Abstract: - Due to spectacular evolutions from information and communication technology domain, in order to enhance the capabilities of knowledge management, were developed new methods, techniques and tools for improving the outcomes of the process of knowledge discovery. In the last decade, organizations allocated significant resources for building organizational memory (OM) in order to improve organizational performances, but the development life cycle of the OM is an iterative process, that runs continuously because new facts, regulations, experiences must be included in OM. This paper will present: (a) an overview of the semantic web, (b) an overview of the organizational memory, and (c) the process of building organizational memory for accounting domain.

Key-Words: - semantic web, organizational memory, knowledge management, accounting

1 Introduction
During the last two decades many studies were focused to determine when organizations will be able to extract relevant information and knowledge from their history in order to use for obtaining a competitive advantage (Levitt and March, 1988; Walsh and Unguson, 1991; Kogut and Zander, 1992; Grant, 1996; Anand et al., 1998; Huber, 2001). Starting with 2000s, many companies started to invest a huge amount of resources in attempts to capture organizational memory in their information systems (Carr, 2003; Dedrick et al., 2003), but a significant part of employees use only a small part of these systems.

After 1990s the researches in the area of knowledge management, organizational memory, and organizational learning were focused on the development of new methods, models and tools designed to capture, store, and deliver the knowledge in organizational information systems (Zhao, 1998).

In the organizational strategic information system is necessary to included applications that must have capabilities to generate new knowledge (Mason, 1993):

a) new knowledge derived from internal sources (new approaches of existing and/or recent data, information or knowledge acquired - such as decision support systems, management information systems or executive support systems);

b) new knowledge derived from external sources (new approaches acquired from the process of gathering, transforming, assimilating and incorporated data, information or knowledge from business environment - such as competitive intelligence systems).

This paper will be focused on the semantic web and the process of building organizational memory for accounting domain. The semantic web can be assimilated with a tool that is used in order to enhance the capabilities of the organizational memory when information and communication technology (ICT) is used.

The research objectives of this study are outlined below:

a) presenting an overview of the semantic web;

b) presenting an overview of the organizational memory;

c) presenting the process of building organizational memory for accounting domain.
An extensive review of literature will be conducted in order to accomplish the objectives proposed for this study.

2 Semantic Web

The concept of Semantic Web was introduced by Tim Berners-Lee, the inventor of the World Wide Web (WWW), which defined Semantic Web as “a web of data that can be processed directly and indirectly by machines”. Accordingly to World Wide Web Consortium (W3C), Semantic Web provides „a common framework that allows data to be shared and reused across application, enterprise, and community boundaries”. Devedzic (2006) considers that the most relevant issues related to Semantic Web are: (i) ontologies; (ii) Semantic Web languages; (iii) semantic markup of pages on the Semantic Web; (iv) services provided by the Semantic Web.

Because Semantic Web represents a proper environment for semantic communication between humans and software agents, it can facilitate the transformation of data and information from the World Wide Web into useful information and knowledge for organizations, and will be used in order to enhance the capabilities of organizational knowledge management systems (Castellanos-Nieves et al., 2007). Semantic Web can be assimilated with an extension of the original WWW, where existing data and information can be accessed and processed by computers (Patel-Schneider and Simeon, 2002). In figure 1 is represented the architecture of Semantic Web designed by Tim Berners-Lee which must respect the following two principles:

a) downward compatibility – agents that are belonging to a layer must fully interpret information from the lower layers;

b) upward partial understanding - agents that are belonging to a layer must interpret at least partially information from the upper layers (Antoniou and van Harmelen, 2008).

3 Organizational memory

The concept of organizational memory (OM) was introduced in the 1950s (Walsh and Ungson, 1991) by organizational science and information-processing theories, but until the 1990s the researches regarding organizational memory were not significant (Makinen, 2005). Five “retention bins” of organizational memory were identified: individuals, culture, transformations, structures and ecology and organizational memory represents “stored information from an organization’s history that the firm can be brought to bear on present decisions” (Walsh and Ungson, 1991).

Unland (1994) considers that OM represents only one part of the process of organizational intelligence, which is the intellectual ability of an organization to solve organizational problems and is an ensemble of five components:

a) organizational memory;

b) organizational knowledge;

c) organizational learning;

d) organizational communication;

e) organizational conclusion.

