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SME Collaboration: Trick or Treat?

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Abstract: Collaboration is a major new source of competitive advantage and an essential regional, and indeed, global management requirement. The collaboration process will ultimately be successful if there is an existence of appropriate systems and structures, open channels of communication, a strong sense of purpose and availability of the necessary resources. Support organizations for SMEs play a vital role in creating the environment in which SMEs can collaborate, focus in this article on support organisations whose main tasks are those of activating and assistance aiming at increasing, encouraging and stimulating innovation, rather than financing or creating it. A concrete example of the interplay of different actions related to training and the customized and personalized support is described.

Keywords: collaboration, innovation, support organisations

1. Introduction

Globalisation has forged a shift from the traditional corporate hierarchy and big business conglomerate to an economy in which both global and regional companies can be equally successful. However, research suggests that they must be part of an integrated network in which core competencies, localisation and customisation are achieved. The networked economy has shifted the focus from wholly owned value chains - encompassing everything from product development, operations, logistics and delivery, - to knowledge and relationships. How then should a business develop and expand in today's knowledge economy? Various authors indicate that network building is a major new source of competitive advantage and an essential regional, and indeed, global management requirement.

Collaboration takes place in a very different business environment and has different requirements than large organisations, therefore approaches and systems for SME collaboration need to be designed specifically for their unique needs and requirements. For example, on the one hand it does not have the potential to dedicate large resources to experimenting within areas of collaborative work and innovation, but on the other hand the flexibility and the responsive nature have a positive impact on collaboration.

The collaboration process will ultimately be successful if there is an existence of appropriate systems and structures, open channels of communication, a strong sense of purpose and availability of the necessary resources. However, it must be noted that without a healthy interpersonal relationship including the existence of motivation, trust, loyalty and honesty between all members of the team then the collaborative process of doomed to fail. It is often the softer issues "people" issues that affects the success of the collaborative work. It is clear that SMEs need these skills to take maximum advantage of the opportunities offered by collaboration and the participation in enterprise networks.

1.1 Collaboration and Innovation

Continuous innovation is key to future survival and growth of businesses operating in increasingly competitive global markets. Innovation has become a necessary component of a successful business strategy among firms of all sizes. In fact, many studies demonstrate that research and development (R&D) and technology-based innovation strategies are strongly associated with superior business performance. Smaller firms may face limited resources for R&D and commercialization and, consequently, incur higher risks. In addition, the innovation process is not solely dependent on R&D, as factors such as human resource strategies and management capabilities of the firm are also key. No longer is the creation and pursuit of new ideas the bastion of large central R&D departments within vertically integrated organizations. Instead, innovations are increasingly brought to the market by networks of firms, selected according to their comparative advantages, and operating in a coordinated manner. The need for collaborative R&D and commercialization is particularly critical for small and medium-sized enterprises (SMEs) hoping to make gains in terms of innovation.

But many SMEs find it difficult to collaborate or network with other organisations. While SMEs are often more flexible and responsive than larger organisations, they frequently lack the skills and resources necessary to collaborate or network. Collaboration takes place in a very different business environment and has different requirements than large organisations, therefore approaches and systems for SME collaboration need to be designed specifically for their unique needs and requirements. For example, on the one hand it does not have the potential to dedicate large resources to experimenting within areas of collaborative work and innovation [1], but on the other hand the flexibility and the responsive nature have a positive impact on collaboration.

2. Barriers to Collaboration and Innovation

2.1 Barriers to Collaboration

We found in our research and interactions with companies that many small organisations find it difficult to collaborate or network with other organisations. While Small to Medium Sized Organizations (SMEs) are lauded to be more flexible and responsive than their larger counterparts, they often lack the skills and resources to collaborate or network. We have found four main obstacles to successful collaboration:

- a. **Semantics/language:** There is a lack of a common language between representatives from different organisations and consequently there can be many different interpretations of the same statement. Therefore, information is often misinterpreted between its creation and incorporation. Furthermore, information is often incorrectly formatted in documents and files and people are unable to communicate effectively. These factors also impede effective information sharing. Therefore, a common and agreed language and format must be finalised from the outset in order to allow the members to understand each other.
- b. **Motivation:** Many people are unclear of the benefits for inter firm collaboration. In other words, they do not know what are the drivers, advantages, rewards and returns of sharing information with others. Unless mutual benefits to collaboration are established and communicated to all parties, people will remain unwilling to participate and reluctant to learn new procedures for information exchange.
- c. **Trust:** SMEs often lack the confidence to share propriety information with other organisations. They often fear that competitors will gain access to proprietary data if they share information such as sales forecasts, or promotional plans with collaborating partners. Nevertheless this kind of real-time sharing of vital operational information is

essential if companies want to work together towards a common goal. Establishing trust is potentially the greatest barrier to overcome in collaboration, and it must be established from the outset to allow knowledge sharing.

