Chapter 9

Applying SNARE-RCO to Evaluate the Relational Capital of an Organization: The SH Case Study

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ABSTRACT

The authors consider that social networks are important artifacts of organizations. The relational capital of an organization tends to include intangible factors, and consequently, it is not always possible to have this value from accounting systems because it is almost invisible in conventional forms of information systems. There are several evaluation network models, but there is still a need for models to evaluate relational capital tangibles and intangibles. The SNARE (short for “Social Network Analysis and Reengineering Environment”) is now used to evaluate the relational capital of a knowledge-intensive organization. In this case, the authors use the SNARE-RCO model (short for “Relational Capital of Organizations”) as a basis to evaluate the relational capital of an international software-house: the SH company. Analyzing partner-developer SH product improvement requests, the model is used to uncover the relational capital value. This chapter presents the network layout under study and shows how to define Human, Structural and Relational Capital SNARE-RCO properties, aiming at evaluating six months of partner-developer relationships.

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1. INTRODUCTION

Human capital, relational capital and structural capital are essential knowledge of organizations. *Human capital* denotes the knowledge, skills and experience of individuals (Anklam, 2007). *Structural capital* denotes the procedures, processes and internal structures that contribute to the implementation of the objectives of an organization (Anklam, 2007). Finally, *relational capital* is the value of social relationships in a given organization that contributes to achieve its objectives, i.e. the value of internal and external relationships of an organization (Anklam, 2007).

The intangible value of an organization is generated from informal, non-contractual activities that help build business relationships and contribute to operational effectiveness (ValueNetworks, 2010). From these non-contractual activities can result intangible deliverables, which can be seen as knowledge and benefits extended or delivered by an individual or group, that are non-contractual but still have value for the organization. The combination of all intangibles of an organization, i.e. *human, structural and relational capital*, is called *intangible capital or intellectual capital* (Adams & Oleksak, 2010).

The value of intangibles can be difficult to identify through financial transactions and the use of nonfinancial indicators is a way to provide intellectual capital measurement (Adams & Oleksak, 2010). It is not always possible to find out the intellectual capital in their accounting systems because they are almost invisible in conventional forms of information systems (Adams & Oleksak, 2010). Also, there is a lack of standard metrics for evaluating the relational capital of organizations (Zadjabbari, Wongthongtham, & Hussain, 2008).

Social network systems identify existing relations between social entities and provide a set of automatic inferences on these relations, promoting better interactions and collaborations between these entities. The SNARE, short for “Social Network Analysis and Reengineering Environment,” is a project that has been developed in recent years. SNARE involves engineering artifacts to represent social networks (Barão & Silva, 2010) and allows researchers to design and build real scenarios for social networks relational knowledge discovery (Freitas, Barão, & Silva, 2009) (Barão & Silva, 2008).

In this chapter we introduce the SNARE-RCO (Barão & Silva, 2011) as a model to evaluate the relational capital of a software-house: the SH company. This company has an international network of partners. SH partners keep a special relation with company developers. They ask for product improvements and in this process there are intangible factors to include in the evaluation, such as the *partner-developer* proximity. The main motivation is to evaluate the SH *partner-developer* relation and the produced relational capital between them during a period of six months.

This chapter is organized into five sections. Section 2 overviews intellectual capital evaluation challenges. Section 3 describes the SNARE-RCO model as a way to compute the relational capital value of organizations. Section 4 shows the application of SNARE-RCO model in the SH company. Finally, the last section presents the preliminary conclusions.

2. INTELLECTUAL CAPITAL EVALUATION CHALLENGES

There are still three basic challenges associated with Intellectual Capital (IC) (Greene, 1999), in essence how can we: value (measure) intangibles in a better way; create more value (i.e. invest and manage) from intangible capital; and retain more (conversion) of this capital? These questions are still a challenge. Mary Adams and Michel Oleksak (Adams & Oleksak, 2010) argue that “In Europe and Asia, a number of tools have been created by governments as part of competitive initiatives to
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