Innovation in co-operation

and

co-operation innovation

Per V. Freytag
Professor
University of Southern Denmark
Grundtvigs Allé 150
DK-6400 Sønderborg
Mail: vagn@sam.sdu.dk
Phone: + 45 6550 1217

Ann Højbjerg Clarke
Research assistant
University of Southern Denmark
Grundtvigs Allé 150
DK-6400 Sønderborg
Mail: acl@sam.sdu.dk
Phone: +45 6550 1226

IMP, Dijon 2002

Introduction

Innovation is a central concept within business economics. The modifications and renewals that characterize market, distribution system, and individual companies are called innovations. In other words, innovations cause modifications of existing structures and processes (Håkansson, 1987). Thus, the driving force behind market and business modifications is essential for understanding why some products become popular in the market, or why specific companies compete more or less successfully.

The reasons for a company's success should be found on three levels of explanation: company level, direct interaction with suppliers and customers – dyad level, and network level. The interaction between these three levels of explanation is important when trying to understand innovation (Wilke 1995, Håkansson & Snehota, 1995a).

The management of a small company producing stage equipment – scenes, sinkers, etc. became aware of the possibilities of modern information technology. By means of advanced surveillance equipment it would be possible to monitor if the stage was working as intended, and in case of problems register and subsequently correct the problem. It would also be possible via satellite to send information on malfunctions directly to the producer in Denmark. This would enable quicker and more efficient customer servicing and ensure better accumulation of experience across countries and stages. For the project to be successful, suppliers and customers/theatres had to be involved. Together with the supplier of software and hardware, suppliers should be willing to enter into co-operation on registration of malfunctions, and one or more theatres should be willing to enter into the development work and be subject of experiments.

It soon turned out that involving the immediate suppliers was not enough. In some cases it was necessary to change the choice of material or a certain construction, which meant that suppliers' suppliers had to be drawn into the process. It was also obvious that the individual theatre, its staff, and consultants were crucial for the success of the project. Increased possibilities of continuously monitoring stage functionality also meant increased demand for interaction as well as modified perception of what it is to make a theatrical performance. This way of acting presupposes an ability of the involved parties to couple market with technology. Thus, even in the same company it may be difficult to couple market with technology, and understand the needs and demands of other departments or actors (Myrup, 2000). The problem will, however, not diminish when working across companies.

In other words, making the innovation project succeed was a complicated interaction between many actors, but in this very interaction was the driving force behind the success. Thus, each explanation level offered its approach and contribution to understanding the result of the innovation process.

A theoretical model can only with difficulty contain this complexity, and the present paper will not try to advance such a universal model (see also Håkonsson & Snehota, 1995a). Instead the goal is to clarify how each of the three levels of explanation can contribute to increased understanding of the innovation concept, and how the levels can be combined in specific situations on an ad hoc basis. As innovation is a comprehensive concept, the focus will be on the importance of co-operative relationships.

Naturally, this epoch-making invention plays an important part, and there are many examples of individual persons having made such inventions. Innovations are, however, not only produced by individuals. Interaction between individuals often plays an important part. Within or across departments or organizations fruitful co-operation can contribute to making new products, processes or market initiatives. In other words the way in which the company is organized and the way in which the resources and competencies of the individual people and companies are utilized can promote a company or a network's ability to innovate.

The overall research question is subsequently: In connection with innovation projects, what factors in the company, in the dyad and in the network are important for appropriate interaction.

2. Innovation as an interaction phenomenon

It has often been asserted that innovation is a central key when sustaining the competitive power and survival of the company in the long term (Hart 1996). The task is to constantly be able to offer customers precisely what they want in order to gain competitive power (Kotler, 2000), (Baker & Hart, 1989). In the industrial market the development of products often equals a close dialogue between two very professional parties with a thorough knowledge of technology, and their own needs and wants. The actors are constantly trying to develop own competencies. Even if the company has chosen to outsource many tasks to other companies it is still important to maintain and develop competence in assessing the competence and performance of others. Thus, working with innovation is a crucial way of developing a company.

