MAXIMIZING STAKEHOLDER SUSTAINABLE VALUE THROUGH INTELLECTUAL CAPITAL AND CORPORATE SOCIAL RESPONSIBILITY

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ABSTRACT
In this study, a customized indicator system for sustainable value drivers (SVDs) of enterprises was developed. We combined intellectual capital (IC) components and corporate social responsibility (CSR) factors to create corporate stakeholder value and sustainable competitive advantages. We reviewed the literature on IC and CSR to extract value drivers and construct an SVDs index, with the expectation that all corporate management teams can apply our method to leverage drivers, thereby creating the maximum value. The Delphi method, analytic hierarchy process (AHP), and an algorithm were utilized for data collection, measurement, and analysis.

KEYWORDS: resource-based view theory, intellectual capital, corporate social responsibility, sustainable value, analytic hierarchy process.
1. INTRODUCTION

Top managers consistently face the pressure of making decisions regarding the allocation of scarce corporate resources in a rapidly changing and complicated environment. On the basis of the literature review, we considered intellectual capital (IC) components as potential sources of competitive advantages because they can create corporate value. Meanwhile, the value of IC components is also related to corporate social responsibility (CSR) (Branco, 2006). Therefore, the purpose of this study was to develop an indicator system for sustainable value drivers (SVDs) of enterprises. We combined IC components and CSR factors and defined them as SVDs to create corporate stakeholder value and sustainable competitive advantages. The Delphi method, analytical hierarchy process (AHP), and an algorithm were utilized for data collection, measurement, and analysis of results. In addition, we implemented a case study on the Taiwan High Speed Rail Corporation (THSRC). This study suggests that top managers should customize corporate SVDs and leverage priority resources to maximize corporate sustainable value. Our main purpose is to apply the customized SVDs index to overall corporate and dynamic adjustment over a period of time to maximize an organization’s sustainability value.

The remainder of this paper is organized as follows: Section 2 presents a literature review, Section 3 describes the research methodology, Section 4 details the present empirical study to demonstrate the usefulness of the proposed approach, and Section 5 provides results and discussion, and Section 6 presents conclusions and suggestions for future research.

2. LITERATURE REVIEW

Intellectual Capital

IC components may have a strong impact on the value creation process depending on an organization’s key success factors or characteristics (e.g., knowledge, competence, and intellectual property). On the basis of this assumption, several studies have suggested prioritizing IC elements to enable the selection of value drivers that are critical for supporting the value creation process and organizational performance (Alcaniz et al., 2011; Andrikopoulos, 2005; Cricelli et al., 2014; Kim and Kumar, 2009; Marr, 2007). However, corporate repeated transactions with stakeholders based on cooperation and trust carry incentives to be honest and ethical because such behavior is beneficial to the firm (Jones, 1995). A resource-based view (RBV) of an organization for corporations and environmental social responsibility can constitute a resource or capability that leads to a sustained competitive advantage (Hart, 1995). Therefore, top managers should leverage resources, rank priorities, allocate, and adjust over a period to create stakeholder value.
There are many definitions of IC; most articles have adapted the general and brief definition by Edvinsson and Sullivan (1996) who defined IC as “knowledge that can be transferred to value” (Edvinsson, 1996). Most IC consists of three categories: human capital, organizational capital, and relationship capital (Dalkir, 2007; O'Donnell, 2000; Roos, 1998; Saint-Onge, 1996; Steward, 1997; Sveiby, 1997). According to the literature review, IC components have been introduced in the following studies: Boedker, 2004; Choong, 2008; Corvello, 2013; Cricelli L., 2014; Green, 2005; Marr, 2008; Petty 2000.

Corporate Social Responsibility

Recent studies have suggested that many of these pressures are not caused by strategic management concerns but by social issues at the management level (Prahalad, 1994). McWilliams and Siegel (2011) investigated the creation of personal and social value by organizations that adopt CSR strategies. They subsequently discussed the conditions under which CSR can contribute to sustainable competitive advantages (McWilliams, 2011). On the basis of Global Reporting Initiative G4 Guidelines, the authors deduced some factors related to CSR that could be included in IC factors, especially concerning human and relationship capital (Global Reporting Initiative G4 Guidelines, 2013, 2015; “THSRC CSR Report,” 2014).

3. RESEARCH METHODOLOGY

First, the authors reviewed literature on IC and CSR to extract value drivers and utilized expert questionnaires with multiple-choice questions. Second, the Delphi method and the AHP were utilized for data collection. A Delphi survey was conducted to collect expert opinions on the appropriate indicators of SVDs. The AHP was utilized to assess the relative importance of dimensions and indicators of SVDs. Third, 5-point Likert scale questionnaires were used to assess the performance. Fourth, an algorithm was used to formulate the SVD index. Finally, to examine the study, the authors also implemented a case study by interviewing top managers and related senior staff members to conduct data analysis and rank the priorities of SVDs.

3.1 Customization of SVDs

The target organization should identify critical IC and CSR components and define SVDs for pretesting. In accordance with the literature review, the authors extracted 75 IC and CSR factors. A Delphi survey was conducted to collect expert opinions on the appropriate indicators of SVDs. Furthermore, in-depth personal interviews comprising 75 open-ended and multiple-choice questions were conducted in each department.
3.2 Assessment of the Impact of SVDs
The AHP was utilized to assess the relative importance of the dimensions and factors of SVDs. In this step of the framework, the interviewed managers made pairwise comparisons among the SVDs with respect to their importance in the value creation process. The AHP was implemented to assess the relative importance of IC components (Calabrese et al., 2013; Grimaldi et al., 2012; Kale, 2009), evaluate the organizational performance (De Felice and Petrillo, 2013), and develop a performance measurement model based on IC indicators (Wu et al., 2010; Yurdakul and Ik, 2005).

