RESOURCE MOBILIZATION IN PACKAGE DEAL PROJECTS

Amjad Hadjikhani

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ABSTRACT

This paper considers an ongoing study dealing with organizing project selling. Earlier studies are dominated by the traditional discipline, where the actions are viewed to be temporary. Sellers, buyers and sub-contractors have a specific goal and the strategy is a short term economical profit. This study employs network theory for analysis of cases and arrives at another conclusion. The case studies illustrate prior and post project networks and also explains the dynamism and changes in the project network. The case studies also outlines a horizon for project selling constituted of active and inactive or sleeping relationships, where the maintenance actions and their roles before and after project selling has been under focus.

1. Introduction

One of the dominating trades in selling industrial products in Sweden is project selling. The export of projects since 1970 has been increasing every year. In 1973, according to ID:s rapport (1978), project export amounted to 3% of the total Swedish export. Twelve years later, 1985, the project export was increased to 7% of the total export (ID, 1983,...,1988). The invoice amount of the project selling in 1985 was 42 BSkr. The value of Project selling between the 10 year period 1979-1984 has increased 12-15 % every year. In the period of 19851987 the value increase was 6-7% and thereafter in 1988 it increased to 8%. The values above do not include selling of components after project completion. Selling spare parts for some firms (for the earlier sold projects) amounts to more than 30% of the total annual selling, which means that the value of the project selling is more than the value presented (Hadjikhani, 1991).

Parallel to the increasing role of the project selling there has also been another change. The firms are now functioning in rapidly changing conditions. There is a high technological development and increasing internationalization. The number of newcomers in the market is increasing. An interesting question is how these increased values and other dramatic changes have influenced the project selling?

2. A Short Review

The traditional approach views the project as an arena for a firm, the contractor, being responsible for setting up a new plant. The project group from the contractor firm signs contracts with specialized sub-contractors for the parts which are not available within the firm. The collaboration results in the emergence of organization which focuses on a clear and specific goal. When the goal is achieved at the operation stage, the exchange of resources ceases. The project selling assumes to have a temporary function. It is born when one entity draws up a contract with another entity, and it is dissolved at the end of the operation phase when the transaction is completed (Hyden, 1976, p.3). Accordingly, the management is a temporary function within a specific and clear arena.
There are two fields of study in this discipline, a) building and construction projects, b) industrial projects. In the field of building and construction the studies were initiated in the early 1950s. The study of Friedman (1956) is one of the earlier studies in this field. It concentrates on negotiation rules in the project selling. From the 50s to the 80s several studies are presented. The studies of Fletcher and Wheeler (1989) define project management as a organizational intelligence for planning and negotiation. However, the studies above simply employ temporary management principles.

For the next field, industrial projects, there emerged a number of studies in the 1970s and 80s. Among them the study of Almgren (1977), Little & Mirrles (1974), Goodman (1979) and Skylark (1981), Ruskin & Estes (1982), Aldrich (1979), Foord (1987) can be mentioned. The studies recognize the resource exchange as temporary and short lived since the project itself has a short life time. The project seller is observed to have a short term strategy. Therefore, the studies mainly concentrate on management and structure in the project’s life time. The relationships are temporary since the project starts from scratch and terminates with completion. The strategy is recognized as economical efficiency in the project and is measured by project price and cost. Dupont (1989) and Maccall/Warrington (1984) and even Duroure/Fraise (1981) focus on one specific area in project selling, namely, negotiation, and are mainly concerned with the power struggle in competitive bidding situations.

In the above studies the selling activity is the negotiation and bidding tactics in getting into a project and the strategy is the short term financial benefit of a project. The buying activities and the component purchase decision deal with the selection of the right price, product, delivery time, quality and supplier (See also Axelsson, B. & Laage-Hellman, 1991, PP. 12-17).

