

# Intellectual Capital Research through Corporate Social Responsibility: (Re) Constructing the Agenda

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**Abstract**—The business strategy of any company wanting to be competitive on the market should be designed around the concept of intangibles, with an increasingly decisive role in knowledge transfer of the biggest corporations. Advancing the research in these areas, this study integrates the two approaches, emphasizing the relationships between the components of intellectual capital and corporate social responsibility. The three dimensions of intellectual capital in terms of sustainability requirements are debated. The paper introduces the concept of sustainable intellectual capital and debates it within an assessment model designed on the base of key performance indicators. The results refer to the assessment of possible ways for including the information on intellectual capital and corporate responsibility within the corporate strategy. The conclusions enhance the need for companies to be ready to support the integration of this type of information the knowledge transfer process, in order to develop competitive advantage on the market.

**Keywords**—Corporate social responsibility, corporate strategy, intellectual capital, sustainability

## I. INTRODUCTION

THE transition from the industrial age, through the information age towards the knowledge age repositioned the approaches and strategies of the company in terms of its objectives to maintain a competitive advantage in order to ensure its high performance. Sustainable development focus on how we use the natural resources and the processes by which they are transformed. It calls for a shift in the way the natural capital is managed and used as well as the process and mechanisms by which it can be maintained. Sustainable development as defined by UN [1] requires that the needs of future generations are considered alongside those of today's societies. If capital stocks are not maintained, the flow of goods and services will decrease over time and the intergenerational aspect of sustainability will not be met. Different types of capital are used in combination to give rise to flows of goods and services and wealth creation. Forward-looking companies have realized that the value given by their intangibles ensure the broader understanding for business performance and company's value. Rajdev [2] observed that companies with almost no fixed assets in the traditional sense of the word were having their stocks more highly rated than many of the other companies.

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Nevertheless, knowledge is new engine of corporate development as demonstrated by successful companies, those that continually innovate, relying on new technologies and their employees' skills and knowledge, rather than on traditional assets such as plants or machinery. Conventional performance measures (such as sales, growth and a good return to its owners) would not be a sufficient guide for strategic decision making. Company's management realizes that these measures must be complemented to show the value actually created throughout its organization. Intellectual capital as discussed by Roos [3] has become the soft and intangible driver of a consistent market leadership, continuous growth in sales and the value creation for shareholders.

Researchers are increasingly concerned to find and analyze the relationship between corporate performance on the one hand and intellectual capital (IC) or corporate social responsibility (CSR), on the other.

The global crisis that companies are currently facing raised the investors' awareness about the possibility of inflated earnings or inflated reported figures. Intangibles are taken into consideration in financial analysts' attempts to account the difference between companies' book value and market value. By creating a corporate social agenda, companies can achieve economic, social and environmental benefits simultaneously. In realizing this, information demands of stakeholders should be met in both intangibles and social/environmental perspectives having the same policies for indentifying, measuring, and reporting. The incentives for studying the social and institutional aspects of corporate reporting has been accentuated by lacks of innocence [4] exemplified by the former major accounting scandals (as Enron or Parmalat) and the present global crisis. These illustrated flaws of accounting, and the fragility of basing investment decisions solely on accounting information [5]. As Alcaniz, Gomez-Bezares, and Roslender [6] synthesized, knowledge management which overlaps extensively with intellectual capital has become a widely studied field focusing on the management of knowledge assets. This paper addresses intellectual capital and corporate social responsibility as modern fields of corporate reporting. Its aim is to identify and debate the discursive practices that mobilize the idea of combining the motivations of corporate social responsibility reporting with those of intellectual capital reporting. It is validated by the fact that developing and implementing strategic corporate initiatives based on knowledge resources and social responsibilities represent the next stage of corporate strategy pointed toward assessing competitive advantage.

The research proposition being proposed in this paper is that responsible companies, oriented towards sustainability, may benefit of establishing a correlated relationship between IC and the CSR activities. In this regard, the objective of the paper is to advance constructive approaches on the integration of the two concepts, based on a thoroughly literature survey. Two are the contributions of this paper. First, using intellectual capital and corporate social responsibility perspectives the concept of sustainable intellectual capital reporting is introduced and transposed through key performance indicators (KPI). These indicators are defined by using the Global Reporting Initiative guidelines. Reporting on the three levels of sustainable performance (economic, social and environmental) as proposed by the Global Reporting Initiative [7] changes the perspective of shareholder value, from short-term to long-term value. This stresses that an activity's sustainability can be achieved in this new era of responsibility only if a company is meeting the challenge and does what is right for the environment and society.

