"Trade Off between Strategic Alliances, Mergers, and Acquisitions in High-Tech Sectors"

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Abstract: The premise of the paper states that firms look for the most efficient transaction mode when they need to complement or upgrade their capabilities in order to become and/or remain competitive. The current analysis tries to highlight the factors contributing to the choice between strategic technology alliances and mergers and acquisitions in high-tech sectors. The resource-based view offers a frame in which strategic needs and social opportunities meet in a field of resources or strategic assets. Those factors should not be seen as static by nature since they are the result of a changing environment. The transfer of knowledge is seen as the major determinant in the trade off between the different transaction modes. The conclusion of the paper is that the firm's shape of its strategic assets is the result of the firm's perception of environment. This becomes more evident in high-tech sectors were the transfer of knowledge and the path of technological change are executed very rapidly. However, firms' motives could be ranked from rent generation to strategic positioning or to diversification strategies.

Keywords: knowledge transfer, alliances, mergers, acquisitions, complementarity

1. INTRODUCTION

There is a great interest in the phenomenon of inter-firm alliances. Partially, this is due to the increasing frequency of alliance formation that we have witnessed lately. This frequency is attributed in the literature to rapid changes in competitive environments which stress uncertainty as a relevant variable in the decision making process of firms (Doz & Hamel, 98; Gomes-Casseres, 96; Nelson & Winter, 82).

Mergers and acquisitions -as an alternative for firm's growth- have experimented various upward / downward trends within the last 100 years (Mueller, 95). Globalisation has intensified competitiveness together with the deregulative path followed by many countries. These facts have contributed to the increase in the number of horizontal mergers and acquisitions for both Europe and the United States (Capron, 99).

The premise of this paper states that firms look for the most efficient transaction mode when they need to complement or upgrade their capabilities in order to become and/or remain competitive. The current analysis tries to highlight the factors contributing to the choice between strategic technology alliances and mergers and acquisitions in the information technology sector. The resource-based perspective is the theory selected to explain the trade off between the different transaction modes. The resource-based view offers a frame in which strategic needs and social opportunities meet in a field of resources or strategic assets. Those factors should not be seen as static by nature since they are the result of a changing environment. The subject is approached by an overview of the theory, which is included in the next section. The second and third sections provide the background for the study of the different transaction modes and a number of propositions. Those will serve as a platform for further empirical research.

2. THEORETICAL BACKGROUNDS

Following the resource-based view, a firm is defined as a bundle of tangible and intangible assets tied to the firm (Wernerfelt, 1984) and a flow of tacit know-how embedded in the organization. Those could be shaped and improved following the adaptive behaviour of the firm to the quest of a competitive environment.

The Resource Based View (RBV)

For the RBV the determinants of success are not initially external to the firm. Under the resource-based view, firm's resources are defined as those tangible and intangible assets which are tied semi-permanently to the firm (Wernerfelt, 1984). Tangible assets are those physical assets owned by the firm, e.g. machinery and production plant. Intangible assets are subtler and include non-physical resources such as brand names, patents, in-house knowledge of technology, and human resources and skills. Broadly speaking, resources could be thought as any strength or weakness of a given firm.

Underlying concept

The resource-based view studies the relationship between profitability and resources of the firm. The basic idea of the resource-based view is that firms should integrate resource capabilities when these show high value and profits for the firm. This is aligned with the asset specificity of the transaction cost theory in which the value of the asset will influence the mode of the transaction -vertical or horizontal-. A company chooses vertical integration whenever the asset considered is highly valuable. By acquiring the asset in-house, the company is able to retain the lion share of the value and therefor increase revenues. Asset specificity is one of the variables integrated in the transaction cost theory. It is one of the factors that explain the choice between strategic alliances and mergers and acquisitions. Other two variables are namely, frequency of the transaction and uncertainty in the environment and in the technology path. Asset specificity is not unique to transaction cost theory and is also integrated in the resource- based view. It is also known as value dependency and derives from the idea that managers should be concerned not only with the existing capabilities of the company but also with the acquisition or absorption of assets that offer rent increases when associated with the firm's existing specific endowments.

Besides this common variable, the logic of transaction cost "minimization" does not capture many of the strategic advantages strategic alliances such as **learning, creation of legitimacy and fast market entry** (Eisenhardt & Schoonhoven, 1996). The advantage of the resource-based view is that it includes these strategic dimensions.