3.3 Assessment of the SVD Performance
In the third step of the framework, managers assessed the performance (Pi) of SVDs. The managers expressed their opinions on the adequacy of each SVD for improving the value creation process. They identified some IC factors for each SVD and composed a qualitative evaluation of the performance of each SVD based on linguistic variables. The linguistic variables were transferred to values of 1, 3, 5, 7, and 9.

3.4 SVDs Index
Finally, the SVDs index combined the factors of impact and performance. The index could then be calculated as follows:

\[ \text{SVDs index} = \sum_{i=1}^{n} I_i \times P_i \]

Where:
- \( I_i \) is the generic \( i \)-th VD, where \( i = 1 \ldots n \)
- \( I_i \) is the impact of the \( i \)-th VD
- \( P_i \) is the normalized performance of the \( i \)-th VD

4. CASE IMPLEMENTATION
The authors implemented a case study of the THSRC, one of the biggest public transport companies in Taiwan, as an exemplificative method of implementation. In 2012, the THSRC voluntarily released a CSR report available to the public that listed companies at the
end of 2016. However, some companies were reluctant to have their company details disclosed in the report.

4.1 The Value Drivers of SVDs

A total of 31 in-depth personal interviews comprising 75 open-ended and multiple-choice questions were conducted with four or five executives in each department. Thirty-one executives who could have an impact on the decision making of the firm were selected from the departments of human resources, operations, senior management, contracture, repair, environment and employee safety, and customer relations. The respondents held titles such as senior vice president, director, senior manager, and junior manager. The 31 executives were interviewed regarding a broad range of IC-related topics (including CSR issues). The results revealed that eight IC and CSR dimensions and 11 IC and CSR factors, with a weightage of over 71%, were identified as SVDs.

4.2 Assessment Performance and Construction of the SVD Index

By using 11 value drivers, the authors designed an expert questionnaire and interviewed 48 experts and managers. With regard to internal consistency reliability, Cronbach’s α and construct reliabilities for three dimensions (human capital, organizational capital, and relationship capital) were between 0.834 and 0.923. For convergent validity, the values between 0.4 and 0.948 are considered favorable (Hair, 2006). Therefore, we extracted and analyzed SVDs of the three dimensions and formulated and constructed the SVDs index. By utilizing the AHP, the index was constructed as listed in Table 1:
5. RESULTS AND DISCUSSION

Figure 1 indicates that the THSRC had a strong impact and performance on customer relation dimensions (including customer satisfaction and customer loyalty). Therefore, the corporation should continue to be run in this manner. First, the THSRC should improve its relationship with its employees (concerning salary, welfare, and safety in the working environment) and its financial relationship with its investors. However, the corporation is ineffective in dealing with intangible infrastructure (corporate culture) and knowledge skills (education and training for employees).

![Figure 1: Impact and Performance of SVDs](image-url)
6. CONCLUSION

Leverage value-creating resources can generate sustainable competitive advantages. This study applied several theoretical streams, such as RBV points, CSR, and stakeholder theory, and considered IC factors as value drivers of the stakeholder value creation process. The authors expect that all the levels of corporate management can apply our method to find leverage drivers and create the maximum value; thus, we implemented a case study by the THSRC. By interviewing top managers and related senior staff members, the authors developed an enterprise-based questionnaire for data analysis.

The statistical results show that by improving its relationship with its employees (concerning salary, welfare, and safety in the working environment) and its financial relationship with its investors, the THSRC can maximize corporate sustainable value.

There are several contributions of this study: First, the authors developed a standard instrument to measure stakeholder value and facilitate top managers in judging how many resources are to be invested or allocated. Second, the authors created research-generated items or statements from IC and CSR to devise appropriate rating scales for measuring values with respect to each statement and to compose a set of statements for producing a comprehensive and reliable but condensed instrument. Furthermore, the authors suggest that with appropriate wording changes, the same instrument can be used to measure value in various industries.

From the research perspective, the contributions of this study are as follows. The method, which involves combining CSR and IC value drivers, can be implemented in all corporations to understand the relationship between such drivers and organizational sustainable competitive advantages. This research method can be developed for all corporations to understand their relationships with organizational performance. In other words, this research method can be implemented to assist organizations in customizing their value drivers.

From the practical perspective, the contribution of this study is to provide additional investment suggestions and corrective actions for improving stakeholder value. Because general drivers cannot be applied to the same enterprise, the authors suggest that top managers customize corporate IC drivers and then leverage priority resources to maximize corporate sustainable value. From the managerial viewpoint, the major concern in RBV is the ability of the firm to maintain a combination of resources that can create the maximum value for stakeholders. Second, researchers offer guidance for achieving stakeholder value for senior managers. Furthermore, the authors provided a corporate base for understanding that the sustainability strength of competitive advantages depends on the ability of using leverage resources to improve a firm’s performance.

Finally, the authors suggest that future studies should focus on interdependencies between
factors, as well as on how to develop an overall index to measure sustainable value for stakeholders. A key challenge for researchers is to devise methods to measure this value accurately.

REFERENCES


.“THSRC CSR Report,” 2014