

# Structural capital a theoretical construct business essay



Structural capital includes such traditional things as buildings, hardware, software, processes, patents, and trademarks. In addition, structural capital includes such things as the organization's image, organization, information system, and proprietary databases. Because of its diverse components, structural capital can be classified further into organization, process and innovation capital. Organizational capital includes the organization philosophy and systems for leveraging the organization's capability. Process capital includes the techniques, procedures, and programs that implement and enhance the delivery of goods and services. Innovation capital includes intellectual properties and intangible assets (Edvinsson, 1997). Intellectual properties are protected commercial rights such as copyrights and trademarks. Intangible assets are all of the other talents and theory by which an organization is run.

Competitive intelligence, formulas, information systems, patents, policies, processes, etc., that result from the products or systems the firm has created over time can be defines as structural capital. One of the three types of intellectual capital (the other two are customer capital and human capital), it does not reside in the heads of the employees and remains with the organization even when they leave (<http://www.businessdictionary.com> April, 2012).

If you understand human and relationship capital, you can start a business. If your business creates value for your customers, you can earn a good living. But you will never grow large or particularly rich with just these two kinds of knowledge assets. This is because the real promise of the knowledge economy comes in the creation of structural capital, that is, knowledge that <https://assignbuster.com/structural-capital-a-theoretical-construct-business-essay/>

gets captured and institutionalized in an organization. Four basic forms of structural capital: culture, organizational knowledge, intellectual property (IP), and processes (<http://www.i-capitaladvisors.com/2010/06/28/>).

What is the total value of your organization's assets? The accountants keep track on all physical assets and the financial assets, but the field of measuring intangible assets is still emerging. Intangible assets are all the resources within the organization that does not appear on the balance sheet. This counts for as much as 80% of many businesses today!

Intangible assets are divided into human capital, relational capital and structural capital.

### Human Capital

The knowledge that all employees of the business holds. When the employees leave, the value of the human capital leaves.

### **Structural Capital**

The knowledge that stays in the organization when all employees leave at the end of the day. This includes processes, databases and software, but also work products from the enterprise architects.

### Relational Capital

This consists of all value that the business gets from their customer and partner relations. External networks are increasingly important for the business today which shows on the value of the relationship capital.

The structural capital doesn't get measured in the organizations. Hence it is important to find a way of measuring structural capital (<http://eablogs.gotze.eu/2012/01/29>). Although measurement is a secondary question, while the primary question is what comprises of structural capital.

Its aim is to create systems, routines, networks and an image to make it possible for the company to handle a larger volume of business in a structured manner and be less vulnerable to loss of staff and customers. For investors and lenders, information about its structural capital is an important factor in assessing the company. Here is an example of what does structural capital mean.

## **Example**

Indevo is Sweden's largest management consultancy group. One of its subsidiaries, Indevo Trim has built up special competence in corporate cost-cutting. A few years after it started operations, however, the employees left and formed a company of their own with the same idea. But after rapid recruitment from among many applicants, Indevo soon managed to buildup a new Trim with, by and large the same volume of business and the same clients as before. Why was Indevo not hit harder? The staff took their capital and departed.

Obviously, there was something more than just the individuals' know-how capital in the company; a reputable name, well established marketing organisation etc., in short, structural capital that belongs to the company (<http://www.sveiby.com> April, 2012).

## **IMPORTANCE AND RELEVANCE OF THE STUDY**

Management is tied to measurement and evaluation since those things would be managed which have basis for measurement. In general measurement is inevitable in effective management.

The detailed study of all the following works will help in understanding the concept of structural capital. Thus, the objective of this study is to

- To explore the various definitions and descriptions of Structural Capital (SC).
- To study the theoretical concepts expounded by various researchers.

## **DISCUSSION AND CONCLUSION**

Skandia, as a first big company attempted to measure their knowledge asset. Skandia presented its first intellectual capital reports as a domestic report (internal) in 1985. In 1994, for the first time it has attached intellectual capital reports to the traditional financial statement and disclosed it to the users. The Skandia's model was proposed by (Edvinsson, 1997).

In this classification, Edvinsson has divided intellectual capital into two categories including human capital and structural capital (see Figure I). As it can be seen, there are some other classifications for structural capital. There are classifications, which are presented by other scholars over the issue of intellectual capital. One of the presented models which used the Skandia model tries to measure two main parts of intellectual capital including human capital and structural capital.

## **Figure I -Edvinsson's IC model for Skandia**

Amongst several presented models, Tobin's Q is the most interesting model. This model has derived from Stewart's market value to book value model. In the market value to book value model as the simplest model, the difference between these two values is seen as intellectual value and while so simple it has some disadvantages.

