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CIRCOM

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The purpose of the Centre is to provide a framework for investigations and research on problems concerning rural cooperative communities and publication of the results, to coordinate the exchange of information on current research projects and published works, and to encourage the organization of symposia on the problems of cooperative rural communities, as well as the exchange of experts between different countries.

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CONTENTS

	m Conference held in Québec City, Canada (August 28-29, 199) rprise for Co-operative Advantage".	99)
Editorial		85
Brown, L.	The Cooperative Difference? Social Auditing in Canadian Credit Unions	87
Caceres, J. and Lowe, J.C.	Cooperation and Globalization: Mutation or Confrontation	101
Levi, Y.	The Ambiguous Position of Cooperatives vis-à-vis the Issue of "Difference"	121
MacLean, M. and MacKinnon, B.	An Atlantic Canada Perspective on Social Audit: Why do	127
Røkholt, P.O. and Borgen, S.O.	Cooperatives Embrace the Theory but not the Practice? Cooperative Change and the Myth of Rationality	137 149
Troberg, E.	Knowledge Intensive Business Sector and the Cooperative	
	Form: A Study of Finnish Knowledge Intensive	
	Cooperatives	161
2. BOOK REVIEW		
Birchall, J. (ed.)	The World of Co-operative Enterprise 2000 P. Levinger	177
Ruben, R.	Making Cooperatives Work, Contract Choice and Resource Management within Land Reform Cooperatives in Honduras	
	R. Russell	179
3. CURRENT INF	FORMATION	
Dissertation Ab	ostracts	183

Knowledge Intensive Business Sector and the Cooperative Form: A Study of Finnish Knowledge Intensive **Cooperatives**

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Abstract

The aim of this article is to discuss the suitability of the cooperative form for the knowledge intensive business sector. First, core elements in organizing and managing knowledge intensive enterprises have been identified through a literature review. The existence of these core elements are then examined in two Finnish worker cooperatives operating in the consulting business. The cooperatives are compared to limited liability enterprises in order to crystallize the specific features of the cooperative business form. The findings show that the cooperatives of this study possess major important elements for wellfunctioning knowledge intensive enterprises, such as a strong organizational culture with shared values and the possibility of the knowledge workers to take part in the decision-making of the enterprise. However, a cooperative is a demanding form of organization because of the large number of decisionmakers and the great extent of flexibility associated with the form. The flexibility is one factor leading to the existence of passive members in both cooperatives of this study.

Introduction

A great number of new, small cooperatives have been established in the 1990s in Finland. Until 1993 when the wave of establishment of new, small cooperatives began, there were less than 20 worker cooperatives in Finland. In the beginning of 2000 the number of small cooperatives was over 1000. From these cooperatives about 500 are worker cooperatives. One third of the worker cooperatives are knowledge intensive enterprises operating in the following business sectors: consulting, executive training, information technology, new media, communications and architecture (National Patent and Registration Board and Pellervo Society, 2000).

In the literature, knowledge intensive enterprises are discussed as a category of its own. Winch and Schneider (1993:923) argue that knowledge intensive enterprises

differ from organizations in the production industries and in most other service industries in that knowledge intensive enterprises have the expertise of their personnel as assets while others have other assets, such as property, fixed plant and liquid capital.

According to recent research studies made in Finland (Karjalainen *et al.*, 1998:19-20; Ministry of Labour, 1998), the number of knowledge intensive enterprises is expected to increase in the future, one major reason being that in the knowledge society there is a growing demand for specialized expert services. The growing demand is at least partly due to the fact that the services provided by society such as logistics, education, communication and leisure time activities become more and more knowledge intensive. Also the use of information technology as a means of production becomes common in almost all branches of society (Finnish Institute of Occupational Health, 2000).

