

Shaping virtual companies: a brief discussion

Yousef Ibrahim Daradkeh, Postica Doru, and Luis B. Gouveia

Abstract—This work proposes to discuss the emerging virtual enterprise and information management as being two combined issues that requires attention within a knowledge based economy context. We defend that the virtual enterprise as regarded from both the management level and the executive level, must incorporate proficient software and hardware in order to provide the best digital support possible. Also, the virtual company as it is presented and understood, is in fact a transitional form towards a business firm based on knowledge, which makes up the essential component for any new type of economy towards to which evolution aims – economy based on information. The paper also presents a case study of a virtual company to illustrate how both virtual company and information management can be.

Keywords—Virtual company, technology, information management.

I. INTRODUCTION

One of the most spectacular evolutions in the knowledge based economy and in the informational society is the appearance of early virtual companies. Even though there can be identified in the literature a large number of authors from the informational and managerial sectors that discusses virtual companies – within such, the virtual company definition varies between considerable limits. During the last decade (since the early 2000s) an increasing amount of publications appeared, which promote the idea of a so called “information management”, “virtual enterprises”, “knowledge management”[9], oriented to solve the problem of the quality of the information process and how can gathered experience be reused with less cost and more easy to spread processes.

There is a great variety of interpretations of the concept of information management, which includes a wide approaches as also treating it in the most narrow sense (as information technology oriented to computer based applications), sometimes meaning only the organization of data in the computer’s memory – data management, and in a wide sense, including practically all types of information activities. Information can be viewed as “meaningful data” where data have been converted into a meaningful and useful context, such assign the identification of a best-selling or worst-selling product. Examples of information items managed in a company would be summarized information pulled from transactional database systems and stored in

data warehouses. Such “business intelligent” systems support decision-making, and allow for the slicing-and-dicing of summarized transactional information to find patterns and trends in operational data [4].

II. INFORMATION MANAGEMENT ISSUES

This paper uses the broad and useful definition of information management provided by Bent in 1999 [10]: “information management is the enterprise-wide planning, budgeting, organizing, staffing, directing, training and controlling of information. It includes the management of various information resources: carriers of information such as electronic media, departments the provide information services”.

Information Management can be viewed as an umbrella term, one which incorporates computer science (developing tools which aid the function), records management archives and information resource management [10].

This vast approach to information management does not limit us to covering the field. As followed from the definition, information management is a multidimensional activity, which includes practically all the types of information activity, which correspond to the whole register of the known interpretations of information management. It even can be considered from ethical and philosophy perspectives as proposed by authors as Luciano Floridi [5].

A lot of specialists understand by “informational management” a powerful informational dimension, reflected in the focus given to information. The evolution from the last two decades highlights that information is omnipresent, more influent and more intense at any management level. Another common acceptance is the way we treat and consider information, making this a separate domain, with specific peculiarities. The promoters of this view are usually people with informatics specialization. Concerning the information within a much complex context, as resource, but also as a primary asset for our business oriented society that relies in information to operate and thus, need it to thrive and evolve. Within this context, a good introduction about information history and its concept, is the James Gleick work [6].

Information management can be considered (at least for

Yousef Ibrahim Daradkeh is with Prince Sattam bin Abdulaziz University,
e-mail: daradkeh@yahoo.ca)

Postica Doru is with Technology, University Fernando Pessoa,
e-mail: 29200@ufp.edu.pt).

Luis B. Gouveia is with University Fernando Pessoa,
e-mail: lmbg@ufp.edu.pt)

enterprises) as the main condition of an oriented accumulation of information and knowledge from the actual past experience, linked with all processes in the organization. It will permit to start a new, more effective stage of information modeling in the future. Indeed, an integrated information management, ensuring the information reflection of all processes in a system and identifying their interconnections and interdependences in time and space, is a condition to pass from the stage of just reflecting existing situations to the stage of predicting them on the base of accumulated experience and knowledge. For a better and efficient use of information, a management process is necessary. There are a number of alternative perspectives concerning what can be considered information management, because:

A lot of persons refer to the management of information as the technology and methods that act over information, meaning the processes that manipulate information.

