



Knowledge Management in Human Capital Development in the Context of the Digital Economy

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Abstract

Modern market economy is marked by a high level of competition. Therefore, organizations have to dig for new development options to expand their economic potential and augment capital. Human capital – a stock of individual human capitals, as we define – can be one of such options. This article is a written discussion over mechanisms of transforming insider information into knowledge and intellectual capital. At this point, particular attention is paid to human capital development through the knowledge management problems, including factors that inhibit the effective use of human capital. This article also puts under discussion some of the requirements for the knowledge management system and its basic tasks.

The Results section provides recommendations on gaining skills, knowledge and experience inside the organization. The action system of knowledge management is described.

Keywords: intangible assets, knowledge, individual human capital, company's human capital, knowledge management.

1. Introduction

In a dynamic 21st century, any large organization survives on the back of little more competent potential management, and a bit less on the size of material assets at disposal and their competent management [9]. This allow the organization not to get lost in modern market dynamics, to identify and use new opportunities and risks, as well as to shape the adaptive abilities.

There are large amounts of un-structured, raw and partially non-formalized information generated in the course of organization's performance. This is especially true if this is a knowledge-based organization. This causes trouble to making prompt effective management decisions, often making the process out of the question. At this point, we face a problem – the lack of information against a backdrop of its overload [1]. Thus, there should be mechanisms intended for bringing information into a form suitable for making management decisions, as well as technologies and organizational mechanisms for transforming this information into knowledge and intellectual capital. The effective use of intellectual capital maximizes the organization's potential and allows the companies to stay in the game in the context of modern dynamic world. Knowledge management problems [2], based on the intangible assets of the organization, are becoming of a recent kind.

One can single out the following main components of intangible assets of the organization [3]:

- human capital (human resources);
- infrastructure capital;
- intellectual capital (intellectual property rights);
- market assets (market condition, market transactions).

Intellectual capital is an intellectual creation, secured by the law (patents, copyrights, commercial secrets, know-how, etc.).

Market intangible assets are tied to market transactions. These are trademarks, customer loyalty to the brand, market contracts, promotion and distribution channels, licensing agreements, franchising, etc.

Human capital usually refers to knowledge that employees have in aggregate, their creative and mental abilities, their problem-solving abilities and skills, leadership traits, managerial and entrepreneurial skills, their moral values and corporate culture [10.12.15]. Hereafter, we will focus on the intellectual component of human capital.

Infrastructure capital covers technologies, methods and processes (formal part of corporate culture, organizational structure, decision-making methods, methods of human resources management, IT system, etc.) [13]. Infrastructure capital shapes the environment for the employees to work and communicate in.

Social capital is a component worth brining about; it covers knowledge gained, improved and used through communication inside the company [12.16]. It includes social contacts, standards, and elements of a corporate culture.

There is a line between the "information" and "knowledge" concepts. Information refers to data presented within the context, to data tied to the current situation the receiver fell in. This is a message delivered as a document or some sort of communication. Its obligatory participants are the person sending the information and the person receiving the information. Information is associated with the concepts of informative value and utility, and with methods for being aware of information (information gaining, collecting, processing, storing, and transferring).

Knowledge is an ever-developing mix of information, insights, experience and values. Knowledge depends on the context and time. It is formed through social interactions; it allows gaining experience, and determines the ability to perform effectively. A

significant part of knowledge is formed through informal communication. Knowledge is a launching pad to action. In the context of the digital economy, the amount of new knowledge, generated through communication, stories, conversations, work observations, etc., is expanding in the avalanche-like manner [14].

However, organization's efficiency depends not on the volume of human capital, but on the potential of this human capital for use (Figure 1). Many researchers draw a line between the concepts of "individual human capital" and "company's human capital" [3].