Karjalainen (1995; 1996) has pointed out that the major reasons for the establishment of the new cooperatives in Finland have been extensive unemployment following a major recession in the beginning of the 1990s and structural changes in the economy. Unemployed people organized themselves first into associations. In these associations they pooled their competencies in order to create services to customers. As a following stage they started to establish cooperatives. The cooperative form was chosen because of its democratic and collaborative structure. Also, no starting capital was needed. The structural changes in the economy were largely due to the gradual change of the industrial society to knowledge society. Automation has to a great extent decreased the need for manpower in industrial plants. As a consequence, many large companies have laid off hundreds of employees. However, at the same time new possibilities of work for professional people have emerged in the knowledge intensive sector. Knowledge intensive enterprises have been established, *e.g.* in the sectors of consulting, information technology and new media. Among these enterprises there are employee-owned enterprises in the forms of limited liability and cooperatives.

Research question and methodology

In this article first the prerequisites for organizations in the knowledge society and the core elements of managing knowledge intensive enterprises are discussed. Then the suitability of the cooperative form in the knowledge intensive business sector is studied. The major question of this article is: *How appropriate is the cooperative form in the knowledge intensive business sector?* In order to find answers to this main research question, the key elements of knowledge intensive enterprises found through the literature review are examined in two cooperatives and in two limited liability enterprises. First, the cooperatives are compared to a limited liability enterprise with one owner and employed knowledge workers. This comparison clarifies the major differences between individual and joint entrepreneurship in the sector of

knowledge intensive enterprises. Then, the cooperatives are compared to a limited liability enterprise with employee ownership. The aim of this comparison is to find out the major differences between two types of employee ownership. All the case enterprises operate in the sector of consulting and entrepreneurship training in the South of Finland. They are small enterprises with 5 to 7 knowledge workers (for further information of the case enterprises see Appendix 1 and 2).

Based on the analysis of knowledge society, literature of knowledge intensive organizations and empirical research of knowledge intensive cooperatives, it is argued that a cooperative as an organizational form of doing business has properties that make it an appropriate business form in the knowledge society. A cooperative is, however, a demanding form of organization because it allows its members independence and flexibility. This means that although a cooperative seems to possess favorable elements of knowledge intensive enterprises, effective business operations do not emerge automatically. The challenges produced by the cooperative form are discussed at the end of the article.

The emergence of knowledge society and knowledge intensive enterprises

The development of information technology has had a major impact on the emergence of knowledge society. The coming of the knowledge society has led to totally new types of organizations as well as changed structures of old organizations. Castells (1991), cited in Blackler *et al.*, (1993:855) argues that a new "organizational logic" has emerged. The major reason for this new "organizational logic" is that information and knowledge have become crucial to economic success the same way as labor productivity was in the industrial era. As a consequence, all organizations become more and more knowledge intensive and an increasing part of work is done through information networks.

Distances between countries have disappeared because of the global information networks. Even small firms can fast become global. The power of customers has also changed. For example, customers buy products directly through the Internet and not through intermediates. The global network with related new opportunities will increase the potential for work because of the emergence of totally new areas such as Internet trade and the global markets for information networks.

Davis and Meyer (1998) argue that the major success factors in operating in the knowledge society are networking, fast actions and functioning in real time. The increasing speed of change in the world economy primarily caused by the developing information technology presupposes fast, dynamic and flexible forms of organizations. Hierarchical, structured organizations of the industrial era seem to remain a relic from the past.

Core elements in organizing and managing knowledge intensive enterprises

Core elements in organizing and managing knowledge intensive enterprises, identified through a literature review, are presented here in order to provide a basis for the research of knowledge intensive cooperatives. These elements are the crucial role of knowledge workers and their motivation and commitment to the enterprise, well-functioning knowledge creation and sharing processes, organic organizational structure and strong organizational culture with shared values.

