Sustainability Reporting in the Healthcare Services Sector

Implementation of the Global Reporting Initiative (GRI) Guidelines in a
Private Hospital in Saudi Arabia and suggestions for specific GRI performance
indicators for the healthcare services sector

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Acknowledgements

With this paper, written, submitted and approved, I have reached the end of one very colorful journey in my life. A journey that I set upon with 13 other fellow students and friends, and prescribed by the wonderful staff of the IIIEE.

With this said, an expression of gratitude and appreciation is due… and the time has come to explicitly thank everyone along this journey who contributed to making it as colorful and memorable as it proved to be.

In remembrance, I pay gratitude to the soul of my late father, whose mentoring and guidance made me the person that I am including the good, the bad, and the ugly… but mostly the good.

To my mother, for her continuous support and unconditional affection, I pay my gratitude.

In Sweden, to Yolaine Dufresne, who unknowingly played the role of the surrogate mother for this slightly naïve middle-easterner that I am, Thank you for being there.

Of course "I tip the hat" to my supervisors, Professor Torbjorn Brorson and PhD Candidate Mr. Tareq Emtairah for their constant support and guidance along this research, and the CEO and staff of Tamkeen Consult in Saudi Arabia for making my research possible.

To every single person taking this journey with me, all of the students of Batch 14 of the EMP program… you made it all memorable… the sweet and the bitter… and every member of the IIIEE staff, thank you for your dedication and commitment, especially to Håkan Rodhe for the many surprises we have received along this year, and Murat Mirata for his close-to-home ironic sense of humor ;)

Finally, with a twist of irony, I would like to thank the personnel at King Abdel Aziz airport in Jeddah, for making my experience in Saudi Arabia one worth making into a movie.

Abstract

Sustainability reporting became a favorable practice for corporations from different sectors all around the world, not only because of its value as a means to track the performance of one's company, but also as a tool to communicate the performance to all involved stakeholders in any corporation. This paper focuses on sustainability reporting in the healthcare services sector with a focus on private hospitals, by attempting to identify sector specific sustainability performance indicators that are of importance for healthcare services providers (i.e. hospitals) and their stakeholders. In doing so, the paper identifies the significant economic, environmental and social impacts and aspects, identifies previously used key performance indicators, and highlights the views and expectations of the stakeholders in one case study - a private hospital in Saudi Arabia. The thesis provides a tentative outline for a sector supplement to be used by the Global Reporting Initiative (GRI).

Executive Summary

Corporate sustainability reporting has a relatively long history going back to the practice of environmental reporting. The first environmental reports were published in the late 1980s by companies from the chemical industry, and industry that suffered serious image problems. Various pressures from stakeholders triggered companies increased companies to increase their social and environmental disclosures in corporate annual reports, and the quantity and quality of disclosure in separate environmental or sustainability reports (Epstein, 2008; Park and Brorson, 2005). In a study of the Fortune Global 250, 20 per cent of the companies included a sustainability section in their annual reports, while 54 per cent% published a separate sustainability report.

To meet the growing trend of sustainability reporting, a need has emerged to use a standardized form and structure for sustainability reports. First released in 2000, the Global Reporting Initiative's (GRI) sustainability reporting framework provides guidance for disclosure about sustainability performance. The GRI provides stakeholders a framework to report their information to their stakeholders. These guidelines represent the first global framework for comprehensive sustainability reporting (Epstein, 2008).

A review of the GRI reports' list from 1999 to 2009 reveals that the GRI reports have been published by: hospitals, clinic services, medical devices manufacturers and health insurance providers under the definition of the healthcare services sector. Within the GRI framework in 2008, only seven healthcare service providers issued sustainability reports, one of which was a clinic service in Spain; thus, it is clear that sustainability reporting is not widely practiced within the healthcare sector.

GRI has developed many different sector specific supplements for reporting, yet, within the current framework, no such guidelines were developed specifically to address sustainability practices in the healthcare services sector. This lack of structured sustainability reporting in hospitals leads to inadequacy and/or inconsistency of information across sustainability reports for different hospitals.

The overall research question is "which sector specific, key performance indicators, that are representatives of hospitals, should the GRI include in the development of healthcare services sector supplement?"

In order to answer this question, it is necessary to consider several smaller research questions.

This research aims to answer the following research questions:

- **How is sustainability being typically reported by hospitals?**

- **What are, if any, the hospital specific key performance indicators that are/can potentially be used for sustainability reporting?**

   This question was further divided into three sub questions, which include:

   o When implementing the GRI guidelines in Dr Soliman Fakeeh Hospital, what are, if any, the significant hospital-specific sustainability aspects and impacts resulting from the hospital's operation in terms of economic, environmental and social performance?

- o What are the specific aspects, impacts and key performance indicators that are typically reported by hospitals and fall under the GRI guidelines?

- o What are the views concerning sustainability issues of stakeholders to the Dr. Soliman Fakeeh Hospital in Jeddah?

- **What are the practical reporting implications of the previously identified indicators?**

The scope of this research pertains to a case study analysis of sustainability reporting trends in the healthcare services sector, with a focus on hospitals. A private hospital in Jeddah, Saudi Arabia was selected as the case study for this research.

To further validate the findings of the case study analysis, a triangulation process was implemented, and data collection targeted three data sources including an internal sustainability review via in-depth interviews and document reviews, a literature review, and a comprehensive stakeholder consultation process using multiple data collection methods.

Data analysis was performed via two pathways:

- The deductive pathway, where the general GRI G3 (the third published edition of the guidelines) Indicator Protocols were modified and adapted into the more specific healthcare services sector' context;

- The inductive pathway, where specific, key performance indicators were adapted into a more general framework that fits the healthcare services sector.

The results were found to support the initial hypothesis and emphasized the need for a healthcare services sector specific GRI supplement. Several key performance indicators that are specific to hospitals were identified, and compiled into a tentative outline for a healthcare services sector specific GRI supplement (Table 7-5).

Formulating a tentative outline for a healthcare services sector specific GRI supplement is, however, only one step in the formulation of a sector supplement under the GRI. Prior to a healthcare services sector GRI supplement being developed the GRI will first need to identify sector specific drivers that would motivate the use of such a supplement within the healthcare sector.

This research did not include all business units under the healthcare services sector, thus, this research process needs to be replicated with the other business units (i.e. health insurance, medical research centers, etc.), in order to provide a more comprehensive basis for a pilot sector supplement.

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1   Introduction

1.1   Background

1.1.1   Sustainable Development

In 1987 the United Nation's World Commission on Environment and Development (the Brundtland Commission), in its report *Our Common Future* suggested that development was acceptable, but it must be sustainable development that would meet the needs of the poor while not increasing environmental problems. The definition of sustainable development (sustainability) was formulated implying the integration of economic, social and environmental spheres to: "meet the needs of the present without compromising the ability of future generations to meet their own needs." (Our Common Future, 1987). Establishing a global attention, the definition of sustainablity created another trend known now as corporate sustainability (CR). Corporate sustainability is a business approach that creates long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments.

Within more academic management circles Elkington (1999) developed the concept of the Triple Bottom Line which proposed that business goals were inseparable from the societies and environments within which they operate (Elkington, 1999). Whilst short-term economic gain could be achieved, a failure to account for social and environmental impacts would make those business practices unsustainable. Currently, corporations all over the world and from many different sectors are seeking to achieve sustaianability on the economic, environmental and social levels. Companies are adapting practices to measure, monitor and control their sustainability performance on the triple bottom line basis. Sector specific indicators have been identified, tracked and benchmarked to improve performance. Various physical and behavioral management measures have been adapted to achieve corporate sustainability, all of which lead to a major component of a corporate's existance - stakeholder satisfaction.

in Addition, corporations are constantly seeking to involve stakeholders in the process of improvement, so as to better identify and respond to their priorities and expectations. Stakeholder groups including costumers, investors, authorities, affected communities, etc are consistently consulted in the process of sustainability management.

1.1.2   Sustainability Reporting

Collecting and analyzing information regarding sustainability performance is critical for improving resource allocation decisions. The collected information needs, not only to be disseminated for external use, but also, to be included in internal sustainability reports to improve managerial decision making. External dissemination of sustainability performance information is crucial for an improved accountability to stakeholders.

Corporate sustainability reporting has a relatively long history going back to the practice of environmental reporting. The first environmental reports were published in the late 1980s by companies from the chemical industry, and industry that suffered serious image problems. Various pressures from stakeholders triggered companies increased companies to increase their social and environmental disclosures in corporate annual reports, and the quantity and quality of disclosure in separate environmental or sustainability reports (Epstein, 2008; Park and Brorson, 2005). In a study of the Fortune Global 250, 20 per cent of the companies

included a sustainability section in their annual reports, while 54 per cent% published a separate sustainability report.

A sustainability report encompasses aspects of the organization's performance beyond historical financial performance; this usually means environmental, social and economic performance. This reporting mechanism provides a communication tool whereby corporations can disclose information regarding their performance, thus establishing transparency and credibility and improving their image for all stakeholders. The process involves a stakeholder consultation component to provide the company or organization with insights regarding stakeholder perceptions, expectations and priorities, as well a strategic planning tool that aids in improving the corporate performance. Recently, many initiatives were created to offer a structure for non-financial reporting, perhaps the most widely used of which is the Global Reporting Initiative (GRI) scheme

1.1.3 Sustainability Reporting Frameworks

To meet the growing trend of sustainability reporting, a need has emerged to standardize the structure of sustainability reports. This section provides a brief introduction to the most widely used set of sustainability reporting standards, the Global Reporting Initiative guidelines.

1.1.3.1 The Global Reporting Initiative

The most prominent approach to standardized sustainability reporting began with CERES (Coalition for Environmentally Responsible Economic). In 1998, the idea of a disclosure framework for sustainability information was conceived, and the Boston-based non-profit CERES started the "Global Reporting Initiative" project with the support of the UNEP (United Nations Environment Program).

First released in 2000, the GRI's sustainability reporting framework provides guidance for disclosure about sustainability performance, and gives stakeholders a framework to understand the disclosed information. These guidelines represent the first global framework for comprehensive sustainability reporting (Epstein, 2008). Sustainability reports based on the GRI framework can be used to benchmark organizational performance with respect to laws, norms, codes, performance standards and voluntary initiatives; to demonstrate organizational commitment to sustainable development; and to compare organizational performance over time (GRI 2009). The framework contains three main elements: sustainability reporting guidelines, indicator protocols and sector supplements (Figure 1-1). The organization may choose one of three possible reporting levels (A, B, C). The organization may choose to verify compliance with the GRI Guidelines by a third party verifier. As an alternative, the organization can publish a self-declaration of compliance with the Guidelines.

Figure 1-1 GRI G3 Guidelines

Source: GRI G# Guidelines, 2006)

The GRI has developed and continuously improved several sector specific reporting guidelines through a process that involves different stakeholder groups and working groups. To date the GRI has worked with 507 organizational stakeholders from 55 different countries. About 1,000 organizations are reporting according to the GRI Guidelines (GRI, 2009).

1.1.4   Sustainability Reporting in the Healthcare Services Sector

The North American Industry Classification System as provided by Industry Canada (IC), defines the healthcare services sector as the sector comprised of establishments primarily engaged in providing healthcare by diagnosis and treatment, providing residential care for medical and social reasons, and providing social assistance, such as counseling, welfare, child protection, community housing and food services, vocational rehabilitation and child care, to those requiring such assistance (IC, 2007).

In a country market overview, the International Trade Association (ITA) describes how this sector is broken down in the Unites States to include, three major sub sectors: hospitals; professionals (e.g., physicians, nurses and other medical personnel); and nursing homes/home care services (ITA, 2007).

A review of the GRI reports' list from 1999 to 2009 reveals that the GRI includes hospitals, clinic services, medical devices manufacturers and health insurance providers under the definition of the healthcare services sector. Within the GRI framework, in 2008 only seven healthcare service providers issued sustainability reports, one of which was a clinic service in Spain. Sustainability reporting so far does not appear to be a practice of interest for organizations in this sector.

However, there are several initiatives that promote sustainability practices in the healthcare services sector. With an ever growing pressure for corporations to improve their public image and to build acompetitive advantage, healthcare services providers will soon, if not already, embrace/follow this trend for sustainability reporting as a means to communicate their willingness and motivation to go beyond the business as usual practices.

1.2   Research motivation

1.2.1   Research Problem

The Global Reporting Initiative (GRI) Guidelines provide a series of guidelines for the reporting of key performance indicators on a triple bottom-line basis. GRI has developed many different sector specific supplements for reporting, yet, within the current framework, no such guidelines were developed specifically to address sustainability practices in the healthcare services sector. This lack of structured sustainability reporting in hospitals leads to inadequacy and/or inconsistency of information across sustainability reports for different hospitals

1.2.2   Research Questions

The overall research question is: which sector specific key performance indicators, that are representatives of hospitals, should the GRI include in the development of healthcare services sector supplement?

In order to answer this question, it is necessary to consider several smaller research questions.

This research aims to answer the following research questions

- **How is sustainability being typically reported by hospitals?**

- **What are, if any, the hospital specific key performance indicators that are/can potentially be used for sustainability reporting?**

  This question was further divided into three sub questions, which included:

  - When Implementing the GRI guidelines in the case study hospital, what are, if any, the significant hospital-specific sustainability aspects and impacts resulting from the hospital's operation in terms of economic, environmental and social performance?

  - What are the specific aspects, impacts and key performance indicators that are typically reported by hospitals and fall under the GRI guidelines?

  - In the hospital case study, what are the stakeholder views concerning sustainability issues?

- **What are the practical reporting implications of the previously identified indicators?**

1.3   Scope

The scope of this research pertains to a case study analysis of sustainability reporting trends in the healthcare services sector, with a focus on hospitals, Figure 1-2 provides a scheme of how the scope was narrowed down to its current state.

The case study chosen for this research is a private hospital located in Jeddah, Saudi Arabia; Dr. Soliman Fakeeh (DSF) Hospital and its affiliated business units including a nursing collage and a fitness center. The hospital is committed to the provision of preventive and therapeutic comprehensive healthcare in all medical and surgical specialties (DSF Hospital website, 2009)

During the research portion of this study, the hospital was in the process of writing their first sustainability report for the year 2008, in accordance with the GRI Framework.

GRI GUIDELINES

CSR REPORTING IN HOSPITALS

HOSPITAL SPECIFIC KEY PERFORMANCE INDICATORS

SCOPE: A PRIVATE HOSPITAL IN SAUDI ARABIA
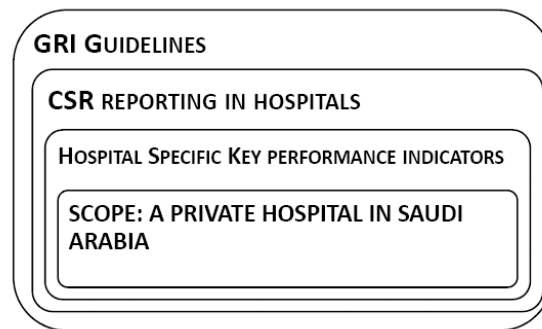
Figure 1-2 Research scope

1.4   Disposition

The structure of this paper consists of eight chapters as follows:

Chapter One: *Introduction* provides a summarized background for this research.

Chapter Two: the *Methodology* elaborates the research design and data collection and analysis methodologies used.

Chapter Three: *Corporate Performance Management and Measurement*, describes the different approaches used by corporations for performance management and the different tools used to report performance.

Chapter Four: *Sustainability Reporting according to GRI* describes the structure and implementation of the GRI sustainability reporting guidelines. The Chapter also discusses relevant trends in sustainability reporting for hospitals.

Chapter Five: *Case Study* describes the context and particularities of the hospital that was used as a case for this research.

Chapter Six: *Results* outlines the findings of each of the research block and takes a deeper look into what has been done to collect data and produces the results.

Chapter 7: *Suggestions for modification of the existing GRI G3 Indicator Protocol* describes the results of the analysis conducted on the collected data.

Chapter 8: *Summary and Conclusions* summarizes the research by answering each of the research questions, and provides recommendations regarding the next steps and opportunities for further research.