### **Monetary model of Tobin Q**

This model tries to remove some of its defects by following Tobin Q. The difference between the market value of the organization and the asset replacement value of the organization would be intellectual capital based on the division derived from the overall value by Edvinsson. In Skandia model, two values of human capital and structural capital can be extracted. The current value of the future payments to pay the salary, wages and any expenses which the organization should go through that can be estimated and calculated is known as human capital. The remainder of total value of intellectual capital and human capital is structural capital. It should be explained that such capitals can be assessed in renewal period or rather they will be depreciated and generally they can be treated as capital expenditure.

This model not only considers the defects of Tobin Q ration but also tries to maintain the above mentioned value through monetary assessing of intellectual capital and its division into human capital and structural capital (Ghasemi and Naslmosavi, 2011)

## **Table 1: Conceptualization of Structural Capital**

Authors

Definitions of Structural Capital

(Alama, 2007)

Intangibles that determine the manner of working of a company.

(Carson et al. 2004)

Processes and procedures that arise from employee intellectual contribution.

(Ordoñez de Pablos, 2004)

Knowledge that remains in the organization when employees return to their homes and, therefore, is owned by the firm. In this sense, SC is integrated by organizational routines, strategies, process manuals and databases.

(Camisón Zornosa et al. 2000)

Knowledge that the organization has internalized and that remains within its structure processes or culture although employees leave.

(Kogut & Zander, 1996)

Elements that belong to the organization and that facilitates its configuration as an entity providing coherence and superior principles for coordination.

(Euroforum, 1998)

Knowledge that can be reproduced and shared and, therefore, becomes somewhat explicit.

(Bontis, 1996)

Those technologies, methodologies and processes that make the functioning of the organization possible, this is, basically the elements that define the working mode of the firm.

Unlike the relative existing consensus regarding the terms of Human Capital and Relational Capital, Structural Capital is subject to the use of different conceptual approaches. Some papers analyze Structural Capital as an aggregate concept and include all different forms of knowledge created, integrated, disseminated and used in the organizations (Sveiby, 1997). However, this focus does not allow for the identification of homogenous blocks of knowledge which would contribute to improve organizational management. It is for this reason that it is important to separate two basic components of Structural Capital -Organizational Capital and Technological Capital- and analyze them separately (Edvinsson, 1997).

Organizational Capital, is integrated by systematic or internalized organizational knowledge, such as organizational routines, decision-making processes or planning and control systems. In this sense, it includes an improvement in the transfer of knowledge and, therefore, an efficacy improvement because firm functions are more adequately integrated.



## **Table 2: A system of indicators for SC**

### **STRUCTURAL CAPITAL**

#### **ORGANIZATIONAL CAPITAL**

Knowledge related to organizational mission

Knowledge related to business philosophy

Organizational structure

Infrastructure Social climate

Organizational development

Organizational stability

Social compromise with the environment

Quality evaluation Business management models

Shared strategic management

Processes Strategic reflection processes

Organizational learning capacity

#### **TECHNOLOGICAL CAPITAL**

Technological Organizational innovation and development

Effort Protected internal and external knowledge

Non-protected intellectual property

Organizational Capital is constituted by all the aspects related to the organization of the firm and the decision-making process (Ordoñez de Pablos, 2004). These assets are difficult to imitate, substitute and transfer and, in turn, this makes them a valuable source of sustainable competitive advantages. These assets are directly owned by the organization and, therefore, they are more easily managed in comparison to Human Capital and Relational Capital -owned by employees and customers, respectively.

Within Organizational Capital two basic frameworks can be identified; one is based on infrastructure and the other on organizational processes.

Organizational infrastructure is defined as the set of values and beliefs that are shared by employees and that contribute to the understanding of the functioning of the firm and of the value created through organizational structure. Organizational processes includes those resources and activities that make present functioning possible, such as internal processes or organizational learning and capacity to generate value in the future.

In this context, (Ordóñez de Pablos, 2001) and (Snell et al. 1999) analyze the strategic potential of organizational Structural Capital with respect to the dimensions of value and idiosyncrasy. As for the first of these dimensions and within the Strategic Management focus, Structural Capital contributes to increase Value if costs are reduced or if service or product characteristics are improved from a customer point of view.

With regard to the second dimension of Structural Capital -idiosyncrasy- (Collis & Montgomery, 1995) establish that this type of capital depends on the degree to which it contributes to obtaining competitive differentiation.

Therefore, firms will have incentives to manage Structural Capital if its idiosyncrasy increases, given that this should reduce risks and allow taking advantage of productive potential.

In order to classify organizational SC, (Ordoñez de Pablos, 2004) proposes a conceptual framework based on the juxtaposition of both dimensions described below (see Figure II). The basic aim is to effectively manage each of these components to increase organizational value.

1. Idiosyncratic organizational SC. It refers to organizational specific knowledge, although it does not directly determine obtaining a sustainable competitive advantage.
2. Residual organizational SC. Knowledge that is not specific to the firm and, therefore, is not especially useful for customer value creation.
3. Essential organizational SC. Firm capacity to transform Human Capital and Relational Capital into Structural Capital -knowledge that is inserted in the structure and processes of the organization-. This allows the company to maintain its competitive position.
4. Generic organizational SC. Non-specific knowledge -spread through the market- that can still be useful to obtain a competitive advantage in the long run.