Knowledge workers are the key actors in knowledge intensive enterprises. For example, in the sector of consulting many small enterprises do not possess any major equipment or plants. The major capital in consulting enterprises is the competencies of the knowledge workers. There exist no well-established definition of the term knowledge worker. Davenport et al. (in Scarbrough, 1999:6) refers with the term knowledge worker to a person who works with activities such as research and product development, advertising, education and professional services like the law, accounting and consulting. In addition to their own knowledge, knowledge workers work with the knowledge of other knowledge workers communicated through information systems and face-to-face meetings. In their work they also use organizational and technical knowledge encoded in routines, programs and procedures (Scarbrough, 1999:7). Because of the knowledge workers' crucial position in the enterprise, it is important that they are motivated and committed to the enterprise. Knowledge workers are, however, often more committed to their profession than to their employer. Consequently, motivation and commitment of the knowledge workers are assumed to be major challenging issues for the management in this business sector. Employee ownership is expected to be one way of increasing the motivation and commitment of knowledge workers to the enterprise (Sveiby and Lloyd, 1987:81; Pinchot and Pinchot, 1994:305).

According to Nurmi (1998:26) in knowledge intensive enterprises knowledge workers process what they know into knowledge products and services for their customers. For this key process to function properly, good knowledge creation and sharing processes are needed. In the knowledge creation and sharing processes, Nonaka and Takeuchi (1995) distinguish two types of knowledge: tacit knowledge and explicit knowledge. Tacit knowledge is subjective and experience-based knowledge while explicit knowledge is rational and objective. Tacit knowledge often forms a critical part of the competitive advantage of knowledge intensive enterprises. The challenge with tacit knowledge is, however, that it is person-related and difficult to disseminate within the enterprise. One way to enhance the dissemination of tacit knowledge within the enterprise is to develop a well-functioning process of knowledge sharing with a good organizational culture.

The organizational structure suitable for knowledge intensive enterprises is

organic. Organic organizations are reactive, process-oriented and flexible (Nurmi, 1985:23, 54; Zanzi, 1987:126). Adhocracy, which was discussed by some researchers (Woodward, 1965; Burns and Stalker, 1966; Lawrence and Lorsch, 1967 in Åkerberg 1993:23) already in the 1960s and was later made a common term by Mintzberg (1983), is the most organic form of this type of organization. Many knowledge intensive enterprises have features typical for adhocracies, although pure adhocracies are rare. The organization of an adhocracy is characterized by being flat, horizontal, dynamic and changing. Market-based project teams of highly trained experts often prevail in adhocracies. Work done in knowledge intensive enterprises typically involves projects in which different, complementing competencies of knowledge workers are needed. Therefore, team structure is a suitable form for organizing the operations of knowledge intensive enterprises (Miles et al., 1998:104; Miller, 1986:245-246 and Nurmi, 1998:28).

Knowledge workers often cooperate closely with peers, customers, and experts in their area and sometimes even with competitors. The extensive networks of knowledge workers make the structure of knowledge intensive enterprises *loose*. The development of information and communication technologies has also had an impact on the emergence of looser and more spatially distributed organizational forms (Scarbrough, 1999:8). Because of the loose nature of the knowledge intensive organization and the fact that knowledge workers often are more committed to their profession than to their employer, it is important to develop means to keep them motivated and committed to their enterprise. If key knowledge workers leave the enterprise, a small enterprise may easily be driven into a crisis.

Alvesson (1992; 1996) and Kuittinen and Salo (1997:201) argue that *organizational culture with shared values* has great importance in keeping the knowledge workers committed to the enterprise and tying up a loosely coupled knowledge intensive enterprise. Strong organizational culture contributes also to the creation of new initiatives. This is an important factor for knowledge intensive enterprises (Childress and Senn, 1999:19). Shared values imply that the members of an organization have mutual understanding of beliefs, values and expectations prevailing within the organization. These shared meanings can, according to Morgan (1997:129, 138), have a decisive influence on the ability of an organization to deal with the challenges it faces.

Shared values and a strong organizational culture can be beneficial to the development of leadership in knowledge intensive enterprises. Alvesson (1992:200-202) uses the word social integrative leadership to describe a kind of leadership in which a collective of employees is managed as a community. Social integrative leadership involves issues such as generating a common orientation and direction for the operative units as well as contributing to the identification with the enterprise and to a feeling of loyalty.