- d. Access: There is a lack of common standard to enable information access and transfer. Therefore SMES often do not know what information to share, where critical information can be found and how to transfer it to others. Software is a key enabler for collaboration and information sharing with the Internet playing a leading role. In the case of SMEs, access to sophisticated IT is often not necessary, however an adequate knowledge of the methods and mechanisms available for communication is important

2.2 Barriers to Innovation

A survey with senior executives in on the key barriers to effective innovation [2], showed some interesting statistics regarding the top factors cited as barriers...

- Short-term focus/ focus on operations (63%)
- Lack of time, resources or staff (52%)
- Lack of systematic innovation process (33%)
- Leadership expects payoff sooner than is expected (31%)
- Management incentives not structured to reward innovation (31%)

Innovations usually do not take place in a given, static environment. They are rather a result of a dynamic process in an organisation that involves interplay of several internal and external factors. In this sense there is a clear connection between innovation and collaboration, as the level of collaboration between the different departments or between different companies within the same enterprise group determines to a large extent its innovative capacity. Indeed, just as innovation supports competitiveness, networking supports innovation, this is especially true for SMEs, it is evident that innovation would rarely occur in isolation.

3. Overcoming the Barriers

3.1 The Role of Support Organisations

In today's world, where knowledge is available from a variety of sources, neither companies nor regions can afford to rely exclusively on their own resources for innovation. They need to interact with other people and organisations and draw on other fields of expertise to exploit their full innovation potential. Many regions have discovered that being a host to useful resources such as companies, research institutes and innovation support organisations is not enough – a climate with networking, exchange and trust between the various actors is necessary.

R&D is widely regarded as one of the most important factors in the innovation process; it is therefore imperative to stimulate and encourage more collaborative projects in R&D through partnership schemes linking institutes, universities, and industry. Independent SME support organisations play a vital role in this scheme.

Exhibit 1: Support organisations

According to a wide definition of support organisation such an organisation covers both 1) transfer of substance related information and 2) direct or indirect influence of the intermediary organisations on structures and dynamics of the region – i.e. having a role of a catalyst¹. Thus may include centres of technology and/or expertise, development agencies, science parks, business incubators as well as education and research institutions [4]

Here the focus is on support organisations whose main tasks are those of activating and assistance aiming at increasing, encouraging and stimulating innovation, rather than financing or creating it.

Currently literature states that SME owner managers rely heavily on their previous industry experience to develop effective strategies for their businesses. Governments around Europe have not been slow to uptake on the support required for SME's and a number of training and funding schemes have been organised in order to help SME's to remain competitive and become more innovative. Despite the support SMEs have received there are emerging trends within SME's that have characterised their support [3]:

- Firstly there is a lack of networking among support agencies. Referral activity may occur from one agency to another, however often little in terms of partnerships occur.
- Confusion amongst the small business community as to whom from the "support network" to approach for advice and guidance.
- Overlaps and gaps in support provision.
- Clear variations in the quality of business support within and between areas. The level and quality of staffing, the emphasis on training and development of staff and the level of funding vary significantly amongst agencies in the small business policy community.
- Lack of pro-activity in the small business policy community in contacting businesses developing relationships and being able to formulate and deliver services that are required by businesses as opposed to derivatives of national programmes.
- Relatively low level of take-up of small business services. These are shown as up to 10% take up of courses.
- Lack of specific structures and systems for SMEs

Several projects and initiatives have been set up in the region of Extremadura to give an answer to the challenges described and the skills needed by SMEs, and as such allow the SMEs of the region to take maximum innovative advantage of collaboration, both between enterprises, as well as with research institutes and university.

3.2 Training for Collaboration

Training is an effective strategy employed by many organisations in order to increase the skills required for effective collaboration, however there has been low take up rates of the training put on offer. This is because the training is not specifically designed for and targeted at the unique needs of SMEs. The knowledge support organizations have of these specific needs and the day-to-day reality of SMEs, makes them ideal for being a catalyst towards SMEs geared training for innovation, either through their interactions with training and content developers, or by developing training contents themselves. An example of the latter is the MENS project, lead by an SME support organisations, the project provided learning materials for SMEs on enterprise collaboration and pretended to lower the barriers for collaboration by providing SMEs with the knowledge and preparation to upfront these types of collaboration. The research results concerning the analysis of the training needs show a clear tendency towards the "softer" issues, mainly concerning people management, for example related to creating a basis for trust, such as the need for competencies regarding to emotional intelligence; or related to the improvement of the motivation for collaboration, for example by increasing the management skills and communication skill (both of management and the organisational members).