The concept of innovation is very broad. According to Ford & Saren (1996) there are three areas within which innovation can take place: product, process and market. A new product, a new process or new ways of treating the market are innovations. The company may use many technologies to create innovations. These technologies may be general, or used for specific purposes. General knowledge about specific materials, specific experience as to how materials behave in combination with other materials and specific experience as to how a process using the material should be managed are examples. In other words, process and market innovation is very much identifying best practices in order to make the company or the interaction with other companies work best possible. As for product innovation the very process until the product is launched may be regarded from a best practice point of view.

An important element of product innovation is the question if the factors influencing the innovation process are more or less successful. Resources are exchanged in the company, and resources are exchanged between companies, but which factors determine the extent of the success?

Competencies

The existing competencies form the basis of the interaction within and between companies. Roughly, the competencies of a company may be divided in two: a know-how sustained competence and a technology sustained competence. Basically, there is no difference between the various definitions of competencies. According to Pralahad & Hamel (1990) competence is the ability to solve a problem. Know-how is the "soft" part of competence, i.e. the specific knowledge of the individual as to how a problem is best solved. Hardware or technology is a systematized knowledge of the way in which to advance in a specific process. Zhu, Hsu & Lillie (2001) are of the

opinion that the more peculiar and valuable to others or the company itself the competencies are the greater the possibility of the company appearing particularly attractive and competitive.

As the tasks to be solved internally in the company are different, the competencies of the employees and "functions" are different. In many companies two relatively different competencies are attached to the technical and commercial part of a product development process, and the more these two parts of the product development process cohere, the greater the likelihood of reaching the goal of the process.

It is an important managerial task to utilise and develop the competencies of the company. However this managerial task cannot be tackled by top management alone. It is just as much a question of utilising the special individual competencies of the individual employees. Therefore, it is important that the development of the company's competencies takes place both as an interaction between employees and management and between employees individually.

Co-operation across different tasks and professional domains is complicated by different communication barriers and lack of specific insight. In some companies communication flow is organized in a way that ensures efficient, vertical communication, but horizontal communication does not get the same priority. Furthermore, there is often very poor insight in the workings of the company's other functions and their contributions. In addition, if the language is characterized by a different professional terminology and insight, it may be difficult to realize top management's desire for integrated product development (Myrup, 2001).

As a rule the problem is not reduced in co-operation across organizations. Seen from outside or from top management there may be every reason to co-operate with one or more other companies, but if the various kinds of barriers are taken very little into account, it will often be difficult to gain the advantages that made the parties interested in each other.

The ability to learn from each other is very important when making use of each other's competencies.

Sharing knowledge

In many situations company competencies are motives for entering innovation aimed co-operation, and knowledge sharing is the means of binding together the competencies of the parties. Both in a company and across two or more companies the decisive factor for utilizing the present competencies is ability to understand, communicate, and learn. This may seem obvious, but it is here that barriers often complicate the utilization of the company competencies. Various professional domains or conflicting or competitive goals at individual level, department level or company level are typical barriers (Baumard, 1999).

Knowledge is a rather broad concept difficult to operationalize and apply. Part of the knowledge present will be tacit. This tacit knowledge may for example be attached to the way in which a specific problem is solved, and it may represent a very important competence of one or more individuals in a company. The individuals are often the source of innovations, but are also a factor to be managed, if the connections in the company are to be maintained.

The management of a company is often interested in managing the development and application of the knowledge present in this company. This is just as much the case when two or more companies co-operate. In connection with tacit knowledge the dilemma is that as management tries to codify the tacit knowledge in order to control it, the results of the cooperation may be less successful, as the increased formality can reduce the creativity of co-operation. The very wish for targeted management of knowledge sharing across departments, professional domains etc. may reduce the benefit (Easterby-Smith, Burgoyne & Araujo, 1999). Attempted targeted management of innovative actions can also be perceived as non-stimulating if not as an expression of distrust in employees. Trust is another important condition of realizing the potential of co-operation.