The resource-based perspective concentrates its efforts in the search of strategies for exploiting firm-specific assets (Penrose, 1959; Rumelt, 1984; Teece, 1984). Wernerfelt (1984) states that the RBV focuses on strategies that contribute to the development of new capabilities. Managers and individuals within the organization perceive the environment and try to find responses to the eventual changes. This is done by enforcing firm's capabilities and competitive advantages and by outsourcing the needed capabilities when it is not possible to develop them in-house. According to Penrose (1959), the individual perceptions will shape the strategic assets of the firm in their search for knowledge.

Additionally, the resource-based view recognizes circumstances under which inter-firm collaborative agreements are likely to be superior to either market contracting or internal integration. According to RBV, Inter-firm collaborative agreements are efficient mechanisms to transfer and integrate explicit knowledge and to support vertical supply relations in instances where knowledge cannot be completely embodied within the product being exchange. RBV also favours strategic alliances when the greater is the uncertainty perceived as to the future of technology paradigm (Grant, 1995).

Besides the notion of resource capabilities, the concept of core competences and strategic assets must be introduced. Markides and Williamson (1994) describe core competences as a pool of experience, knowledge, and systems that together can act as catalysts that creates and accumulates new strategic assets. Wernerfelt (1984), Peteraf (1993), Hall (1993) define strategic assets as those capabilities imitable, non-tradable and non-substitutable that constitute the competitive advantage of the firm. But according to Cremer & Meschi (1997), the mentioned characteristics apply better to internally developed capabilities that emerge after a slow and complex competence-building process, which is difficult to reproduce by others. Strategic assets could be the result of a dynamic process of adaptation to the environment especially in dynamic industries. In the software industry where technological innovation is important, the skills and routines related to R&D can be defined as core capabilities as well as the lock-in phenomena that are the result of the network effects. Since information technology products work as systems, users of certain technology or information product face high switching costs that frequently dissuade them from shifting their technical endowments. The implied lock-in effect grants a big competitive advantage to firms that can implement this and profit from it (Shapiro & Varian, 1999).

Technology-related competences encountered in the high-tech sectors are grounded on cumulative and tacit knowledge, and are undergone through considerable uncertainty in regard to their quality and performance. Arms-length market transactions for the sale and acquisition of such resource are hard to organize and are subject to high risks of failure

(Teece, 1982). Therefore, the same characteristics, which enable a firm to extract a sustainable rent stream from its resources, often make it difficult for the firm to transfer them to new uses, apply them in unrelated lines of business or sell them in arms length market transactions. Such difficulties also create problems for incumbent firms to obtain technological capabilities from external sources through market channels. Strategic alliances enable the firms to gain access to these capabilities meanwhile minimizing risks.

Conclusion

The resource-based view studies the relationship between profitability and resources of the firm. Under the RBV, collaborations become valuable since they potentially enhance in-house capabilities and enable the firm to remain competitive by leveraging the complementary capabilities of partners (Garette & Dussauge, 2000).

3. TRANSACTION MODES

3.1 Co-operative Technological Alliances

If the main reason for co-operation between two firms is inter-firm learning, then only organizational arrangements that can allow the effective flow of information and communication on firm-specific and implicit knowledge can be considered for the governance and management of such a relationship. Due to the ever-increasing degree of specialization of knowledge, the need for co-operation may be dictated by the requirements of the learning process: some include exchange of knowledge and some allow access to the social capital of the firm (e.g. contacts, reputation, and status). Other improve the competitive position of the firm by providing resources from other firms that reduce costs and risks (Eisenhardt & Shoonhoven, 1996) (Podolny, 1994). Even those firms with the largest technological resources, can develop only a fairly narrow range of "core competencies" (Pralahad & Hamel, 1990). Larger firms seeking to broaden their capabilities need to have access to a broader range of such specialization.

As a result of the transfer of knowledge that occurs during the period of the strategic technology alliance, firms develop new capabilities. But those capabilities would be useless unless the firm can effectively internalize the information received. By engaging in a strategic alliance, firms develop patterns of behavior or routines. Signing up an alliance with firms holding complementary assets can speed up the process of new product development. However, managing strategic alliances has drawbacks like the risk of over-dependence of certain partners (Gulati 1995b) or even the risk of being unable to manage numerous alliances, or the risk of opportunism. Those can slow-down the formation of this sort of agreements at some stage.