The business network model conveys, however, a somewhat different picture. It suggests that the contracting parties may be engaged in, to some extent, overlapping networks connecting a number of suppliers, competitors, customers, consultants, public agencies and other units. It suggests also that the supplier or contractors may be involved in more or less lasting and close relationships with a set of sub-contractors and that these relationships are activated when the package deal is organized. Thus it can be expected that the supplier’s network is an important resource enabling him to carry out the project and that he has an interest in developing this network during the project (See also Mattsson, 1987).

Against this background the study describes and analyzes three international package deals in which the Swedish ABB-Relays and Sala International are involved. The cases are firstly briefly described by traditional view and then the analysis turns to the network approach.

3. A Swedish-China Package Deal Project

In Jan. 1988 ABB-Relays (ABB-R) together with ABB-Switch and Capacity signed a contract with China for delivery of a railway electrifying system. After a short period the Relay division became totally responsible for the project since the main parts arrived from this division. The montage and transportation was ready in 1990 and the operation phase terminated in Feb. 1991. For electrifying
the railway ABB-R’s responsibility was to convert 110 volt to 27,5. It included the construction, production and installation of “high voltage, control and relays” components. The project also included training of 10 Chinese fora total of 870 days.

The complexity of the project did not concern the level of technology. It depended upon, a) more than 1000 different interconnected parts arriving from two different industrial traditions, b) Chinese way of doing business. The level of technology is rather low and the division had no former business experience with the buyer. The project included the delivery of 250 cupboards for electrifying railroads.

In 1988 a project group from ABB-Relays (ABB-R) evolved. The group consisted of a project leader from the project unit and two engineers from the construction unit and two Chinese from the agent unit in China. The negotiation with Railway Ministry (RWM) was through INTC (a Chinese public organization responsible for negotiation with foreign MNCs).

Technical components purchased from both the internal production unit and sub-contractors. The purchase of the standardized components was carried out by the ABB-R purchasing unit and the responsibility for the specific components was undertaken by the project leader. The specific components involved 9 external sub-contractors coming from China, Sweden, Japan and Finland. In the negotiation stage several meetings were arranged, involving 20 specialists from communication, Water Department in China and RWM. The competitor was a Japanese and a German firm.

In the offer stage it was ABB’s agent unit in China which informed ABB-R and ABB-Switch. The two Chinese from the agency were involved in the negotiation, construction and installation. A short time prior to the final stage there were four engineers and one agent left in the project. The project group successively left the project and in 1991 when the project was finished the project organization dissolved.

3.1 Mobilizing a Pre-Project Network

According to the short description above the relationships started in 1988 and terminated in 1990. The relationships and the project itself had a life cycle for only 3 years. As mentioned earlier, one aim of the study is to describe the case by a network discipline. This part of the study focuses on the pre-project relationships, and studies if they played a significant role in the management of project selling.

The project group’s net of relationships prior to project completion can be studied in relation to the components’ technological types. From the total costs, only 10% was devoted to the standardized components. The purchase unit in ABB-R is specialized in buying standardized components, not only for this project but also for other units and projects. From the total sale of 500 MSEK per year only 50 MSEK belong to the project unit. In reality there is a regular flow of standardized components from these sub-contractors to the purchasing unit and hence to the production unit.
Therefore some of the sub-contractors are active and standardized rules prevail. The frequent activation has reduced the cost and time of the administration.

Around 10% of the sub-contractors have more than 10 years experience from resource exchange for the standardized components. For this and any other project the purchasing unit chose one subcontractor for each component when the price, quality, service and capacity was matched.