## **Figure: II Organizational Structure Matrix**

The second component, Technological Capital is analyzed from both a Resource-based and an Innovation and Technology Management

perspectives (Collis & Montgomery, 1995). This variable includes the set of capacities necessary for employees to perform the basic functional activities in the present moment or those that would be necessary to undergo an innovation process with the consequent need to renovate functional competencies in accordance to market requirements (Martin and García, 2003).

Technological Capital is integrated by intangible assets that are responsible for obtaining and developing products and services, as for example, the acquisition of necessary knowledge for product and service innovation.

Different indicators for each type of Capital are presented and explained below:

#### a) ORGANIZATIONAL CAPITAL

### **Infrastructure framework**

1. Degree of consciousness and internalization of organizational mission by employees.
2. Degree of knowledge regarding business philosophy, understood as a clear understanding of business management.
3. Existence of organizational infrastructure. Employees should clearly know and understand task distribution, their responsibilities and contribution to the decision making process, along with which are the formal relations between the different elements.

4. Social climate. The existence of a pleasant working atmosphere and active employee contribution to management improves level of satisfaction, both individually and collectively.

5. Organizational development. Organizational structure should allow for necessary adjustments to be made, given environmental changes.

6. Organizational stability. The age of the organization can be employed to measure stability and the level of knowledge accumulation or experience effect.

7. Social and environmental commitment. This can be valued through the economic quantity dedicated to environmental investment and cultural and solidarity projects.

### **Process framework:**

1. Systems to evaluate process, product and service quality. The following indicators can be taken into account:

f~€ Error percentages for different activities.

f~€ Number of certifications the firm has received.

f~€ Existence of teams of workers dedicated to internal progress and technological innovation.

f~€ Percentage of employees that have information on total quality programs.

3. Existence of business management models. The number of management models specifically created for the organization and the level of investment in these can be used as indicators.
4. Shared strategic management. Indicators should include the number of employees that participate or have participated in the past in building shared strategic plans.
5. Shared strategic reflection. Organizations should periodically design, define and revive strategy and, therefore, the frequency of these activities is a useful indicator.
6. Learning capacity. Firms must create environments to favor learning, organizational guidelines, manners of capturing and transmitting knowledge and, moreover, situations to create and develop knowledge. The learning capacity of a give organization can be measured through the following indicators:

f~€ Number of mechanisms to transmit and communicate knowledge.

f~€ Degree of effective use of those mechanisms.

#### b) TECHNOLOGICAL CAPITAL

It is integrated by technical skills that are developed by different groups given that they collaborate with each other. These skills are a source of technology in the sense that they are intangible resources directly responsible for the development of activities and functions to be performed

by the technical operational system of the organization, both related to products or efficient production processes and future innovations.

1. Technological effort. Organizational effort in the acquisition of new technologies related to the productive and to information and communication systems. The annual level of investment in technology can be an indicator.
2. Organizational innovation and development. All organizations must evolve in order to adapt to changing customer requirements. Therefore, the following indicators can be used:
  - a) Innovation investment, this is, the annual investment in the development of new products, process improvement, development of new markets or in R&D projects.
  - b) The existence of working teams dedicated to improvement.
  - c) Number of new products, production processes and management methods over the last year. This indicator provides information on the results of innovation of the organization.
3. Knowledge regarding internal and legally protected items (patents, know-how, intellectual property, production or commercial secrets, exclusive design rights, licenses, concessions, inventions and formulas, etc.)
4. Knowledge regarding external and legally protected items (trademarks, logotypes, copyrights, slogans, etc.)

5. Knowledge related to non-protected intellectual property (know-how, know-why, know-what, etc.)

6. Existing data bases on information about the environment or customers.

The authors consider the annual investment in information systems as an adequate indicator. (Álvarez et al. 2011)

As it is clear, no single model, possess an absolute measurement of structural capital.

Therefore, the need would be of searching models that are practical and operational. However, the combination of the previous presented models may also solve the problem.

The proposed models are designed based on the accounting rules and principles which are expected to be of interest for accounting professional societies. These models are also focused by management, because intellectual capital is measured by monetary and financial measures in such a way that management during preserving the existing and reported values will attempt to promote it. However, the non- monetary ways may evaluate intellectual capital components accurately.

Because management looks at the reports from monetary and financial perspective, thus it cannot be easily accepted. The monetary characteristic of these models will provide comparability for the users to comment on this part of capital. Many experts have studied the intellectual capital and designed many ways for its measurement. It is clear that all these models have some advantages and disadvantages. Therefore the basic objective of



this study is to come up with a model of structural capital that focuses on the constituents of structural capital, which will help in measurement of structural capital.

Structural capital is very significant because of increasing attrition rate and also it saves time, money and energy. If the structure (processes) is already in place you do not have to reinvent the same process again and again.