Strategic Alliance Formation

The increasing frequency of alliance formation can be attributed to rapid changes in the technological and competitive environments. Some of the motives for firms to enter an alliance are, among others, to solve market failure problems caused by asset specificity (Williamson, 1985), to strengthen competitive positions (Porter & Fuller, 1986)and to absorb extramural knowledge (Hamel, Doz and Prahalad, 1989). Alliances are means to expand rapidly and internationally as they are a mode that permits the access to new markets using certain distribution channels and specific knowledge of local partners (Garette & Dussauge, 2000). Why a company chooses an alliance formation instead of another form and why it chooses an alliance with a specific company and not with another are questions that have received little attention in the literature. Nevertheless, the latter topic exceeds the scope of the current paper and would be an issue in future analysis.

Complementary Assets, Status, & History of Experiences

Resource complementarity is an important factor when deciding on the formation of alliances. Hamel, Doz and Prahalad (1989) suggest that mutual gain is possible if firms can complement each other weakness. Firms occupying complementary niches have higher chances of alliance formation (Gulati, 1995b), (Burt, 1992). This is possible because each of those firms can access the complementary resources of their partners and create positive synergies. Nohria and García-Pont (1991) argued that two firms enter in an alliance when the pooled resources can create excess value relative to their value before the pooling. Thus, alliances can be considered as the primary vehicle to access resources from other firms. It can be argued that complementary assets can be tackled as well by means of acquisitions or mergers. But those governance modes imply other financial and economic factors that should be taken into account as adjustment costs, human profiles, policy controls, industry retaliations, cost of exit if necessary, the process of knowledge transfer etc.

Additionally to the access of resources, firms improve communication through collaboration. This will inevitably bring developments in social capital. That will directly save costs of information searching as well as increase the company collaborative experience and to create economic opportunities. The current relations of the firm will form the basis of its future collaborations and are the result of prior successful relational activities (Chung, Singh and Lee, 2000).

The status of a company and its reputation are also factors taken into account when firms decide to form an alliance, specially when the results of the potential transactions with other companies are uncertain. In that case firms tend to choose partners with similar status. However, it is a variable difficult to measure perhaps due to its ambiguous connotations. Company's status could be understood as market growth, social capital or history of successful partnerships among others. The status of companies might breed the trust of potential partners. Finding good proxies for status has been a subject of study by Podolny and other authors. It seems that consensus is missing in each case. The inclusion of status in the current study responds to empirical observations. It is a concept embedded in our society and culture. The author considers that bringing it in the study as one possible explanatory variable could be relevant.

Costs of Strategic Alliances

The costs of monitoring the decisions taken within the alliance and the existence of opportunism outweigh normally the benefits (Hamel, Doz & Prahalad 1989). This is one of the main causes of reticence among stockholders when deciding on the governance mode of the transaction. This leads to the fact that managers may enter SA when it could not be in the best interest of the firm, for example, in order to prevent job loses that follow any take over and merger (Das, Sen, Sengupta 1998). It follows that the gains of alliances can be reduced to stockholders due to the extra cost of reinforcement of the agreements. Additionally, given the flexible nature of this kind of agreements the firm can expect adjustment costs due to possible renegotiations. Reversibility problems might arise at some stage. Regarding this eventuality, preventive measures and the reinforcement of the agreements could raise the costs of formation.

Another cost known as the first mover disadvantage has proven to be important when deciding on SA formation. Larger and more profitable firms are more likely to search for innovative but less profitable partners for an alliance. The second partner receives a costless option to terminate the relationship since the first mover was the one supporting the costs of searching and implementation of the alliance.

The ideas drawn above seem to contradict that firms with approximately the same size and/or market growth will form alliances easier and with higher possibilities of success (as stated in the resource based view theory). Instead, accounting for opportunism and bargaining power, technological alliances between partners of different sizes and growth are more likely to happen and the possibilities of success are higher than those of alliances with similar partner' size. This could be explained by the fact that smaller firms are more innovative and flexible when reacting to market signals, R&D is normally the largest part of their budgets and it is performed intensively. Larger firms in search of market opportunities and diversification strategies need to outsource large parts of their capabilities and to be ready for any market switch in technology standards or demand. That means that large budgets should be devoted to adjustments and assimilation of technologies and know-how. This become very costly when the knowledge and assets outsource are independent and specific to the partner activities (assets specificity and tacit knowledge).