For each standardized component there are from ten to one thousand sub-contractors in the market. The purchase unit has selected only four and ten. If one subcontractor in the list does not follow the requirements, the purchase is interrupted and the sub-contractor becomes passive. The purchase unit easily turns to the competitors. The sub-contractor’s reaction depends on the purchasing unit. More explicitly, upon the purchasing unit’s order value is compared to the sub-contractor’s total sale and marginal profit from each order. Sub-contractors falling into such a position adjust themselves to the unit’s application. When the shortcomings are repeated, the unit stops further purchase. The ties break and the sub-contractor becomes completely passive, unless the purchase unit is convinced with new, technical, price and service offers. In other words, the degree of investment increases by the decreased frequency of resource exchange. Remaining a long period in this stage would finally break the relationships. In the purchasing unit’s sub-contractor list several sub-contractors are in this stage. The unit by and large studies the list and removes the inactive sub-contractors. In this context the purchase executive stated that:

"In the list we have several sub-contractors, their names can be taken out since we have not had any purchase since 8-10 years back."

The total number of specific components in this project was around 9. The project leader and sub-contractors’ contacts did not initiate from scratch, it had a history. Two of the components “equipments and cable lists” had a low degree of value, but their technical functioning was important, since the whole technical system is interconnected by these components. For each component there are six sub-contractors from which the project leader asks for tenders. For the “measuring instrument”, e.g., a Swedish sub-contractor was selected. The main reason for selecting this sub-contractor was not because of price or delivery time. It was so that a year before the firm assisted ABB-R with technological adaptation and service in another project. The sub-contractor’s strategy by treating ABB-R exclusively was a result of the threat from the two competitors in the earlier project who were offering similar components. The sub-contractor, a Swedish and a Danish, treated the project leader as they usually do and did not know that this sub-contractor had started to offer more service and technological cooperation to ABB-R.

Prior to this project in the early 1980s ABB-R had sold relay components to RWM via ABB-Traction when selling locomotives. After this project ABB-R had no resource exchange with RWM. China is a big country and an attractive market. The ABB-R aimed to enter into the market.

In 1988 the agent unit sent the RWM’s application to the Relay and Switch. A project group negotiated with INTC and RWM via the two agents working for this project. One of the competitors, a Japanese firm, had already completed several electrification projects for RWM and
INTC. The last one was completed a few months prior to negotiation about this project. Therefore RWM was dependent on the Japanese technological system. The Japanese as well as ABB-R’s project leaders were aware of this dependency. ABB-R was also aware of the personal relationships between RWM and competitors. Further, competitors had also purchased from the Chinese sub-contractors. It was in this time sequence that the ABB-R was planning to discuss the project with RMW and INTC.

As figure 1 illustrates, prior to the negotiation stage there were two completely different kinds of positioning and activation degrees in the buyer’s network. a) the competitors, mainly the Japanese, were directly related to RWM, INTC and native sub-contractors and had a strong position. b) ABB-R was inactively connected to RWM and had a weaker position. In this context the project executive stated that:

“The **major problem was to sell a product to a buyer when it already had a good relationship with another seller. We did not have much to present and we did not have experience from each other. As a whole we lacked knowledge about doing business in China**.”

This means that the inactive connected ties cannot easily threaten strong and active ties. The relationships between the Japanese and RWM as well as INTC were stable. From the technological point of view both sellers were in the same position. The competitor had the belief that ABB-R was not a threat and therefore they would get the contract. The project group had to employ appropriate marketing policies. The agents contacted RWM’s professionals with whom they were acquainted. The social contacts were a necessity but not sufficient. Therefore, a very low price was offered. The pre-project network is summarized in fig. 1.

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**Figure 1. Pre Project Network**

Source: Interviews
In this stage the agents had a central position prior to the contract. The agents were familiar with the language and with the culture in particular. For example the project group did not know that handshaking is like a written contract since the Chinese are not accustomed to written documents. Such problems were less for the competitor because of the similarities in the culture and earlier cooperation. In this connection the project leader stated that “without the agents the operation was almost impossible”.

3.2. Post-project Network

The presentation illustrated that the mobilization process did not start from scratch. This part of the study is focused on the outcome of the relationships.

