Redesign processes, products and services to coincide with the objectives of the Sustainable Development.
- Make active partnerships in terms of Sustainable Development.
- Recognize the "right to know" and the "precautionary principle". (precautionary principle : " The absence of certainties, considering the scientific and technical knowledge of moment, does not have to delay the adoption of measures effective and proportionned to prevent a risk of serious and irreversible damage to the environment in an economically acceptable cost " according to the law of Barnier of 1995.)
- Develop the indicators of the Sustainable Development in consensus with all the stakeholders. These indicators are going to serve in the benchmarking between the various industrial sectors.
- Make report on their activities in terms of Sustainable Development while including the requirements of the international standards.
- Make social audits.
- Open impartially onto all the stakeholders.

2.2. Global performance of the company

The term "performance" became the symbol of our contemporary society (Moez , 2006). Nowadays, we speak about "worship of performance" (Moez, 2006). The performance becomes a necessity for organizations and for individuals (Moez, 2006). The notion of performance has no single definition, because every scientific work defines the performance that it considers (Chardine – Baumann, 2011). Furthermore, the existence of the performance is connected to his evaluation (Quairel, 2006).

The definition of the performance of an industrial system depends on the context in which it joins (Chardine – Baumann, 2011). The context of the industrial performance went through three periods (Vincent, 2004):

- Stage 1: from 1945 till 1975, the demand exceeds the offer.
- Stage 2: of 1975 till the end of 1980s, the offer exceeds the demand.
- Stage 3: of 1990 till our days, the offer is very superior to the demand.

The third stage is associated with new challenges, those of the Sustainable Development (Chardine – Baumann, 2011).

In past, the company was, only, accountable to the shareholders (vision shareholder) while the company of today is accountable to a set of stakeholders (vision stakeholder) (Quairel, 2006). Thus we speak about the global performance of the company. The term "global performance of the company" is used in the managerial literature to represent the contribution of the CSR to the objectives of Sustainable Development (Quairel, 2006). Therefore, the global performance of the company indicates that the company integrates a balance between the financial, social and environmental performances (Ayoub and Djerbi, 2013). The global performance of the company can be defined as being "the aggregation of the economic, social and environmental performances" (Reynaud, 2003); (Mabrouki, 2013).

The scientific researches use several methods in terms of the global performance measurement (Chardine – Baumann, 2011). Some researchers use qualitative methods as the literature review, the case studies and the conceptual models, while others use quantitative methods through mathematical models (Chardine – Baumann, 2011). Traditionally, the evaluation of the performance of the company includes providing the financial indicators (Chardine – Baumann, 2011). In addition, the notion of the global performance of the company introduces the measurement of the environmental and social performances (Chardine – Baumann, 2011). The evaluation of the global performance of the company can be made internally by the company itself as it can be made in extern by an extern agent (Quairel, 2006).

The evaluation of the global performance of the company by the company itself is little studied by the academic literature (Quairel, 2006). The measurement of performance of a company regarding the CSR can be made according to three bases (Bertland, 2007): estimate evolutions, compare the realizations of the company with standards or with objectives, or compare companies between them (benchmarks). The criteria of evaluation of the performance are subjective because they appeal the principles of their designers (Quairel, 2006).

3. What is an indicator?

Several definitions are associated with indicators. An indicator is "any significant, relative measure used to appreciate the obtained results, the use of the resources, the state of progress of the works or the external context» (Berubé et al, 2003). "The indicator is the privileged means to express concretely, to quantify or to qualify the expected and obtained result. It is usually connected with a strategic or operational objective and the measurement is made with a regular frequency by comparing between the obtained and the expected results" (Berubé et al, 2003).

The quality of an indicator is connected with a number of criteria (Berubé et al, 2003):

➢ The relevance: utility of appreciation of the obtained results compared to the expected results or to the target.
➢ The validity: capacity to measure really what it has to measure according to what is aimed.
➢ The feasibility: facility to obtain (available data).
➢ The user-friendliness: facility to understand and to interpret. Its interpretation is the same for all.
➢ The reliability: the results measured by the indicator must be constant every time a measure is taken in identical conditions.
➢ The comparability: it is desirable that the chosen indicator be standard and used by several bodies. This fact gives more credibility to the indicator.

The use of indicators for the measurement of performance requires conditions according to two dimensions (Bertland, 2007).

➢ Have the possibility of measuring the exact result without ambiguity.
➢ Know how to work by standardizing the tasks and by developing or by automating the procedures.

The Indicators connected to the CSR have a main objective which is to inform the managers about the social and environmental impacts of their activities (Moez, 2006). The characteristics and the criteria of the indicators of CSR occupied a wide debate to conclude finally that it is a "process by which a problem of societal order is gradually identified by the extern actors to the company, then measured to be finally integrated into the management of the company» (Moez, 2006).