Secondly, a strategy based approach is debated by referring to the competitive advantage implied by the acceptance of sustainable intellectual capital idiom. We introduce a new discourse that projects the sustainable intellectual capital as information constructed according to management's perception. The insights generated through inspiration from critical discourse analysis [8] are debated. In the last part of the study possible future directions are explained in relation to intellectual capital and corporate social responsibility reporting. Final conclusions on the study are also incorporated within the paper.

This research paper can contribute in many different ways, such as the extensive development of literatures and studies on relationships between corporate social responsibility and intellectual capital, the development of the new concept: the sustainable intellectual capital, or the projection of corporate strategy. The findings can enlighten organizations that intellectual capital can be an important asset which is beneficial in conducting corporate social responsibility.

## II. RESEARCH METHODOLOGY

This paper is oriented towards intellectual capital and corporate social responsibility studies by using a fundamental research. According to its definition, fundamental work is both experimental and theoretical and is undertaken to acquire new and advanced knowledge. It is intended to increase understanding of certain phenomena or behavior but does not seek to resolve or manage these problems. In the present study, fundamental research aimed critical analysis of intellectual capital perspectives in relation to corporate social responsibility activities as companies' contributions to sustainable development.

Research in some parts of social science has to an increasing extent focused on the production and consumption of texts in specific contexts [8], [9]. Different analytical methods are introduced under the umbrella of discourse analysis. A central argument in discourse analysis is that the only way subjects can relate to the world is through words and

text. It thus becomes central to study the way discourses are negotiated, contrasted and changed partly through spoken language, and partly through written texts. Discourse analysis is concerned with identifying patterns in the articulation of texts, and to further investigate and question the social consequences of different discursive meanings [5]. This specific perspective on discourse analysis is able to facilitate the understanding of how intellectual capital reporting gains or does not gain legitimacy in the specific context of CSR.

Based on this conceptualization of sustainable development, the paper analyses two popular ways of addressing the sustainability, namely, the IC and the concept of CSR, and discusses the potential of these as bases for the corporate competitive advantage.

## III. SUSTAINABLE INTELLECTUAL CAPITAL – NEW PERSPECTIVE OF CORPORATE REPORTING

Sustainable development is a topic of concern among economists and natural scientists, as well as among development agencies and the general public, even though the concept carries different meanings for these different actors [10]. Nevertheless, one can argue that the key challenges of sustainable development reside in the interfaces between its various dimensions. It is often recognized that one of the elements that make sustainable development unique and different from the previous conceptions of development or environmental policy is its stress on the interactions between the environmental, social and economic dimensions of development. Corporate social responsibility is gaining more importance in today's business life, and its different approaches emphasize its contribution to sustainability.

CSR is part of the Europe 2020 strategy for smart, sustainable and inclusive growth. In March 2010 the European Commission made a commitment to renew the EU strategy to promote CSR as a key element in ensuring long term employee and consumer trust. According to the European Union [11], CSR is defined as a concept according to which companies voluntarily decide to contribute to the attainment of a better society and a cleaner environment. In addition, being socially responsible does not only mean fully satisfying legal obligations, but also going beyond that fulfillment, investing more in human capital, the environment, and relations with stakeholders [11].

Complementary to European Union specific requirements, there is evidence that the majority of European companies use the Global Reporting Initiative Guidelines for reporting social, environmental and economic aspects of their activity. Social and environmental reports based on the GRI Reporting Framework, disclose outcomes and results that occurred within the reporting period in the context of the organization's commitments, strategy and management approach. Its purpose is to communicate clearly and openly about sustainability and to be used by organizations of any size, sector, or location. More and more issues of voluntary social and environmental standards introduced by Global Reporting Initiative are included in today's compulsory reporting. The core idea of all the reporting requirements sustains that the business sector

should play a proactive role in society, in addition to its economic purpose of making profits. These issues have led the industry to engage in a sustainability debate and initiate strategies for responding to the challenges of sustainable development, in the spirit of Brundtland Commission Report [1]. More and more companies provide concise and focused sustainability information in their annual report, as proof of reliable disclosure, accompanied by full sustainability reports on their websites, reflecting a growing maturity on CSR disclosures.