The project was accomplished in 1990. But there were some changes in the network structure. From the nine specific components, two of the components “equipment and cable lists” had a low degree of value, but were important (see p. 4). As mentioned earlier there are six sub-contractors that ABB-R asks for offers for these components. Two Chinese firms related to RWM also were producing these products. RWM demanded the project leader to buy the components from these two firms. This brought two different technological traditions together which led to conflicts. The project leader could not refuse the demand since it could jeopardise the relationships with RWM and future operation. The problems with these two new sub-contractors concerned the level of technology and also ABB-R’s strong relations with its own sub-contractors. The component parts and procedure of installation employed by the Chinese sub-contractors dated back to 1940-50.

However, conflicts arose between RWM and the project group because of the quality of the parts. After a period the project leader realized that the RWM and the Chinese sub-contractors had a mutual agreement on the quality of these components. ABB-R was legally dependent on the RWM’s approval of the technological parts. The parts from Chinese firms were rejected several times and the project leader understood that there was a tacit agreement between RWM and the Chinese firms. The firms used their positions to obtain technological improvement of their own production system. The project leader negotiated with RWM and informed them about the consequences of the pressure and finally accepted to improve the firm’s production technology.

For the “instrument component” there are generally four sub-contractors doing business with ABB-R. One, a Swedish sub-contractor had a stronger relation with ABB-R because of the proper technological adaptation and service which the firm provided in earlier projects, particularly for the Brazilian project, which was completed a few months before. The project leader proposed this sub-contractor to RWM. RWM refused to accept with reference to the technological type of the component. The effort not to involve another new sub-contractor became useless. After one year of negotiation the project leader accepted RWM’s demands, despite the fact that the project group was not in agreement with the technological argument of RWM. The project leader started to look for another sub-contractor. Finally, the project leader was informed that there was one sub-contractor in Japan producing the components. In reality RWM wanted to involve this sub-contractor but never
explicitly mentioned this and so the project group did not realize the message. The Japanese sub-contractor had earlierly sold the same component to RWM.

The “instrument clock” is usually measured as a standardized component. There are two Swedish sub-contractors involved in the ABB-R projects; both with a high level of selling frequency. RWM’s particular demand for the functioning of the clocks required technological adjustment. These two sub-contractors realized the difficulty since they had a standardized production process. After a long search the project leader found a small Swedish firm with which ABB-R had no earlier relationships. The firm made the adaptation by an intensive contact with the project’s technical group. Again a new relationship was established.

The project group had no plan to involve the Finnish firm selling the “signal system”. The latest relationships between the two was 7 years earlier. Simultaneous to this project there arose a plan to integrate the Finnish firm into the ABB group. This ensured that no other sub-contractor was asked to tender. Prior to the integration the signal systems were bought from a sub-contractor in the ABB-group. Occasionally, two external sub-contractors were involved. The integration led not only to activation of the relations in this project, but even strengthened the Finnish firm’s position.

Usually, the "cupboard" is categorized as a standardized component and normally four sub-contractors are contacted. But, only two of them are frequently involved, ABB-Distribution and a firm from Germany. Since the required cupboards were too many, 250, the project leader started negotiation with both firms. The price being a significant factor led to the involvement of the German firm. Since the number of the sub-contractors for this component is only two and the product normally measures as standardized, the buying frequency from each sub-contractor is several times a year.

One of the difficulties for the project leader was to find sub-contractors for "sockles" for the "cupboard". The buyer required a special construction for the areas with risk for earthquake. The buyer also required a similar colour for both cupboards and sockles. Finally, the project leader found a seller in Sweden able to produce the sockles. There followed an intensive contact between the project group and the sub-contractor. Normally sockles are standardized and there are more than 10 sub-contractors with which the production unit has contact with the two of them. Their activation normally depends on the offered price.