Worker cooperatives in the knowledge intensive business sector

In regard to worker cooperatives in the knowledge intensive business sector the major question is: *How appropriate is the cooperative form in the knowledge intensive business sector?* The following sub-questions are studied in order to answer this major issue:

- What roles do the knowledge workers play in the cooperatives of this study and how are they motivated?
- Do factors exist in the cooperatives of this study, which enhance the knowledge creation and sharing processes?
- What kind of organizational structure and culture do the cooperatives of this study possess?

There is no earlier research about Finnish knowledge intensive cooperatives. Studying the above-listed questions in worker cooperatives presupposes an in-depth analysis of the managerial processes and motives of the people involved in the enterprises. Consequently, the research was carried out by using the case study method. In order to find out the specific features of the cooperative form and to crystallize them, the relevance of the cooperative form in the knowledge intensive business sector was examined by comparing two knowledge intensive cooperatives with two limited liability enterprises in the sector of consulting and entrepreneurship training. Consulting enterprises were chosen because they are claimed to represent the purest form of knowledge intensive enterprises (Sveiby,1997).

Findings

In regard to the first question "What roles do the knowledge workers play in the cooperatives of this study and how are they motivated?" the main findings are that in a cooperative the knowledge workers are members as well as owners and decision-makers of the enterprise. In the cooperatives of this study all the active members are members of the board that makes the key decisions concerning the enterprise and its activities. The fact that there are always several decision-makers who also work in the enterprise may cause ineffectiveness in decision-making because of the length of the decision-making process and possible differing views among the members, regarding e.g. wages, investment decisions or new business ideas. There has been some indecisiveness and differing views regarding a new business idea in one of the cooperatives of this study. In this cooperative the decision-making problem (one of the agency problems of employee-owned enterprises) has thus prevailed to some extent (Troberg, 2000). Also, one of the members made a suggestion of a new business idea, which was very important to him. However, only one of the other members supported it. This has decreased these two members' commitment to the

enterprise. Indecisiveness and differing views were also found in the decision-making process in another study of Finnish worker cooperatives (Troberg, 1997).

The possibility to take part in the decision-making of the firm is an important motivating factor to the members in the cooperatives of this study. Other motivating factors are the good working community with shared values and the flexibility connected to the cooperative form. Flexibility means that the members can to a large extent decide themselves when, how much and where to work. Some of them are working only part-time, some are concurrently studying and some are teleworking. One of the interviewees describes his motivation for being a member of the cooperative and his commitment to the enterprise in the following way:

This is an opportunity. It was very productive to be involved in the development of the operations. I realized that it is not necessary to work from eight to four every day in order to carry out projects. This form of an enterprise has made it possible for me to simultaneously educate myself.

In regard to the second question: Do factors exist in the cooperatives of this study, which enhance the knowledge creation and sharing processes? the major finding is that in an organization in which the employees own the enterprise with an equal number of shares there exist some factors which clearly enhance knowledge creation and sharing within the enterprise. First of all, both cooperatives as well as the limited liability enterprise with employee ownership have been established because of the fact that the members saw an advantage in combining the complementing skills and competencies of the members on an equal basis. The equal structure of the enterprises creates a good basis for collaboration, knowledge creation and sharing. Another factor enhancing the knowledge creation and sharing processes within the enterprises is the collaborative way of operating. The members are involved in joint projects in which they naturally share knowledge. In one of the cooperatives two of the interviewed members stated that it is joint entrepreneurship that motivates them. This means that they are not only working for themselves but are also jointly responsible for the enterprise. Furthermore, they enjoy helping one another. In that same cooperative the managing director and the chairman of the board have systematically developed knowledge sharing through phone communication and e-mail, coffee meetings and informal meetings with the members. Joint entrepreneurship means synergy, good teamwork and support from others. These issues have shown to be major motivating factors for people intending to join a worker cooperative in Finland (Piippo, 2000:37). Well-functioning joint entrepreneurship and good teamwork clearly reduce transaction costs for the members' internal relationships in both cooperatives of this study (Troberg, 2000).

In regard to the third question What kind of organizational structure and culture do the cooperatives of this study possess? the findings are that a cooperative is a

horizontal network in which the members use the highest decision-making power democratically in accordance with one man/member rule. This means that the member/knowledge workers take the major decisions concerning the enterprise and its strategy.