2 Methodology

2.1 Research Design

This research takes a case study analysis approach, adopting a progressive problem solving path. This research strategy was chosen based on three elements:

- Type of research questions,
- Extent of control of behavioral events, and
- The degree of focus on contemporary as opposed to historical events.

Researching a contemporary phenomenon (i.e. sustainability reporting), while covering contextual conditions (i.e. hospital context) requires the use of a case study analysis (Yin, 2002).

To further validate the findings of the case study analysis, a triangulation process is implemented, as the use of multiple sources for evidence in a case study allows the consideration of a broader range of historical, attitudinal, and behavioral issues, leading to the development of *converging lines of inquiry* (i.e. accurate and reliable results) (Yin, 2002).

Data Collection		
Stage I - Exploration	Operational Review	Study Case - Internal
	Literature Review	Sustainability Reports
	Stakeholder Consultation	Study Case - External

Data Analysis		
Stage II - Extrapolation	Deductive Approach	Modification of G3 guidelines
	Inductive Approach	Inclusion of new key performance indicators (KPIs)

Figure 2-1 Research design

This research aims to:

- Attempt to implement a sustainability reporting scheme according to the GRI guidelines in the setting of a private hospital in Saudi Arabia.

- Provide input, based on the internal sustainability practices in the case study, to the GRI for possible development of a healthcare services sector supplement.

Figure 2-1 demonstrates the approach adopted in this research.

The first stage follows an exploratory path beginning with an initial sustainability review, then an initial literature review, and ending with a comprehensive stakeholder consultation process as part of the hospital case study.

The data analysis stage aims to answer the research questions by utilizing the results of data collection using both inductive and deductive reasoning. These results are then combined with the existing GRI G3 guidelines to develop a tentative outline for a sustainability reporting framework that would be applicable for the healthcare services sector.

2.2 Data Collection

The data collection consisted of an internal sustainability review based on in-depth interviews and documents review, a literature review, and a comprehensive stakeholder consultation process using multiple data collection methods.

Figure 2-2 demonstrates the data collection framework used in this research
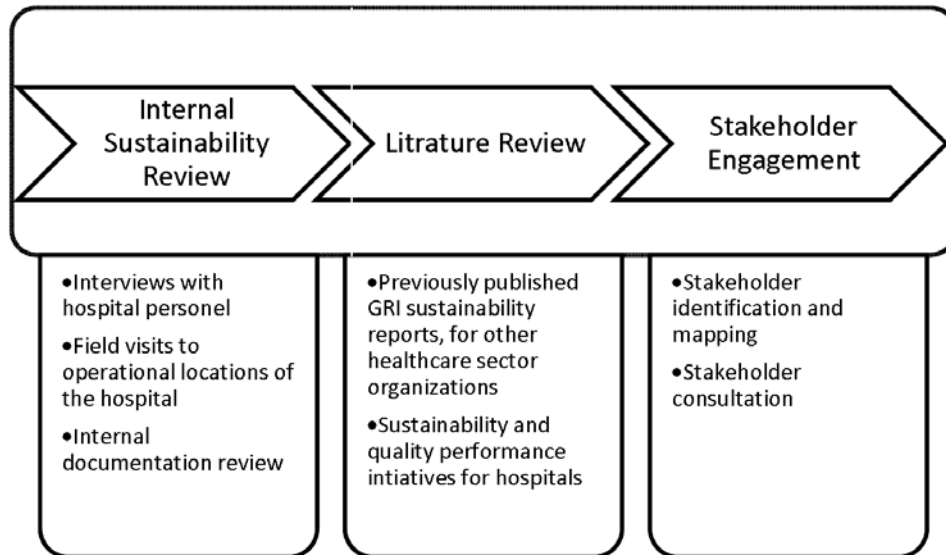
Figure 2-2 Data collection process

2.2.1 Internal Sustainability Review

This review aimed to analyze the environmental aspects and the overall sustainability performance of the case study hospital. TSemi-structured interviews with key personnel of the hospital were used to identify key sustainability issues on the internal level.

The review also included an examination of the internal documentation relevant to the sustainability context of the hospital. Relevant documents were identified by the interviewed personnel and during field visits to several operational locations of the hospital.

2.2.2 Literature review

Two specific literature examinations identified the specific key performance indicators and sustainability practices currently being used in healthcare systems. First, a review of the issued sustainability reports by hospitals and other healthcare services organization, according to the GRI guidelines was conducted, followed by a study of the healthcare performance assessment of the national and regional programs.

The review included reports dating back to the year 2006, the year when application levels were introduced into the GRI G3 guidelines. According to GRI guidelines, for an organization to score an A application level for its sustainability report, the organization must report sector specific key performance indicators. However, GRI has not yet developed a sector specific reporting guidelines for the healthcare services sector, hence the reporting organizations within the sector have used the General G3 Guidelines for their reference and

depending on their specific needs they have included several additional key performance indicators specific to the healthcare services sector.

2.2.3 Stakeholder Mapping and Consultation

Stakeholder mapping was conducted by triangulating data from the GRI definition of stakeholders, reviewing previously published sustainability reports for hospitals, and case study stakeholder consultations. Stakeholder group representatives were identified based on the specific context of the case study hospital.

Several methodologies were used during the stakeholder consultation. The methodologies included semi-structured, open interviews with hospital staff and other stakeholder representatives using primarily open end questions; a questionnaire designed to meet the knowledge base of the surveyed group; and systematically sampled focus groups. A focus group is a form of qualitative research in which a group of people are asked about their attitude towards a product, service, concept, advertisement, idea, or packaging. Questions were asked in an interactive group setting where participants are free to talk with other group members (Wikipedia). Table 2-1 depicts the methodology used for each stakeholder group.

Table 2-1 Stakeholder consultation process

Stakeholder	Methodology	Representatives
Investors	Interviews	The director general of DSF Hospital.
Employees	Focus groups	Ethnicity and gender representing random sample.
Patients	Questionnaire	Random sample of in patients, out patients, and emergency room patients.
Authorities	Phone interviews	Authority representatives from: • Jeddah District health affairs directorate. • Jeddah district civil defence. • Presidency of Meteorology and Environment
Community	Personal and email interviews	Representatives from local charity institutions.
Suppliers	Phone interviews	Representatives from six major suppliers of: • Office supplies. • Medical supplies. • Pharmaceutical supplies.
Media	Focus groups	Representatives from audiovisual media sources.

During the consultation process, five basic questions were consistently used and discussed:

• What is the nature of your relationship with the hospital?
• In what ways does hospital operation's affect the stakeholders group (i.e. what are the significant economic, environmental and social impacts of the hospital with regards to each stakeholder group)
• What is the stakeholder's opinion of the current performance of the hospital?
• How can the hospital improve its performance?
• What healthcare specific, key performance indicators are of interest for your stakeholder group?

The questions were modified depending on the consultation methodology and the stakeholder group. It should be noted that the first three questions were intended for the

purposes of preparing a gap analysis report that was commissioned by the hospital as a subsidiary outcome of this research.

2.3   Data Analysis

For the data analysis, a mix of qualitative and quantitative methods were used, taking into consideration the frequency and the significance of data collected. The analysis was done via two pathways:

> The deductive pathway, where the general GRI G3 Indicator Protocols were modified and adapted into the more specific healthcare services sector' context;

> The inductive pathway, where specific key performance indicators were adapted into a more general framework fitted to the healthcare services sector.

2.4   Limitations

This thesis demonstrates several limitations relating to the methodology; Table 2-3 provides an account of the identified methodology limitations.

Table 2-2 Methodology limitations

Methodology	Related Limitation(s)
Literature review	• Thereview of sustainability reports of healthcare services providers was limited to reports inEnglish. Note: The author of this paper is well aware of the existence and the main contents of environmental and sustainability reports issued by Swedish hospitals and healthcare organizations. • The limited number of issued sustainability reports for hospitals, provides a rather small sample for results to be substantiated.
Internal Sustainability Review and Stakeholder Consultation	• Interpretation of the iInterviews with the multicultural hospital personnel may not be accurate due to cultural differences. • The stakeholder consultation process was conducted over four weeks. Although all stakeholder groups were represented in this study, the representation was limited due to time constraints. • Sampling for the focus group meetings might not be representative due to availability issues. • The patient survey was conducted over a period of four working days; therefore the size of the survey sample was limited. • Due to cultural reasons, some interviews had to be conducted over the phone. • Uncertainty principle where observations are influence by the researcher's prenotions and perceptions.

3   Management systems and reporting of performance

This chapter is intended to provide the reader with a clear idea of how modern day corporations are managing and disclosing their sustainability performance, in doing so, it introduces the reader to the evolution of non-financial performance reporting and the processes and systems through which this performance is measured and managed.

The chapter is subdivided into two sub sections:

Standardized management systems; providing a description of corporate management systems that are used to monitor and control the performance of a corporation in terms of the different aspects of the corporation's activity.

Performance measurement and reporting, which describes the tools and means of performance tracking and disclosure used in the modern day corporations.

3.1   Standardized management systems

Considering a chronological timeline towards the concept of corporate sustainability, reveals that the movement started with a quality focus, introducing quality management systems to meet the demands of the industrial revolution and mass production. The International Standardization Organization (ISO) prepared guidelines for the implementation of a comprehensive quality management system famously designated as the ISO 9000 Series.

Later when knowledge regarding the environmental impacts of industries and mass production has accumulated, and the public became more aware of such consequences, environmental management systems came into implementation, to improve the environmental performances of industries. ISO also prepared another set of standards and tools for the management of environmental issues in an organization, the ISO 14000 Series of standards and guidelines. The probably most recognized standard is ISO 14001 that specifies the requirements for environmental management systems. ISO has also developed standards to manage occupational health and safety (OHSAS 18001), and is on the way to develop a new set of standards tackling corporate social responsibility (ISO 26000(both of which will also be discussed briefly in the next section.

Also stakeholder driven accountability motivated the need for assessments and audits that go beyond the business-as-usual scenario to include issues other than revenues vs. cost accounts. Accounting for environmental and social performance of corporations became of importance. Thus, a comprehensive approach for performance management became a requirement, and the triple bottom line basis became a reality, accounting for economic, environmental and social performance of a corporation. The GRI reporting guidelines are based on the Triple Bottom Line basis, addressing environmental, social and economical performance indicators.

The following sections provide an overview of the different performance management systems addressed in this introduction, including:

- Quality Management Systems (ISO 9000 series),
- Environmental Management Systems (ISO14000 series), and
- Other ISO management standards (OHSAS 18001, ISO26000)
- The triple bottom line (GRI standards)

3.1.1 Quality Management

The concept of quality as we think of it now first emerged out of the Industrial Revolution, and mass production accentuated the need for Quality Departments to oversee the quality of production and rectifying of errors, Management of quality was the responsibility of the Quality department and was implemented by Inspection of product output to 'catch' defects (Wikipedia).

Quality management can be considered to have three main components: quality control, quality assurance and quality improvement. Quality management is focused not only on product quality, but also the means to achieve it. Quality management therefore uses quality assurance and control of processes as well as products to achieve more consistent quality (Wikipedia). Total Quality Management (TQM) is a set of management practices throughout the organization, geared to ensure the organization consistently meets or exceeds customer requirements. TQM places strong focus on process measurement and controls as means of continuous improvement.

The ISO prepared and is implementing management standards that are focused on Quality Management systems, the series is designated as ISO 9000 series, ISO 9001, like many other management standard under ISO, follows a plan-do-check-act cycle. ISO 9001 is the internationally recognized standard for the quality management of businesses. It applies to the processes that create and control the products and services an organization supplies. It prescribes systematic control of activities to ensure that the needs and expectations of customers are met. It is designed and intended to apply to virtually any product or service, made by any process anywhere in the world (ISOQAR).

ISO 9001 implementation within a business leads to certification of the business by the ISO as an enterprise implementing the ISO 9001 requirements. The requirements of the ISO 9001:2000 standard are organized into the following five sections:

- Quality Management System,
- Management Responsibility,
- Resource Management,
- Product Realization,
- Measurement, analysis and improvement (SimplyQuality, 2009).

The fifth requirement, being measurement, analysis and improvement, requires business to carry out regular performance appraisal through customer satisfaction surveys and internal audit, the outcomes of which are used to improve further the performance of the company in terms of quality. ISO 9001 requires the consistent and continuous monitoring and measurement of process as well as product performance

Bearing the corporate sustainability perspective in mind, a system as such can be described as sustainability oriented with a narrowed focus on product quality and customer satisfaction.

3.1.2 Environmental Management

Responding to public pressures and the growing awareness of the environmental consequences of the different industries, business organizations found themselves pushed towards adopting an integrated approach in management, an approach that would account for the environmental aspects and impacts of one's business. Having said that, it is important

in this context to define the terms aspects and impacts, as the terms will thoroughly be used throughout the rest of this paper.

An environmental aspect represents the part of a company's operations, products or services that have an effect on the environment (i.e. waste generation leading to pollution), an environmental impact represents any direct or indirect effect of a company's operations, products or services on the environment, in this case an environmental impact can be either negative or positive (i.e. climate change, promotion of biodiversity…etc) (Brorson & Larsson, 2006), thus environmental aspects and impacts demonstrate a cause/effect relationship. It is worth mentioning that the terms aspect and impact also apply to the economic and social dimensions of a business.

Environmental management is a tool for business to identify, understand and manage the environmental aspects and impacts of the business, in modern time business, a specialized department takes over the implementation of environmental management on the corporate level, usually the Health, Safety and Environment (HS&E) department.

In order to successfully manage the environmental aspects and impacts of a business, an environmental management system is implemented, as part of the overall management system that covers the organizational structure, planning, responsibility, practices, procedures, process and resources for developing, implementing, fulfilling, auditing and maintaining the environmental policy (Brorson & Larsson, 2006).

With the increased trend of EMS implementation, ISO prepared and is distributing a specialized set of guidelines which describe an ISO certification requirements, the guidelines are infamously designated as ISO 14001.

ISO 14001 follow the plan-do-check-act implementation cycle, and account for the main certification requirements, which include:

- Environmental policy,
- Planning,
- Implementation and operation,
- Checking and corrective action, and
- Management review.

The "plan" component of this series requires the setting of environmental objectives and targets, which in turn requires and environmental review for significant environmental aspects, ending with a report which, in part, describes the extent to which a company's operations affects the environment.

The EMS includes a "check" component which requires the continuous and consistent monitoring of the environmental performance of the company as well the proper implementation of the EMS itself.

Thus an EMS also represents a sustainability oriented management system with an environmental focus, aiming at tracking and improving the environmental performance of business.

3.1.3 Other standardized management systems

The ISO, in efforts to respond to management challenges from different angles, developed several sets of standards that tackle other components of a corporation's management. One such set of standards if the OHSAS 18000 standards.

OHSAS 18000 is an international occupational health and safety management system specification. The series comprises two parts, OHSAS 18001 and 18002. It is intended to help corporations to control occupational health and safety risks, and was developed in response to widespread demand for a recognized standard against which a corporation may be certified and assessed.

This standard also follows the plan-do-check-act famous ISO implementation cycle, the certification requirements for OHSAS 18001 involves monitoring and measurement of the performance of this management system to be able to evaluate how successful the implementation of the system was in reducing occupation health and safety risks, thus controlling another corporate sustainability aspect, being the occupational health and safety aspect (Praxiom Rsearch Group Limited, 2009).

It's worth mentioning in this context that the ISO is currently in the process of developing a new set of standards providing guidelines for social responsibility named ISO 26000 or simply ISO SR. This standard offers guidance on socially responsible behavior and possible actions; it does not contain requirements and, therefore, in contrast to ISO management system standards, is not certifiable. The ISO SR is expected to be released in 2010 (Wikipedia)

3.1.4 The Triple Bottom Line

In the forward of his book "Cannibals with Forks: the triple bottom line (TBL) of the 21st century business", John Elkington states that "*the integration of economic, social and environmental dimensions of the merging political agenda will be a central challenge for 21st century business*".

This statement introduces the concept of the triple bottom line. The TBL also known as "people, planet, and profit" captures an expanded spectrum of values and criteria for measuring organizational (and societal) success: economic, ecological and social.