The reproaches given to the dashboards of the CSR are often related to the large number of used indicators (Bertland, 2007).

4. Proposal of a methodology of selection of indicators for measuring the global performance of the company

4.1. The existing methods

In the literature there are various methods for the choice and the selection of indicators. In what follows we expose the most known methods.

4.1.1. Method RAND

RAND is the most known method in terms of establishment of quality indicators (Fitch et al, 2001). According to the method RAND, the choice of indicators comes from an exhaustive of the literature review (Pomey et al 2013). Marshall described the method RAND according to seven stages (Pomey et al 2013):

- ➢ Stage 1. Choose the scope.
- ➢ Stage 2. Make a literature review to extract all the indicators having a link with the types of performances to measure.
- ➢ Stage 3. Select a set of experts.
- ➢ Stage 4. Ask to the experts to quote every indicator according to its importance and its scientific validity.
- ➢ Stage 5. Process the data given by the experts and make all the indicators in a table where every expert finds his quotation as well as an average of the quotations of the other experts for every indicator.
- ➢ Stage 6. Organize meeting for all the experts to discuss indicators having a big variation in the quotations. Then vote for every indicator.
- ➢ Stage 7. Make a final list of indicators resulted from the vote.

4.1.2. The Standard method

In 2003, Mainz proposed the standard method of selection of indicators inspired by the method RAND (Mainz, 2003). The standard method consists of two phases:

- ➢ Phase 1: Planning:
- • Choice of the domain of the evaluation by establishing its importance according to well defined criteria.
- • Establishment of the teamwork (with the allocation of the tasks) and planning of the meetings.

- ➢ Phase 2: Development
- • Establishment of a list of existing indicators with their quotations by basing on their scientific qualities.
- • Selection of the indicators of process and of the result. Rank indicators.
- • Definition precise of the measure (definition of indicators, target population, sources of the data, collection of the data …).
- • Validation of indicators before implementation.

4.1.3. ECOGRAI method

It is a method developed at the university of Bordeaux in the 1999s (Fahd et al, 2014). Its originality is in the approach 1 Objectives, 2 Variables of decision, 3 Performance indicators (Humez, 2008) .ECOGRAI leans on two types of analysis: top down analysis allowing to dissect strategic objectives in tactical objectives then in operational objectives. And bottom-up analysis allowing the implementation of the indicators system(Achhal, 2013).

The method ECOGRAI is based on six stages (Fahd et al, 2014):

- ➢ Stage 1: use of the GRAI grid (Graphe a Résultats et Activités Inter reliées) to model the pilotage entity.
- ➢ Stage 2: identification of the tactical then operational objectives basing on strategic objectives
- ➢ Stage 3: identification of the variables of decision (VD). VD are the variables on which we act to develop the situation and reach the goals.
- ➢ Stage 4: definition of indicators and analysis of the coherence between the objectives, the variables of decision and the performance indicators.
- ➢ Stage 5: establishment of the specification sheet of every indicator. The specification sheets include: the indicator actors, processing, and its presentation mode …
- ➢ Stage 6: implementation of indicators in the information system.

The first two methods of selection of indicators are especially used in the hospital sector. The third method is used in various industrial sectors (Humez, 2008). However, the method ECOGRAI does not take into account requirements

of the CSR as the laws regarding Sustainable Development and expectation of stakeholders. There are other methods as method ABC / ABM and the method SCOR allowing to evaluation the financial performance (Humez, 2008).

4.2. Proposed method

As already mentioned, among the roles of the company within the framework of the Sustainable Development (and by consequence of the CSR), the development of indicators by taking into account the expectations of stakeholders; the developed indicators will serve for the comparison of the performances (environmental, economic and social) in and between the different sectors of industry (Chardine – Baumann, 2011).

The choice and the selection of indicators related to the CSR is specific because it is not only a question of measuring its financial performance but also evaluating its social and environmental performances. What leads to respect some standards and national and international requirements (laws, costumers' requirements...). Indeed, the designed indicators to measure the global performance of the company have to allow judging the will of the company to address the social and environmental problems (Bertland, 2007)

For the proposal of a method of selection of the Corporate Social Responsability indicators, we were inspired by methodologies of selection of indicators mentioned in the previous paragraph and by a report published in 2014 by the « Service Publique de Wallonie» entitled « Indicateurs de développement durable, Approche méthodologique et proposition d'indicateurs dans le cadre de la 1ère stratégie WALLONNE de développement durable » (Indicators of Sustainable Development, methodological Approach and proposal of indicators within the framework of the 1st WALLOON strategy of sustainable development). This report presents examples of process of selection of the indicators of Sustainable Development followed by several countries as France and Germany.