For one of the components, “testing equipments” ABB-R involves a Swedish sub-contractor. The component was developed by ABB-R and the sub-contractor made technological adaptation to fit the product into its own production process. But the sub-contractors are seen here as having a small technological adaptation capacity. Therefore, the lower price led to the involvement of the sub-contractor in almost all projects. The dependency of the firm had given a powerful position to ABB-R which forced the sub-contractor to accept the terms declared by ABB-R on behalf of long term active relations. Figure 2 below illustrates the network after project completion.
4. The Two Other Cases

Sala International (SI) carried out two projects, one in China and one in Tunisia. In the following part a summary of each project is presented.

4.1. The Mineral Project in China

In 1982 Sala International started negotiations with Beijing Mining Administration (BMA). In May 1989 they signed a contract for delivery of a Coal Water Fiol (CWF) process system as well as training of 12 Chinese for 50 MSkr. The construction and installation took 2 years. The project terminated in the summer of 1991 and the machinery handed over to BMA.

Prior to this project SI had not been involved in any project in China. The market was exploited by Japanese and German firms. SI relationships with Flloid Carbon (FC) in Sweden had resulted in the development of a new production technology for the coal mineral process. The competitors also had developed similar technology but it was at the design stage. SI's earlier relationships with FC and BITTS (a Swedish technical aid agency) played a significant role in this project.
One of the BITS requirement was to purchase 80% of the components in Sweden. Accordingly, BMA could not engage its own sub-contractor. More than 60% of the total purchase was made within the SI's internal units and the project group did not ask for tender from external sub-contractors. Mainly because, 1) the project group a short period before had cooperated with these suppliers in developing the components. 2) Some of the sub-contractors are not in Sweden and BITS had already specified its 80% role for the project executive. For the three components of “Propeller, Bogskitar,” and Special types of “pumps” an English and two German firms were involved. The main reasons were a) engagement in the earlier development process, b) willingness for further cooperation, c) service and a low offered price.

The project was measured as a key to enter into the Chinese market. It was completed in 1991 and BC took over the machinery system. When the project was in its final stage discussions were raised about two other projects. One of these projects being five times bigger than this one. The discussion in 1991 was about the size, capacity and financial terms. The competitors have already given up the effort since the total market in the world for CWF is declining because of the decreasing oil price. It is only China which has shown a big interest for this technology.

4.2. A Swedish-Tunisian Mining Project

In 1990 Flow & Bar, (FB) a Tunisian mining Company signed a contract with SI for delivery of 10 “Anchorage” technical systems for production of Flusspat. A small portion of the product in the steel processing increases the quality of the steel products. The delivery started in Feb. 1991 and was planned to take 6 months.

SI because of its small size, old age and traditional management has a more developed relationship with Swedish sub-contractors. Beside this fact, involvement of BITS, similar to the earlier case, required purchase of at least 80% from Sweden. Accordingly, there were no new sub-contractors. The major sub-contractor was ABB for electrical equipments. The Crushing and Screening and the specially designed Rubber Tubes were purchased from other divisions. The Pumps and Measuring instruments were purchased from the units in SI.

The most interesting event in this project was the SI's relationships before and after the project. In the 1970s and 1980s SI decided to enter into the Tunisien market. The mining market in this country was dominated by firms coming from France and Italy. These firms are well known and have a strong relationship with the Office for National Mining (ONM) in Tunis. The Mineral Separation unit (the project unit) in SI had no earlier relationships with this organization. It was only the pump division that on several occasions had sold pumps to ONM. Eventually in the early 1980s the Mineral Separation unit from SI engaged in negotiation for a mining laboratory, a technical system for testing the raw materials arriving from different mines. The service guarantee,
together with the low price, led to the contract between SI and ONM. The contract was signed in 1982 and the system delivered in 1983. But in the same year the construction Company which was responsible for the laboratory buildings went bankrupt and the system stored locally and could not be erected. SI had fulfilled the contract’s obligation in 1984 and had also received 100% of the fee.