The concept of TBL demands that a company's responsibility be to stakeholders rather than shareholders. In this case, "stakeholders" refers to anyone who is influenced, either directly or indirectly, by the actions of the firm. According to the stakeholder theory, the business entity should be used as a vehicle for coordinating stakeholder interests, instead of maximizing shareholder profit.

In practical terms, TBL accounting means expanding the traditional reporting framework to take into account ecological and social performance in addition to financial performance (Wikipedia, 2009).

The Economic Bottom Line

Elkington describes this as being the economic capital of a corporation, comprising the total value of assets with liabilities subtracted, under this definition a corporation must seek to assess the competitiveness of its costs, sustainability of demand for products/services, innovation rate, retention of human and intellectual capital, and sustainability of profit margin.

A corporation is ethically and in most cases legally bound to disclose information regarding its economic performance, this includes an obligation to give an account of a corporation's financial performance in terms of published annual financial report (for public companies), or in the case of limited liability companies this obligation is the responsibility of directors to shareholders.

The Environmental Bottom Line

The natural capital as described by Elkington comes in two forms, critical natural capital, and renewable natural capital. The first form embraces natural capital which is essential to the maintenance of life and ecosystem integrity; the second form represents capital which can be renewed, repaired or substituted.

To assess the performance of a corporation against natural capital, the corporation must identify which forms of natural capital are affected by the operation of the corporation, define and assess the results of the interaction with such forms, examine the sustainability of these natural capital forms, and assess the extent to which these forms are affected.

In many countries, corporations are held accountable by governments for certain aspects of their environmental performance, having, as such, to meet predefined targets and objectives. In many other cases corporations are held accountable to environmentalist and media campaigns, which may bear little relation to regulated or voluntarily agreed targets, such pressures build up to include the supply chain where corporations begin to challenge their suppliers.

The Social Bottom Line

Or the social capital, as defined by Francis Fukuyama in his book "*Trust: The Social Virtues and the Creation of Prosperity*" is the capability that arises from the prevalence of trust in a society or in certain parts of it. It is a measure of the ability of people to work together for common purposes in groups or organizations. This ability is critical for the sustainability transition because it can be developed at every level of the society.

Elkington explains the relevance of Fukuyama's definition of social capital to corporate sustainability, by making the analogy and stating that the degree of trust between a corporation and its external stakeholders is likely to be a key factor in determining the corporations long term sustainability.

To achieve social sustainability, corporations must seek to identify the crucial forms of social capital contributing to the corporations ability to become sustainable, understand the trends in terms of creation, maintenance and erosion of such social capital forms, define the role of the corporation in sustaining human capital and social capital, and assess the influence of other interaction (i.e. environmental justice) on the definition and measurement of social capital.

The next section explains how the performance under each *'bottom line'* can be measured using key performance indicators.

3.2   Performance Measurement and Reporting

3.2.1 Key Performance Indicators

Key Performance Indicators (KPIs) are financial and non-financial measures or metrics used to help an organization define and evaluate how successful it is, typically in terms of making progress towards its long-term organizational goals. KPIs can be specified by answering the question, "What is really important to different stakeholders?" (Wikipedia, 2009).

KPIs differ depending on the nature of the organization and the organization's strategy. They help to evaluate the progress of an organization towards its vision and long-term goals, especially toward difficult to quantify knowledge-based goals. A KPI is a key part of a measurable objective, which is made up of a direction, KPI, benchmark, target, and time frame.

Indicators identifiable as possible candidates for KPIs can be summarized into the following sub-categories:
- Quantitative indicators which can be presented as a number,
- Practical indicators that interface with existing company processes,
- Directional indicators specifying whether an organization is getting better or not,
- Actionable indicators are sufficiently in an organization's control to effect change,
- Financial indicators used in performance measurement and when looking at an operating index.

Elkington identified some indicators that should be tackled under each bottom line category; table 3-1 provides the dimensions of performance indicators referred to by Elkington in his book "Cannibals with forks".

Table 3-1 Examples of Triple bottom line indicator dimensions

Bottom line category	Performance indicator dimension
Economic bottom line	Profit and loss account. Demand on products/services. Pricing and profit margins.
Environmental bottom line	Trends in legal compliance. Environmental impacts in terms of consumption patterns and related environmental consequences.
Social bottom line	Community relations. Employment of minorities. Human rights. Impacts on indigenous peoples. Irresponsible marketing. Political contributions. Wages and workers conditions. Women rights.

KPIs have historically had several uses, financial KPIs have been used in annual financial statements, production performance indicators have been used to demonstrate conformance with national legislation, and many other performance indicators have been used in

marketing material for companies to communicate to the costumers how well a company is doing.

Thus the use of certain KPIs for different business comes as a result of asking the question "what do stakeholders want to know?", with growing awreness regaridng the various aspects of business, whether economic environmental or social aspects, the public presure on companies to disclose there performance increases, and the task of tracking performance within a business becomes more comprehensive and in consequence more complicated.

Different communication tools are used to disclose performance, ranging from marketing brochures, to balanced score cards and dashboard reports, and finally annual comprehensive performance reports, each selected depending on the needs of the different reporting business.

The next section will discuss examples of performance disclosure tools used by corporations in the modern day business world.

3.2.2 Performance disclosure
Internal Performance Disclosure Tools

As part of corporations' internal management systems, many forms of performance disclosures are used for internal communication purposes, examples of which are the balanced score card and the dash board report.

The Balanced Scorecard (BSC) is a strategic performance management tool for measuring whether the smaller-scale operational activities of a company are aligned with its larger-scale objectives in terms of vision and strategy. By focusing not only on financial outcomes but also on the operational, marketing and developmental inputs to these, the Balanced Scorecard helps provide a more comprehensive view of a business, which in turn helps organizations act in their best long-term interests.

The first balanced scorecard was created by Art Schneiderman (an independent consultant on the management of processes) in 1987 at Analog Devices, a mid-sized semiconductor company. While the phrase "balanced scorecard" was coined in the early 1990s, the roots of the this type of approach are deep, and include the pioneering work of General Electric on performance measurement reporting in the 1950's and the work of French process engineers (who created the Tableau de Bord – literally, a "dashboard" of performance measures) in the early part of the 20th century.

Many examples of Balanced Scorecards can be found via Web searches. However, adapting one organization's Balanced Scorecard to another is generally not advised by theorists, who believe that much of the benefit of the Balanced Scorecard comes from the implementation method (Wikipedia).

Coming into the next performance disclosure tool, a dashboard report is a report to senior management that provides an at-a-glance perspective on the current status of the project in the context of predetermined metrics for that project. Depending on the organization, those metrics may include cost, time, requirements, risk, customer satisfaction, or other measures critical to the management team. It provides management with a quick understanding of the current project posture, without a detailed explanation of the causes or solutions.

A dashboard report relies on metric content built on detailed reporting from the project team and the project manager. Dashboard reports frequently include earned value data, including the value of the work completed to date (earned value), the amount of work scheduled to date (planned value), and the actual costs. With those metrics and the overall project budget, basic information regarding schedule variance, cost variance, and updated estimates at completion may be generated. Other metrics may include:

- Number of change requests,
- Staff overtime,
- Team member loss/turnover,
- Defect rates,
- Risk reserve consumed,
- New high-impact risks identified.

Dashboard reports often include graphs and graphics that quickly highlight where there are concerns, as well as the degree of those concerns (Litherald, 2007).

External Performance Disclosure Tools

External performance disclosures, for a corporation, come to meet the needs of external stakeholders. The oldest form of disclosure used by almost all businesses is financial reporting, with annual financial reports being printed and published by companies all around the world.

Financial statements provide an overview of a business or person's financial condition in both short and long term. All the relevant financial information of a business enterprise, presented in a structured manner and in a form easy to understand, are called the financial statements.

The objective of financial statements is to provide information about the financial position, performance and changes in financial position of an enterprise that is useful to a wide range of users in making economic decisions. Thus financial reporting in essence comes to meet the requirements of a specific group of stakeholders, being the shareholders/investors. Financial statements are completely based on costs and revenues, gains and losses, providing a set of key performance indicators expressed in monetary value (Wikipedia).

Within the last decade a new form of external performance disclosures was introduced. Generally termed non financial reporting, also termed corporate sustainability reporting, which refers to the practice of measuring, disclosing and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainable development (Ernst & Young, 2009). Sustainability reporting became a requirement on the national level in several countries, and is becoming more of a business-as-usual practice for modern day corporations.

A study titled "Trends in non financial reporting" issued in 2006 for the United Nations Environment Program (UNEP), identified and measured the significance of several driving forces behind non financial reporting (aka. Sustainability Reporting).

It's worth mentioning that the study was commissioned by the UNEP as part of a review of the performance of GRI up to 2006. The study relied on a survey conducted on over 90

companies, and personal interviews conducted with key players in the field of sustainable development, CSR, and non-financial reporting.

The survey tested the significance of 8 driving forces pushing for non financial reporting, the drivers included:

- Strategic management of brand and reputation,
- Pressures from competitors,
- Reacting to nongovernmental organizations' *NGO) pressures,
- Motivating staff. Responding to pressures from the financial industry,
- Realizing cost efficiencies,
- Preparing for smooth transition into legally required non financial reporting, and
- Philanthropy.

Respondents regarded strategic management of brand and reputation as by far the most significant driver behind non-financial reporting, believing that non-financial reporting is a reactive response t6 significant stakeholder pressure.

Pressure of competitors scored second in this survey as a driver for non-financial reporting, adopting this practice to follow the lead of other competitors, so as to reduce the risk of a competitive advantage.

The third most significant driver as this study suggested, is reacting to NGO pressure, where pressure by advocacy NGOs has driven a lot concern among businesses regarding their brand and reputation, or pressure on companies as a result of changing consumer behavior.

Motivating staff came in fourth as a significant driving force for non financial reporting, as the shift in audience for non financial reporting included prospectus staff as part of any companies efforts to attract new staff and talents, a majority of the respondents noted that non financial reporting proved to be very effective in educating staff and building internal support for CSR initiatives.

Fifty-five percent of the respondents noted the significance of responding to pressure from the financial industry as a driver towards non financial reporting, as financial market today requires financial analysis of non financial risk, motivating business to step ahead and track their non financial performance in order to gain the confidence of the financial market.

Realizing cost efficiencies came in sixth, as tracking and reporting of non financial performance, results in the identification of various opportunities for cost savings (e.g. energy consumption), however cost efficiencies represents a welcome unintended consequence of non financial reporting, and is not a powerful driver for non financial reporting.

Respondents believe that the least two important drivers for non financial reporting are preparing smooth transition into legally required non financial reporting, and the moral value of philanthropy (Palenberg, Reinicke, & Witte, 2006).

Responding to these driving forces, many corporations identified sustainability reporting and management as a key practice for longevity and sustenance. In the year 2000 the Boston based CERES started the Global Reporting Initiative standardizing corporate sustainability

reporting and providing a structured framework that corporations all over the world can use to report their sustainability performance to their stakeholders, the framework (see Chapter 4) also provided means of comparison among companies within different sectors.

A 2008 KPMG international survey of corporate responsibility reporting indicated that corporate responsibility reporting has gone mainstream, as nearly 90% of the largest 250 companies worldwide issued corporate responsibility reports, an increase of about 180% of the performance in 2005.

The study was based on a survey conducted on two major groups of companies, the G250 (the top 250 companies of the Global Fortune 500), and the N100 (the top 100 companies in
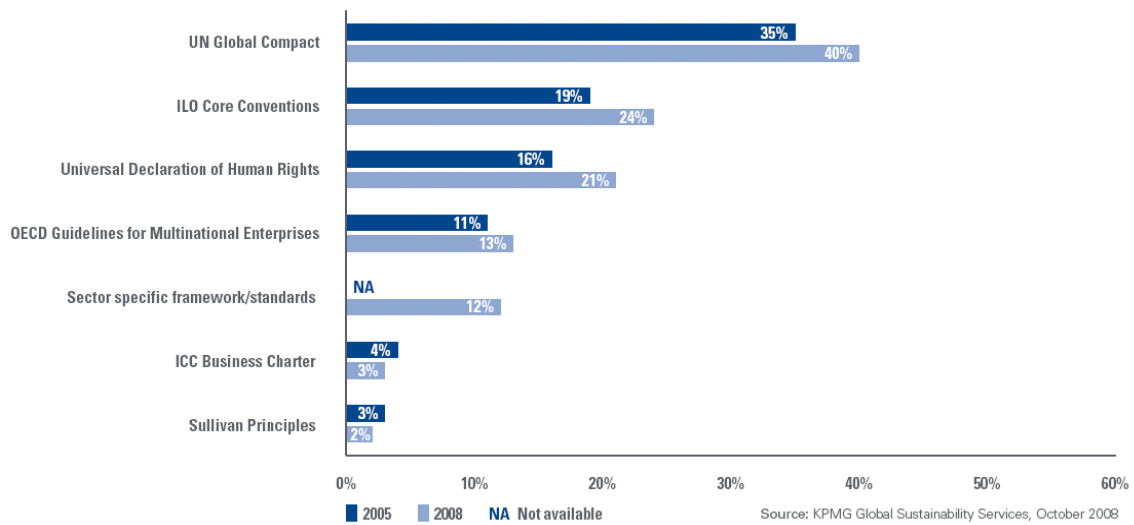
Figure 3-1International sustainability and corporate responsibility frameworks used by companies (G250 and N100).

the 22 countries participating in the survey). This study provides statistical information regarding corporate responsibility trends in the year 2008; it indicated that almost 75% of the G250 companies have a corporate responsibility strategy that includes defined objectives. A 2005 study with the same title indicates that within the G250 sectors and clusters, and within the cluster including the healthcare sector, around 47% of the companies issued corporate responsibility reports.

Figure 3-1 demonstrates the different corporate sustainability/responsibility initiatives, guidelines or standards used by G250 and N100 companies. The ISO 14001 environmental management system standard dominates the two groups by 51 and 41 percent for G250 and N100 respectively (KPMG, 2008).

The KPMG 2008 study identified the international sustainability frameworks that companies of the two groups used. Figure 3-2 provides an account of the used framework with corresponding percentages for both groups.

As for sustainability reporting, 77% of the G250 companies use the GRI guidelines as reporting standards, while 69% of the N100 companies use the same standards, the rest of the companies in the two groups either use national reporting guidelines or company developed reporting guidelines. The GRI organization reports that in 2008, only seven out of

the 961 reporting organizations were of the healthcare services sector, with an increase of 175% from 2005.
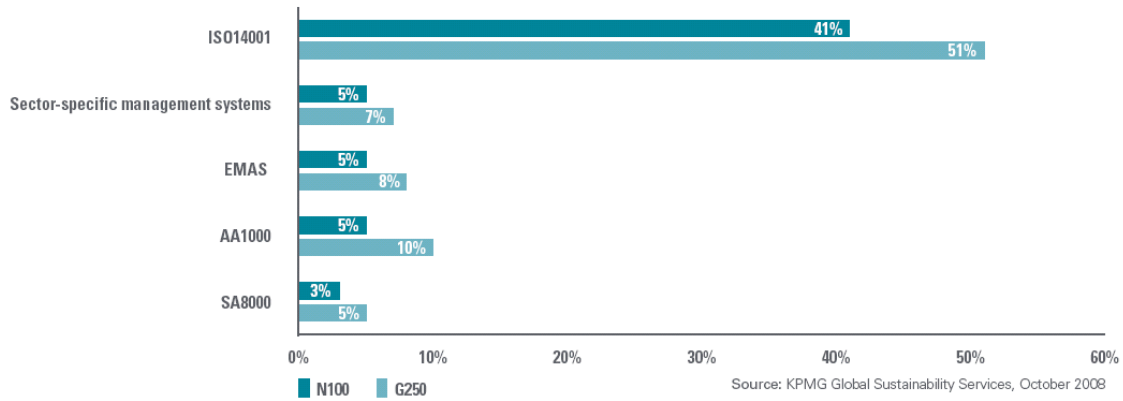
Figure 3-2 Management standards and guidelines used by companies (G250 and N100).