The proposed method is based on nine stages:

- ➢ Stage 1: form teamwork. The formed work team must be multidisciplinary in the various fields of intervention of the company. Because the legitimization of the choice of indicators requires a consensus between the various actors (Faucheux et Nicolai, 2004).
- ➢ Stage 2: Know its environment: internal and external context (extern: law, requirements in terms of CSR, stakeholder's trends: consumers, neighborhood).
- ➢ Stage 3: Translate the requirements of its environment into clear and explicit objectives and sub-objectives to define without ambiguity the purposes of indicators as well as expected results.
- ➢ Stage 4: Make a literature review to select indicators which can be useful and appeal to external experts, if necessary, to complete the list of indicators.
- ➢ Stage 5: Verify the quality of chosen indicators (relevance, reliability, availability of the data to calculate the indicator, benchmarking.) and make sure to have indicators of the results and indicators of the means.
- ➢ Stage 6: Rank indicators:
  - External indicators or indicators of impact: the indicators measuring the impact of the company activities on the stakeholders.
  - Internal Indicators: the indicators serving for the orientation and the management of the company activities.
- ➢ Stage 7: Organize the selected indicators on a dashboard.
- ➢ Stage 8: Validate the dashboard during a determined period. Adjust if necessary the dashboard by adding and/or eliminating indicators.
- ➢ Stage 9: Be paid to the laws and the requirements regarding the CSR and review the list of indicators if it is necessary.

Remark:
The majority of the methods of selection of indicators begin with the definition of the scope. However, the proposed method skipped this stage because the scope is defined which is the frame of the CSR, implying that the field of the application is the interaction of the company with all existing stakeholders.

5. Conclusion

Among the big problems in terms of studies of the intersection between the business and the company is the measurement of performance of the Corporate Social Responsibility (mitnick, 2000) The establishment of the indicators of management is only the beginning of the process of evaluation of the performance of a company (Bertland, 2007). However, evaluating performance is a subjective exercise; to master this subjectivity, the company should integrate the stakeholders or their representatives (Bertland, 2007).

In the literature, there are several works studying the indicators of the CSR in terms of criteria of choice. However, these works do not give a method or a process allowing the company to have a well-founded standardized methodology to choose its indicators.

In this article we presented the various concepts: CSR and global performance, indicator and some existing methods for their selection. Then we proposed a method to choose and select the indicators of CSR. As perspectives we are going to make an empirical study to validate our proposed methodology.

The added value of our work comes from the fact that there is no method to select indicators to evaluate the Corporate Social Responsibility, because the existing methods do not consider the requirements of the stakeholders.

References

Achhal, Y., Cadre méthodologique pour la conception d'indicateurs de performance de Développement Durable, *Université LAVAL*, Canada Quebec 2013.

Ayoub, S,. Djerbi, Z. , Faire du social dans l'entreprise : une affaire de financiers ? , *RIUESS - XIIIème Rencontres, ANGERS – France*, 5 au 7 juin 2013.

Benhamou, S,. Diaye, M.A., Crifo, P., Responsabilité sociale des entreprises et compétitivité, Évaluation et approche stratégique , *éditoriale du commissaire général de France Stratégie*, Janvier 2016.

Bérbué, M. et al., Modérnisation *de la gestion publique, Guide sur les indicateurs*. 1st Edition, 2003.

Bergmiller, G.G., McCright, P.R., Are Lean and Green Programs Synergistic?, *Proceedings of the 2009 Industrial Engineering Research Conference*.2009.

Berland, N., A quoi servent les indicateurs de la RSE ? Limites et modalités d'usage. Les enjeux du développement durable, *L'Harmattan*, pp.41-64, 2007. <hal-00340430>.2007.

Bonopha Tengbe, J., Simulation Modelling in Resource Management: A Sustainable Development Approach to Resource Extraction in Sierra Leone, *Journal of Environmental Planning and Management*, Vol 44, pp.783–802.2001.

Caroll, A.B., A Three-Dimensional Conceptual Model of Corporate Performance. *Academy of Management* Review, Vol. 4, pp. 497-505.1979.

Chardine-Baumanne, E., Modèles d'évaluation des performances économique, environnementale et sociale dans les chaînes logistiques, *L'institut national des sciences appliquées de Lyon*, 2011

Chauveau, A., Rosé J, *L'entreprise responsable*, Éditions d'Organisation, 2003.

Commission européenne, Direction générale de l'emploi et des affaires sociales Unité EMPL/D.1, *Promouvoir un cadre européen pour la responsabilité sociale des entreprises*, Livre vert, 2001.