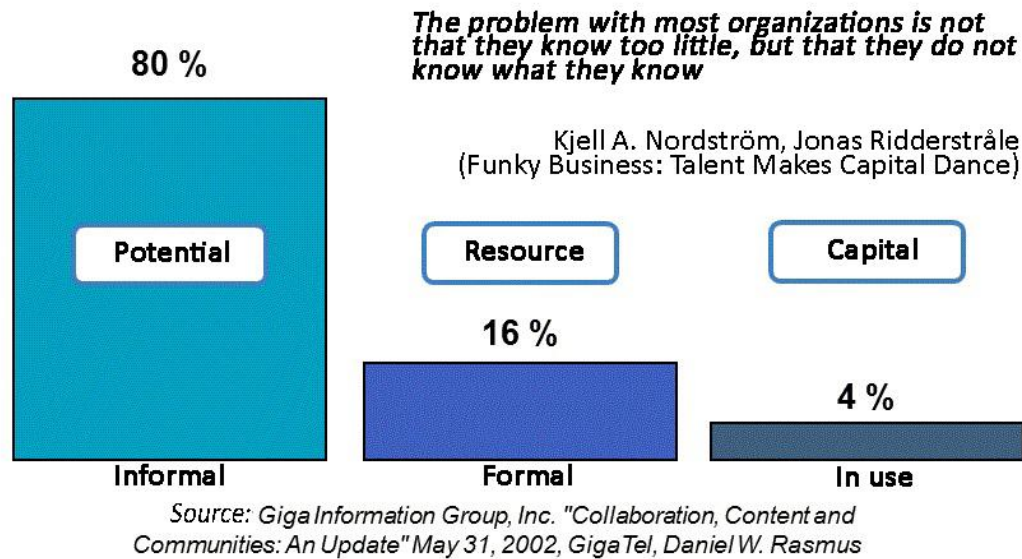


Fig. 1. Company's Human Capital in Use

Thus, individual human capital is no longer on the front burner of business, which place was occupied by an integral system of human capitals interacting with one another and stepping up their skills. The problem is that there is no unique approach to creating company's human capital so that it counts business requirements and differences in the interests (temper) of employees. In this regard, this article examines the key aspects required for creating company's human capital, as well as their relationship options.

2. Data, Analysis, and Results

The potential of human capital for use is determined by three factors:

- Employees have knowledge, creative and mental abilities, problem-solving skills, leadership traits, managerial and entrepreneurial skills.
- Employees are willing to share their knowledge and skills.
- Organization is able (willing and has a room for) to accept and use this knowledge.

Solution to the problem of transforming individual human capital into the company's human capital is vital for company's successful development.

In the context of rapidly developing digital economy, the amount of formal (including text-based one), but not structured information and, to some extent, knowledge from external sources is expanding in the avalanche-like manner. The external sources here are:

- The Internet;
- Mass Media;
- Periodicals;
- Departmental and industry-based materials;
- Commercial databases;
- Various conferences, seminars;

- Information from market agents (consumers, suppliers, etc.);
- Scientific papers, external consulting services.

This individual human capital (information and knowledge gained outside the company) is transformed into the company's human capital inside the company.

The key elements here are:

- specialized knowledge-creating services;
- interaction in corporate management;
- interaction in the organizational structure;
- creative employees;
- formal and informal business communities (teams);
- local networks and infosphere.

As to specialized knowledge-creating services, these can be strategic development services, analytical centers, strategic marketing services, innovation centers, and R&D departments. Their main purpose is to create new knowledge and new ways of doing business.

However, there is a very serious problem – knowledge is hard to deliver to those parts of the corporation where they can be applied, since creators and potential users have different competencies in the field of handling information, they literally speak in different languages. The true value of new knowledge is difficult to measure, and ordinary employees often cannot evaluate and accept it. In other words, organization is often unable to accept new knowledge and put it into practical contexts.

Potential solution to the problem is to create corporate communication tools, organize in-company trainings and regular management meetings, conferences, seminars aimed at evaluating and integrating new knowledge into the sphere of the company.