This chapter described the emergence and evolution of the different management components of the modern day corporation, as well as the use of the different communication tools to disclose the performance of a corporation.

All the management systems described in this chapter include performance monitoring and measurements as a basic block of their implementation, however such practice may not prove of use without proper communication tools on the internal and external levels.

This chapter explained the driving forces behind non financial disclosures, and provided a description of the various trends within this practice, which showed the frequent use of GRI guidelines for sustainability reporting among the different business.

The next chapter will attempt to answer the questions; what is the GRI sustainability reporting framework? How is it developed and structured? How is it implemented in the different corporations? And what does it mean for the healthcare sector?

4 Sustainability Reporting According to GRI

In this Chapter the thesis author addresses the GRI Sustainability Reporting Framework; providing a detailed description of the latest GRI guidelines (GRI G3 Guidelines) regarding structure and application.

4.1 GRI and Indicator Protocols

The GRI G3 Framework was developed through a process of systematic, consensus-seeking dialogue with a large network of individuals from over 60 countries, representing stakeholder groups including business, civil society, academia, labor and other professional institutions. The process is open, inclusive and takes a global perspective on the growing understanding of good reporting on key sustainability issues.

The guidelines consist of principles for defining report content and ensuring the quality of reported information. It also includes Standard Disclosures made up of Performance Indicators and other disclosure items, as well as guidance on specific technical topics in reporting.

Indicator Protocols, under the GRI guidelines, exist for each of the Performance Indicators contained in the Guidelines. These Protocols provide definitions, compilation guidance, and other information to assist report preparers and to ensure consistency in the interpretation of the Performance Indicators.

Sector Supplements complement the Guidelines with interpretations and guidance on how to apply the Guidelines in a given sector, and include sector-specific Performance Indicators.

Sustainability report content, according to GRI guidelines, should be based on four main reporting content principles. The principles include:

- Materiality: which means that the information provided in a report should cover topics and Indicators that reflect the organization's significant economic, environmental, and social impacts or that would substantively influence the assessments and decisions of stakeholders,

- Stakeholder inclusiveness: following this principle, the reporting organization should identify its stakeholders and explain in the report how it has responded to their reasonable expectations and interests,

- Sustainability context: which means that The report should present the organization's performance in the wider context of sustainability,

- Completeness: where coverage of the material topics and Indicators and definition of the report boundary should be sufficient to reflect significant economic, environmental, and social impacts and enable stakeholders to assess the reporting organization's performance in the reporting period.

The guidelines also identify principles for the maintenance of quality within sustainability reports, which are further defined and explained in the guidelines. The principles include:
- Balance,

- Comparability,
- Accuracy,
- Timeliness,
- Clarity,
- Reliability

The guidelines also specify the base content that should appear in a sustainability report. There are three different types of disclosures contained in this section:

- Strategy and Profile: Disclosures that set the overall context for understanding organizational performance such as its strategy, profile, and governance,

- Management Approach: Disclosures that cover how an organization addresses a given set of topics in order to provide context for understanding performance in a specific area,

- Performance Indicators: Indicators that elicit comparable information on the economic, environmental, and social performance of the organization (GRI, 2006).

The content of each performance disclosure type is determined based on the targeted application level. To meet the needs of beginners, advanced reporters, and those somewhere in between, there are three levels in the system. They are titled C, B, and A. The reporting criteria at each level reflect a measure of the extent of application or coverage of the GRI Reporting Framework. A "plus" (+) is available at each level (e.g., C+, B+, A+) if external assurance was utilized for the report (GRI, 2006). Figure 4-1 shows the ~~different~~ requirements for the different application levels under the GRI Guidelines.

Figure 4-1 Reporting requirements for the different application levels under the GRI Guidelines (GRI 2006)

An A application level requires an organization to report sector specific key performance indicators, As mentioned earlier, GRI is in the process of developing sector specific supplemental indicator protocols that could further contextualize the disclosure for the different reporting organizations.

Development Process
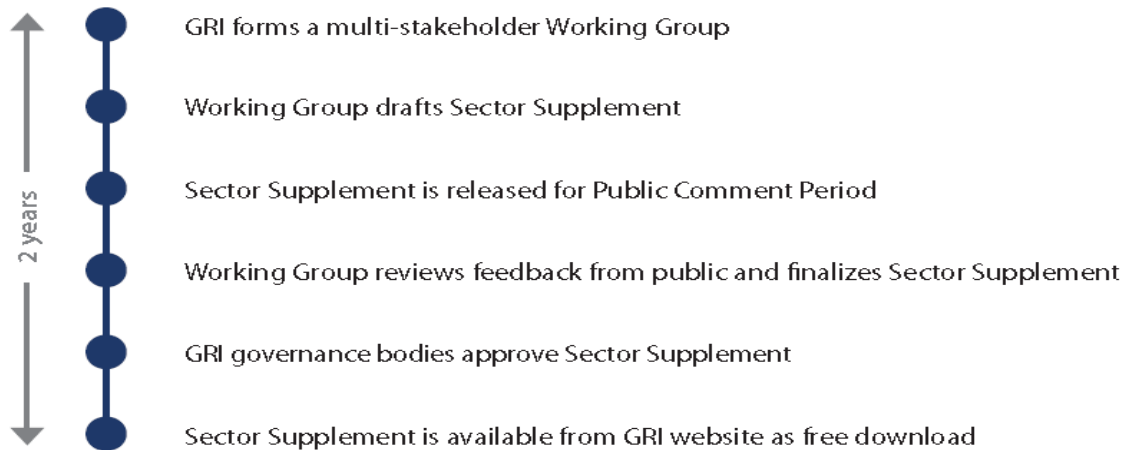
Figure 4-2 GRI sector supplement development process (GRI Sector Supplement Leaflet)

According to a GRI published sector supplement leaflet, some sectors face unique sustainability challenges and reporting needs that require specialized guidance, in addition to the universally applicable G3 Guidelines. The development of a Sector Supplement responds to these needs, and provides a platform for collaboration between those working in a sector and their stakeholders to define the new reporting guidance.

Sector specific performance indicators (i.e. economic, environmental and social) are described in such sector supplements; the development process (Figure 4-2) for a Sector Supplement is initiated where there is a clear interest from several organizations in a sector from a diversity of regions. Sector Supplements are developed by a multi-stakeholder Working Group using GRI's characteristic consensus seeking approach (GRI).

GRI has so far been working to issue 14 different sector supplements, some of the supplements have been issued as a pilot, and others are still in the process of being developed, the sectors included in this process are:

- Airports,
- Apparel and Footwear,
- Automotive,
- Construction and Real Estate,
- Electric Utilities,
- Events,
- Financial Services,
- Food Processing,
- Logistics and Transportation,
- Media,

- Mining and Metals.
- NGOs,
- Oil and Gas,
- Public Agency,
- Telecommunications.

4.2   GRI and the healthcare services sector

A review of the Fortune top 1000 companies list, reveals that among the 14 listed companies in the "Healthcare : Medical Facilities", none issued any kind of non financial disclosure reports, however a great majority of those companies demonstrated practices relevant to the sustainability reporting context under the GRI guidelines. (Fortune 500 full list)

As private organizations, the healthcare services providers in the aforementioned list are required to issue financial reports, which in all companies did not include a non-financial disclosure section. A GRI reports' list dating back to 1999 shows that among the 1003 organizations reporting in the year 2008, only seven from the healthcare services sector have reported their sustainability performance. In fact the interest of healthcare services providing organization in GRI reporting is quiet recent dating back to the year 2004 (GRI, 2009). GRI has prepared several sector specific reporting guidelines; yet such supplement for healthcare services sector is not prepared.

An interview conducted with a supplement manager at the GRI, indicated that since the process of sector supplement development requires the involvement of representatives of each sector, both financially and physically, the lack of interest by healthcare services sector member is the main reason why GRI is yet to develop a supplement for this sector.

This chapter elaborated on the development and implementation of the most recent GRI sustainability reporting framework, it provided a definition of the sector supplements used under the framework, and thus provided background information for the main research hypothesis (section 1.2)

To further explore the hypothesis, a case study analysis was conducted, but before venturing into the results of this research, the next chapter attempts to describe the context and conditions of the case study hospital analyzed in this paper.

5   The Case Study: a private hospital in Saudi Arabia

5.1   The context: Saudi Arabia and corporate sustainability

In the Middle East, the trend towards adopting sustainability strategies and practices has recently evolved as a business trend. Considering the cultural context of the country, one of the focal points of sustainability, Corporate Social Responsibility, has long before been introduced as philanthropy, however with the current global pressure on corporations for improving their public image, and with the emergence of many different sustainability reporting frameworks, the trend in the Middle East became more structured.

In Saudi Arabia, companies are more engaged in social issues than what is actually reported or disclosed in public information. This lack of reporting has underrepresented Saudi in international sustainability benchmark studies and indices giving the general impression that Saudi companies are not active in this field. Many executives see the linkages; however, they do not find the incentives in the current market conditions. Others point to the lack of serious analysis on the part of business with regard to the social and environmental context and how it will drive/impact competitiveness (Emtairah, Al-Ashaikh, & Al-Badr, 2007).

On a different note, pressures and drivers in the market place for sustainability in Saudi Arabia are missing or weak. The general impression is that the pressures are opposed by the quality and sophistication of stakeholders' requests (Emtairah, Al-Ashaikh, & Al-Badr, 2007).

The study titled "Saudi Companies and Social Responsibility, challenges and ways forward" noted an absence, among the majority of companies, of strategy or structured processes for identifying, prioritizing and managing for sustainability (Emtairah, Al-Ashaikh, & Al-Badr, 2007).

5.2   The Saudi Arabian Responsible Competitiveness Index (SARCI)

In 2004, the government of Saudi Arabia announced its intention to become among the world's top ten competitive nations by 2010. To augment this plan, the Saudi Arabian Responsible Competitiveness initiative was started by Saudi Arabian General Investment Authority (SAGIA). The initiative is a multiyear initiative to support the Kingdom's strategy to become one of the most competitive and responsible economies in the world, this initiative includes, the Saudi Arabian Responsible Competitiveness Index (SARCI), the Leadership dialogue, and the King Khalid award for responsible competitiveness.

The index is a detailed process to assess the strength of a company's strategy, management, engagement process, and performance systems along 7 areas of organizational responsibilities that are proven to have an impact on competitiveness. The process offers learning opportunities for senior management about areas of strengths and weaknesses with regard to the seven areas of responsibilities. This index also aims to provide motivation for companies to adopt sustainability practices that could potentially improve the competitive position of the companies and national business climate. In phase one of the project, 40 companies have taken part in the assessment including DSFH and were provided with a confidential briefing on their performance against the sector (SAGIA, 2008).

SARCI, by raising awareness about the links between sustainability and competitiveness,   has motivated some of the participating companies to consider sustainability issues within their business. Consequently the management of DSFH after their participation in SARCI became

interested in taking a more systematic approach in the management and communication of sustainability issues in order to improve DSFH ranking within the index.

5.3 The Hospital: Dr. Soliman Fakeeh Hospital (DSF Hospital)

Ownership

Dr. Soliman Fakeeh Hospital (DSF Hospital) is a family owned business that started operations in 1978. The hospital was established by Dr. Soliman Fakeeh in Jeddah, Kingdom of Saudi Arabia (KSA), to be the first private hospital established in the Western Region of KSA. The hospital is part of a bigger holding company. The holding company is completely owned by the sole owner Dr. Soliman Fakeeh. The holding company owns several business units, including:

- Dr. Soliman Fakeeh Hospital,

- Dr. Soliman Fakeeh College of Nursing and Medical Sciences,

- Olympia Fitness Club.

Organizational Structure

Figure 5-1 is a representation of the organization structure of DSF Hospital at the senior management level. DSF Hospital has 39 different functional departments that report to the lowest level of senior management. Human resources records in the hospital indicate that almost 3,000 employees are working for the hospital, the number includes employees in the nursing collage, and the fitness club that for a part of the holding company.

The board of governors periodically reviews and approves long-term strategic plans and allocation of capital. The Board also evaluates the hospital's performance against established goals on a yearly basis. The Director General of DSF Hospital, Dr Mazen Fakeeh provides the overall leadership and management of the hospital, and delegate's responsibility to the Executive Management Team as mandated for each executive department.
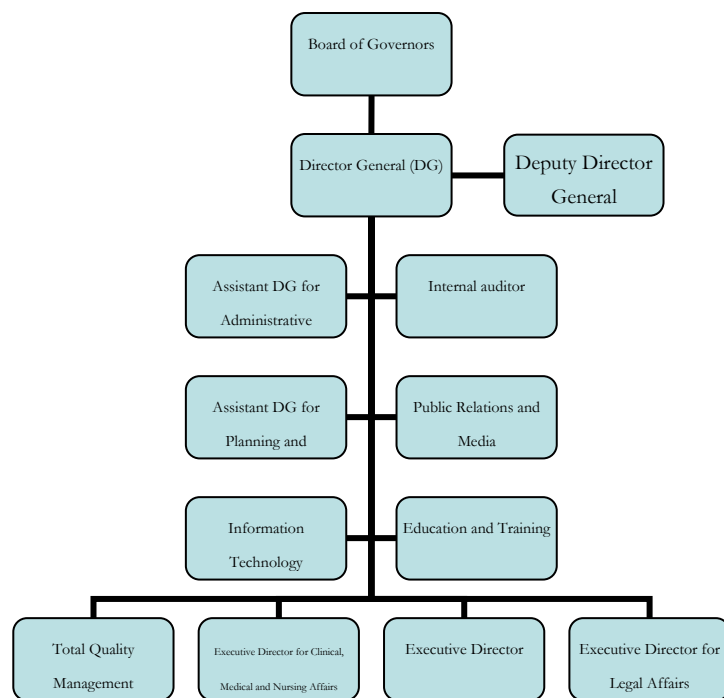
Figure 5-1 Organizational structure at DSFH

Policy

DSFH has set its mission to commit to the provision of preventative and therapeutic comprehensive healthcare in all medical and surgical specialties, providing services in a compassionate, sincere and professional manner. DSF Hospital administration aims at achieving excellence in healthcare service provision for all patients, by efficiently fulfilling patients' needs and demands. To meet the mission, the hospital sets itself to achieve international standards and quality of service at reasonable and affordable cost to the patients. The mission and vision of the hospital provides the grounds for policy goals of the hospital, these goals are represented in the set of values dictated in the hospital's media communication. Those values include:

- Value ethics and professional integrity,
- Focus constantly on the patient,
- Look for continuous improvement opportunities,
- Understand the needs of customers,
- And pay attention to every member of the healthcare team of the hospital.

Thus it can be inferred that the policy of the hospital, aims at providing quality service for patients by identifying and meeting their needs, while improving the work environment for the employees, protecting the integrity of healthcare profession and always seeking and committing to continuous improvement.

Services

DSF Hospital provides a variety of preventive and therapeutic comprehensive healthcare. The hospital provides healthcare services to primary care patients, together with secondary and tertiary referrals. The healthcare services include both inpatient and outpatient services in all medical and surgical specialties, education, health promotion and fitness as well as other benefits to the community in which it operates.

DSF Hospital recently expanded its services to a total capacity of around 600 beds, almost 400 of which are operational. Alongside medical service provided by the hospital, Olympia fitness centre offers recreation and sports facilities for patients, Jeddah residents as well as the hospital employees. In addition to the hospital and the fitness centre, Dr. Soliman Fakeeh College of Nursing and Medical Sciences was established in 2003, to provide the Kingdom with qualified Saudi nurses as well as to support hospitals with specialists in nursing and medical sciences. Nursing education is provided in partnership with healthcare systems and faculty in active practice.

Market presence

As the first private hospital in the Western region of KSA, DSF Hospital is seen as a leader in private healthcare sector, the hospital since its establishment in 1978 has pioneered the provision of medical services, brining medical knowledge and technology to the region.

In Jeddah there are seven major private hospitals, DSF Hospital is considered to be one of the largest hospitals in the region and it serves almost 3000 admissions per month.

The hospital provides an array of services which are not necessarily available in other hospitals, giving DSFH a bigger share of the healthcare services market in Jeddah region.