Common acknowledgement that information is a resource, just like capital or labor. This has led to the appearance of the whole concept of “managing informational resources”

Most researchers view information management as application of management, like planning, orienting and control, to one or more sides of information

It is accepted that information management should progress to a level where it becomes a strategic element.

According to Edgar Schein, there are 4 types of factors that influence the characteristics, efficiency and level of information management [2]:

Organizational relations – financial situation, organizational structure, available effort for changing staff

Company’s branch of activity – strategic relevance of top technologies for the specific branch, competition’s behavior, benchmarking.

Technological reality – possibilities, costs involved

Individual factors – vision towards use of top technologies, training and experience in operating with top technologies

As it can be understood from examining the four basic factors, informational management is dependent of numerous elements, hard to recognize in real time. This is why we need to deal with informational management rationally, with a vision integrated in the whole strategy of the company.

III. FROM INFORMATION MANAGEMENT TO THE VIRTUAL COMPANY

This evolution towards informational management determines the appearance on the market of virtual companies like “Instantly Institutional Investor Intelligence Limited”. Over the last years there have been an increase in the number of specialists and employees with informatics background and a new attitude towards information appeared. It has morphed from an auxiliary to a basic resource of the company. Also, the extension of professional managerial practices stimulated the appearance of a new

type of managers, with knowledge in both managerial and informatics sectors. The obvious trend is towards an informational society.

Christopher Barnatt considers that the virtual company can be described as a network of people that can operate in a very flexible organizational structure [2]. Other specialists like Birchall and Lyons define the virtual company as a focalized project, a network of participants that are not bound in time or space [3]. Another interesting approach is the one provided by Huws, Karte and Robinson [7], that refer to the virtual company as a company that controls indirectly, through a contact network, the activity of small suppliers from a headquarters, having specific functions regarding the product’s image or distribution. The headquarters has its activities based on a website, where it generates, processes and exchanges information without fixed special boundaries.

However, Barnatt thinks that the last definition is mostly attributed to dynamic networks, not virtual organizations, whose main element is informational connection of independent individuals to create a flexible managerial center. According to Barnatt, virtual companies generates added value not by combining land, capital and labor in order to obtain goods or services, like basic microeconomics teaches us, rather dealing with information that can later on help other economic agents mobilize the traditional resources they have [1].

Regardless of the virtual company’s size, it is obvious that information and informational processes have a big weight and increasing influence in management. The company’s activities are low numbered, but are vital. The demand for their product is due to their activities, providing a critical part in the value chain. Usually, the main activity is in generating, processing and exchanging information, using teamwork and managerial teams. An advantage that they have is the unspecific and highly flexible internal structure. As present market conditions imply, the virtual company is innovative and fast in the decision-making process, their frequent competitive advantage being the ability to quickly satisfy market demand at acceptable prices.

IV. VIRTUAL COMPANY STUDY CASE

The paper’s case study, Instantly Institutional Investor Intelligence Limited, is a virtual company in London operating on the independent platform PensionMandate.com. They are an alternative service delivering real-time information about institutional investor activity in countries like the United Kingdom, The Netherlands, Switzerland, France, Italy, Germany, Norway, Sweden, Denmark, Finland, Austria, Ireland, United States, and Canada. Their data cover main asset classes like equities, bonds, real estate and also the alternative ones including: hedge funds, infrastructure, absolute return, currency management, diversified growth funds, timber, commodities, and private equity etc. Their services include:

- Complex data searches. Intuitive tools which generate diverse selections of relevant elements within the asset management industry. The platform provides an intuitive search system using relational and semantic methods.
- Investor strategies. Information about change of strategy and change of investment consultants. The company does a continuous monitoring of institutional investor and sponsor activity.
- Complex database relations. Our database has been developed around the relations between institutional investors, investment consultants, asset managers, comprehensive historical information and statistics.
- Information about asset management sector, investment vehicles, asset classes and strategies, about institutional investors, immediate delivery of data about official tenders, RFPs and RFIs.
- Other valuable data. Data with operational value to the marketing and sales teams using a non-journalistic approach in terms of research and content.

