Based in Denmark, Novo Nordisk, is a leading company in the pharmaceutical industry. It is characterized by a value-based, holistic approach to business, facilitated by an ownership structure that is unique to the industry. The company, with headquarters in Denmark, is active in 179 countries, with production facilities in six countries and affiliates in 178 countries. Novo Nordisk has over 21,000 employees and a sales turnover of over €3,900 million.

Since its foundation in 1923, Novo Nordisk has worked in the field of biotechnology. Business depends on two sectors. The first sector, biopharmaceutical, provides around 30 per cent of the company's turnover. It is in this sector, in the areas of homeostasis management, growth disorders and hormone replacement therapy, that the company occupies the leading position within the market. The second sector is diabetes care. This sector constitutes 70 per cent of the company's turnover. Also within this sector, Novo Nordisk occupies a leading position, with a current market share of 51 per cent.

Such focus is due to a specific strategic decision, related to the cost of discovering and developing new drugs. It is also due to its unique ownership structure. The company is financially controlled by the Novo Nordisk Foundation, which holds a large majority of voting rights through its holding company, Novo A/S.

The Novo Nordisk Foundation is a private, self-governing institution, which secures long-term financial independence and guarantees its value based approach to business.

The performance management system of CSR

In 1997, new guidelines, called Novo Nordisk Way of Management, were introduced in order to balance out the conflicting interests between corporate control and decentralized decision making. The guidelines are an important instrument for putting management's commitment towards sustainable business practices into operation.

In order to implement their corporate values across the organization, they propose a methodology that originates from the company's vision, values, commitments and fundamentals. It consists of a combination of three managerial tools: sustainability reporting, the Balanced Scorecard and facilitators. The vision and values of Novo Nordisk reflect the company's engagement towards sustainable development. This is clearly stated in its commitment towards financial, environmental and social responsibility, which is in line with the triple bottom line (TBL) approach. These principles are translated into ten rules, that form the organizational behaviour of all units at all organizational levels at Novo Nordisk.

The TBL is implemented through the Balanced Scorecard model, and was first adopted by the company in 1996. This serves as a means for cascading corporate objectives throughout the different organizational levels, to each of the sub-units that compose each single business unit. The balanced scorecard at Novo Nordisk is currently composed of twenty-four objectives, divided into four dimensions:

- Customers and society;
- finance;
- business processes; and
- people and organizations.
Long term effects of CSR on financial performance

Through facilitation, sustainability reporting and the Balanced Scorecard, the Novo Nordisk 'Way of Management' guidelines, guarantee the implementation of CSR policies and actions. However, the decentralized approach might cause misalignment in the management of CSR initiatives across the company. Management at local unit level will be primarily responsible for prioritizing the different CSR actions. The situation is managed by imposing different CSR targets to the business units at corporate level.

However the selection of different CSR policies and adoption of the related actions, imply a weighting system which assesses different and often contrasting costs and benefits and the effects on different stakeholders and shareholders. Clearly prioritizing the selected actions would imply an in-depth analysis of those trade-offs through a quantification of the expected returns of the company's investment in CSR actions.

Due to the difficulties in quantifying the external objectives of different stakeholders, and the lack of a management instrument to effectively internalize environmental and social costs and benefits, attempts are made only in specific areas. The resulting normative attitude prevents the company from an in-depth evaluation of the expected long term CSR effects on its financial performance.

In 2003 attempts were made to recognize the potential financial impacts of CSR driven activities. Cost efficiency, lower employee retention costs, productivity benefits, lower insurance costs and higher market values to name but a few, were identified as driving factors in the increment of shareholders' value.

Implementing causal maps

The importance of causal maps in supporting strategy formulation and strategic control has been consistently proved by a vast range of literature. Numerous methodologies for constructing aggregated causal maps have been proposed, but only a few attempts are present in literature on the use of the causal mapping technique for finding indicators.

The first method aims to represent all individual maps as completely as possible in the collective map. This can result in a complex, aggregate causal map, but at the same time provides the most complete representation of a social system, allowing for all views to be represented.

The congregate mapping approach centres on the identification of key causal loops that drive system dynamics. This methodology stresses the cause-and-effect relationship. These maps are simpler than the sum of individual maps, so that all possible conflicting views of the social system are not fully represented.