Trust

The implied purpose of co-operation on innovation is the creation of something new. A certain openness and dialogue is a precondition when making room for new possibilities and perspectives. It also means that if one or more involved parties experience an impending risk of opportunistic behaviour this may influence the expected results of the co-operation negatively. This means that if there are initially no expected positive pay-offs from acting in an open and obliging way towards other involved, it may be difficult to develop a stimulating, co-operative atmosphere. In practice it can be very difficult to predict the role that trust will be playing. Apparently, the individual actor's attitude and experience play an important role (Håkansson, 1982). In many situations the altruistic attitude of the actor coupled with his experience with other actors will form an appropriate basis hypothesising on the likely initial behaviour of a partner. In addition, the behaviour of a partner will be influenced by one's own action towards the partner. Usually, openness will be received with openness and vice versa, even if the potential possibilities of loss as a result of opportunistic behaviour are normally expected to be important in business relationships (Williamsson, 1985). There are also limits to what can be done to provide against opportunism. Håkansson & Snehota (1992) put it as follows: "Thus there are a number of factors which are difficult to overview at the point when the deal is made. These difficulties are so great that it is often pointless – or far too costly – to try to formulate agreements to cover all conceivable situations. Instead, the relationship has to provide the security." Pp. 112. However, the attitude of the actors is not only a question of trust or not. The attitude and commitment of the parties to co-operation also play an important part.

Commitment

An additional choice is also a choice by rejection. When a company enters co-operation on innovation, it usually means that the parties commit themselves to each other. For a period such a commitment may complicate or make it impossible to enter into other relationships. The purpose of developing new products may be to gain competitive power in the market. If the advantages of being the first with a new product, a new technology, a new feature or the like are to be shared with other companies, the interest in co-operation may cool down considerably. It is also important to know what importance is attached to co-operation.

Dwyer, Schurr & Oh (1987) define commitment as the will to accept the loss of benefits in the short term in order to gain long-term advantages. Whether the parties can gain benefits in their co-operation may influence the way in which they choose to act towards each other. The greater the potential advantages of co-operation the greater the probability of the parties choosing to co-operate (Emerson & Cook, 1978). As a result it may be very convenient for a company to keep a partner.

Search costs are reduced, and the risk of making wrong decisions is minimized – you know what you have, you do not know what you will get!

Commitment is also about the aspect that co-operation between two or more parties is maintained on the basis of other motives than mere financial motives. A company may wish to be perceived as persistent and consistent. The aim may be to develop or maintain certain ethics or a certain reputation.

When co-operating with an innovative aim the parties no doubt watch each other and each other's intentions. The behaviour pattern of the parties will be compared with the parties' commitment to co-operation and the result of the process. The parties realize that certain own interests are at stake in the co-operation. They also realize the importance of showing consideration and respect for the interests of other partners.

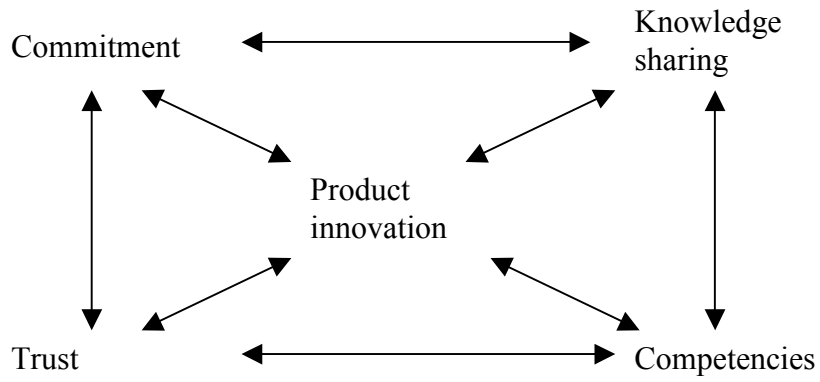
Thus, in many situations it is not enough to be committed to co-operation. The parties must also be willing to scale down own interests to such an extent that there will be room for other partners' interests.

3. The innovative field of tension

Innovations are created in an interaction between a number of factors that may be both facilitating and atomising. The partners should be complementary. They should not be too alike, but they should not be too different from each other either. The more identical the partners are, the less they will contribute to each other. At the same time, to inspire each other there must be bridges by which competencies and goals can be made compatible.