SI could withdraw itself from the project completely. The building construction delayed 6 years because of political and economical crises in Tunis. But the project executive during the 6 years sent two technicians twice a year from the project group to ONM. They inspected the storage and checked the equipments. At the end of the 1980s the government started to pay more attention to the mining industry and particularly to phosphate mining. SI’s agent in Tunis (which also functions under Minco; the marketing unit in Trelleborg MNC), informed SI in 1990 about the phosphate project. The buyer, FB, is a public organization and has a well developed relationship with ONM. The time had arrived when SI could benefit from the investments during the 6 years. In the installation period of the laboratory, ONM contacted FB and the project group demonstrated the function of the equipment. When the machinery system was installed the project group invited FB leaders and the project group and asked them to bring their samples so they could concretely observe the mineral processing results. However, the satisfactory results together with the ONM’s positive relationships during the last 6 years strengthened SI’s position which finally resulted in a contract.

According to the Tunisian government there has to be 3 competitors for every project. The two firms competing with SI were, 1) Sala Italiana from Italy which in reality is a parallel division to SI in Trelleborg Company, 2) a French firm which is one of the few dominating companies in the market. This firm has already had several project in Tunis with ONM as well as FB.

After a period of negotiation there arose the problem of financing. The competitors introduced a good alternative. BITS had only approved the financial support for a part of the project. SI’s project leader realized the problem and asked BITS to support FB. After a period of negotiation BITS agreed to increase its financial support. In project termination SI and ONM started negotiating for two other similar projects.

5. Analysis

According to the temporary discipline the mobilization process in these cases was between 2-4 years. The marketing was connected with the project price and technical specifications. The strategy was a short term profit and the structure concerned with the coordination of a loose temporary partnership. On the other hand network description illustrated a longer life than the project itself. It further indicated a force from the focal actors to keep the old relations active and
not to involve new relationships. In both the SI cases, for example, there were no new relationships with sub-contractors.

A highly short term economical benefit abounded specially in the first two cases. Both sellers were willing to reduce the price to enter into the Chinese market. None of the three sellers had a direct resource exchange with the buyers. The network outcome in the post stage was for the market expansion. The immediate expansion after these projects can be observed in the last two cases.

The input networks were not similar to the output networks. The main reasons for the differences were, a) the sellers entry strategy. In the first two cases the project groups in the pre-stage were inactively connected to the buyers and in the post stage had an active relationship. b) the new struggle to integrate their own network, for example, RMW succeeded to involve its own sub-contractors. This was absent in the last two cases mainly because of the BITS power pressure. c) the hierarchical location of the project group’s network in the seller’s total network. A very good example for this statement was the buying of the signal system in the ABB-R project. Where the strategic changes in the ABB involved the Finnish sub-contractor and inactivated the other two actively related sub-contractors.

In the ABB-R project six of the nine specific components required new relationships with sub-contractors. These new relationships may go towards an inactive stage unless ABB-R gets involved in new projects. This would increase buying frequency and consequently the new relationships would become stronger. In other words, the expansion of ABB-R in the Chinese market requires changes in ABB-R’s old relationships. The project leaders build and strengthen the relationships with the Chinese sub-contractors for the cost of weakening some older ones.

The study illustrates the role of inactive relationships. They fulfilled different purposes depending upon where the inactive actors in the horizon of the sellers were positioned. There was also a difference between sub-contractors and buyer inactive relationships with sellers. Therefore, the maintenance of inactive relations provided different results. In ABB-R and SI-China cases, the buyers for example, were related to some active and some inactive sellers. The buyers used the negative connections of these sellers to strengthen their own power position. Another example in this connection was when the project leader for every specific component always asked for tender from several competing sub-contractors despite the fact that there were only one or two active sub-contractors. This can also be observed in the buying of the standardized components. For each component there were between 4 to 10 subcontractors. Some were only used by the purchase unit for price reduction and service improvement of the active sub-contractors. Evidently, the inactive relationships were measured by buyers as a resource. Therefore, the maintenance became important.