Another mechanism that will solve the same problem can imply the establishment of business communities (creative, target and project groups/teams). Such communities can:

- assist in solving everyday problems (for example, through a community forum);
- develop and deliver best practices that can be used by members;
- manage the knowledge sphere of the company;
- introduce innovations, breakthrough ideas and knowledge (for example, when the anti-crisis program is in design or power).

Communities can be both physical and virtual, acting both inside and outside the organization. Their main purpose is to break the boundaries between knowledge created through division of labor between departments, process fragments, territories, etc. In other words, local knowledge becomes the knowledge of the entire organization.

The online versions of knowledge-creating services are corporate portals, forums, training and innovation networks. These are systems providing mechanisms for exchanging information, knowledge and experience with partners.

Personal practical experience in using mechanisms of human capital development is channeled more towards the anti-crisis management problems [8].

These mechanisms are based on expanding organizational structure of the company with units that were programmed to creative process beforehand [8]. The company's structure was expanded with units responsible for knowledge distribution (Figure 2).

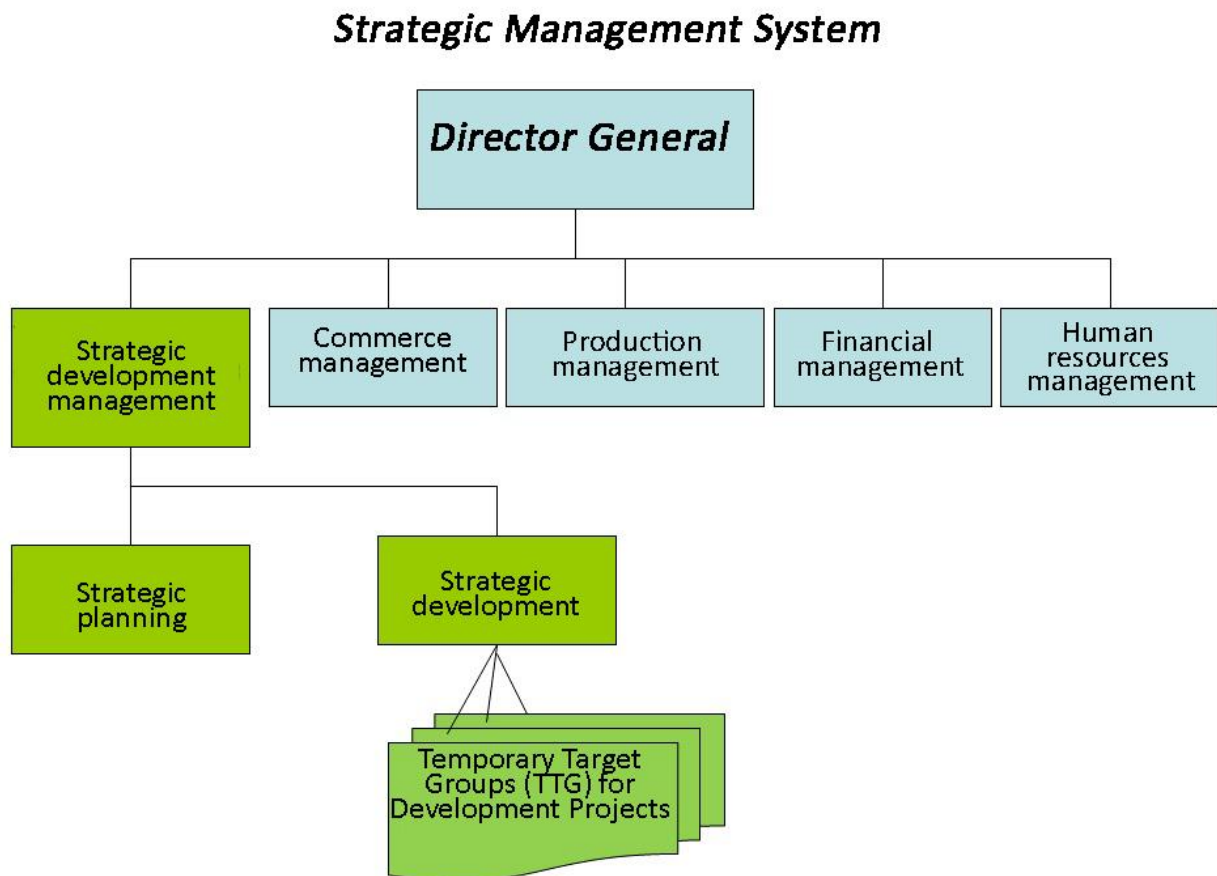


Fig. 2. System for Company's Human Capital Development

That said, it is the Brisk Growth Department that transforms individual human capital into the company's human capital.

Brisk Growth Department Functions:

- Strategic Diagnostics;
- Innovation;
- Environment Creation for Innovation and Team Creativity Drop on Problem-Solving;
- Development Process Coordination and Control;
- Development Priority Listing;
- Problem Spotting;
- Team Management on Development Projects (temporary target groups giving life to proposals or development projects);
- Innovation Activity Standardization;
- Control over Change Adoption and Compliance with Established Rules;
- Development Environment Security;
- Suggestion and Solution Boxing;
- Development Project Appraisal;
- Coordination of Related Units.

3. Discussion

