THE KMS RECOMMENDING EXPERTS IN THE COMMUNITIES: PROPOSITION OF A THEORY ON THEIR SUCCESS

Claudio Vitari, Aurelio Ravarini, Bernard Fallery

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Claudio Vitari
Università Carlo Cattaneo
CETIC
Corso Matteotti, 22
21053 Castellanza - Varese
cvitari@liuc.it
Aurelio, Ravarini
Università Carlo Cattaneo
CETIC
Corso Matteotti, 22
21053 Castellanza - Varese
aravarini@liuc.it
Bernard Fallery
Université Montpellier 2
CREGO
Place Eugène Bataillon
34000 Montpellier - France
bernard.fallery@univ-montp2.fr

ABSTRACT

Empirical results demonstrate that the ability to transfer knowledge contributes to the organizational performance of firms. Knowledge Management initiatives and Knowledge Management Systems can support this ability to transfer knowledge.

The specific support, to transfer knowledge, taken into consideration in this research is labeled "Expert Recommender Service" (ERS), which is the information service of counseling individuals, who could help in a business process breakdown.

For an effective knowledge transfer, the existence of same common knowledge among the parties is required as basic ground for this transfer. The participation to the same Knowledge Community, which is preliminary definable as a group of people that share a common practice, work, or interest, assures this common knowledge.

This article proposes a conceptual model of the success of the Expert Recommender Services within Knowledge Communities.

RESEARCH CONTEXT

In the diversity of the Information Systems research (Vessey, Ramesh et al. 2002), this study is backed up by the Information Systems and Management as its main reference disciplines. The research topic is Knowledge Management, which is studied at the level of the individuals, as members of Knowledge Communities.

Within the organizations, the management of knowledge is an ever-green issue and it has been using the existing technologies to reach the highest levels of efficiency and competitiveness (Guida and Berini 2000). In our society (Nonaka 1991; McDermott 1999; McDermott and O'Dell 2001), knowledge is considered by individuals and organizations an economic resource and knowledge upsurges as the only sustainable, in the long run, competitive advantage (Nonaka 1991; Abecker and Decker 1999; Liu 2003)

Nowadays, Information and Communication Technologies (ICT) are giving chances to enhance the management of knowledge in the organizations containing its costs (Sveiby 1997). In the attempt to contain costs, organizations are also trying to form their members basing on the existing knowledge as far as creating new knowledge is more expensive than transferring existing knowledge (Nonaka 1994; Smith and McKeen 2003).

Empirical results demonstrates that the ability to transfer knowledge contributes to the organizational performance of firms in both the manufacturing (Galbraith 1990; Epple, Argote et al. 1996) and service sectors (Darr, Argote et al. 1995; Baum and Ingram 1998). Although the benefits of knowledge transfer have been documented in many settings, its effectiveness varies considerably among organizations (Szulanski 1996; Argote 1999)

Knowledge transfer is the only way to form people basing on the existing knowledge and it is accomplishes in multiple ways: from the training courses to a debate during a coffee break (Brown and Duguid 1991; Nonaka 1994; Davenport 1997; Sussman and Siegal 2003). Even though knowledge transfer could assume different forms, some limits exist and they depend on the object of transfer. The particularity of knowledge transfer, in comparison with the transfer of other resources, is due to a property of knowledge. Knowledge does not exhaust itself

through its use but, on the contrary, its use brings to its rise and development, through a virtual growing circle (Guida and Berini 2000).

Knowledge involves cognitive structures and processes and it cannot be embodied as texts or other explicit representations (Brown and Duguid 1991; Nonaka 1994; Davenport 1997; Becerra-Fernandez 2000; Sussman and Siegal 2003). Knowledge transfer requires always human action, but ICT can nevertheless play an important role in the knowledge transfer by the very beginning.

The first step to knowledge transfer is the recognition of the heterogeneous distribution of knowledge among individuals (O'Dell and Grayson 1998). ICT already supports these activities even though some significant steps could be done forward much more efficient solutions.

The recognition of the heterogeneous distribution of the knowledge among the individuals could induce the knowledge transfer whether there is knowledge redundancy (Nonaka 1994) among the sender and potential recipient of knowledge. Knowledge redundancy refers to the existence of information, more than the specific information required immediately by each individual, which is shared between them.