In general it can be observed that the focus of corporate social responsibility activities is to make voluntary attention to social and environmental issues into company business behaviors in order to respond to societal problems [12]. In this view the aims of the companies that adopt social responsibility behaviors vary from the maximization of the value of their shareholders to the capabilities to interact and to respond to the needs and requests of numerous and different categories of stakeholders that are capable to influence the companies' value creation [13]. As Porter and Kramer [14] highlight, companies have to change their focus towards the social setting in which they act and interact.

Traditionally, companies have relied mainly on tangible assets to determine their value. More recently, in the emerging knowledge economy, company's value can be seen to reside in intellectual capital such as knowledge and information, assets that are generally embodied in people [15]. Knowledge-based resources that contribute to creation of a competitive advantage for the company and are not registered in the financial accounts constitute the intellectual capital. This could be seen by its synonymous use with other words such as intangible assets, invisible assets, knowledge assets, knowledge capital, information assets, human capital and the hidden value of companies [16]. In Rajdev view [2] intellectual capital is the group of knowledge assets that are attributed to an organization and most significantly contribute to an improved competitive position by adding value to defined key stakeholders.

Generally literature has identified three components of intellectual capital: human capital, relational (customer) capital and organizational (structural) capital. Human capital represents the knowledge, experience and skills of the employees and reflects their commitment and motivation as result of their integration within the company. Relational capital reflects the organizational value that emerges not only from a company's relations and connections with customers, but also with current and potential suppliers, shareholders, other agents, and the society in general. Structural capital shows a company's supportive structures for knowledge creation and deployment as well as the set of knowledge, skills and abilities embedded in the organizational structure.

As presented by Nestian [17], Armstrong and Saint-Onge [18] divide intellectual capital in three components: individual, internal component and external component. Individual component, referred to by some authors as base of knowledge, is composed of talents and personal skills, education and training of employees, experience and expertise.

Internal component is defined by the models of organization, organizational culture and internal climate, production systems, quality management system and information system. External component includes relationships with customers, suppliers and other partners in the value chain and owned brands.

In the last decade, in the field of intellectual capital research, most attention was placed on companies' intellectual capital voluntary disclosure analysis to assess companies' attitude in reporting such information. Intangibles and their contribution to value creation have to be appreciated and companies must find a credible way of reporting them in order to give the stakeholders comprehensive information to assist in valuing the company more accurately. The basic areas covered in most reports are [19]:

1) For human capital: employee profile; staff turnover; education; commitment and motivation; training; and results.

2) For relational capital, they are: client profile; customers, image and stakeholders; diffusion and networking; and intensity, collaboration and connectivity.

3) For structural capital, the areas are: general infrastructure; knowledge-based infrastructure; innovation; quality and improvement projects; customer support; and administrative processes.

Disclosing information on intellectual capital is likely to lower the cost of equities because it decreases uncertainty about the future prospects of the company and facilitates more precise valuation of the company [2]. It will also increase the liquidity of the capital market and enhance the demand of the company's securities.

Sustainability and corporate social responsibility reporting are presently the determinants that push intangibles reporting forward. Companies are forced to seek new approaches for designing their global corporate strategy. At the same time, for many companies the most valuable productive assets are intangibles such as knowledge and business processes and these need to be better measured and managed. They are increasingly opened to sustainability challenges by recognizing their social responsibilities, reducing environmental impact, ensuring against ethical compromises, creating corporate governance and becoming more accountable to their stakeholders. Meanwhile, intellectual capital, including human capital, organizational capital, and relational capital, represents a major component of intangibles.

Many researchers have found relationships between a company's value and performance and either CSR or IC. However, most CSR research is mainly related to its correlation or linkage with financial performance and is measured by conventional financial ratios and figures. What is usually left out in Razafindrambina and Kariodimedjo's opinion [20] is the inclusion of IC as a variable which could be correlated to CSR. According to Barnett [21] and McWilliams, Siegal, and Wright [22] intangibles play an important role in relation to the corporate social responsibility effects and these aspects interact and influence the company's value [23]. In the same context, it is argued that users need information that is able to represent the company's identity

and image [24] at the same time in an abbreviated and understandable fashion. The reporting process comes as a solution to these needs.

In the literature on voluntary reporting has been widely shown the existence of a positive relationship between corporate social responsibility and intellectual capital of a company [25]. Emphasizing this aspect, Castilla Polo and Gallardo Vazquez [26] hypothesize a convergence between social/sustainability report and intellectual capital report due to several points they have in common. The Passetti, Tenucci, Cinquini, and Frey [13] study highlights significant and increasing presence of IC information in CSR reports which is communicated mainly in non financial, quantitative and non time specific terms. Human capital is the most reported category followed by relational and structural capital. The results indicate there are many similarities between the two typologies of report contributing to the ongoing debate on corporate reporting practices.