3.2 Mergers and Acquisitions

Mergers & Acquisitions Formation

The phenomenon of globalization brings the possibility of having business opportunities on a world-wide basis. The classical structure of an organization has developed towards the computer-managed processes and transaction modes such as joint ventures, licences, subcontracting…etc. In addition, the integration of the European Union and the liberalization policies that followed, have boosted economic growth. The occurrence of acquisitions is linked to those phenomena and could be explained by the value-maximizing theory that is rooted in the cost-efficiency theory. Acquisitions and mergers base business growth in terms of economies of scale and scope. By "*acquisition*" we understand any purchase on an entire corporation or a section of one corporation by another. By "*merger*" we understand the synergy of different corporations in one single organization. This could be done horizontally –within the same sector-, or vertically –present in all the production chain while this involves different sectors.

Both mergers and acquisitions create value by exploiting cost-based and revenue-based synergies. Capron (1999) explains that the role of cost-based synergies arise when the divestiture of the assets of the merging firms leads to revenue enhancing capabilities (e.g. downsizing). Following the rationality of the RBV the revenue synergies arise when the redeployment of resources of the merged firms leads to revenue-enhancing capabilities (e.g. market coverage, innovation).

Mergers have an effect on growth, productivity and concentration. Merger's formation have come around in waves that tend to correspond to waves in stock market prices (Geroski, 1984). A merger consists in the combination of two firms in a new legal entity. Assets capabilities of the merging firms are not created or destroyed when the two firms combine. The motives of merger formation are various: According to the resource-based view, firms should integrate resource capabilities when these show high value and profits for the firm. Reduction in industry output as a consequence of the increase in concentration in the sector that results from a merger could be understood as a motive. Fewer firms will compete in the market and that may lead to an increase of the merged firm' s market power and/or to higher prices. Additionally and in the case of vertical merger formation, the raise of entry barriers could be seen as a motive.

The mentioned motives seem to be in contradiction with the idea that merger formation occurs in periods of economic growth and, therefore, of stock market uprising when it is not the best moment to eliminate competition (Mueller, 1995). In periods of strong economic growth, mergers can constitute a successful diversification strategy. Thus, eventhough the profit levels may not increase after the merger –as has been proved in various studies (Ravenscraft & Scherer, 1987)- the merger of mature or established companies may contribute to diversify the portfolio of the organization at a high speed. This speed is dictated by the path of technological change.

The internationalization of the economy and the business opportunities that it derives boost the need to enter in foreign markets. The rapid technological change and the increased competition that the globalization entails stress the importance of speeding up the process. Acquisitions are an alternative to settling down in a different country.

The outcome of an acquisition is more predictable than that of internal development as acquisitions may act as a substitute for innovation. They offer immediate access to a new market (Hitt et al, 1991). The advantages of the acquisition of new capabilities can be enhanced if the acquiring firm has experience in the market of the acquired firm. The reason behind is that the costs of integrating the newly acquired assets will be lower than in the costs of challenging a new market. This is aligned with the asset specificity of the transaction cost theory in which the value of the asset will influence the mode of the transaction -vertical or horizontal-. A company chooses vertical integration whenever the asset considered is highly valuable for the company. By acquiring the asset in-house, the company is able to retain the lion share of the value and therefor increase revenues.

Costs of Mergers & Acquisitions

Porter (1987) explained that acquisitions often do not lead to the expected (anticipated) outcomes. Business relatedness is a key factor when predicting success or failure of acquisitions. According to Yip (1982) market relatedness does not reduce the cost of entry via acquisitions -since the price of the acquisition is set by the market for corporate control. But it does reduce the cost of entry. Business related firms can reduce entry costs by using excess physical and intangible resources (Chatterjee, 1990). The more related the market, the higher the probability that an entrant's current excess physical and intangible resources can reduce entry costs and the fewer the needed complements to the firm's own physical and knowledge-based intangible resources. Neither Yip nor Chatterjee found a significant relationship between the relatedness measures and the entry mode.

Besides, two effects arise after most mergers and acquisitions: Downsizing and redeployment of resources. They are the result of the revenue-enhancing capabilities and the cost-based synergies that firms seek in this sort of agreements. **Downsizing** is the result of a cut on excessive resources in order to allow a more efficient allocation of them. That could post difficulties in the innovation process of the firm. A cost's conservative policy might revert in a reduction of R&D budgets. In the long-term this translates to a lost of the firm's innovation abilities. **Redeployment** resources due to the merging of firms' capabilities might reflex in a raise in costs since the reallocation of resources involves many operations and changes. Both effects, downsizing and redeployment, might caused welfare losses and a slow-down of the firm's innovation activity in the long run.

4. Alliances versus Mergers/Acquisitions

One of the factors to take into account when differentiating between alliances, acquisitions and mergers is the mode of knowledge transfer that follows. As a vehicle for utilizing capabilities rather than learning, acquisitions are probably superior to forming an alliance. Following the former reasoning, Hamel (1991) states that alliances are essentially a transitional organizational mode. This is to be proven but it goes beyond the scope of this paper and will be subject of future analysis.