This field of tension may be conducive to co-operation. If the dissimilarities are too big, co-operation demands considerable resources, and the use of resources risks not being able to compare with the result. If the dissimilarities between the parties are too small, the result of the co-operation may not compare with the input.

Figure 1 The innovation-creating field of tension



In each situation a number of factors will decide how and if an innovation project will be successful. The above field of tension points out important elements of product innovation. Mutual trust and commitment in individuals and organizations is essential. The possession of competencies and knowledge to serve as a core of renewal, and the possibility of sharing this knowledge with each other are appropriate starting points for understanding what product innovation is all about.

4. Barriers and burdens in co-operation

Co-operation is often seen as important in relation to innovation. However, as we shall see later, there can be many burdens and barriers for co-operation. The following briefly looks at some of the areas that may influence the process and the result of co-operation with a view to innovation, both within the company, between two companies in a dyad, and in the network.

4.1 Co-operation within the organisation

There are different areas that support or hinder how the co-operation takes place internally. These areas include cross-functional activities, integration, resource allocation, the involvement of management, the organisational structure, the nature of the innovation etc.

One of the aspects often mentioned as important in co-operation within the organisation is the interface between the different departments and the cross-functional work. The different departments can be development, design, production, marketing, and purchasing. At the organizational interface, two or more groups will come together with some common and some conflicting interests, and with the potential for both compatible or incompatible behaviour, preferences, expectations etc. Often there are mismatches between the functions, in the sense that what one department of the organisation expects or imagines that another department can deliver may prove to be unrealistic or even impossible (Wheelwright and Clark 1993).

The marketing and R&D interface

In literature it is the marketing and R&D interface that has been particularly focused on (Gupta et al. 1987, Gupta et al. 1986, Olson, et al. 1995, Griffin & Hauser 1996, Moneaert et al. 1995). Gupta et al. 1987 find that a lack of integration between these functions can lead to over-designed, over-priced, obsolete or radically-advanced projects with little customer value. However, building an integrated R&D and marketing effort is a difficult and demanding task with many barriers.

The R&D-marketing interface has special problems because of social and cultural differences between R&D and marketing. There seems to be some inherent personality differences between the individuals that make up the two departments. Their expectations, values, goals, needs, motivations, behaviour and attitudes can be different from the two functions (Gupta et al. 1986) and both groups have stereotypes and language which at the individual level create barriers to other functions. It is suggested that their differences in outlook and the formation of different cultures result from reading different literatures, maintaining social distance, and belonging to differential groups and associations (Gupta et al. 1986). Marketing and R&D personnel are often different in training and background. Their world views and organisational routines are reinforced in the cultures of the firm's functional departments (Griffin and Hauser 1996). The inherent differences can lead to the interpersonal distances that often seem to exist between marketing and R&D.

Another barrier is the different focuses and the different directions or type of projects the different groups prefer. R&D are often technology interested and favour long-term horizons, advanced and often radical breakthrough projects, whereas Marketing is mostly interested in projects that are likely to be market successes and prefer short time horizon and incremental projects (Gupta 1986, Griffin and Hauser 1996).

The differences should to some degree exist as they reflect the different purposes of the different functions. Also needed is that the functions respect, appreciate and understand each other's needs, competencies and worldview. They should present their information with consideration for the co-operating partner's needs, e.g. marketing should consider that R&D often need a more detailed description of the customers' needs and requirements. The conflicting points of view can increase the organisation's creativity (Biemans 1995). However, the differences should not be so great that they act as a barrier to effective integration and co-operation.

Because personality or stereotypes are one of the most difficult of all barriers to reduce or eliminate, ways need to be found to enhance the understanding and build trust between the functions (Griffent and Hauser 1996).

The organisation, management and the innovation

It is not only the individual or the project team that affect the co-operation, these are also affected by the organisation, the management and the type of innovation. These can also create barriers or place burdens on the co-operation in the development team.