Their data is sourced directly from the pension funds/institutional investors. The service provides intelligence and research services including relevant information about the process of preparation, reviewing, tendering investment mandates by institutional investors to asset managers and also covers data about asset allocation, current investment mandates, in-house personnel, investment consultants and advisors. By using this virtual company's service, customers will easily discover they are faster than other operators in delivering customized sales leads about future mandates and they also find information which is not provided by others. Their service offers an important competitive advantage against those who only use typical mainstream publications (Instantly, 2013).

In this point in time, a virtual company is the effect of economic engineering, being characterized through an imprecise and dynamic structure, being in a constant change reported to the contracts and accords made with other agents. It can easily dissolve when a project is finalized, or when it is not profitable. Its whole activity is based upon using modern technologies through adaptation, innovation and fast reactions to market demand. Empirical research shows that in present there are few developments of virtual companies as a total by this moment, but this fact might change in the future.

The company's competitiveness in the information trading business is insured by software quality (for applications software built, maintained and supported), data quality (entering the information system from various first-hand sources), information quality (output resulting from the

information system that serves as input for the customer's system), administrative quality (budgeting, planning and scheduling), service quality (customer support processes as those related to a virtual "help desk").

The virtual company, at managerial and execution level, incorporates numerous informatics and informational elements. Frequently, the presence of activities and their physical results is replaced by presentations of visualized information, capable to fulfill the same functions, sometimes even in higher conditions of availability and use. This type of activity in the form of virtual shops and expositions (in our case, it sells information) has seen a booming increase over the last few years. This trend is the main component in the new type of economy that we will be facing: knowledge-based economy.

The customer-companies that buy information act on the premise that knowledge can be generated by combining the information they buy and have along with their experience [4] in order to insure that most part of the information will be turned into knowledge, that is into effective action, is necessary to have a respective permanent tool. It will also allow them to increase the amount of knowledge extracted from information, as knowledge must be oriented to accumulate only useful information, corresponding to user's experience and organization's goals.

The ability that this virtual company has, meaning to trade information online through web technologies offers them an increased degree of accessibility, with less social and administrative costs. For any virtual company, including this one, an efficient solution in managing information is the creation of an informational portal. It integrates multiple sources of information and applications like documents, e-mails, reports and analysis, and web access can be made through any working station. The platform insures the privacy of information and guarantees the integrity of transmitted data. Through this platform, information is constantly updated.

Intense client competition can make the information products more substitutable, resulting in a lower price for information. Furthermore, this effect leads to harsh competition between information providers and consequently provides incentives for exclusive contracting [11]. In the example of this company, it is a priority to generate accurate information in the present conditions of a dynamic and complex environment. More than that, in society we identify a shift in interest from tangible to intangible goods, which determined to trend of informational economy, digital economy, new economy etc.

Research shows that successful trades depend on relevant information. The buying and selling of information is taking place at a scale unprecedented in the history of commerce, thanks to the formation of online marketplaces for data [1]. Companies that are in need of information buy it from "Instantly Institutional Investor Intelligence Limited" because based on this information, they can understand

sudden changes in its internal and external environment and generate knowledge. Using informational support helps the managers in the decision-making process in a cost-effective way, as obtaining information by own means would imply more expenses.

The company's activity related to the informational process is very various and consists of a great amount of such procedures as collecting, organizing and processing data. At present, it is unanimously considered that the use of information technology (information systems, data bases etc.) is the necessary condition of the efficiency of the information process.

V. CONCLUSIONS

Information management is an important step towards a good evolution path for which companies can push their efforts. It also provides the possibility to take advantage of the digital, by providing innovative forms of companies like the virtual ones thus reinventing issues like logistics, customer relationships and broad coverage of diverse places with a single decision central point (not only for decision and strategic decision, but also for service).

Additionally, it provides the ability to foster internal resources by means of using information and information management as central operational issues to organize the enterprise business itself and its "inner works". It presumes planning, directing, mobilizing and controlling information based on the integrity of population's knowledge and experience as it also uses clients context aware to gather operational information with more detailed and personalized information, even that a significant percentage of such information is obtained not from the situation or the used itself, but from context (this may rises a number of issues related with privacy – one of the perils that digitalization brings with). Anyhow, both the opportunity to use digital information, take advantage of information management and propose virtual companies can be leading force towards a new society, based on information and knowledge. Such a society may have the basis to be considered both digital and networked.

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