The organizational memory represents one of the central components of organizational learning, being a critical element for learning and communication in organizations (Walsh and Ungson, 1991) and has the following objectives:
d) serving work by making stored knowledge relevant to the current design task;
e) allowing to be extended and updated as it is used to support work practices;
f) artifacts provide external realization of ideas and concepts, thereby must allow others to share, critique, and extend.

Because organization’s employees are not just procedure followers, they are continuously improvising it is necessary to encourage them to improvise, but what they improvise must be synchronized with internal and external procedures or regulations. Organizational memory must capture and store knowledge from organization’s employees and improvisations that were made by them in order to be used by other employees in similar situations, therefore the OM is in a continuously development based on new information and knowledge discovered in the process of organizational learning (Vrincianu et al., 2009).

Walsh and Ungson, (1991) considers that the organizational memory has different forms, levels, contents, therefore the OM is related with the following domains and areas: information and knowledge management, organizational buying process, new product development (Anand et al., 1998; Park, and Bunn, 2003; Kriakopoulos and Ruyter, 2004; Vera and Crossan, 2005).

The main characteristics of organizational memory are:

c) **level of organizational memory** represents the amount of stored knowledge an organization has about a particular phenomenon.
d) **distribution of organizational memory** represents information or knowledge distributed and shared among various knowledge retention bins.
e) **dispersion of organizational memory** represents specialization and complementarities which can provide various domains and new knowledge to prevent local learning and enhance capability.
f) **content of organizational memory** because there are two types of organizational memory:

  ✓ **procedural memory** refers to process memory, which is similar to routines (Nelson and Winter, 1982) and makes the performance faster and more reliable over time;

  ✓ **declarative memory** refers to the memory of concepts, facts, or events and refers to knowledge about bills of raw materials, production capability, customers’ requirement, product, and commercial specifications.

Despite the numbers of articles, studies and papers that are focused on the organizational memory topic, there are a lot of issues that can us determine to say that the functionalities of OM and the way of how OM must be used in order to enhance the organizational management capabilities are not fully understood or determined.

### 4 Development of the Organizational Memory for Accounting Domain

The development life cycle of the organizational memory for accounting domain is a continuous process that has as a raw material the internal and external sources of data, information and knowledge (Figure 2). The internal sources are represented by internal procedures, case studies and business experiences accumulated during the organization existence, whilst the external sources are formed by regulations (issued by governmental organization), standards (issued by national or international organizations), sets of good practices (elaborated by national and international associations) and other resources. During the organizational learning process the internal and external sources are accessed in order to be identified the new relevant data, information or knowledge that could be useful for improving the organizational memory capabilities. The organizational memory is used during the decision making process, mostly when tactic or strategic decisions must be adopted, but there can be and operational decision that involve the access of organizational memory.

The process of development life cycle of the organizational memory for accounting domain starts being based on external sources: regulations, standards, sets of good practices and other sources, all this resources representing the fundaments for decision making process that will build the internal procedures.

The next period of time will represent a continuously adjustment and improvement of internal procedures based on accumulated business experiences and case studies. The first period from the existence of any organization represents a period of time that determines major and significant improvements and changes of internal procedures, but after a while, the improvements and adjustments will become more “smoothly” and the internal procedure will enter in a phase of “equilibrium”. Of course, this is only an impression, because the regulations in accounting domain are constantly
changing and those changes determine changes of standards. On the other hand, the case studies and accumulated business experience will generate new internal procedures and will affect the organizational memory.

Figure 2 Development life cycle of the organizational memory for accounting domain

Resuming, the organizational learning process must be re-executed in order to update the organizational memory because:

a) after the decisions are adopted and implemented there are some consequences that affect the internal sources: new business experiences, updates of the internal procedures, new case studies etc.;

b) external sources are very dynamically (in the accounting domain the legal framework is changing relatively rapidly because the economic environment and global economy did not find an equilibrium point yet, therefore regulations, standards and sets of good practices must be updated accordingly with new economic realities).

5 Conclusion

The semantic web can be used to improve to enhance organizational memory capabilities and, consequently, to improve the outcomes of the decision making process in accounting domain and organizational performance.

The information and knowledge stored in organizational memory can be considerably more complex and valuable than the raw data and information that usually exist in any organizational information system. The organizational memory content can and must be continuously correlated with new data, information or knowledge acquired by organization in order to obtain new knowledge that will be used in decision making process to improve organizational performance.

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