In situations where the sellers had active relationships with one or two sub-contractors and the rest were maintained only by request for offers, the sub-contractors’ level of tolerance was important for
the seller. The project leaders stated that the sub-contractors after three or four projects become suspicious and finally broke the relationships. It was therefore why the project group now and then involved these inactive sub-contractors. The project executive in the ABB-R stated that:

"If we never involved a sub-contractor there would arise suspicions. After a period, the sub-contractor is not going to treat our request seriously and does not want to hear from us."

Measuring inactive relationships or connections as a resource is clearly illustrated in the ABB-R and SI-Tunisian projects. RWM succeeded in reducing the price far below the competitor’s offer. The ABB-R reduced the price to weaken Japanese relationships and also to convert its own inactive connection to an active relationship. The competitors' longterm relationships became weaker by an inactively connected relation. Meaning that the active sellers have to measure inactive sellers as a source of uncertainty, since they can push the strong relationships into inactive ones.

The maintenance of the seller-buyer relationships was also different in these three cases. In ABB-R for example, there was no maintenance action in the pre stage. Involvement in this project was completely dependent on the relationship prior to the project completion. ABB-R had only one option, offering a very low price. Contrary, the maintenance in the SI-Tunisian projects increased the competitiveness of SI. The offered price did not need to measure the competitors' offers. The Tunisian project is a clear illustration of inactive networks and maintenance for mobilization. The question is if SI could win the competition without any maintenance during the 6 years of inactive period? The project unit chief stated that:

"One of the main factors in winning the contract was that we did not leave ONM 1984. We kept contact and finally could prove and demonstrate the product."

The flow of the spare parts from the seller or sub-contractor to the buyer also measures as a maintenance action. The time in between each action varied in these projects. The reasons were, a) the type and technological change in the industry, b) the numbers and size of project(s). The first one is related to the rate of the technological innovation in the industry and the second one refers to the level of the friction in the components. In the mining industry (SI), for example, the technological changes compared to other industries is low. In other words the period of technological interdependency between SI and buyers was long. Selling spare parts long after project completion is very usual in SI. It is very often that a buyer after 10 years asks for spare parts. A long inactive period is combined with disparated purchase which has a maintenance function. To some extent the length of the inactive period in between each maintenance is influenced by the degree of frictions the technical systems. In the mining industry the friction is high and frequent buying of spare parts can be observed. More than 30% of the pumps unit’s selling arrives from this selling.
6. Conclusions

In the earlier studies on package deals the three categories of a) buying, b) organizing and c) selling activities are recognized as short-lived. As mentioned, price decision, short term transaction and many suppliers, are the basis for the collaboration. The selling is measured by the short term economical benefit arriving from every project. In these studies the principle of marketing mix and the structure is the foundation. The members come from a formal structure to contribute resources and return to a formal structure when activities terminate. Since the partnership is viewed as temporary with no relationships before and after the newness of all relationships is implicit in the assumption. Therefore, in every project the mutual adjustment employs to coordinate the relationships (See Dilworth, 1989). The use of network theory (See Johanson, 1989) to study projects placed in question the matters of temporariness and newness in the strategy and relationships and arrived at completely different conclusions.

Dissimilar to the traditional studies the driving force of a project seller necessarily is not a short term profit strategy. In these cases every individual project was rather a means for entry or expansion in a specific market segment. A major difference between the pre and post stage of the focal actors relationships can be measured as an indicator for the entry strategy.

There are relationships in both the pre and post-stages. In the pre-stage, it is first incumbent on the managers to activate old relationships and connections and avoid new ones. Specifically, when the components had a specific technology. For the standardized components, by the lack of technological interdependencies and large numbers of suppliers, the managers can easier turn to the traditional discipline of low price, just-in-time, and service. The enter and exit into the system is easier. But it is somewhat different for the specific components since the establishment of new relationships would increase the cost, the time and the uncertainty. In other words the relationships here are longer than the project itself (Håkansson, 1986, p. 6-8).

