GREEN BUSINESS ASSESSMENT
- a framework to evaluate corporate environmental integration

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Abstract
Firms are under pressure, not only to provide their shareholders with return but also to have a proactive environmental performance. Using data from interviews, previous environmental performance evaluation models and a literature review, a model to assess the level of environmental management integration in a firm is formulated. Results indicate that two different types environmental management performance coexists; internal performance and external performance. Hence a model that measures the level of integration has to evaluate both the internal and the external environmental performance and their combined ability to create a sustainable strategy.

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Introduction
The motives for firms to reduce the environmental impact from their activities are numerous. One reason is to attract socially responsible investments, also known as SRI. Others are to enter a new market, comply with legislation, reduce the cost from waste and pollutant control or gain competitive advantage (Berry & Rondinelli, 1998).

ÅF AB is an international technology consultancy firm with a clear vision: to support a sustainable development of their clients. A year ago ÅF initiated a project called Green Advisor in which they assist their clients to make them more sustainable and profitable. When starting up a new project the current environmental management performance of the client must first be evaluated. ÅF AB therefore needed a model to quickly assess the performance of a client.

Methodology
In the first phase of the project qualitative and quantitative data was collected from interviews and literature studies to determine what aspects are most important when conducting an environmental performance evaluation. A literature review was also conducted to determine when it pays to be green and how firms can achieve sustainable competitive advantage. In the next phase of the project a method and a model for assessing environmental management performance was developed. Finally, the model and the concept was tested using two different companies to determine if the model was practical to use and if it could capture the essence of the environmental management performance of a client.

Analysis and Results
Our research indicates that there are two different types of environmental performance. Firstly the internal performance, i.e. the performance of internal processes and infrastructure (e.g. effective and efficient EMS and IT systems). Secondly the external environmental performance, i.e. the business influence on the environment (e.g. PR-effort to raise the knowledge and environmental awareness of customers). The internal, and external, performance can be measured by using Operational performance indicators (OPIs) and Management performance indicators (MPIs).

Previous scientific models
More than 50 environmental performance evaluation models have been published by scientists since 1987 (Kolk & Mauser 2002). With the exception of sustainability reporting, the models generally only evaluate internal environmental performance, thus neglecting the external environmental performance. This is also the case in
more recent published models (Xie & Hayase 2007).

**Third-party performance evaluations**

Our research also indicates that third-party performance evaluations usually focus on internal environmental performance, neglecting the ability companies have to influence others. The market itself is diverse but can be illustrated with two parameters; the degree of analysis needed in an evaluation and the recipient of the result. These parameters dictate the rules on the playing field.

Generally, if the result is to be used by an external stakeholder the information must be verified. But if the result is for internal purpose one may use information provided from the company only, thus reducing the time an effort spent on an evaluation.

The degree of analysis will partly determine the reliability of the result and hence how it can be used. Evaluations with low degree of analysis can only be used to indicate strong or weak points while a more comprehensive investigation is needed to clarify specific areas that need to be prioritized.

**The link between environmental and company performance**

Reviewing empirical evidence Ambec & Lanoie (2008) found three ways in which environmental performance improvements can increase revenues of a firm (better access to certain markets, differentiating certain products or selling pollution-control technology) and four in which it can reduce costs (risk management, cost of resources, cost of capital or cost of labor).

Thus, the environmental performance evaluations published so far can only support the firm to increase environmental performance and reduce cost. If an evaluation also assesses external performance, simultaneous improvements regarding environmental performance, cost reductions and increased revenues can be achieved. However, firms need to prioritize their efforts and therefore they need a competitive strategy.

**Competitive Environmental Strategy**

Orsato (2009) suggests five different strategies that can be used to achieve sustainable competitive advantage:

- Two of them are process oriented and require the firm to prioritize its internal environmental performance. This implies a comprehensive analysis of the internal cost structure of a firm (e.g. Activity based costing and internal Polluters Pay Program (Epstein, 2008)). These strategies are mostly oriented towards internal environmental performance.
- Two of them focus on reducing the environmental load of the value proposition. These strategies are mostly oriented towards external environmental performance.
- Lastly, the fifth strategy stresses the need to break away from existing market structure to create Sustainable Value Innovation. A strategy that can be adopted when switching to product service systems. Thus implying neither a pure internal view of environmental management nor an external. Instead combining the two through a holistic approach.

Hence a model that assesses the level of environmental integration firstly has to evaluate both the internal and the external environmental performance, secondly the ability of environmental management to support value creation and thirdly their combined ability to create a sustainable strategy. Constructing the model one must also bear in mind for whom the information is intended and what degree of analysis that will be done.

**The MT Eco Assessment-Model**

To assess the level of environmental management integration at a strategy level, a model is put forward. The model uses the following ten categories:

1. Status
2. Internal Establishment
3. Corporate Culture
4. Travel
5. Procurement
6. Logistics
7. Proactive Attitude
8. Value Proposition
9. Business Integration
10. External Dialog

The categories are indexed from an internal to an external view of environmental management. Thus they can be used both to evaluate direct effect and
indirect influence on the environment of companies as well as the contribution of environmental management to increased revenues and cost savings.

For two reasons the categories should always be used together. First reason is that it reduces the risk for suboptimization, secondly it makes it possible to evaluate the relation between internal and external performance. The relation corresponds to the overall prioritization of the firm, hence the corporate environmental strategy.

Four generic strategy profiles can be identified:

1. A company with a proactive internal environmental management performance is likely to have a low impact from its own processes and it may also achieve cost saving.
2. Companies with a proactive external environmental management performance are likely to have low impacts from their products and they may also be able to achieve revenue increase. However, this profile stands a chance to be accused of Greenwash if the company is caught with internal environmental problems.
3. Companies with both good internal and external environmental management performance will come out well on all categories.
4. Companies with passive environmental management performance will score poorly on all or most categories.

**Conclusion**

Until now environmental performance evaluations have been conducted almost solely on the internal environmental performance of a firm. In a holistic perspective it would be beneficial for the development for both firms and societies to also evaluate the external environmental performance, how both of them are interlinked and their combined ability to form a sustainable strategy. Only then can the level of environmental integration be assessed.

This implies a new type of environmental performance evaluations. While current models evaluate a tactical level, emphasizing on internal performance, this article suggests not only moving to an operational level but also incorporating the overall strategy of firms.

Companies that succeed in combining environmental and financial performance with their overall business strategy will undoubtedly gain competitive advantage and, in the long run, outperform their peers.

**Recommendations**

One of the projects delimitations was not to include social aspects of sustainable development. It would therefore be of great interest for future studies to analyze how its level of integration can be measured and its ability to create competitive advantage.

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**References**