The disclosure of the CSR information can be a key mechanism to connect the company with its potential resource providers, focusing their attention on the company's engagement in diversifying their sustainable resources. As instrument of disclosure, CSR report contains intangibles information and can contribute to the increase of company's intangibles and intellectual capital. Intellectual capital has been playing an ever more increasing role not only in the corporate financial performance of companies, but also in contributing to financial achievements such as market evaluation [27]. Bukh [28] concludes that both are similar in that they provide strategic management tools that may be used to communicate the process of value creation to employees, customers, and other stakeholders.

This paragraph integrates IC and CSR perspectives to observe KPI sustainability reporting patterns in relation to intangible resources. Both approaches have advanced in isolation despite both being concerned with sustainability issues, influencing reporting practices and mitigating the limitations of financial reporting practices. Our proposal is to integrate all the perspectives and use their reporting through sustainability indicators (defined and classified by Global Reporting Initiative, GRI [7] as tools insights for management strategy oriented towards competitive advantage and value creation for the company (Fig. 1).

According to GRI Guidelines, sustainability performance indicators are classified in three categories: economic, environmental, and social. Social indicators are further categorized in Labor, Human Rights, Society, and Product Responsibility. Using this classification, the company has to select the appropriate indicators that refer to each of the three perspectives of intellectual capital. They must be then grouped them in a way that helps managers to include them into the intangibles planning and reporting and the corporate strategy.

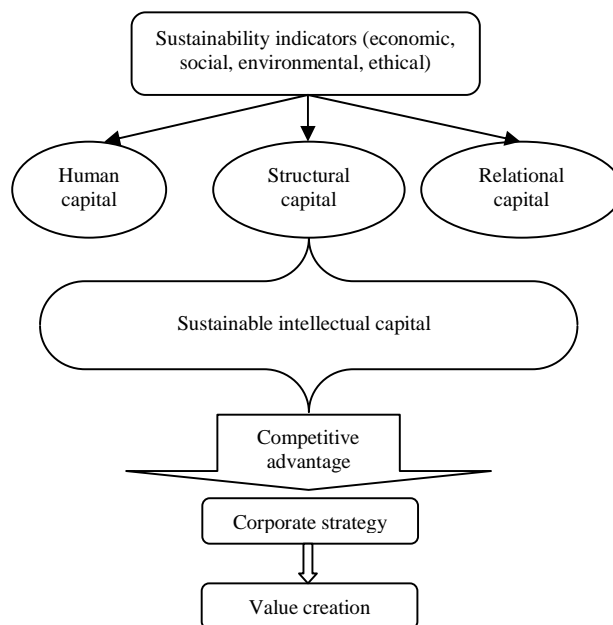


Fig.1 Integrating the intellectual capital perspectives into the sustainability reporting

The traditional (monetary) valuation perspective that has characterized financial accounting and reporting for generations is the easier way to read information. But, confronted with contemporary examples of intellectual capital such as corporate reputation, new perspectives of measurements should be considered. For Brooking [29], the development of an appropriate monetary unit of measurement is necessary to calculate the success and the growth of stocks of intellectual capital. Non-traditional values embodied in the indicators have the capacity to provide credible, reliable information, with a potentially deep impact on the business's opportunities and on the ability to attract the resources to finance those opportunities. Visualizing the growth of specific employee attributes in the form of non financial metrics to be incorporated into a voluntarily report remains problematic on the grounds that, from a critical accounting perspective, accounting numbers applied to employees have invariably worked to their disadvantage [6]. Innovative ways of overcoming the valuation limits should be subject of the current research, considering the importance of the final purpose of reporting: disclosing information on a higher level, the mix of intellectual capital and corporate sustainability. This idea is supported by Kliksberg' conclusion [30] that studies show it is human and social capital (as opposed to natural capital and constructed capital) that were responsible for most economic development in the later years of the twentieth century and that they are key to technical progress, competitiveness, sustained growth, good governance and stable democracies.

#### IV. SUSTAINABLE INTELLECTUAL CAPITAL – DRIVER FOR COMPETITIVE ADVANTAGE AND FOR A BETTER CORPORATE STRATEGY

Sustainability is not the burden that many executives believe it to be. For example, becoming environmentally-friendly can lower the cost of doing business and increase revenues. For that reason, sustainability should be the touchstone for all innovation in the workplace. In the future, only the companies that make sustainability a goal will manage to increase their competitive advantage. That may entail rethinking the business model as well as products, processes and technologies [31]. After an initial focus on understanding and explaining the various facets of the intellectual capital, the seminal contributions such as those of Brooking [29], Edvinsson and Malone [32], Stewart [33] and Sveiby [34] was a normative emphasis on management challenge of growing the use of intellectual capital as an asset, in the pursuit of sustainable competitive advantage.