5.4   Quality Management Systems in DSF Hospital

DSFH applies quality management through the Total Quality Management (TQM) Department, which measures, monitors and controls the total performance of the hospital. TQM is also responsible for the implementation and controls of international quality standards. DSFH management realized the vital role of assessing the hospital's performance and started the quality initiative, which aimed at adopting quality standards, including:

- Joint Commission International Accreditation (JCIA) Standards,
- Australian Council on Healthcare Standards International (ACHSI),
- ARAMCO standards,
- Makkah Region Quality Program (MRQP) standards,
- The American Health Information Management Association (AHIMA) Standards,
- The Occupational Safety and Health Administration (OHSA) Standards,
- The National Institute for Occupational Safety and Health (NIOSH) Standards,
- The National Environmental Policies Act (NEPA),
- And the American Institute of Architects Academy of Architecture for Healthcare (AIA) standards.

TQM department represents the hub of different management department in the hospital, information collected in these department are managed and kept within the records of the TQM department. Figure 5-2 demonstrates the flow of information regarding quality within DSF hospital.
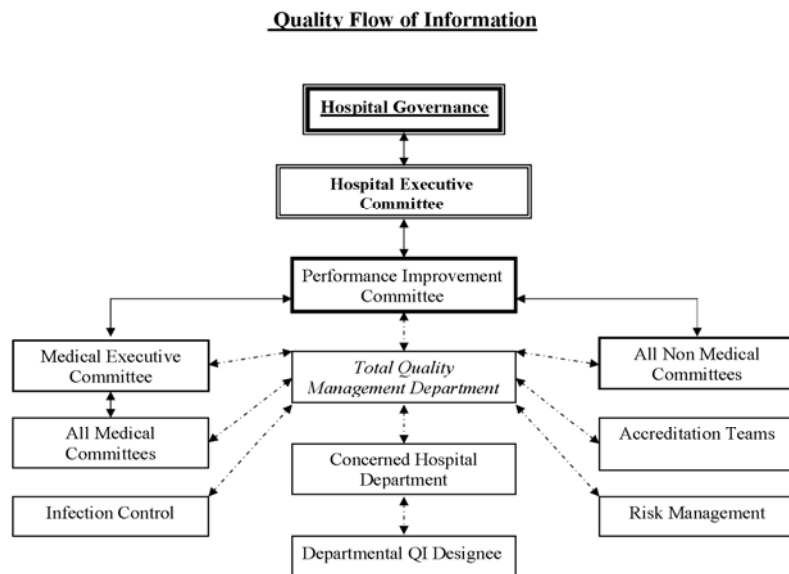
Figure 5-2 Quality flow of information at DSF hospital

After describing the case study hospital, the next chapter will list the results of the different research blocks, and will further elaborate on the current sustainability performance of the case study hospital and what the attempt to implement the GRI guidelines in that hospital implied for this research.

6   Results

This chapter provides an account for the results of this research per the methodology blocks described in Chapter 2, thus this chapter:

- Describes the sustainability performance of the case study hospital (section 6.1),

- Lists the results of the literature review (section 6.2),

- Accounts for the views and priorities of the stakeholders consulted in this research (Section 6.3)

6.1   Sustainability Performance in the Case Study Hospital

An internal sustainability review was conducted at the case study hospital, in order to identify significant economic, environmental and social aspects and impacts of its operations and services, the review involved three major research components as follows:

- A series of interviews with hospital personnel (Appendix A),
- Several field visits to different operational locations of the hospital,
- And a review of internal documentation as provided by the Total Quality Management Department of the hospital (Appendix B).

To validate the significance of outcomes of the aforementioned research components, stakeholders identified for the case study were consulted (Section 6.3.2).

After conducting the internal review in the case study hospital, several aspects and impacts related to sustainability were identified.   These/ similar impacts were also repeatedly mentioned in the reviewed GRI sustainability reports for healthcare services providers and in other literature documentation. The aspects and impacts can be divided intothe three main categories based on the triple bottom-line:

- Economic aspects and impacts,
- Environmental aspects and impacts,
- Social aspects and impacts.

Table 6-1 articulates the identified economic, environmental and social aspects and impacts found in the case study hospital during the internal sustainability review.

Table 6-1 Sustainability aspects and impacts of the case study hospital – results of the internal sustainability review

Impact category	Sector specific aspects	Sector specific impacts	Justification
Economic Impact	• Providing healthcare services within the surrounding geographical location.	• Contribution to the cost of public health. • Medical capacity building. • Improving access	The existence and operation of any private hospital influences the large scale economy by reducing public funding of medical services, and support for medical infrastructure whether through medical employee

Impact category	Sector specific aspects	Sector specific impacts	Justification
	• Career development for local population in the medical field. • Establishing medical infrastructure.	to medical services	training or construction of physical infrastructure
Environmental Impact	• Medical waste generation and management. • Management of pharmaceutical and hazardous material. • Use of N_2O for anesthesia.	• Pollution. • Impact on human health. • Global warming	A hospital produces significant amount of medical waste which, if not managed properly, can lead to significant negative environmental impacts. The use of pharmaceutical and chemical compounds within the hospital operations can lead to several negative environmental impacts, including the use of N_2O in anesthesia which contributes directly to the global warming phenomenon.
Social Impacts	• Conducting clinical trials. • Procedures for disease and infection control. • Implementation of patient education programs in health related issues. • Charitable and philanthropic medical treatment	• Improved public health.	As this is the core business of any private or public hospital, improving public health represents the most significant impact of any hospital.There are different practices and programs implemented by different hospitals that contribute to an improved public health, other than the business-as-usual routines.

6.2   Reporting Performance for Healthcare Services Providers

To further validate the results of the previous phase, the internal sustainability review, a literature review was conducted to identify:

- Reported economic, environmental and social impacts for hospitals,
- Reported economic, environmental and social key performance indicators.

The review included two major sources, previously published sustainability reports in accordance with the GRI guidelines, and literature related to hospital specific sustainability and/or quality initiatives. As described in the methodology section above, the review of hospital sustainability reports was limited in number due to the language barrier; thus, the review included three sustainability reports from three different healthcare services providers. Table 6-3 provides a summarized description ofeach the reporting organizations and reporting criteria corresponding to each reviewed sustainability report.

Table 6-2 Descriptive list of reviewed sustainability reports

Name of reporting organization	Description of the organization	Tile and year of the report	Application level according to GRI
BD	BD is a global medical technology company that develops, manufactures and sells medical devices, BD operates in three market niches including, generic medical devices, diagnostic medical devices and medical research equipment.	Interim sustainability report 2008	Undeclared (the contents of report satisfied the requirements of C application level according to GRI).
Catholic Healthcare West	Catholic Healthcare West (CHW) is a California not-for-profit public benefit corporation. CHW owns and operates hospitals in California, Arizona and Nevada and provides healthcare services to the communities in which it operates.	Social Responsibility Report for the fiscal Year 2007`	Undeclared (the contents of the report satisfied the B application level according to GRI).
Sanitas	Sanitas is a private corporation located in Spain, providing healthcare services in different geographic locations of Spain. The corporation provides health insurance services, medical care services in hospitals, management services for care homes for elderly people, non insured medical care services (e.g. near sightedness).	Annual report and accounts for 2007	A- According to GRI reports' list.

The second part of the review focused on initiatives targeting sustainability and/or quality improvement in hospitals, the review included two initiatives:

- Performance Assessment Tool for Quality Improvement in Hospitals (PATH) is a project aiming to support hospitals in assessing their performance, questioning their own results, and translating them into actions for improvement. The tool provides hospitals with tools for performance assessment and enables collegial support and networking among participating hospitals. This project is implemented in the European region under the supervision of the World Health Organisation (WHO) regional office in Europe. In 2005 this was a pilot program in eight countries and implemented so as to refine its framework before further expansion.

- Healthcare Without Harm initiative is a global coalition of 473 organizations in more than 50 countries working to protect health by reducing pollution in the healthcare sector.

The next two sub-sections will provide the results of the literature review in terms of the reported sustainability impacts, and reported sustainability key performance indicators.

6.2.1   Reported Sustainability Impacts for hospitals

This section outlines the results of the literature review in terms of sustainability impacts of hospitals, on a TBL basis.

Economic Impact

Economic sustainability in this context does not refer to the internal financial sustenance of the organization, but rather to the economic impact of the organization's operations within the larger economic scale of the sector, the country, the region,etc.
On such terms, a hospital can have a large economic influence as a private or a public agency in general, or as an agency working in healthcare services provision.

The operations of a healthcare services provider affect the economy at large by providing employment opportunities, creating demand within local markets for specific supplies,etc. These are similar impacts as would be expected when operating any agency of similar size.

The specific contribution made by a healthcare services provider toward the larger scale economy is calculated by determining the cost of the public health services that would not have occurred in the absence of this service provider (i.e. the additionality of the services provided). This impact was measured and reported in Sanita's sustainability report.

Another less prominent economic impact of a healthcare services provider lies in the contribution of the healthcare services provider to local capacity building (e.g. human resources, infrastructure).

Environmental Impact

While responding to climate change related demands has become the focal point of environmental debate all around the world, the World Health Organization (WHO) in co-operation with the Healthcare Without Harm initiative, has facilitated a sectoral debate on the same issues within the healthcare sector. A discussion paper titled "*Healthy Hospitals; Healthy Planet, Healthy People*" published by the WHO and the Healthcare without Harm initiatives, depicts the impact of hospitals on climate change. The paper states that, based on current facility operating practices, hospitals are energy- and resource-intensive enterprises that contribute substantially to climate change while inadvertently contributing to respiratory and other illnesses. Procurement, resource use, transportation and other policies and practices contribute to the health sector's significant climate footprint. By reducing this footprint and moving toward carbon neutrality, the health sector can demonstrate the path forward in response to climate change; thereby, playing a leadership role in advocating for a healthy and sustainable future (WHO, 2009). The same paper identifies seven environmental elements where hospitals can improve their impact in order to reduce their contribution to climate change. The elements are:

- Energy efficiency,
- Green building design,
- Alternative energy generation,
- Transportation,
- Food,
- Waste;
- Water.

Table 6-3 provides information pertaining to examples of significant environmental aspects and the justification for significance, of the healthcare services sectorfor each of the seven environmental elements mentioned above.

Table 6-3 Examples of significant environmental aspects of the healthcare services sector(source: WHO, 2008).

Sector specific significant aspects	Justification of significance
Facility energy use	Healthcare facilities require significant energy for their operations, which also leads to a significant carbon footprint.
Building design	Healthcare facilities are usually large scale amenities that require a lot of energy to operate and maintain. Incorporating green design elements and retrofitting can significantly reduce the energy consumption of healthcare facilities and consequently their carbon foot prints.
Use of Conventional energy sources	As mentioned above, the healthcare services sectorconsumes significant amounts of energy, typically relying on conventional energy sources. A switch to alternative and clean energy generation can significantly reduce the sector's carbon footprint.
Patient and staff transportation	The healthcare services sectorwith its fleets for staff and patients transportation is a transportation intensive industry and contributes to a significant portion of this sector's carbon footprint.
Food catering	Healthcare facilities are major consumers of food. Food industries rely heavily on petrochemicals, thus exhibiting far reaching health and environmental impacts.
Waste generation	Healthcare facilities generate significant amounts of waste, most of which ends in landfills and incinerators, these disposal methods pump tremendous amounts of greenhouse gases into the atmosphere.
Water consumption	Healthcare facilities consume vast amounts of water, for which energy is used to heat, pump and disposal, subsequently leading to various environmental impacts.

The above mentioned aspects are reportedly recurring in the reviewed sustainability reports. More focus is given to energy consumption, carbon footprint and waste generation for each reporting organization.

Social Impact
The reports' review conducted in this section came to validate the results of the internal sustainability review conducted within the case study hospital. The reviewed reports in all the cases referred to their contribution to improved public health as the most significant social impact of their operations. This impact comes as a result of several operational aspects that are typical of this sector. Examples of such aspects include:
- Facilitating access to healthcare services,
- Implementing patient education programs,
- Collaborating with community institutions and authorities in disease control efforts,
- Adopting preventive and precautionary practices with regards to employee health,
- Collaborating with academic institutions in clinical research,
- Philanthropic medical care provision,
- Participating in public health policy making.

6.2.2 Reported Sustainability Key Performance Indicators

This section describes the key performance indicators identified in the literature review, from two sources:

- GRI sustainability reports for the healthcare services sector.
- Quality performance initiative in Europe (i.e. PATH project).

Reporting According to GRI

Among the reporting organizations in the healthcare services sector, several have achieved the A application level according to GRI, meaning that they reported sector specific sustainability performance. To achieve this A rating the organizations did not use any sector supplement provided by the GRI, as none fulfils the needs and particularities of this sector, instead they used indictors that can fulfil the needs of each organization's specific stakeholder groups.

Several sustainability key performance indicators that are specific to the context of healthcare services providers were identified in the initial literature review. The review was based on previously published sustainability reports for healthcare services providers that achieved an A application level according to GRI.

Table 6-4 provides an overview of the KPIs that were added to corporate responsibility reports of healthcare services providers, as healthcare service specific performance indicators, these indicators are not specifically included in the general G3 Guidelines

Table 6-4 Examples of specific key performance indicators that were found in sustainability reports for healthcare services providers.

Aspect	Key Performance Indicator (KPI)
Economic performance	- Contribution to the cost of public health.
Environmental performance	- Amount of medical waste generated. - Amount of hazardous waste generated. - Amount of infectious waste generated. - Initiatives and programs to reduce/eliminate the use of hazardous substance (E.G. mercury, PVC/DEHP, etc). - Initiatives and programs for the recycling of Single Use Devices (SUD) (sharps, syringes, etc).
Service Responsibility	- Initiatives and programs to facilitate access to service. - Patient satisfaction (programs and results). - Accreditation of service/ accreditation of healthcare professionals. - Initiatives and programs to increase treatment efficiency (evidence based therapy, patient case management, etc). - Emergency preparedness (turn around time).
Labour practices and work ethics	- Number of injuries related to infectious agent exposure. - Programs and initiatives to reduce sector specific occupational hazards (Hazard of infection, allergy, etc).
Society	- Initiatives and programs contributing to public health (disability programs, promotion of healthly habits, etc).

PATH Project in Europe

A paper published in 2005 titled *"A performance assessment framework for hospitals: the WHO regional office for Europe PATH project"* resulted in the identification of six performance dimensions that should be assessed within a healthcare system in Europe. Table 6-5 explains the performance dimensions, their definitions, and the corresponding sub dimensions.

Table 6-5 PATH Project performance dimensions (J. VEILLARD et al, 2005).

Dimension	Definition	Sub dimension(s)
Clinical effectiveness	Clinical effectiveness is a performance dimension, wherein a hospital, in line with the current state of knowledge, appropriately and competently delivers clinical care or services to, and achieves desired outcomes for all patients likely to benefit most	Conformity of processes of care, outcomes of processes of care, appropriateness of care
Efficiency	Efficiency is a hospital's optimal use of inputs to yield maximal outputs, given its available resources	Appropriateness of services, input related to outputs of care, use of available technology for best possible care
Staff orientation	Staff orientation is the degree to which hospital staff are appropriately qualified to deliver required patient care, have the opportunity for continued learning and training, work in positively enabling conditions, and are satisfied with their work	Practice environment, perspectives and recognition of individual needs, health promotion activities and safety initiatives, behavioral responses and health status
Responsive governance	Responsive governance is the degree to which a hospital is responsive to community needs, ensures care continuity and coordination, promotes health, is innovative, and provides care to all citizens irrespective of racial, physical, cultural, social, demographic or economic characteristics	System/community integration, public health orientation
Safety	Safety is the dimension of performance, wherein a hospital has the appropriate structure, and uses care delivery processes that measurably prevent or reduce harm or risk to patients, healthcare providers and the environment, and which also promote the notion	Patient safety, staff safety, environment safety
Patient centredness	Patient centredness is a dimension of performance wherein a hospital places patients at the centre of care and service delivery by paying particular attention to patients' and their families' needs, expectations, autonomy, access to hospital support networks, communication, confidentiality, dignity, choice of provider, and desire for prompt, timely care	Client orientation, respect for patients

The dimensions presented in Table 6-5, are based on a multidisciplinary, multi stakeholder approach that includes the patients, the employees, the communities and the environment, and includes several sustainable aspects.