Different structures can be a burden or a facilitator to different types of development projects. Formalisation, centralisation, and complexity, which can hinder integration, co-operation and creativity in innovative projects, can help speed up incremental projects. Olson et al. (1995) and Gupta et al. (1986) found that the better fit between the type of the product concept and the participativeness of the co-ordination mechanisms used, the better the outcome of the development process.

Top management can also influence the level of co-operation by providing an environment or climate that contributes to the co-operation and integration, e.g. create a learning and creative climate (Gupta et al. 1986). If they value co-operation they will support and encourage it, if the opposite is the case it can become a burden for the development team that needs to co-operate. Clark and Wheelwright (1993) suggest that a reason for problems in the new product development process is often that managers fail to plan sufficiently in advance to provide the requisite skills and resources, to define the project and its purposes appropriately, and to integrate the development project with the company's strategies.

Finally, the nature of the innovation also influences the way development should take place and the potential barriers and burdens that exist. As an example, with radical innovation it can be advantageous to place the project group separately from the main organisation, so that the routines and structures of the organisation do not stifle creativity and hinder new processes from developing. Complex projects often demand close co-operation. However, they are often difficult to control as more people and technological areas are in play. Likewise, the task also plays an important role for co-operation between companies.

4.2 Co-operation between companies – dyad

There are many reasons to co-operate with other parties outside the company. For example, in response to customer and market needs, technology changes, to reduce risk and cost in R&D, to reduce time to market, and to secure access to other technologies or skills etc. Co-operation can take place on each activity of the product development phase. While co-operation brings many advantages and can be a valuable resource to companies, there are also burdens and barriers associated. For example Bruce, Leverick and Littler (1995) found in their research that many companies regarded collaboration as making product development more costly, complex and difficult to control and manage.

The burdens and barriers of co-operative innovation relationships exist in all the different stages of the relationship's life cycle. Barriers can occur at the starting of a relationship, through maintaining and ending of it. For example, parties might want to start co-operating, but due to external forces they are not able to. Further, relationships that are perceived as promising in the preliminarily stages can become burdensome if there is a mismatch in expectations, intentions, commitment, culture, strategy, focus and resources employed in the relationship, or if a necessary level of trust is not gained. Divergent aims, objectives and commitment can also be barriers to well functioning co-operation, possibly resulting in conflict and eventually breaking up of the relationship and likely causing problems for the innovation.

Starting and maintaining the co-operation

Co-operating with external partners helps gain access to external resources e.g. product or process technology. However, gaining access to the external resources and competencies requires the company to give up control of some of its own resources, activities and intentions (Håkansson and Snehota 1995b, Tidd et al. 2001, Bruce, Leverick and Littler 1995). This could prevent some companies from entering a co-operation of innovation. This loss of control may not be perceived as a problem, especially as long as the two parties have similar intentions. However, if this commonalty is lost it can become a burden (Håkansson and Snehota 1995b).

Another barrier for companies to enter a co-operation could be the amount of information the parties need to share. The threat of information leakage could prevent some companies from co-operating. Here, the additional information could take form of market intelligence, or more tacit skills or knowledge. This is especially an issue if the potential partner is also a potential competitor, or a supplier that has a relationship with a competitor (Bruce, Leverick and Littler, 1995).

Developing an innovation co-operation entails prioritising. Not only does it entail giving priority, it does preclude other preferences (Håkansson and Snehota 1995b). The exclusiveness of relationships leads easily to conflicts whenever a new close relationship is developed. It may not be possible to conciliate existing relationships with other prospects, even if they are perceived as attractive, for example forcing the selection of certain technologies, or excluding relationships with other parties.

Furthermore, it takes time and efforts to develop and maintain a close relationship between two companies. Resources are needed in order to learn about each other, to carry out necessary adoptions, and to coordinate own activities with those of the counterpart, which takes time, effort and resources, and this cost is always a burden. The weight of the burden is relative to the likely

benefits of the co-operation. The bleaker the prospects, the heavier the burden (Håkansson and Snehota 1995b).