It is true that the relationships are project oriented but the seller sees them as a continuous interaction (Mattsson, 1979, pp.160-163). Evidently, the network in the post-stage is not identical with the network in the pre-stage because of the uniqueness of each project. In every project this leads to the development of, a) some completely new relationships, b) some relationships which become stronger, c) some relationships which are replaced by others and finally d) some relationships become weaker or broken. Accordingly, the study comes to another conclusion which is somewhat different to the study of Mattsson (1984). It is true that some relationships between seller and supplier in the project selling, as Mattsson states, are long-term oriented. But this study shows that, the long-term assumption can be applied only for some of the relationships and not for all.

The facts in the cases show that the matter of mobilization is related to the actors activeness and positions. Observing the time in the mobilization process, gives a clear picture on the movement
and changes in the firm’s relationships on the active-inactive scale. The active relations include the frequent and stable ones and inactive relationships consider those being far from the seller having no interaction or even having no knowledge of existence. To understand the scale of active-inactive and maintenance, it can be assumed that every seller sees a horizon which contains different types of actors and relations. This horizon divides into several zones according to the time in between each transaction and frequency. The first zone includes active actors having short time intervals in between every exchange with the seller. The last zone concerns actors with no exchange for several years. In this horizon some are close to the seller and have a clear position and some are too far and unreachable. Some positions are false and some correct.

Far into the last zone, unknown actors and broken ties are located. It requires special need or strategy to move an actor from this part to the closer one. The movement requires time and capital investment, i.e., to reconstruct a broken tie (See also Palmer, 1983, & Stearns, 1986). This can simply be observed for the standardized components when the sub-contractors and sellers relationships were broken.

The project management makes the whole horizon unstable. The sellers, competitors, buyers, suppliers change positions. The cases described how active competitors lost contracts despite the fact that the sellers had inactive relationships. The same fact was true for the sub-contractors. In this connection the study also arrived at the conclusion that when a seller observes an actor far in the horizon and the technology or social relations have not a determinant role in moving him to the closer zone, the marketing mix discipline, the price and service play a significant role. Evidently, the location of the actors in the horizon specifies the activation strategy.

A general conclusion is that the maintenance is a necessity to measure the inactive relationships as resources. Otherwise, a long period with no interaction can be recognized as broken. Since the actors’ structural and technological changes increase the distance and pushes him far in the horizon.

There is a distinction between a buying and a selling inactive relationship. For a seller the maintenance of inactive buyers functions to increase the competitiveness. On the other hand, the seller when buying parts uses this resource to improve his power position when negotiating on price or service. This leads to another conclusion. The larger the number of negatively connected actors in a buyer’s network, the stronger the position of the buyer. But on the other hand, the cost of the maintenance increases by increasing the numbers of actors. Moreover, an actor can realize that his false positioning in the horizon was to strengthen the power position of the focal actor. The suspicion can force the supplier to move far in the horizon.

In can also be concluded that the role of maintenance is even important for the active interrelated actors to prevent new competitors. An active relationship is always under threat from the inactive competitors since the increased numbers of negatively connected actors strengthens the buyers
power position. The cases simply show that the active competing sellers did not realize the threat. This may be dependent upon the overestimation of the buyers’ technological interdependency.

Another general conclusion is that the cost of maintenance is undertaken by sub-contractors for selling components and by the seller when selling projects to a buyer. There are also conditions which indicate a completely different conclusion when including technological interdependency. It was observed that the needed maintenance had a direct relationship with the type of technology. Therefore, in all cases, for the standardized components with fewer social and technical cooperations, maintenance was undertaken by sub-contractor. When the technological was complex, the maintenance involved at least both the buyer and seller.
7. References


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