The paper further elaborates the use of these dimensions in a balanced hospital dashboard and concludes with a set of performance indicators that correspond to each dimension category. Table 6-6 illustrates the PATH balanced dashboard report.

Table 6-6 PATH balanced dashboard indicators (J. VEILLARD et al, 2005).

Dimension	Performance Indicator	Measurement
Clinical Effectiveness and safety		
Appropriateness of care	Caesarean (C) section delivery	Ratio of C section cases to total delivery cases
Conformity of processes of care	Prophylactic antibiotic use for tracers: results of audit of appropriateness	Ratio of total number of antibiotic over-use and/or under-use to total number of medical records audited for antibiotic use
outcomes of processes of care	Mortality for selected tracer conditions and procedures	Ratio of total number of death cases during stay to total number of admissions for a tracer condition
	Re-admission for selected tracer conditions and procedures	Ratio of total number of re-admission cases to the emergency room to the total number of admissions for a selected tracer condition and procedure
	Admission after day surgery for selected tracer procedures	Ration of overnight admission cases to the total number of admissions for one-day operation/discharge
	Return to higher level of care (e.g. from acute to intensive care) for selected tracer conditions and procedures within 48 hours	Ration of total number of cases readmitted to a higher care level to total number of patients admitted to an intensive or intermediary care unit
	Sentinel events	Existence of a formal procedure to register sentinel events. Existence of a formal procedure to act upon sentinel events + description of procedures
Efficiency		
Appropriateness of services	Day surgery, for selected tracer procedures	Total number of patients undergoing a tracer procedure who have it performed in the day procedure facility
Productivity	Length of stay for selected tracers	Median length of stay in number of days of hospitalization. Day of admission and discharge count as 1 day
Use of capacity	Inventory in stock, for pharmaceuticals	Total value of inventory at the end of the year for pharmaceuticals
	Intensity of surgical theatre use	Ratio of number of patient hours under anesthesia to number of theatres $\times$ 24 hours
Staff orientation and staff safety		
Perspective And recognition of individual needs	Training expenditures	Ratio of direct cost for all activities dedicated to staff training to average number of employees on payroll during the period
Health Promotion and safety initiatives	Expenditures on health promotion activities	Ratio of direct cost for all activities dedicated to staff health promotion to average number of employees on payroll during the period
Behavioral responses	Absenteeism: short term absenteeism	Ratio of number of days of medically or non-medically justified absence for 7 days or less in a row to total equivalent full time nurses and nurses assistants $\times$ number contractual days per year for a fulltime staff
	Absenteeism: long term absenteeism	Ratio of number of days of medically or non medically justified absence for 30 days or more

Dimension	Performance Indicator	Measurement
		to total equivalent full time nurses and nurses assistants × number contractual days per year for a fulltime staff
Staff safety	Percutaneous injuries	Ratio of number of cases of percutaneous injuries reported in the official database or occupational medicine registered in one year to average number of full-time equivalent staff and non-salaried physicians Staff excessive weekly working time for each
	Staff excessive weekly working time	Ratio of total number of full-time staff (nurses and nurse assistants) for each week, who worked more than 48 h, summed up on all the weeks in the period under study to total number of weeks available during the period under study
Responsive Governance and environmental safety		
System Integration and continuity	Average score on perceived continuity items in patient surveys	Calculated based on the results of the questionnaire survey currently used in the hospital
Public health orientation	Breastfeeding at discharge	Ratio of total number of mothers included for breastfeeding at discharge to the total number of deliveries fulfilling the criteria for inclusion
Patient centredness		
Patient centredness	Average score on overall perception/ satisfaction items in patient surveys	Calculated based on the results of the questionnaire survey currently used in the hospital
Interpersonal Aspects	Average score on interpersonal aspect items in patient surveys	Calculated based on the results of the questionnaire survey currently used in the hospital. An average score is computed for all items relating to interpersonal aspects
Client orientation: access	Last minute cancelled surgery	Ratio of total number of patients who had their surgery cancelled or postponed for more than 24 h to total number of patients admitted for surgery during the period under study
Client orientation: information and empowerment	Average score on information and empowerment items in patient surveys	Calculated based on the results of the questionnaire survey currently used in the hospital. An average score is computed for all items relating to patient information and empowerment
Client orientation: continuity	Average score on continuity of care items in patient surveys	Calculated based on the results of the questionnaire survey currently used in the hospital. An average score is computed for all items relating to continuity of care

In retrospect, the literature review confirmed, in many instances, the findings of the internal sustainability review conducted in the case study hospital, especially when it came to the social impact of hospitals, the case study hospital demonstrated almost the same interests and the same trends.

As for environmental aspects and impacts, the case study hospital management identified the generation of medical waste as a significant environmental aspect, with the resulting impacts, which was similarly recognized as contentious for other hospitals in the literature review.

The economic impact of the case study hospital matched the reported impact of other hospitals in the literature review.

6.3   What stakeholders want to know

6.3.1   Stakeholder Map

As mentioned earlier, key performance indicators are identified based on answering the question "what do stakeholders want to know?"

According to GRI guidelines, stakeholders are defined as entities or individuals that can reasonably be expected to be significantly affected by the organization's activities, products and/or services, and whose actions can be reasonably expected to affect the ability of the organization to successfully implement its strategies, and achieve its objectives (GRI, 2002).

Applying this definition, and using the triangulation method, Figure 6-1 depicts the stakeholder map of the specific case study hospital.

6.3.2   Stakeholder Views
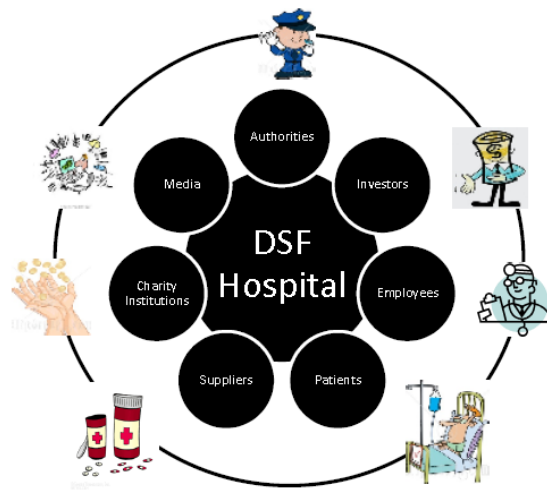
Figure 6-1 Stakeholder Map for DSF Hospital

Representatives   from   the   identified stakeholder groups have been consulted to further verify the findings of the previous two phases of this research, and to gain insights into stakeholder views and priorities regarding what they want to know about hospitals' performance in terms of sustainability.

Each group was consulted using an appropriate method depending on the size and condition of each group.

Table 6-7 describes the methodology used for the consultations, and provides the findings of this phase as per each stakeholder group.

Table 6-7 What stakeholders of DSF Hospital want to know.

Stakeholder group	Description of consultation methodology	Findings
Investors	To identify the priorities of this group, the Director General (DG) of the DSF hospital was interviewed (i.e. member of the family owning the hospital). The DG referred to the dashboard report of the hospital as	• Total admissions by category (inpatient, outpatient, emergency room). • Percent of cost for commissioned bed. • Mortality rates over 1000 admissions. • Number of medication errors.

Stakeholder group	Description of consultation methodology	Findings
	the tool he uses to track the performance of the hospital in all aspects. Hence this report was reviewed to reveal the interests of investors within the sustainability context. The dashboard report is reviewed twice a year by the DG and the board of directors of the hospital.	• Medication error over 100 patient discharges. • Availability of essential medications within 48 hours. • Average length of stay by medical department. • Patient satisfaction. • Staff satisfaction.
Employees	Two focus group meetings were held with 21 employees. The focus groups reflected the ethnic and gender composition of DSF Hospital employees.	• Percentage and examples of job vacancies filled through internal promotions (going up the ladder). • Policy and procedures to involve employee in planning process. • Percentage of employees undergoing regular comprehensive health assessments. • Description of programs for career development.
Patients	A patient questionnaire (Appendix C) was completed over the period of 4 days by 77 in-patients, out-patients and emergency patients. The questionnaire design was based on the findings of the two previous phases of this research, and was used to identify the priorities and expectations of this stakeholder group. The questionnaire was written , to meet the knowledge base of the average patient visiting the hospital. Within the questionnaire, patients were provided with a list of hospital specific key performance indicators, and were asked to identify indicators that are of interest to them. The statistical results of this questionnaire are shown in Figure 6-2.	• Number and status of clinical research trials. • Number of specialized medical units. • Means of disposal of medical waste. • Type of hazardous and toxic substances used. • Type of certificates and accreditation acquired by the hospital • Type of medical specialties available. • Description of programs for patient education and awareness. • Number of patient discharges. • Number of cases of medical malpractice. • Procedures to monitor and control medical malpractice. • Number of pro bono treatment cases. • Number of cases of violation of patient privacy. • Procedures to monitor and control patient satisfaction.
Authorities	Three authority representatives were consulted based on the stakeholder definition of the GRI G3 guidelines, and the recommendations of the hospital management. The authorities consulted included: • General Directorate of Health Affairs Makkah Region. • Jeddah District Civil Defence. • Jeddah District Presidency of	• Highlighting the care given to pro bono, in-kind and humane cases. • Record of compliance with national environmental standards and regulations. • Performance record of the subcontracted medical waste management facility. • Existing environmental management systems and structures.

Stakeholder group	Description of consultation methodology	Findings
	Meteorology and Environment (PME), Due to cultural and time constraints, the authority representatives were consulted via email correspondence and telephone interviews.	• Specific environmental performance indicators (e.g. energy consumption).
Charity institutions	A list of charity institutions was acquired from the hospital's management. Four institutions were contacted, and personal interviews were conducted. The institutions are connected to the hospital via a charity patients' referrals agreement.	• Number of pro bono treatment cases per year. • Description of existing partnerships with local charity institutions. • Type and number of available medical specialties. • Description of existing community service initiatives.
Media	A focus group meeting was conducted with 10 media representatives from different media and communication sources.	• Medical waste management procedures. • Medical credentials monitoring procedures. • Number and status of cases of malpractice. • Description of corporate social responsibility programs. • Descriptions of internal codes of conduct. • Procedures to respond to patient complaints. • Medical staff income and/or salary scale. • Public health policy participation.

The following figure shows the statistical results of the questionnaire conducted with patients
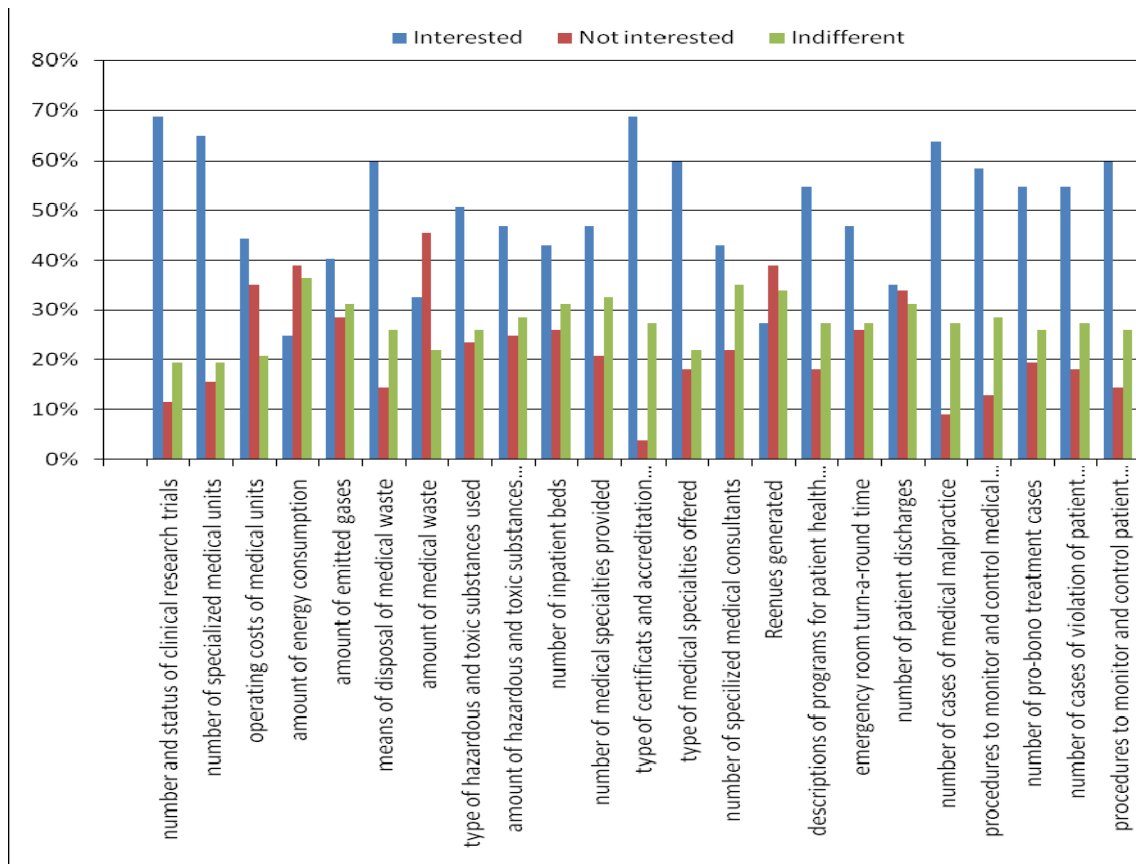
Figure 6-2 Patient Survey Results – KPIs (Appendix D)

Patients showed most interest in knowing the types of certificates and accreditation acquired by the hospital and the number and status of clinical research trials conducted at the hospital; with a percentage of 69 per cent interest for both.

Sixty-five per cent of the patients expressed interest in the number of specialized medical units available, while 64 per cent of the patients were interested in tracking the number of medical malpractice cases. Sixty per cent of the interviewed patients were interested in information regarding the means of medical waste disposal, the number of medical specialties offered, and the procedure followed to monitor and control patients' satisfaction. While 58 per cent expressed their interest in information regarding procedures followed by the hospital to monitor and control medical malpractice.

Almost 55 per cent of the patients indicated their interest in programs and activities for health awareness and education targeting patients, the number of pro bono treatment cases handled by the hospital, and the number of cases of violation of patient privacy. Approximately 50 per cent of the patients interviewed, were interested in tracking the type of hazardous and toxic substances used.

The rest of the indicators scored less than 50 per cent interest by patients, where patients either expressed their disinterest or indifference to the value of the information provided by the indicator.

It is worth mentioning that the average patient might not possess the level of knowledge required to understand the implications of sustainability reporting and/or the stakeholder

consultation process, thus in many cases, patients did not express interest due to the lack of indicator knowledge rather than the lack of interest itself.

Building upon all the results listed above, one can observe several health sector specific sustainability implications that are typical of hospitals, whether at the case study hospital, or throughout the literature review conducted, or when addressing the needs and requirements of the different stakeholders within the case study hospital.

The next chapter will further discuss the results by analyzing the data collected, in terms of frequency and significance in an effort to compile a tentative outline for a healthcare services sectorsupplement.

7 Suggestions for modification of the existing GRI G3 Indicator Protocol

This chapter is intended to describe the outcome of the data analysis. The analysis takes into consideration three dimensions for sustainability reporting, including:

- Identified contentious sustainability issues at the case study hospital (section 6.1).

- Economic, environmental and social aspects, impacts, and previously reported sustainability key performance indicators for other healthcare services providers and initiatives (section 6.2).

- Key performance indicators identified through the stakeholder consultation for the case study hospital (section 6.3).

Based on these three dimensions, the analysis follows two pathways, a **deductive approach** where the general GRI G3 Indicator Protocols are modified and adapted into the more specific hospital context; and an **inductive approach** where the key performance indicators identified in the case study are expanded into a more general context that fits the hospital sector. The following sections elaborate on the results of the analysis in both approaches.