The premise that this paper follows states that firms look for the most efficient transaction mode when they need to complement or upgrade their capabilities in order to become and/or remain competitive.

HISTORY of FORMER EXPERIENCES

Coming back to the firm selection of alliance formation over other transaction modes, some ideas can be withdrawn: First of all, alliances are voluntary cooperative arrangements that firms fulfill in order to achieve a specific goal. The outcome of the alliance is directly proportional to the long-term nature of the relation. This is the dynamic aspect of the relation that based future relations in past experiences. Thus, prevention of free riding and opportunism are important elements to manage at the time of formation. Following the same reasoning, firm's history of acquisitions and mergers respectively might become an important factor when choosing for either one of these sort of transactions.

Prop.1a: *Firms in high-tech sectors will more likely form co-operative partnerships with firms present in former collaborations.*

Prop.1b*:* *Firms with a history mergers or acquisitions will exhibit a propensity of engaging in similar ventures.*

ASSETS COMPLEMENTARITY

Alliances imply the pooling of resources and capabilities of each company in order to commit strategies and ideas that were not possible on individual basis. Therefore, one can think that the ultimate goal of alliance formation is to create value, strengthen market position and improve the performance of the companies involved in a competitive environment. According to the resource based-view, the ultimate goal of an alliance is to access capabilities from external sources. In order to do so similar and/or complementary capabilities as well as the ability to internalize the acquired knowledge are necessary.

As explained before, ex-ante technological based capabilities with similar scale and scope are needed in order to implement an alliance.

Prop 2: *The existence of firms sharing complementary assets will increase the likelihood of technological alliance formation compared with the likelihood of mergers and acquisitions formation.*

As a result of the transfer of knowledge that occurs during the period of the strategic technology alliance, firms develop new capabilities. But those capabilities would be useless unless the firm can effectively internalize the information received. This could be done in the form of routines. The firm might then face a higher level of innovation and increase its rate of new product development. This should be evident if the firm enter into strategic alliances with partners that possess complementary assets. A relation between the rate of new product development and the number of strategic alliances could be studied. This relation may exhibit diminishing returns. Not all alliances will make an equal contribution to increasing the rate of products. Gaining access to complementary assets is not achieved without risks. A firm might decide to slow-down the rate of partnerships if it fears to over-dependence on the partner (Gulati 1995b). Therefore, effectiveness with which a firm can manage alliances is likely to be negatively related to the number of alliances *when the number of alliances and the rate of new product development are studied.* This bring us to the following proposition,

Prop. 3: *Technology alliances between firms holding complementary assets will eventually exhibit diminishing returns when the number of alliances and the rate of new product development is studied.*

NON-COMPLEMENTARITY of ASSETS

Assuming non-complementarity of assets, the motives for strategic alliance formation will be altered and reduced. This would be due to the lack of technological fit and, therefore, difficult exchange of knowledge and missing potential synergies that could enhance the core capabilities of firms. This would translate in a decrease of firm' rent potentials. Under this assumption of non-complementarity, firms will rather get involve in mergers and acquisitions. The motives would not account as enhancement of core capabilities and leveraging the complementary capabilities of partners –as predicted in the case of complementarity assumptions. Instead, the incentives would be listed as accessibility to the unique capabilities of targeted firms that would be costly to be developed in-house.

Prop. 4: *Assuming non-complementarity of assets, firms would rather get involve in mergers and acquisitions than in strategic alliances. This will be the solution to increase firms' asset capabilities without investing in in-house asset development.*

STATUS

Another factor studied as determinant of the choice between strategic alliances, mergers and acquisitions is status. It is a variable difficult to measure perhaps due to its ambiguous connotations. Company's status could be understood as market growth, social capital or history of successful partnerships among others. The status of companies might breed the trust of potential partners. As mentioned in former sections of this paper, avoiding free riding and opportunism are important factors that firms take into account when forming alliance partnerships. If status is weak or does not exist, firms would rather decide to acquire a targeted firm.

Prop 5: *Firms in the high-tech sectors with the same size and/or market growth show a higher likelihood to become alliance partners than to choose for a merger/acquisition solution*

By a process of competitive isomorphism firms with similar status will end up having similar operating systems (Chung, Singh and Lee, 2000). More importantly, firms with similar status and similar operating routines will communicate and cooperate easier in an alliance mainly in the case of business relatedness.