Nonaka (Nonaka 1994) affirms that this knowledge redundancy is caused by the overlapping of company information, business activities and management responsibilities. This knowledge redundancy is assured by the participation to the same Knowledge Community, which is preliminary definable as a group of people that share a common practice, work, or interest.

The participation to the same Knowledge Community assures the existence of same common knowledge which will be used as basis for the knowledge transfer. The Knowledge Community has therefore a crucial role in knowledge transfer. In this situation, individuals can enter each others' area of operation and can provide advice. It allows people to provide new information from new and different perspectives, which Nonaka (Nonaka 1994) calls learning by intrusion. Redundant knowledge enables the members of the organization to recognize the specialized knowledge of the colleagues and to facilitate the transfer of knowledge (Nonaka 1994).

In practice, Knowledge Communities are gaining relevance as an organizational resource enabling knowledge transfer among their members for individual and organizational benefits (Wenger, Mc Dermott et al. 2002). However scholars and practitioners debate on the degree of intervention the organization should apply on their Knowledge Communities.

Various examples of firms that support Knowledge Communities, through the use of IT-based systems managing documents or information, exist and some of them very successful. On the other hand, IT-based systems supporting the transfer of knowledge are less diffused and successful.

Since previous research reports the central role of knowledge for competitive advantage, it is imperative for organizations to explore solutions for levering this knowledge. In our attempt to contribute in solving this lag, and under the hypothesis that Knowledge Communities and IT-based systems can facilitate the transfer of knowledge, this research study is proposed.

In the research area where Knowledge Communities, IT-based systems and Knowledge Management overlap, this study focused on the IT-based systems which counsel individuals, who could be potential sources of specialized knowledge, within a Knowledge Community. We call this type of IT-based systems as “Expert Recommender” as it counsels individuals who could likely help the users to solve problems of business process breakdowns, as we hypothesize that these counseled individuals can be potential sources of knowledge for the users who are facing problems of business process breakdowns.

In this research, we study the Expert Recommender as a service. Instead of focusing on the IT in it-self, we are interested in the service it delivers, the Expert Recommender Service, ERS. Consistently with this service perspective, our research object would include also the cases in which this ERS is delivered without any IT support, thus by a specific department or by the members of the Knowledge Community by them-selves.

RESEARCH OBJECTIVE: THE CONCEPTUAL MODEL

The described research context suggests various research streams.

The literature review and the research relevance motivate academic community to give contributions aiming at the advancement on the Expert Recommender Services. Within the described research context, this contribution will describe the success of the Expert Recommender Services within Knowledge Communities.

The major aim of the ERS is the development of the awareness of the individuals on the knowledge domains of the other members of the Knowledge Community. Therefore, the description of its success is about the degree of awareness obtained in the Knowledge Community and the degree of improvement of the knowledge transfers.

The conceptual model involves therefore three main elements:

- The Expert Recommender Service: the Information System service of counseling to the potential recipient of knowledge those individuals who could likely have the specialized knowledge which the potential recipient requires.
- The Knowledge Community: a group of individuals that share a common practice, work, or interest as common knowledge, for the integration and transfer of specialized knowledge among the group's members.
- The success of the Expert Recommender Service: the degree to which the stakeholders of the ERS are better off. The stakeholders mainly group the ERS providers, the ERS users, the KC, the organization, which means all the subjects involved in the ERS (DeLone and McLean 1992).

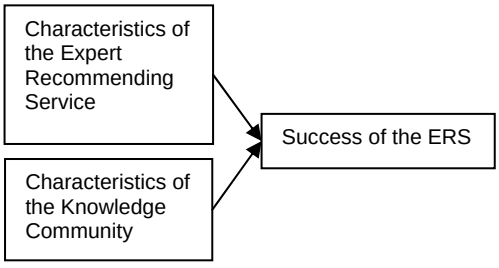

Figure 1 The description of the success of the ERS

RESEARCH METHODOLOGY

The original conceptual model is the output of wide literature review on Expert Recommender Service, Knowledge Community and Information System Success.

Academic publications on: “expert” and “expertise”, “community”, and “success” has been reviewed[1]. This strong theoretical background favored an original, but well grounded, theory building process.