Lastly, the workshop mapping approach focuses on a consensual model built at group level. Workshops, or group meetings, are where the model is built by all participants, aided by the facilitator (the researcher) whose role is central for the success of the session. This methodology cannot be employed by large groups or organizations and presents a limit of subjectivity in the elicitation of the model.

The congregate mapping approach was selected for the Novo Nordisk case because strategic hypothesis are more likely to emerge from a full representation of diverse viewpoints.

Reducing business risk

Many scholars have underlined the fact that a proactive stance on corporate social responsibility is often the result of a company strategy aimed at reducing the level of corporate risk.

A relevant motivation for Novo Nordisk's engagement in CSR related activities over the years seems to have been media attention, and in particular the risk of NGOs
campaigning against the firm. Campaign Risk refers to the possibility of being attacked by NGOs as being representative of a whole sector. This occurs especially if the firm is the market leader and even if it is not the worst offender. An important example of this can be seen in the firm's attention to human rights management worldwide. Being the market leader, the firm faces the risk of being singled out by NGOs and governmental organizations on issues concerning human rights along the supply chain.

**Increasing operational efficiency**

Building on the economic law of diminishing returns, any double dividend obtained by the firm is likely to last for a limited amount of time. Once these have been worn out, firms can no longer expect cost advantages from proactively engaging in CSR. However, the case of Novo Nordisk seems to support a different position. For example, the challenging voluntary emission target set by the company was aimed at addressing the regulatory and campaign risk. From the outset these actions were expected to carry considerable cost, yet, as the programme was implemented, there was considerable cost reduction due to increased cost efficiency.

A second important element of increased operational efficiency signals that employee motivation is a driver of their productivity. The company stands out in its proactive approach towards its employees, as human resources are considered integral to the success of the company. Numerous examples of activities were reported by interviewees, created in order to encourage employees’ creativity, entrepreneurship and to help them adopt a balanced lifestyle.

**Product differentiation**

Other types of strategic factors were discovered while implementing causal maps at Novo Nordisk. These were not as internally focused, but pertained to social marketing. In fact, opportunities were taken to differentiate products along social or environmental lines.

Since patients, doctors and other professionals in healthcare systems seem to be considered as the main indicators for CSR-related activities, the company displays a strong endorsement of this policy.

One of the first reasons for the company's stakeholder engagement strategy appears to be the need to build reputation in order to gain a premium price for its products. The need to expand the existing market segment and to retain existing customers, is also perceived as an important indicator of sustainable development related activities.

**Creating new market space**

The last critical success factor that was revealed through the implementation of causal maps at Novo Nordisk, was the possibility of creating new market space.

Access to healthcare (availability, accessibility and affordability) in the developing world is a main theme, with a high impact on the pharmaceutical industry's reputation. The company is actively engaged in providing diabetes care in developing countries such as Tanzania, providing access to health to the population and training doctors and nurses. As the country will soon be able to afford first class diabetes care, and the company will have been a partner for the public health care system for a long time, it will have a considerable advantage over its competitors.

Another important way in which Novo Nordisk is implementing CSR is to generate competitive advantage through the creation of options for the future. An example of this is through clean technology venturing. Having identified greenhouse gases as a major issue, the company is investing heavily in renewable sources, in particular in wind power. Similar strategic programmes aim to reduce dependency upon less efficient energy sources and to provide options for the future.
Long term results

Over the years Novo Nordisk has developed socio-economic models in order to evaluate the impact of their actions on different stakeholders, grouped in economic terms. Still, they emphasize that in most cases it is not possible to internalize these effects in financial calculations, and that such economic measures are not used for balancing dilemmas between stakeholders.

In most cases CSR targets are included in economic decisions in the form of restrictions. The objective of obtaining maximum economic return, given a list of environmental and social conditions, is fulfilled. The company is aware that many of their CSR policies have long term, positive financial returns in spite of the negative short term effects. However no attempt has been made to evaluate these effects in a more systematic way and to include it in the performance measurement system of the company. The company argues that this is due to the lack of objective methodologies.

The use of causal maps is considered as an attempt to derive indicators that allow us to disclose the perceived long term financial results related to investing in CSR-related intangibles.

The application of these maps is expected to improve the selection of indicators for the balanced scorecard at Novo Nordisk. There can be a financial evaluation of actions aimed at increasing the value of CRS-related intangibles even if the short-term calculations do not demonstrate the profitability of those actions.

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