The leading global and Russian consulting companies specializing in company development management laid their eye on the issues of human capital development, associated with the effective development of organizational knowledge, in the mid-9th of the twentieth century. In 1997, Ernst & Young, following the surveys of several hundred firms, singled out the following approaches to creating and managing organizational knowledge [4]:

- creating corporate networks on the Internet;
- creating knowledge bases;
- creating decision-making support systems;
- applying software tools to automate teamwork to strengthen cooperation;
- organizing mechanisms of communication between knowledgeable people;

- describing and formalizing corporate experience sources and results;
- expanding organizational structure that involves knowledge management;
- switching to knowledge-based production and service delivery.

As part of the general problem solution, knowledge-based companies have to address such problems as the intellectual capital identification, its audit and management policy design; records and knowledge base creation; security; augmentation, development and allocation.

Their scale and complexity press to introduce a new element into the management system – the knowledge management system [5-8].

Figure 3 shows a knowledge management system for a management consulting company (this system was tested in the company ROEL Consulting Company in 2016-2017).

This model implies the search for and collection of primary information and knowledge through communication with the

world outside the company (Corporate Activity) and through consulting projects (Project Office).

Information is primary processed, bounded to certain situations and transformed into knowledge in the Information Center, Analytical Center, Project Center, Guidance Center, Human Resources Management Center, and in the PR Center. They connect insights with other situations, assess the new knowledge, and build up a corporate opinion. In other words, these units perform the primary transformation of information into knowledge, and place all the related insights into the relevant databases.

If necessary, Project Committee and the Investment Committee together with the Project Center process knowledge at a higher level, generating project ideas and concepts, investment and business proposals.

The corporate information portal allows involving the maximum number of creative specialists into the processes of knowledge accumulation and management.