STUDY PROPOSITIONS

This study approaches these research objects with some preliminary propositions, which will lead the development of the research question and of the conceptual model. The author, from his empirical experience and the literature review, proposes that:

- The Knowledge Communities differ one to another on the values of their properties.
- The Expert Recommender Services vary for their specific technical characteristics, their integrations in an organizational context and their use by the members of the Knowledge Communities.
- The characteristics of the Knowledge Community influence the success of the Expert Recommender Service.
- The Expert Recommender Services influence the knowledge transfers among the members of the Knowledge Communities.

These propositions give a preliminary perspective of observation on the research objects and inform the definition of the research question.

RESEARCH QUESTION

These study propositions are developed from a specific point of view and trying to answer the following specific research question:

What are the dimensions of the success of the Expert Recommender Services?

The literature review evidences that in the organizations, Expert Recommender Services are realized in different ways, from informally provided by the colleagues to formally computer-based ERS systems. The different forms of the ERS and the different organizations, in which they exist, influence their success.

[1] The list can be sent on request.

The second relevant aspect, emerging from the literature, is about the aim of the ERS. The major aim of the ERS is the development of the awareness of the individuals on the knowledge domains of the other members. Therefore, the description of its success is about the degree of awareness obtained, which could determine an increase in the knowledge transfers.

RESEARCH MODEL

The combination of the different elements grounded in the previous literature, the final model of ERS success can be delineated. The characteristics of the Expert Recommender Service influence the ERS quality. The ERS quality influences the amount of use of the ERS and the users' satisfaction of the ERS. Use and users' satisfaction have and impact on the individuals and on the organization, in terms of knowledge awareness and knowledge transfer. The characteristics of the Knowledge Communities influence the individual perception of all the above mentioned characteristics: the ERS quality, the ERS use, the users' satisfaction, the individual impact and the organizational impact.

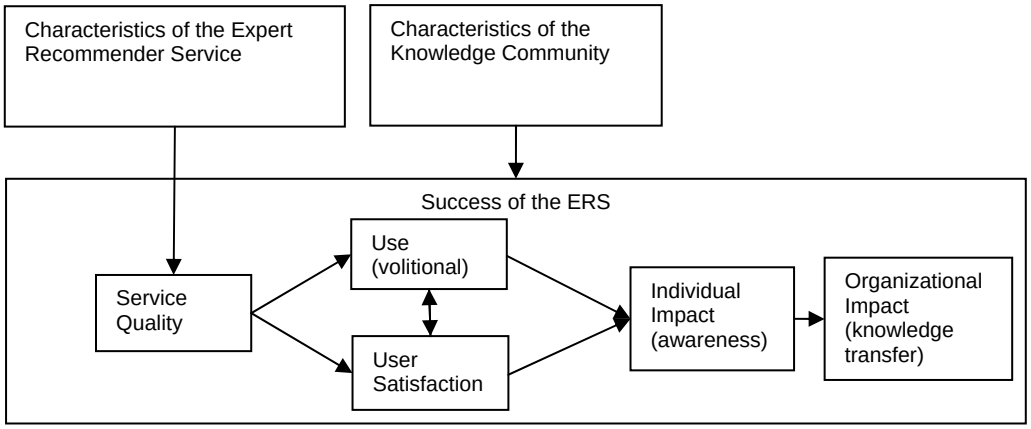

Figure 2 The final model of the ERS success

CONCLUSION

The major contribution of this research regards the success of the ERS and the relationships between the Knowledge Community, the Expert Recommender Service, and the success of the ERS.

The literature review reports that Knowledge Communities could have a positive role in knowledge transfer (Thompson 1967; Van de Ven, Delbecq et al. 1976;

Levitt and March 1988; Brown and Duguid 1991; Nonaka 1994; Grant 1996; Martinez 2004 page 88).

The ERS aims at reducing a barrier to knowledge transfer, which is the unawareness of the knowledge distribution among the members (Libby, Trotman et al. 1987; Littlepage and Silbiger 1992; Littlepage, Robison et al. 1997; Davenport, De long et al. 1998; Cross, Parker et al. 2001; Ruta and Turati 2002 page 151; Borgatti and Cross 2003; Kondratova and Goldfarb 2003; Baumann and Bonner 2004; Denrell, Arvidsson et al. 2004; Qureshi and Keen 2004).

This study concludes with a conceptual model which states that the Knowledge Community and the Expert Recommender Service directly influence the success of the ERS.

The empirical measurement of the success of the ERS, and of the knowledge transfer generated by the ERS, remain however unfold, and a future interesting field of investigation.

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