The results of the two analytical approaches are then consolidated to produce a tentative outline for a sector supplement under the GRI which fits the context of hospitals. This outline is further discussed in the third section of this chapter.

7.1 Adaptation of Existing G3 Indicator Protocols

The G3 version of the GRI sustainability reporting guidelines is designed to fit the context of different business areas, this is evident from the fact that in 2009 GRI reported that 301 companies from 41 different sectors have reported according to the G3 guidelines. several indicators from the G3 indicator protocols were identified as having the potential, once modified, to meet the interest of stakeholder groups for hospitals.

The purpose of this deductive process is not to eliminate specific G3 indicator protocols, but to produce sector specific indicators that will be later be compiled into one tentative indicator protocol for the healthcare services sector (See Section 7.3). Table 7-1 lists the GRI G3 guidelines indicators that may be subject to modification; the table demonstrates the indicator after modification and also the reason behind this modification.

Table 7-1 Suggestions for modification of GRI G3 Indicators to be used in the hospital sector.

Indicator Protocol	GRI G3 Indicator No.	GRI G3 Indicator description	Modified Hospital Specific Indicator	Justification for modification
Economic				
	EC6	Policy, practices, and proportion of spending on locally based suppliers at significant	Policy, practices, and proportion of spending on locally based medical equipment and	To be able to objectively assess a hospital's impact on local market, the focus needs to be made on the interaction

Indicator Protocol	GRI G3 Indicator No.	GRI G3 Indicator description	Modified Hospital Specific Indicator	Justification for modification
		locations of operation.	pharmaceutical suppliers at significant locations of operation.	with medical equipment and pharmaceutical suppliers, due to the significant proportion of spending in hospitals allocated to such supplies
Environmental				
	EN22	Total weight of waste by type and disposal method.	Total weight of medical waste by type and disposal method.	Medical waste generation represents a significant environmental aspect for hospitals.
	EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	Impacts of transporting patients and transporting members of the workforce.	Hospital operation requires the transportation of patients in ambulances and due to the frequency of such transportation, it poses significant impact on the environment that should be reported.
Labor practices and decent work				
	LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities by region	Number of cases of hospital related infections and injuries.	Working in a hospital poses the threat of infection, significantly impacting workers' health and safety.
Product/service Responsibility				
	PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	Practices related to patient satisfaction, including results of surveys measuring patient satisfaction.	Although this is mentioned in the GRI G3 guidelines, the hospital sector supplement should give include to the patients's satisfaction as patients are a major stakeholder group.
	PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	Total number of substantiated complaints regarding breaches of patient privacy and losses of customer data.	This indicator is also of importance for patients, thus it needs to be included in the sector supplement.
Society				
	SO5	Public policy positions and participation in public policy	Public health policy positions and participation in public	This is a focal indicator that is of interest for patients, authorities and surrounding

Indicator Protocol	GRI G3 Indicator No.	GRI G3 Indicator description	Modified Hospital Specific Indicator	Justification for modification
		development and lobbying.	health policy development and lobbying.	communities.

7.2   Inclusion of other sector specific Key Performance Indicators

The stakeholder consultation along with the literature review revealed several sector specific performance indicators that are used for sustainability reporting in the healthcare services sector. Several of these indicators occurred repeatidly.   This section takes an inductive analysis approach and provides a description of the key performance indicators that could potentially be included within a new sector supplement for healthcare services under the GRI framework.

The following three sections categorize these indicators in accordance with the TBL, accounting for economic, environmental and social indicators. Indicators in this section are included based on input from the stakeholder census and their relevance in the literature review.

7.2.1   Suggested new Economic Performance Indicators

The economic dimension of sustainability refers to an organization's impacts on the economic circumstances of its stakeholders and on the economic systems at the local, national, and global levels. Economic impacts can be divided into direct and indirect economics impacts (Global Reporting Initiative, 2005). The aspects and indicators for this category were organized using the stakeholder groups' priorities and needs, as well as trends identified through the literature review. Table 7-2 illustrates the economic indicators identified as appropriate for the healthcare services sector.

Table 7-2 Suggested new economic performance indicators for hospitals.

Aspect	Indicator	Description
Expenditure	Training expenditure.	Average cost of training programs per employee.
	Expenditure on health promotion activities.	Percentage of annual budget allocated for health promotions activities.
	Expenditure on physician incomes and remuneration.	Average income per physician.
	Contribution to cost of public health.	Ratio of total cost of health services to the national public health budget.
	Facility expenditure.	Average cost per bed.
Procurement	Quantity of purchased pharmaceuticals by category.	Quantity by volume/weight for purchased pharmaceuticals by category.
	Preferential criteria for purchased products.	Description of procurement criteria followed when selecting a supplier for pharmaceuticals.

7.2.2 Suggested new Environmental Performance Indicators

The environmental dimension of sustainability concerns an organization's impacts on living and non-living natural systems, including ecosystems, land, air and water. Indicators in this category can be reported using absolute figures and normalized numbers (Global Reporting Initiative, 2005). Table 7-3 identifies the environmental aspects and indicators that are specific to the healthcare services sector.

Table 7-3 Suggested new environmental performance indicators for hospitals.

Aspect	Indicator	Description
Material	Initiatives to reduce/recycle single use devices (SUDs).	Description of impact of such initiatives.
Energy	Energy savings due to green building design.	Energy saved due to green design in Joules or multiple of Joules.
Emissions, effluents and waste	Direct emissions of greenhouse gases due to use of N_2O gas for anesthesia.	Amount of N_2O gas leakage in tons of CO_2 equivalent.
Suppliers and subcontractors	Environmental screening in agreements with suppliers and /or subcontractors.	Practices, policies and procedures to audit the environmental performance of suppliers and contractors.
Indirect environmental impact of catered food	Environmental impact of food services.	Measurement and reporting of indirect environmental impacts of food service inside the hospital. Description of initiatives to reduce negative environmental impact of food services.
Environmental Management	Programs, plans and initiatives to manage the environmental impact of the hospital.	Type of acquired environmental management certification, if any.

7.2.3 Suggested new Social Performance Indicators

The social dimension of sustainability concerns an organization's impacts on the social systems within which it operates. Social performance can be gauged through an analysis of the organization's impacts on stakeholders at the local, national, and global levels. In some cases, social indicators influence the organization's intangible assets, such as its human capital and reputation (Global Reporting Initiative, 2005). Table 7-4 lists the suggested social indicators that are specific to the healthcare services sector, and are relevant to labor practices, human rights and the society.

Table 7-4 Suggested new social performance indicators for hospitals.

Aspect	Indicator	Description
Service Responsibility	Emergency preparedness.	This could be expressed using various figures: number of nursing beds, number of intensive care units, types of available medical specialties,etc.
	Service certification.	Number and type of service certification acquired by the healthcare services provider.
	Service monitoring and	Number and status of medical mal practice cases.

Aspect	Indicator	Description
	control, control of medical malpractice.	Programs in place for the monitoring and control of antibiotic use.
	Catered food quality.	Description of procedures to assure the quality of catered food.
Employees	Employee engagement.	Description of policies, practices and procedures to involve employees in planning processes.
	Health promotion for employees.	Description of programs to promote employee health.
		Procedures and practices to identify operations with a high risk to employee health and safety.
		Percentage of employees undergoing regular, comprehensive, health assessments.
	Use of toxic and hazardous substances (e.g. mercury, PVC).	Weight or volume of toxic and hazardous substances used by type.
		Programs in place to reduce or eliminate the use of toxic and hazardous substances.
Society	Contribution to public health.	Programs and initiatives in place for the promotion of public health.
	Contribution to medical research.	Number and status of clinical research trials.
	In kind and/or pro bono healthcare services provision.	Number and cost of in-kind and/or pro bono treatment cases.

7.3   Draft Outline of a New GRI Healthcare Services Sector Supplement

This section provides a tentative structure for a healthcare services sector supplement that includes all of the sector indicators selected via this research analysis. The results have shown that although the GRI G3 guidelines are generally consistent with the needs of the healthcare services sector, the guidelines still fall short of providing adequate information regarding the specific performance of the healthcare services sector.

Thus, as with all other sectors, the healthcare services sector, represented solely by hospitals in this case, has particularities that need to be addressed when reporting the sustainability performance of any organization in this sector. Thus, a healthcare services sector supplement under the GRI is due.

Table 7-5 provides an account of the indicators as per the GRI G3 Guidelines structure, including possible compilation notes detailing how to quantify each indicator.

Table 7-5 Tentative healthcare services sector supplement outline

Aspect	Indicator	Description
Economic		
Expenditure	Training expenditure	Average cost of training programs per employee.
	Expenditure on health promotion activities	Percentage of annual budget allocated for health promotions

Aspect	Indicator	Description
		activities.
	Expenditure on physician income and other remuneration	Average income per physician
	Contribution to cost of public health	Ratio of total cost of health services to the national public health budget
	Facility expenditure	Average cost per bed
Procurement	Quantity of purchased pharmaceuticals by category	Quantity by volume/weight for purchased pharmaceuticals by category
	Preferential criteria for purchased products	Description of procurement criteria followed when selecting a supplier for pharmaceuticals
	Policy, practices, and proportion of spending on locally-based medical equipment and pharmaceutical suppliers at significant locations of operation.	Description of policies and procedures for local procurement of pharmaceuticals. Proportion of spending on locally based pharmaceutical suppliers broke down by location of operation
Environment		
Material	Initiatives to reduce/recycle single use devices (SUDs).	Description of impact of such initiatives
Energy	Energy savings due to green building design.	Energy saved due to green design in Joules or multiple of Joules
Emissions, waste and effluents	Direct emissions of greenhouse gases due to use of N_2O gas for anesthesia.	Amount of N_2O gas leakage in tons of CO_2 equivalent
	Total weight of medical waste by type and disposal method	Weight or volume of medical waste generated broken down by type and disposal method
Transportation	Impacts of transporting patients, and transporting members of the workforce.	Energy consumption and extent of environmental impacts due to transportation of patients and members of workforce (i.e. greenhouse gas emissions).
Suppliers and subcontractors	Environmental screening in agreements with suppliers and /or subcontractors.	Practices, policies and procedures to audit the environmental performance of suppliers and contractors.
Indirect environmental impact of food service	Environmental impact of food services.	Measurement and reporting of indirect environmental impacts of food service inside the hospital. Description of initiatives to reduce negative environmental impact of food services.
Environmental management	Programs plans and initiatives to manage the environmental impact of the healthcare services provider.	Type of acquired environmental management certification, if any.

Aspect	Indicator	Description
Service Responsibility		
Patient satisfaction	Patient satisfaction monitoring and control.	Description of practices related to patient satisfaction, including results of surveys measuring patient satisfaction.
	Patient privacy.	Total number of substantiated complaints regarding breaches of patient privacy and losses of customer data.
Service quality	Emergency preparedness.	This could be expressed using various figures: number of nursing beds, number of intensive care units, types of available medical specialties,etc.
	Service certification.	Number and type of service certification acquired by the healthcare services provider
	Service monitoring and control, control of medical malpractice.	Number and status of medical mal practice cases. Programs in place for the monitoring and control of antibiotic use.
Quality of catered food	Catered food quality.	Description of procedures to assure the quality of catered food.
Labor practices and decent work		
Employee engagement and training	Employee engagement.	Description of policies, practices and procedures to involve employees in planning processes.
Employee health and safety	Health promotion for employees.	Description of programs to promote employee health. Procedures and practices to identify operations with high risk on employee health and safety. Percentage of employees undergoing regular comprehensive health assessments.
	Use of toxic and hazardous substances (e.g., mercury, PVC).	Weight or volume of toxic and hazardous substances used by type. Programs in place to reduce or eliminate the use of toxic and hazardous substances
	Number of cases of sector related infections and injuries.	Number of cases of sector related injuries and infections broken down by location of operation.
Society		
Community	Contribution to public health.	Programs and initiatives in place for the promotion of public health.

Aspect	Indicator	Description
	Contribution to medical research.	Number and status of clinical research trials.
	In kind and/or pro bono healthcare services provision.	Number and cost of in-kind and/or pro bono treatment cases.
Participation in public policy	Participation in public health policy.	Public health policy positions and participation in public health policy development and lobbying.

Reflecting on the narrow scope of this research, the implementation of the GRI reporting guidelines in the case study hospital has, in my opinion, represented a learning curve for the management team of the hospital. In several occasions while interviewing key personnel in key operational locations of the hospital, new sustainability concepts were introduced, and the hospital management was, in fact, exposed to sustainability terms, practices, and trends which otherwise they would not have known.

The case study hospital's implementation of the GRI, completed as part of their first sustainability report, also provided the case study hospital with the means to identify gaps in their current sustainability performance. A gap analysis that can lead to a systematic improvement of the hospital's sustainability performance whether in terms of policy, management, information availability, or communication.

The inclusion of a stakeholder perspective in this paper, resulted in the engagement of different stakeholder groups, and opened new channels for communication, both internally among the different levels of management of the case study hospital, and externally between the different stakeholders and the management team of the hospital.

In almost all the cases, stakeholders welcomed this initiative, and considered it a leading step towards improved and integrated performance. However it remains to be seen as to whether or not the stakeholders will be satisfied when reading the hospital's first sustainability report, and whether or not they would trust the content of this report.

Having said that, it is my belief, that any actions the increase transparency and open communication, whether disclosing negative and/or positive attributes to a corporation's performance, would indefinitely lead to an improved public image, and a larger "trust factor" between any corporation and its respective stakeholders.

The attempt to implement the GRI guidelines within the hospital has confirmed the relevance of the research problem. The findings show that the generic guidelines on their own are not sufficient to address several expectations of different stakeholders including the management of the hospital. This research paper attempted to fill this gap in generic guidelines by producing the above tentative sector supplement.

Formulating a tentative outline for a healthcare services sector specific GRI supplement is, however, only one step in the formulation of a sector supplement under the GRI. Prior to a healthcare services sector GRI supplement being developed the GRI will first need to identify sector specific drivers that would motivate the use of such a supplement within the healthcare sector.

As noted earlier, this research is not comprehensive and does not include all of the business units under the healthcare services sector. Thus, this research process should be replicated

with the other business units (e.g. health insurance, medical research centers), in order to provide a more comprehensive basis for a pilot sector supplement.

Based on these findings, the GRI can take the following next steps in order to initiate debate around sustainability reporting in the healthcare sector, and thus instigate the process of developing a sector specific supplement:

- Identify the sector specific driving forces towards sustainability reporting,

- Identify barriers hindering sustainability reporting in the healthcare sector,

- Identify key players and stakeholders in the sector,

- Formulate an organizational stakeholder group to initiate the debate among the different stakeholders in this sector,

- Identify the particular reporting needs of healthcare services sectorstakeholders,

- Develop and test a pilot healthcare sector specific supplement and pursue its further development.

8   Summary and Conclusion

This paper is based on the hypothesis that the current GRI G3 guidelines, although comprehensive and adapted specifically for several business sectors, it still is inadequate to meet the needs and the particulate context of the healthcare services sector.

To test the hypothesis, a case study analysis was conducted within a private hospital in Jeddah, Saudi Arabia; a hospital whose management expressed interest in publishing their first sustainability report according to GRI.

The implementation of the GRI guidelines in this hospital required an internal sustainability review. The review validated the relevance of the aforementioned hypothesis, and revealed that hospitals, like any other business sector, has particular sustainability reporting needs that can be met with the preparation of a new healthcare services sector supplement under the GRI.

Before venturing into this research, this thesis author considered several significant sustainability aspects to be relevant to the context of hospitals, namely a hospital's contribution to public health via clinical research, a hospital's responsibility towards the use of pharmaceuticals, philanthropic activities towards patients with limited financial means, and the hospital's management of service quality.

One can observe that the author's initial thoughts were solely based upon the reality of the social aspects of a hospital's operations. The research validated these thoughts and contributed to a wider understanding. This research provided insights as to the specific environmental and economic impacts of a hospital's operation.

 In addition to the environmental aspects already addressed under the GRI, this research revealed that issues such as food catering , extended responsibility concerning the use of pharmaceuticals, the use of nitrous oxide in anesthesia, and the use of single use devices (SUDs) represent significant environmental aspects contextual to hospitals. Therefore, significant sustainability reporting requirements are also present.