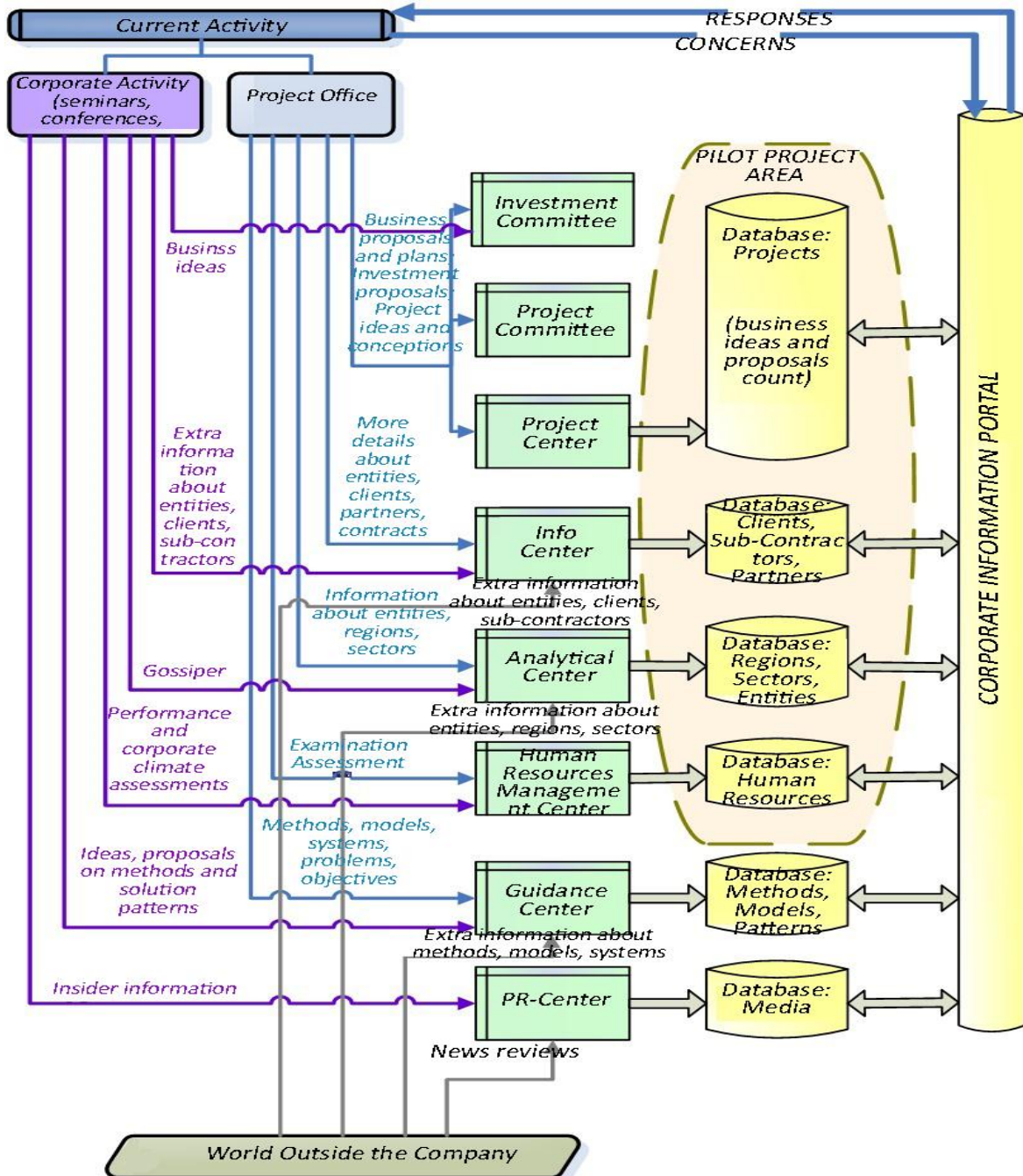


Fig. 3. Knowledge Management System for Consulting Companies

4. Conclusions

The success of company's human capital management is largely dependent on the effective knowledge management and implies the solution to the following problems:

1. Improving the value of available information through the identification, selection, synthesis, generalization, storage and distribution of knowledge.
2. Making knowledge relevant and accessible to employees.
3. Formalizing knowledge, and embedding it in products, services, documents, databases, information technologies, and software.
4. Boosting (rewards do count here) knowledge growth (distributing within the company, exchanging with other employees).
5. Creating a learning environment for people to exchange information and knowledge on constant basis, and to apply various mechanisms to learn more.
6. Evaluating knowledge, measuring and applying intangible assets.

In the context of growing digital economy, effective knowledge management strategies can create new value of a company by embedding it in products, services, and processes through knowledge formation, accumulation and use. At the same time, the company has to count its intellectual capital should in aggregate, and put into practice the integrated management strategies.

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