As Brooking [29] observes, the value of many enterprises no longer resides in their tangible assets, but in their intangibles. The success of a company's strategy is critically dependent on the management of new types of capital, such as intellectual, social and environmental. Alcaniz, Gomez-Bezarez, and Roslender [6] depict a two-way relationship between resources and strategy. When the objectives and the direction the company is going to take are being formulated, it is necessary to take into account the stocks of intangibles within the organization, and to determine the best way in which they can be deployed to achieve a higher competitive advantage, as well as how they could be increased and developed, so the company has more resources to work with.

Within this paragraph a normative discourse is developed using various classic theories, further introduced. Stakeholder theory [35] posits that there are a variety of strategic publics that can influence an organization. Through reporting, companies are attempting to ensure the public that they manage their activities also in the interest beyond the shareholders, in areas of environmental conservatism, corporate compliance, and social contribution. Thus, companies may use voluntary reporting in order to influence stakeholders' image on the company and may turn on their favor what stakeholders see as important or less important in relation to sustainability aspects. Therefore stakeholders became aware about corporate social responsibility and this enhances the visibility, legitimacy and reputation of the company itself. In this perspective corporate social activity is a resource that can be leveraged also by an informative disclosure that reinforces the company capabilities to gain a competitive advantage [36], [37].

The disclosure is essential because it signals the value of investment in intangibles, otherwise unrealized by stakeholders [37]. Signaling theory [38] suggests that profitable companies have the incentive to distinguish themselves from less successful ones to raise capital at the lowest possible cost. Voluntary disclosures of corporate social and environmental as well as intellectual capital information can be one way to achieve this, considering that stakeholders

are generally thought to perceive the absence of voluntary disclosure as an indication of bad news on the company [39].

The resource based theory (RBT) claims that companies rely on a heterogeneous set of resources and capabilities that are different and not perfectly mobile across companies. These resources include tangible assets, such as company's financial assets, plant, equipment and raw materials and intangible assets, such as company's reputation, culture, and human capital. When these resources and capabilities are valuable, rare, inimitable and non substitutable they can generate a sustainable competitive advantage [40]. This theory has been used to explain the difference in corporate performance in different circumstances and intangible resources have been considered the most influential to explain these differences [41].

Bansal [42] identifies several reasons that can justify the application of RBT to CSR (investments in human resource, new research based opportunities through changes in technology, legislation and market force, etc.) and finds some positive correlations between resource-based variables (international experience, capital management capabilities, organizational slack) and CSR activities.

The role played by intangibles in RBT has been extensively analyzed [43]–[45]. Moreover the intellectual capital projection of a company can be considered as a mid-range theory of the more general RBT [46]. Over the last few years scholars have been trying to further develop these ideas and even bring forth a knowledge-based theory in order to explain why the firm exist, the boundary between the firm and its environment, its organization and how decision making is handled. An increasing number of scholars claim that the essence of the resource-based theory is some form of knowledge-based perspective of the company [3]. They refer to the fact that corporations have to attract the best people and give them the necessary tools, but these people also need company infrastructure and relationships, as well as conversations with other people in order to fruitfully develop and apply their knowledge.

Tuzzolini and Armandi [47] have brought a unique perspective to the views of corporate social responsibility and have even provided a motivational theory behind a company's choice of conducting CSR which they based on Maslow's hierarchy of needs. They argue that the extent to which CSR is conducted by a company indicates how it is able to first meet its internal and external "self-actualization" needs, which places CSR at the top of their organizational needs [20].

We further support and argue the idea that corporate social responsibility has a set of positive effects on all the three IC categories (human, organizational/structural and relation). The content of sustainable intellectual capital is designed as a linkage between the two concepts integrated within a matrix, as shown in Table I. This model is based on Passetti, Tenucci, Cinquini, and Frey [13], Pedrini [48] and Armstrong and Saint-Onge [18] studies.