In regards to the economic performance of hospitals, this research emphasized the additionality of the hospital's operation in terms of contributing to the cost of public health and capacity building costs in the medical field.

This research also added value to the understanding of the implementation process of GRI, a process that requires an extensive exploration of the reporting organization's operations, management, and transparent communication with the stakeholders. The research has shown that the GRI G3 Guidelines can fit the general reporting requirements of any business sector, while providing a flexible space to add any other reporting elements deemed necessary by the reporting organizations. However, the sector supplements provided by the GRI can augment reporting efforts in any sector and provide a means for comparison within any given sector, as well, as a driver to improve sector specific performance.

It should be noted that this research was influenced by the location of the case study - Saudi Arabia, a country whose culture influences the perceptions and priorities of the hospital management as well as the different stakeholders consulted in this process. It was observed that more focus and priority was given to social issues, such as corporate philanthropy, as opposed to environmental and economic issues such as climate change, biodiversity and

resource depletion. In addition, public opinion regarding employment of Saudi nationals, and women's empowerment may be different in other countries. This leads to the question, how would the results be different had this research been conducted in a different country?

Assuming that this research had been conducted in a developed country, such as Sweden, several modifications in the research methodology would have been necessary, which would also have resulted in a different set of results. In addition, several facts would have had to have been taken into consideration.In a developed country like Sweden, one can assume that the current state of legislation already requires non financial reporting (e.g. environmental reporting), which could contribute to a different understanding of the contentious sustainability issues surrounding the operations of a hospital.In addition, a different country implies a different social composition and structure, and thus, a different stakeholder map. Also the representatives of the different stakeholder groups, in the setting of a developed country, might possess different levels of knowledge regarding sustainability issues as compared to their counter parts in a developing country. These knowledge differences may create different perceptions and thus a focus shift regarding reporting requirements for hospitals.

Going back to the original goal of this research, this thesis author attempted to answer the question "which sector specific key performance indicators, that are representative of hospitals, should the GRI include in the development of a healthcare services sector supplement?"

The identified key performance indicators in this thesis were the result of a triangulation process which involved, an internal sustainability review, an independent literature review, and a stakeholder consultation for the case study hospital.

To sum up the results of this research, the following is a list of the research sub questions and their respective answers.

Answering the research questions

- **How is sustainability being typically reported on for hospitals?**

  Are there any hospitals using TBL performance indicators to report their performance? Which frameworks of indicators are used?

  This research revealed that sustainability reporting for hospitals is seldom practiced, and that few organizations in this sector consider reporting using TBL indicators.

  Few organizations are using the GRI guidelines to report their sustainability performance, and an insignificant portion of the reporting organizations are using GRI G3 guidelines.

- **What are, if any, the hospital specific key performance indicators that are/can potentially be used for sustainability reporting?**

  This question was further divided into three sub questions, which included:

o When Implementing the GRI guidelines in Dr. Soliman Fakeeh Hospital, what are, if any, the significant hospital-specific sustainability aspects and impacts resulting from the hospital's operation in terms of economic, environmental and social performance?

The internal sustainability review revealed several hospital-specific aspects and impacts that significantly affect the economic, environmental and social context.

Section 6.1 lists the identified aspects and impacts

o What are the specific aspects, impacts and key performance indicators that are typically reported by hospitals and fall under the GRI guidelines?

Based on the literature review, and the review of sustainability reports of three other healthcare services providers, sector specific key performance indicators were identified using economic, environmental and social aspects and impacts.

The impacts and aspects reported in the literature review validated results of the internal sustainability review. The additional indicators identified included economic, environmental and social performance indicators as well as performance indicators related to service responsibility.

Section 7.3 provides an account of all the sector specific indicators that have been identified in this research.

o What are the views concerning sustainability issues of stakeholders to the Dr. Soliman Fakeeh Hospital in Jeddah?

To answer this question, a stakeholder consultation process was conducted, and the stakeholder representatives were asked to identify their key areas of interests. Table 6-7 lists the key findings of the stakeholder consultation.

The stakeholder consultation was conducted to validate the use of the sector specific performance indicators identified in the internal sustainability review and the literature review, and also to identify other reporting needs for stakeholders in the specific context of a healthcare services provider.

- **What are the practical reporting implications of the previously identified indicators?**

This question relates to how the previously identified indicators can be integrated into the existing sustainability reporting framework within the GRI?

GRI can further develop the sector specific indicators identified in this research, and build upon these indicators to prepare a healthcare services sector supplement which can meet the reporting needs and particularities of this sector.

In doing so, GRI will provide motivation for other healthcare services providers to consider sustainability reporting under the GRI framework and improve the quality of information provided in sustainability reports for organization in this sector.

Opportunities for further research

The outcomes of this thesis research stimulated the author to develop the following questions that should also be researched:

- What are the drivers & obstacles for sustainability reporting in the healthcare services sector?

- What are the implications of sustainability reporting in the healthcare services sector?

- Among the identified indicators in this research, which are of significant importance for the healthcare services sectorand why?

- How would healthcare services providers react to the preparation of a GRI healthcare services sector supplement for sustainability reporting?

- How can public hospitals report their sustainability performance using this hypothetical supplement?

- What are the implications of sustainability reporting for public hospitals?

- Will CSR reporting lead to improved healthcare delivery to patients and at the same time reduce the negative short and long term risks to the environment and future human generations?

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Appendix A: List of Interviewees

Department/Organization	Position	Name
DSFH	Director General	Dr. Mazen Fakeeh
DSFH-Public relations department	Director of public relations department	Dr. Sharif Tehemar
DSFH – Executive division	Director of executive division	Dr. Abdelhameed Agha
DSFH	Assistant Hospital Director	Dr. Essam Eldien Nayel
DSFH – Olympia	Director of Olympia	Mrs. Michele Elyas
DSFH – Nursing Division	Chief of nursing division	Ms. Barbara Allison
DSFH – Medical and clinical affairs	Executive director of medical and clinical affairs department	Dr. Hossam Eldin Ghoneim
DSFH –Out patient services	Director of out patient services department	Dr. Kamal Al Desoki
DSFH - Pharmaceutical Services	Director of Pharmaceutical services department	Dr. Hoda Ahmad
DSFH – Total Quality Management	Director of Total Quality Management department	Dr. Liza Farouka
DSFH – Material Management	Director of material management department	Dr. Moshira Mostafa
DSFH – Human Resources	Director of human resources department	Mr. Majid Hassan
DSFH – Patient Relations	Director of patient relations department	Ms. Ghada Anani
DSFH – Education and Training	Director of education and training department	Mrs. Susan McCole
DSFH – Facility Management	Director of Facility Management	Eng. Mahmoud El-Sheikh
DSFH – Health and Safety	Health and safety officer	Eng. Khalid Najjar
DSFH – Information Technology	Deputy director of information technology department	Ahmad El Bana
DSFH – Staff Services	Head of staff services	Mr. Tony Nassar
Fakeeh Complementary Healthcare Company	Business manager	Dr. Azza AbdelAziz
Hoshan Company	Sales account manager	
Reza Hygiene	Sales account manager	
Al Kamal Company for medical supplies	Sales account manager	Dr. Ibrahim Al Mahdi
Mediserve Company	Sales account manager	Mohammat Mattar
Gulf Medical Company	Sales account manager	
Heart Friends Association	Director	Mr. Abdel Rahman Adel
Al-faisaleyah Association for Women	Public relations officer	Ms. Amani Al Wazir
Zamzam Charity Association	Public relations officer	Ms. Fatimah Mansour
Jeddah Directorate of Health Affairs	Assistant director for the private sector	Dr. Mohammad Abedl Jawad
Jeddah District Civil Defence	`	Eng. Ali Asery
Jeddah district Presidency of Meteorology and environment (PME)	Advisor to HRH President of PME	Eng. Nabil Murshid

Appendix B: List of Reviewed Hospital Documentation

- DSFH Strategic Plan 2009-2013.

- DSFH dashboard report.

- DSFH operational strategic plan 2009-2013

- DSFH Terms of Reference for:

    o Community Advisory Committee

    o Hospital Information System Committee

    o Hospital Executive Committee

    o Hospital Material Management Committee

    o Performance Improvement Committee

    o Research and Ethic Committee

    o Safety Management Committee

- DSFH Brand Audit report 2008

- JCI Accreditation Survey Findings Report.

- ACHSI Report.

- Hazardous Chemicals Inventory

- Waste Record Information

Appendix C: Patient questionnaire

This questionnaire represents a part of the stakeholder consultation; Dr. S Fakeeh Hospital is conducting in the process of issuing its first sustainability report.

A patient relation representative will administer this questionnaire and will aid in clearing any confusion regarding any questions.

The questionnaire is intended to identify the priorities and expectations of patients from Dr. S Fakeeh Hospital in terms of sustainability issues from economic, environmental and social point of views.

Your cooperation is very much appreciated

1. What is the purpose of your visit to the hospital?
   a. Emergency case
   b. Clinic out patient
   c. In patient visit

2. The following table represents an account of economic, social and environmental impacts that hospital operation can possibly cause, please fill in the table whether you think the impact, is relevant, irrelevant, or indifferent to the hospital's operation as you see appropriate:

No	Impacts	Relevant	Irrelevant	indifferent
	Contribution to public health			
	Job creation			
	Climate change			
	Air pollution			
	Water depletion			
	Fuel depletion			
	Water pollution			
	Soil pollution			
	Land degradation			
	Promotion of social development			

3. The following table represents an account of economic, social and environmental aspects that hospital operation can possibly cause, please fill in the table whether you think the aspect, is relevant, irrelevant, or indifferent to the hospital's operation as you see appropriate:

No	Aspect	Relevant	Irrelevant	indifferent
1	Contribution to clinical research			

No	Aspect	Relevant	Irrelevant	indifferent
2	GHG emission due to patient/employee transportation			
3	GHG emission due to the hospital building power supply			
4	Patient education and awareness programs			
5	Use of toxic and hazardous substances			
6	Disease and infection control programs			
7	Participating in public health policy making			
8	Management of medical waste			
9	Medication use and safety			
10	Fuel consumption			
11	Water consumption			
12	Water recycling			
13	Material consumption			
14	Material recycling			
15	Accessibility to medical care services			
16	Emergency preparedness			
17	Management of medical errors			

4. The following table represents an account of economic, social and environmental performance indicators that hospital operation can possibly report to the patients, please fill in the table whether you think the performance indicator, is relevant, irrelevant, or indifferent patient to know about the hospital as you see appropriate:

No	Performance indicator	Relevant	Irrelevant	indifferent
	Number and status of research trials conducted			
	Number of specialized medical units			
	Cost of specialized medical units			
	Amount of energy consumption			
	Extent of contribution to climate change			
	Means of medical waste disposal			
	Amount of medical waste generated			
	Type of hazardous and toxic substances used			
	Amount of hazardous and toxic substances used			
	Number of in-patient beds			
	Type of medical speciality available			
	Number of medical specialties available			
	Number of specialized medical staff			
	type of acquired certification			

No	Performance indicator	Relevant	Irrelevant	indifferent
	Revenue generated			
	Efforts for patient awareness and education			
	Turnround time			
	Number of patient discharges			
	Number. Of medical error cases			
	Status of medical error cases			
	Number of probono/in-kind medical care cases			
	Number of breaches of patient privacy cases			
	Efforts to monitor patient satisfaction			

5. The following list represents an account of patient related social initiatives managed by the hospital, please circle the choice(s) representing initiatives you are familiar with:
    a. Patient training center
    b. Breast feeding program
    c. Specialized public health lectures
    d. DSFH internal TV channel

6. Please fill in the following table as you see appropriate regarding the performance of the hospital:

No.	Category	Excellent	Good	Poor
1.	Level of communication with the society, the level of knowledge regarding DSFH social activities			
2.	Quality of social activities conducted, the level at which those activities meet the needs of the society			
3.	Effectiveness of DSFH social activities			
4.	DSFH ability performance in monitoring and improving its environmental impact			

7. Please provide any suggestions are ideas as to how the hospital can in the future contribute to, a more healthy and environmental friendly society.

Appendix D: Patient Questionnaire Results

Patient Categories	
Emergency room	16.88%
outpatient	40.26%
inpatient	42.86%
	100.00%

Economic, Environmental and Social Impacts	Relevant	Irrelevant	Undecided
Contribution to public health	54.55%	14.29%	31.17%
Creation of Jobs	77.92%	5.19%	16.88%
Climate change	29.87%	27.27%	42.86%
Air Pollution	27.27%	42.86%	29.87%
Water Depletion	35.06%	53.25%	11.69%
Fuel Depletion	20.78%	54.55%	24.68%
Water Pollution	24.68%	49.35%	25.97%
Soil Contamination	28.57%	41.56%	29.87%
Land Degradation	18.18%	49.35%	32.47%
Promotion of social welfare and development	61.04%	11.69%	27.27%

Operational activities leading to Economic, Environmental and Social Impacts	Relevant	Irrelevant	Undecided
Conducting clinical research	59.74%	7.79%	32.47%
patient and staff transportation	72.73%	9.09%	18.18%
electricity consumption	63.64%	11.69%	24.68%
health awareness and education programs	49.35%	11.69%	38.96%
use of chemical substances	44.16%	15.58%	40.26%
infection monitoring and control	63.64%	7.79%	28.57%
participation in public health policies	58.44%	11.69%	29.87%
medical waste management	62.34%	7.79%	29.87%
medication use monitoring and control	70.13%	6.49%	23.38%
fuel consumption	38.96%	25.97%	35.06%
water consumption	53.25%	18.18%	28.57%
water recycling	35.06%	20.78%	44.16%
material consumption	50.65%	16.88%	32.47%

material recycling	37.66%	15.58%	46.75%
facilitating access to medical service	63.64%	3.90%	32.47%
emergency preparedness	68.83%	3.90%	27.27%
medical errors monitoring and control	61.04%	5.19%	33.77%

Hospital specific key performance indicators	Interested	Not interested	Indifferent
number and status of clinical research trials	68.83%	11.69%	19.48%
number of specialized medical units	64.94%	15.58%	19.48%
operating costs of medical units	44.16%	35.06%	20.78%
amount of energy consumption	24.68%	38.96%	36.36%
amount of emitted gases	40.26%	28.57%	31.17%
means of disposal of medical waste	59.74%	14.29%	25.97%
amount of medical waste	32.47%	45.45%	22.08%
type of hazardous and toxic substances used	50.65%	23.38%	25.97%
amount of hazardous and toxic substances used	46.75%	24.68%	28.57%
number of inpatient beds	42.86%	25.97%	31.17%
number of medical specialties provided	46.75%	20.78%	32.47%
type of certificates and accreditation acquired by the hospital	68.83%	3.90%	27.27%
type of medical specialties offered	59.74%	18.18%	22.08%
number of specialized medical consultants	42.86%	22.08%	35.06%
Revenues generated	27.27%	38.96%	33.77%
descriptions of programs for patient health awareness and education	54.55%	18.18%	27.27%
emergency room turn-a-round time	46.75%	25.97%	27.27%
number of patient discharges	35.06%	33.77%	31.17%
number of cases of medical malpractice	63.64%	9.09%	27.27%
procedures to monitor and control medical malpractice	58.44%	12.99%	28.57%
number of pro-bono treatment cases	54.55%	19.48%	25.97%
number of cases of violation of patient privacy	54.55%	18.18%	27.27%
procedures to monitor and control patient satisfaction	59.74%	14.29%	25.97%

Level of knowledge of DSFH current social initiatives	Patients knowing	Patients unknowing
patient education center	16.88%	83.12%
breast feeding training center	11.69%	88.31%
specialized medical lectures	23.38%	76.62%
DSFH TV channel	33.77%	66.23%

Levels of satisfaction with current performance	Excellent	Good	Poor
level of communication with the community	37.66%	42.86%	19.48%
compatibility of social services offered with societal needs	38.96%	51.95%	9.09%
effectiveness of social services offered	37.66%	54.55%	7.79%
effectiveness of efforts to monitor an control environmental impacts	40.26%	49.35%	10.39%