Corbett, C.J, Klassen, R. D., Extending the Horizons: Environmental Excellence as Key to Improving Operations, *MANUFACTURING & SERVICE OPERATIONS MANAGEMENT*, Vol. 8, Winter 2006, pp. 5–22.2006.

Crifo, P., Forget, V., La responsabilite sociale et environnementale des entreprises : mirage ou virage ? , *cahier de recherche* 2013.

Dejean, F,. Gond, J.P, La responsabilité sociétale des entreprises : enjeux stratégiques et méthodologies de recherche, *Finance Contrôle Stratégie*, Vol 7, p. 5 – 31.2004

Faucheux, S., Nicolai, I,. QUELS INDICATEURS POUR LA RESPONSABILITÉSOCIALE DES ENTREPRISES? Une application à l'industrie européenne de l'aluminium, *GÉRER ET COMPRENDRE.N°76, pp 42-55.2004*.

Fitch K, Bernstein SJ, Aguilar MS, Burnand B, LaCalle JR, Lazaro P, et al. *The RAND/UCLA appropriateness method user's manual*. Santa Monica, CA : RAND; 2001.

Hines, P., "Lean & Green ," *Source the Home of Lean Thinking*, 3rd edition, Summer 2009.

Humez, V., PROPOSITION D'UN OUTIL D'AIDE A LA DECISION POUR LA GESTION DES COMMANDES EN CAS DE PENURIE: UNE APPROCHE PAR LA PERFORMANCE, *L'Institut National Polytechnique*, 2008.

Krajnc, D., Glavic, P., A model for integrated assessment of sustainable development.Resources, *Conservation and Recycling*, 43(2), pp.189-208. 2005.

Mabrouk,M., Sperandio, S., Girard, P., Outils de mesure pour l'évaluation de la performance" globale " des entreprises.*10e Congrès International du Génie Industriel 2013*.

Mahrat , F., Lotfi, B., Semma,. E, Conception d'un système d'indicateurs de performance en sécurité industrielle, *International Journal of Innovation and Applied Studies* . ISSN 2028-9324 Vol. 7 No. 2 Aug. 2014, pp. 571-587.2014.

Mainz J., Developing evidence-based clinical indicators: A state of the art methods primer. *Int J Qual Health Care* 2003.

Mathieu, P. La RSE : Fondements théoriques et problématiques gestionnaires, *Entreprise Ethique, Association Francophone de Comptabilité*, pp.13-21.2008.

Mitnick,B., Commitment, Revelation, and the Testaments of Belief: The Metrics of Measurement of Corporate Social Performance. *BUSINESS & SOCIETY*, Vol. 39 No. 4, pp 419-465.2000.

Moez, E., LES MECANISMES DE CONTROLE DE LA PERFORMANCE GLOBALE: LE CAS DES INDICATEURS NON FINANCIERS DE LA RSE. *Humanities and Social Sciences*. Université Paris Sud - Paris XI, 2009. French. <tel-00473794>; 2009.

Pomey, M., Poliquin, S., Beaulieu,M., Méthodologie de sélection des indicateurs et relevé d'initiatives d'utilisation d'indicateurs au Canada et au Québec.2013;

Quairel,F., Contrôle de la performance globale et responsabilité sociale de l'entreprise (RSE). *COMPTABILITE, CONTROLE, AUDIT ET INSTITUTION(S)*, May 2006, France. Pp.CD-Rom, <halshs-00548050>.2006.

Reynaud, E., Développement durable et entreprise: vers une relation symbiotique. *Dans Journée AIMS, Atelier développement durabl*e. ESSCA Angers, p. 1-15.2003.

Renaud,A., Berlan, N., Mesure de la performance globale des entreprises, *COMPTABILITE ET ENVIRONNEMENT*, May 2007, France. pp.CD-Rom, 2007.

Singh, R.K. et al., Development of composite sustainability performance index for steel industry. *Ecological Indicators*, 7(3), 565-588.2007.

Swaen, V. Chumpitaz, C., L'impact de la responsabilité sociétale de l'entreprisesur la confiance des consommateurs, *Recherche et Applications en Marketing*, vol. 23, pp. 8-35.2008.

Tsoulfas, G.T., Pappis, C.P., A model for supply chains environmental performance analysis and decision making. *Journal of Cleaner Production*, 16(15), pp. 1647-1657.2008.

Wood,D.J., E.Jones,R, stakeholder mismatching : A theoretical Problem in Empirical Research on corporate social performance ,*the International Journal of Organizational Analysis*, Vol 3, pp. 229-267.1995

Vincent, C., Approche systémique et méthode multicritère pour la définition d'un système d'indicateurs de performance, *Université de Savoie*, 2004.

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