TABLE I  
 SUSTAINABLE INTELLECTUAL CAPITAL MATRIX

		Corporate social responsibility benefits
<b>Human Capital/ Individual component</b>	<i>Employee Training</i>	Increase motivation Improve social and environmental skills and competencies Increase loyalty Increasing employee safety and health
	<i>Employee activity's quality</i>	Increasing benefits for social and environmental oriented employee Increasing the employees voluntarily actions for social and environmental causes
<b>Organizational/ Structural Capital/ Internal component</b>	<i>Culture</i>	Changing in corporate culture Improving organizational commitment
	<i>Strategy</i>	Repositioning of the brand name Rethinking competitive strategies Management of stakeholder relationships Signaling position on the market
	<i>Management Process</i>	Improvement of voluntary disclosure Improvement of quality of processes Improvement of internal communication system
	<i>Corporate Governance</i>	Proactive risk management Increasing the level of company transparency Improvement of disclosure
	<i>R&amp;D</i>	Improvement of environmental R&D activities
<b>Relational Capital/ External component</b>	<i>Brand Image (reputation)</i>	Improve company reputation (financial, economic, social, environmental etc.) Increasing investors attention Better market trust Access to ethical indices
	<i>Clients, suppliers and financial relationship</i>	Increasing financial analysts attention Acquire new clients Increase client loyalty Enlarge co-creation Improvement of supplier ethical and social profile and performance
	<i>Environmental relationship</i>	Initiatives to minimize the impact on the environment

In the human capital dimension the positive effects of the company's capability to engage in socially responsible activities promote employee social and environmental engagement through training programs [25] and qualitative activities, such as health and safety activities [49] and implication in voluntarily actions conducted by the company. Deniz and Perez [50] empirically show that companies which having the strategic capabilities to respond to human resource expectations based on CSR principles distinguish themselves from other organizations and enhance their level of profitability. CSR implication increase employees' motivation, commitment and loyalty to the company and reinforce the

relations and the trust between the company and their employees. These reflect in an increased company's reputation and an improved company's attractiveness to human resource [51].

As Passetti, Tenucci, Cinquini, and Frey [13] show, the positive effects of corporate social responsibility on organizational capital are related principally with company culture (by improving the level of organizational commitment [52]), strategy (becoming more stakeholder oriented [53]) and management process (enhancing their knowledge, capabilities and the probability of a better future performance [54]). Other positive effects regard the implementation of corporate governance code of conduct (referring to quality, environmental, health and safety and internal control system [55]) and a higher level of research and development (R&D) environmental investments [56].

The corporate social responsibility effects on relational capital refer mainly to brand image (by increasing company's reputation), to improving the relationships with customers, supplier, investors/bankers [25] and to financial relationship (by enhancing the company attractiveness for financial analyst and investors [57]).

All these CSR activities reinforce the trust between company and stakeholders and improve management operations. A social responsible company follows a path that allows generating and attracting new resources and capabilities that are related to the network of relationship to which the company belongs. Consequently CSR activities can contribute to the increase of company's intangibles and intellectual capital even if in some cases the effects are not so evident.

Intellectual capital can be a source of competitive advantage for businesses and stimulate innovation that leads to wealth generation. Technological revolutions, the rise to pre-eminence of the knowledge-based economy and the networked society have all led to the realization that successful companies excel at fostering creativity and perpetually creating new knowledge. Companies depend on being able to measure, manage and develop this knowledge. Management efforts therefore have to focus on the knowledge resources and their use. The reason they are a step forward is that they add quantifiable value to companies as well as doing good in the wider world [58].

V. CONCLUSION

Sustainable intellectual capital is a promising starting-point for the incorporation of social and environmental aspects into the general management system of a company. This paper examined how sustainable intellectual capital helps to overcome the shortcomings of different approaches of voluntarily disclosure and business strategy. It does this by repositioning the concept of sustainability from the intellectual capital and corporate social responsibility views.

The constructive debate of the paper indicates that the layer of sustainable human intellectual capital reflects environmental training, information and awareness sessions that help in the accumulation and utilization of knowledge.

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The layer of sustainable structural intellectual capital reflects in improving the environmental technology portfolio and creating new environmental departments. As for the sustainable relational intellectual capital, the company-environment relation is very important.

Policy makers and researchers need to investigate the benefits and cost of mandating or providing further guidance for integration and convergence in IC and CSR reporting and how reporting practices align to internal measurement and management of organizational sustainability.

The normative and constructive approaches integrated within the specific contributions of this paper create a virtual network that continues investigations in the integration of intellectual capital within corporate sustainability field. It shares the results with the public and promotes discussion not only in business schools and universities, but also in consulting companies, and in big corporations that aim to be integrated within the current economic realities.

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