Although this does not mean that the "harder" issues were not mentioned, the related competencies and skills that were considered important and needed for successful collaboration can be classified in three groups: performance (e.g. negotiating skills); structures (e.g. creating the legal structure of the collaboration); and finance (e.g. participating in shared results).

One of the issues that came up during the project in relation to the development of learning and training programmes for SMEs is a paradox concerning the expressed need for e-learning based training solutions and the reality of the uptake of these type of solutions. In fact, the SMEs analysed in the MENS project indicated that they would need “pragmatic training, which is very flexible in time scale, and that is not much need for a tutor or to have direct personal contact”. However, the use of e-learning by SMEs still remains at a very low level. The DELID project addresses this issue, and has found out that one of the problems lays in a lack of knowledge concerning learners by those in charge of developing and carrying out e-learning courses. A team of content developers, elearning experts and intermediary organizations joined forces to develop a methodology which describes how e-learning courses can be adapted to better fit SME needs of SMEs in general.

The methodology will allow intermediary and innovation support organizations to better adapt their training for innovation to the real needs and eLearning characteristics of SMEs.

3.3 Innovation Agents

But training is only one side of the coin, making SMEs collaborate and collaborate with the aim of innovation, requires a more broad approach and needs to include customized and personalized support by skilled staff in intermediary organizations.

A good example is the CODICES project, the result of a collaboration agreement between the Spanish Ministry of Education, Science and Technology, the Extremadura Regional Government and FUNDECYT. It puts into practice a series of actions for the promotion of Research, Development and Innovation (RTD+i) within the Extremadura businesses by means of the following activities:

- Promotion and management of projects
- Technological surveillance and technical prospective
- Training and dissemination of RTD actions
- Transference of technology

The main aim is contribute to the technological emergence and excellence research in the enterprises in the region, in order to make them cope with the research and technological development activities, which are normally considered as an option. This action is complemented by a series of activities and actions aimed at improving cooperation between regional knowledge-generating entities (University, research and technology centres) and knowledge-demanding entities (enterprises).

Since the start of CODICES in October 2006, over 40 individual strategic innovation plans have been developed for SMEs in the region, and 7 technology transfer agreements have been signed. Fundecyt as intermediary and support organisation has provided the framework for these agreements and has developed the plans. But the mayor results in terms of collaboration for innovation is the role the organisation has played as intermediary in the setting up of more than 50 projects with regional SMEs.

4. Conclusions

Continuous innovation is key to future survival and growth of businesses operating in increasingly competitive global markets. Innovation has become a necessary component of a successful business strategy among firms of all sizes.

Innovations are increasingly brought to the market by networks of firms, selected according to their comparative advantages, and operating in a coordinated manner. The need for collaborative R&D and commercialization is particularly critical for small and medium-sized enterprises (SMEs) hoping to make gains in terms of innovation.

But many SMEs find it difficult to collaborate or network with other organisations. While SMEs are often more flexible and responsive than larger organisations, they frequently lack the skills and resources necessary to collaborate or network.

R&D is widely regarded as one of the most important factors in the innovation process; it is therefore imperative to stimulate and encourage more collaborative projects in R&D through partnership schemes linking institutes, universities, and industry. Independent SME support organisations play a vital role in this scheme. The example from MENS, DELID and CODICES show the relevance of these organisations.

The combined interaction of the activities and projects related to training and the customized and personalized support of qualified staff has led to results.

One of the keys for the success of the strategy is related to the fact that, it combines actions in the field of technology and transfer of knowledge, it does not lose sight of the needs related to the “softer” issues, mainly concerning people management, for example related to creating a basis for trust, such as the need for competencies regarding emotional intelligence; or related to the improvement of the motivation for collaboration, for example by increasing the management skills and communication skill (both of management and the organisational members). The innovation agents in charge of executing the tasks and activities of CODICES, used the training materials developed in MENS to create this environment, and will be taking into account the DELID results to construct eLearning that is well adjusted to the needs of SMEs.

The lessons learned demonstrate that the role of support organisations lies in the creation of a trustworthy environment, which focuses also on the human aspects of collaboration and innovation, are key.

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