There exists a strong organizational culture (based on the criteria of an organizational culture by Schein, 1992) with shared values such as cooperation, equality and solidarity in both the cooperatives of this study. All the interviewees in the cooperatives pointed out unanimously these values. The values are not commonly declared values but they so to say "automatically" spring up from the equal ownership structure. The same values prevail in the limited liability enterprise with employee ownership but not in the limited liability enterprise with the owner/manager structure. These values are the major motivating factors to the members of the cooperatives and to the owner/workers in the limited liability enterprise. The same values, equality, cooperation and solidarity, have also been identified in a study of successful European worker cooperatives (Coopexcel, 1997: 317).

There are greater differences between the cooperatives and the limited liability enterprise with the owner/manager structure than between the cooperatives and the limited liability enterprise with employee ownership. In order to bring out the specific features of the cooperative form in the knowledge intensive business sector the differences between the two types of employee ownership are discussed here. A factor that clearly distinguishes the cooperatives from the limited liability enterprise with employee ownership is that the flexibility linked to the cooperative form is an important reason why the members have joined the cooperative.

A cooperative is a flexible business organization. In Finland, no starting capital is required for the establishment of a cooperative. Therefore, a cooperative suits well the knowledge intensive business sector because competencies of the knowledge workers constitute the most important capital. The establishment of a cooperative is legally faster than the establishment of a limited liability enterprise. It is easier to join and leave a cooperative than a limited liability enterprise. This is an important feature that makes a cooperative a dynamic network of knowledge workers in which the number of workers may vary during the lifetime of the enterprise. This was an important reason to the members of the cooperatives of this study for choosing the cooperative form. In the beginning of the cooperatives' operations they did not exactly know how many members would turn out to be long-term owners. cooperative form allows its members a lot of freedom and independence. members can decide themselves when, how much and where to work. Some of them are teleworking, and some are working part-time. One of the members stated that the independence related to the cooperative form is more important to him than the possibility of high earnings. According to Kuittinen and Salo (1997:204) independence is an important motivating factor in knowledge intensive work.

increases work satisfaction, effectiveness in work and decreases conflicts between knowledge workers. Conflicts occur less when knowledge workers are motivated and have decision-making power in regard to their own work.

The flexibility linked to the cooperative form of business is not only a positive feature. The great independence of the members may cause challenges regarding the effectiveness of the operations. In both cooperatives, not all the members are committed to the enterprise. There are so called passive members who do not work through the cooperative nor take part in the development of the activities of the enterprise. One of the cooperatives has experienced the passive members as a burden. As a consequence, the general meeting has decided to discharge the passive members from membership. There are many reasons for the members to be passive. In some cases, a knowledge intensive cooperative is established in order to produce additional earnings to its members. In the long run, it can be that members do not have enough time to develop the activities of the enterprise. Some cooperatives allow members to work also outside the cooperative. Because the life and work situation of members may change during the years, some members may increase the amount of work done outside the cooperative. According to a recent study of Finns intending to establish a worker cooperative, poor commitment of members to the cooperative was expected to be one of the major problems (Piippo, 2000:40).

Through flexibility the members in the cooperatives of this study have found a new way of working. There are members in both cooperatives who search for a new way of working. For example, they want to combine studying and working. In addition to working through the cooperative some members want to work also for other employers and others want to spend more time with their family even with a lower salary. The knowledge workers do not appreciate these kinds of issues in the limited liability enterprises of this study.

Conclusions and implications

A cooperative is an old form of organization that has experienced a new coming in the 1990s in Finland. In a knowledge intensive cooperative the knowledge workers/members have a central role both in creating value added to customers as well as leading their own enterprise. The transition from an industrial society to a knowledge society has changed the structure of many organizations as well as the role of workers. In knowledge intensive enterprises, knowledge workers are the subjects in the organization like members have always been in a cooperative. The question is, are knowledge intensive cooperatives appropriate forms of organization for knowledge workers? Are there any specific issues related to the cooperative form that make a cooperative an especially suitable form for organizing knowledge intensive enterprises?