Factors on an individual level can also play a role as barriers or burdens. The commitment, time and energy of top management are very important in the creation of relationships between companies. A lack of engagement can prevent relationships from starting or lower the degree of involvement. The lack of a champion in the innovation co-operation can also be a barrier to a successful relationship. Other barriers could be that the employees of each company do not manage to establish personal relationships with employees of the counterparts, or if some departments or levels will not properly participate. On the other hand, it could become a burden if the individuals involved in the relationship gained a too strong culture and ended up placing all their loyalty in the co-operation rather than in their original organisations. In this situation the co-operation may take on a life of its own, with its own goals, strategies and routines, and may end up in conflict with the original companies.

External factors can also place a burden on a co-operation, for example, if changes take place in the surroundings. This could be the arrival of new competitors or new technology that turns the existing relationship into a burden for either of the involved parties. Burdens can also arrive if one of the parties changes commitment, e.g. due to internal changes or establishing of new external relationships. Or they might develop in different directions focusing on different technologies or markets.

Ending the co-operation

Barriers and burdens also exist when one or both of the parties want to end the relationship. If they are not able to do so due to high interdependence, and if they are forced to continue the co-operation their investment in developing new technology together or process equipment could be a problem.

Another problem might arise if one of the parties wants to finish the relationship and the counterpart does not share this wish. The counterpart may feel cheated, as they will lose their investments without getting the expected returns. If they then decide to retain and exercise some sanction power this could in turn have negative consequences (Håkansson and Snehota 1995b).

Alternative could be the case where one of the parties wants to finish the co-operation, but is prevented from it. The partner can be forced to stay with the counterpart if the switching costs are high, or very few suppliers exist or they might not possess the necessary development capabilities and production capacity in-house. This would especially be a problem if the stronger party because of this dependency exercise power over the other e.g. in form of opportunistic behaviour by charging higher price or poor performance.

4.3 Co-operation in networks

When we are dealing with more dyads we call it a network. Normally, the network is not governed by one actor, but very dominating actors can play a crucial role for the development of a network. This is why it can be difficult to lead the development of a network in a specific direction. Håkansson & Snehota ((A) 1995) state: Business networks are always the result of a continuous collective organizing process consequent to the actions of its actors who, with only a partial

understanding and control of the overall structure, take action vis-à-vis single specific other actors. Actors in a business network may act purposefully, under norms of rationality, but they always are bound by interactions to others", p. 274. In other words, the individual actor is embedded in the network, representing opportunities and limits. The choice of network is far from being cost free. Therefore, the individual actor should pay attention to the limitations and burdens of participation. Sometimes there are, however, no options, which we will revert to in the following case.

Finally, it is essential to pay attention to the influence of the public authorities on the terms for the individual network. Rexroad writes as follows on public importance:

Governments also have an effect on both the strategic and project levels, either directly or indirectly.

Some governments foster technology innovation through foundations, support, stimulating basic technology research, and providing an educated labor force. Other ways for governments to have an influence are legislation, standards, and increasing or lowering barriers for competition (Rexroad, 1983).

As can be seen many factors have an influence on innovation, and subsequently a specific case will show how different burdens and barriers can affect innovation.

5. Development of a system for return goods

Transport packaging is an important feature of the interaction between the actors of a network. The packaging must be adjusted to the logistic system, and often the individual actors of the network have to negotiate when choosing transport packaging. Therefore, change of transport packaging is often a time-consuming process requesting considerable resources.

When dry food like coffee and cheese is transported it is normally packed in cardboard and plastic. Recently, as increasing attention is being given to environmental problems, attempts have been made to introduce recycled packaging. However, even though the project has been run for 8-10 years, it has not met expectations.

There are several reasons for the failure of the project. One of them is the way in which the innovation process developed. Before we look closer into this it is important that we map out the various actors in the network. The two central actors are food producers and supermarket chains. The food producers are interested in a distribution system that is as flexible, simple and cheap as possible. The supermarket chains have similar interests. This is a consequence of distribution system and transport packaging being "invisible" to the consumer and not contributing to value creation. The distribution system must ensure that the goods reach the shops safely on time, neither more nor less.

Public authorities have exerted pressure to reduce the consumption of cardboard and plastic and to shift to recycled material. The pressure of the public authorities has been limited to entering voluntary agreements.