Prop. 6: *Firms in high-tech sectors with similar status show higher likelihood of forming alliances with those in related business than with those in unrelated ones.*

CONCENTRATION

Hennart and Reddy (1997) proved in their article that the greater the market experience of a firm, the most it would influence a preference for acquisitions. However, the major constraint to the success of acquisitions is the difficulty of integrating the labor forces of both entities (Kogut & Singh, 1988). Hennart and Reddy find also that acquisitions show a strong connection with diversification (acquisitions allow entrants to purchase ready and innovative firms in different R&D divisions). Thus, acquisition could be seen, as in the case of joint ventures, as a way to acquire complementary assets in highly concentrated markets. Highly concentrated markets are difficult to access by new entrants. Few firms share the market and the implementation of barriers of entry is very common especially in the case of vertical merger formation. Fewer firms will compete in the market and that may lead to an increase of the merged firm' s market power and/or to higher prices. Acquisitions might be seen as a strategy to rapidly access such markets avoiding entry barriers and starting up costs.

On the other hand, a highly populated market but showing low concentration could be tackled by means of alliances avoiding the costs of acquisitions and mergers.

Prop 7a: *High density and concentration in the market are positively related with the firm's choice of acquisition formation as an entry strategy*

Prop 7b: *Likelihood of acquisitions and mergers formation could increase in case of the implementation of diversification strategies covering various R&D divisions.*

Prop 7c: *High density and low concentration in the market are positively related with the firm's choice of alliance as governance mode*

INSTITUTIONS & CULTURE

We should not forget the importance of government intervention and institutional barriers that firms face when challenging foreign markets or certain sectors. Granted subsidies and tax exemptions may act as a catalysator of the investments. They can direct rents towards specific sectors and encourage the relocation of resources. Governmental and institutional barriers may give incentives for firms to choose one mode of transaction.

Cultural barriers are present as well when choosing between strategic alliances and mergers and acquisitions. Strategic alliances might be seen as a safest mode of entry in a culturally distant environment. Cultural distance is not only understood as the cultural differences found between two separate geographic regions but also as the cultural distinctions that two different organizations might encounter while working together. Costs of training personnel and fitting different routines could be very high when weighted against the risk of failure. The rate of failure of mergers and acquisition is mostly caused by the failure in managing personnel and incorporating the routines of both entities (e.g. this might happen when the Operation was large and R&D intensive, in Kogut and Singh 1988, and Singh and Kogut 1989).

Prop 8a: *The likelihood of strategic alliance formation will be higher than that of mergers and acquisitions formation in the case of existing cultural distance.*

Prop 8b: *The likelihood of strategic alliance formation will be higher between firms located in developed countries and those located in least developed countries.*

Prop 8c: *Alliances will be preferred over acquisitions when the size of operations increases between companies*.

The internationalization of the economy and the business opportunities that it derives boost the need of entry in foreign markets. The rapid technological change and the increased competition that the globalization entails stress the importance of speeding up the process. Acquisition formations offer immediate access to a new market avoiding the costs of internal development (Hitt et al, 1991) or the risks of opportunism or free riding that might arise with strategic alliances. The advantages of the acquisition of new and valuable capabilities can be enhanced if the acquiring firm has experience in the market of the acquired firm. In that case, a company rather chooses to integrate vertically in order to capture the rents generated.

Prop 9: *The likelihood of merger and acquisition formation is higher than that of strategic alliance if merging and acquiring firms show strong market relatedness with that of the targeted firms and if valuable capabilities are at stake*

5. CONCLUSION

The resource-based view that studies the relationship between profitability and resources of the firm is an appropriate background for the study of the trade-off between strategic alliances and mergers and acquisitions. Under the light of the RBV, firms should enhance some resources if they show high value and profits for the firm. The conclusion of this paper is that the firm's shape of its strategic assets is the result of the firm's perception of environment. Therefore, it is the result of a dynamic process of adaptation. This becomes more evident in high-tech sectors were the transfer of knowledge and the path of technological change are executed very rapidly. The determinants of the firm's actions when deciding the best way to adapt to an uncertain and global environment could be understood through the study of complementarity of assets, status similarities of firms, history of experiences, business relatedness, concentration of markets, and diversification strategies. However, firms' motives could be ranked from rent generation to strategic positioning or to diversification strategies. The study of interactions between those variables could help to highlight many questions regarding the topic. This will be done in further developments of the paper following a multilevel framework and a cost-benefit analysis.

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