The two cooperatives of this study present features which make them appropriate

organizations for knowledge workers, such as a democratic structure creating collaborative organizational culture with strong shared values like equality, cooperation and solidarity. These features as well as the flexibility linked to the cooperative form are important motivating and committing factors to the members. Nyman (2000) claims that social capital, *i.e.* social relationships in a community, connected to competence capital and knowledge capital are important organizational elements in a knowledge society. In the cooperatives of this study the role of social capital is especially strong. Trust, norms of reciprocity and dense social networks, which are prevailing in both cooperatives, are found to be key elements of social capital (Lipnack and Stamps, 1997:231-232). Trust is a critical issue in a knowledge society. When people work closely together without hierarchies, it quickly becomes clear who can be trusted and who cannot (Savage, 1996:258). Trust and good social relationships between the knowledge workers also form the prerequisites for well-functioning knowledge creation and sharing processes.

The cooperative form, however, brings some challenges to the members. As several people lead the enterprise and act as decision-makers, decision-making may slow down. Differing views among the members have occurred in one of our cooperatives. The flexibility linked to the possibility to work also outside the cooperative has been one reason for the existence of so called passive members in both cooperatives. One of the two cooperatives has experienced them as a burden. There exists a follow-up problem with respect to the passive members in both cooperatives. Except for this follow-up problem and the earlier mentioned decision-making problem in the other cooperative, the other agency problems of employee-owned enterprises were almost nonexistent in the cooperatives of this study. The positive effects of the cooperative ownership structure and the way of operating exceeded the negative effects of the agency problems (Troberg, 2000:189).

A cooperative seems to be a suitable form for knowledge workers who aim at a work place where they have a real possibility to take part in the decision-making of the enterprise. A cooperative is, however, a business form, which presupposes strong self-management and active actions from the members. The flexibility linked to this form is both a benefit and a challenge. It is a factor motivating and committing the members to the cooperative. On the other hand, flexibility makes possible the existence of passive members. In one of the two cooperatives of this study the twofold nature of flexibility was not seen as a major challenge. However, in the other cooperative passive members were experienced as a burden. The following statements of interviewees in both cooperatives describe the twofold nature of flexibility linked to the cooperative form:

Why does an active member not take the role of a commander and try to activate the passive members? It does not belong to the spirit of cooperation. People work independently and they are confident that in this form of enterprise everybody works independently. One does not want to interfere with the passive members' life. It would mean breaking up the bubble of harmony.

It is better that those who do not take this seriously, drop out. One has to have a real entrepreneurial spirit to be with us. We do not want everybody to commit her/himself. We want to have those who see the common aim and who have the entrepreneurial spirit. Those who are not capable of that and who are pulled outwards should leave the enterprise. It is better that they leave the enterprise, the earlier the better.

A traditional cooperative with one member—one vote rule is not an appropriate form of doing business when large financial capital is needed or if the members strive to increase their share of the ownership in the enterprise. On account of its flexibility the cooperative is a convenient way of starting a business, mainly for unemployed people. No starting capital is needed. It is also easier to join and leave a cooperative than a limited liability enterprise. Based on the factors discussed, a cooperative seems to be a networking business form that can be used for many purposes in the knowledge society. For example, a knowledge intensive cooperative can act as a pool of experts from which large companies can buy the work done by the experts. Some Finnish cooperatives are acting as subcontractors for large companies. In rural areas, cooperatives have been established in order to produce additional earnings to farmers. There exist also some knowledge intensive enterprises among these cooperatives.

In addition to the research of traditional forms of organizations, it is important that research of alternative forms such as cooperatives is carried out. Especially in times of economic fluctuations, cooperatives have offered well-functioning alternative ways of organizing economic activities. A worker cooperative is a flexible and non-hierarchical organizational way of combining the skills and competencies of knowledge workers. From the perspective of worker cooperatives, it seems that knowledge society with its demand for flexible organizations constitutes a far better era than the industrial era.

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