Two other actors that are important to a functional recycled packaging system are the packaging producers and the transporters. The producers of cardboard and plastic have done their utmost to

keep their customers by showing willingness to meet their wants and demands. Meanwhile, several producers of reusable packaging and systems for reusable packaging have seen an interesting market, and have each sought to promote their own solutions to the task. For the individual transporter the idea of a reusable packaging system is very interesting, as they do not often have return goods after delivering goods to the supermarket chains.

For a reusable system to function it has to be managed. The packaging has to be maintained, cleaned, deposits have to be collected etc. Either an independent administrator or one of the other actors of the network can perform this task: the food producer, the packaging producer, the supermarket chain the transporter.

In general, the task is to find out how large-scale innovations can be introduced in a network as well as all the associated limitations and problems. It is interesting that even if central actors, including the two main supermarket chains that together account for 75% of retail turnover in Denmark, and many important food producers have been interested in a change, nothing has happened. One of the explanations is that it is important to adjust the chosen system to the common European system. However, there is no common European system, and such a system is long in coming, among other reasons, a number of large supermarket chains already have their own systems for returns. It would, however, be possible to create a system, which to some extent is compatible with a future common European system. A shift to a new packaging system will, however, mean that many resources are tied to the project and that the parties will be committed to the chosen solution for some time. Meanwhile, there will still be a degree of uncertainty as to what will happen on the European level.

At the dyad level a number of factors have influenced developments up till now. There is clear rivalry between actors playing equivalent roles, e.g. supermarket chains. Actors prefer their own solutions. These have been developed in co-operation with a packaging producer with whom there are good relations, and the relationship is preferably not damaged by the choice of a solution. In addition, one does not want to exclude actors who are important in other connections. The choice of a specific solution will also entail co-operation with new actors to whom there are no relationships. The individual working relationship each has its own historic and purpose depending on the two parties in the dyad. There is not necessarily convergence in goals at dyad and network level.

For the individual company a given solution to the packaging problem will offer various opportunities and threats. The packaging producers are interested in getting as big a share of the cake as possible, preferably the monopoly of producing all recycled packaging for transport. From the point of view of the supermarket chains and the food producers this would make an actor much too influential and create an inappropriate dependence. The anchorage of pattern and production rights with one of the other actors would create similar reservations.

Finally, interests also differ at the specific level when the actual solutions are under development. Based on different professional standpoints, attitudes towards choice of material, design, handling, and cleaning have been different. These differences can be related to both the actual contents to be transported in the packaging, and to differences in professional backgrounds that can be difficult to overcome.

For the time being the burdens experienced by entering a new system of reusable packaging are apparently too big and the threat of public intervention too limited to develop a system of reusable packaging in this area.

6. Conclusion

Co-operation on product innovation is not always easy. Internally in the company there are a number of burdens, limitations, and barriers to co-operation across departments and subject areas, but co-operation is inevitable if a development task is to succeed. The challenge is to identify potential problems and see to it that these problems do not prevent the positive potential of co-operation from being realized. Within the organization there will probably be efforts towards attaining mutual, overall goals, thus creating positive climate conditions. Forwarding the tasks to the top of the organization may be a solution, if they cannot be solved at cross-level further down in the organization.

The problems are often the same when co-operating across departments as when co-operating across organizations. In addition, when two organizations or different organizations have to co-operate two conditions are different. Company characteristics may vary significantly, and the overall goals and strategies of the organizations may be relatively different. If organizations do not have mutual platforms of understanding and readiness to work for mutual goals in the dyad or the network, it can be very difficult to gain the advantages of co-operation across organizations.

The choice of partner is not only a positive choice. It is also a choice by rejection of other possibilities, resulting in a dedication to this co-operation. Before entering co-operation it is important to identify the potential, the barriers and the burdens of co-operation. The more important a successful result is, the more important that the preliminary work is performed carefully. There is hardly a simple recipe for identifying problems, and making a final list of questions to ask before initiating co-operation is a difficult task. What management can do is to be attentive to problems during the process and constantly bear in mind the purpose and the desired results of the co-operation. The goal is crucial, not necessarily the way by which the parties arrived there.

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