Strategic alliances and three theoretical perspectives

A review of literature on alliances

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FÖA 400
Master thesis in business administration

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Final seminar: 2013-01-08

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School of Sustainable Development of Society and Technology
Abstract – “Strategic alliances and three perspectives”

Date: Jan 8th 2012

Level: Master thesis in business administration, 15 ECTS

Institution: School of Sustainable development of society and technology, Mälardalen University

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3rd December 1987

Title: Strategic alliances and three perspectives

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Keywords: Strategic alliance, Transaction cost theory, Resource-based view, and Knowledge-based view.

Research Questions: How does transaction cost theory, the resource-based view, and the knowledge-based view explain the formation of alliances, the attainment of advantages, and the disadvantages related to alliances?

In which regard do the perspectives differ or overlap, and how well do the theoretical perspectives explain strategic alliances?

Purpose: The purpose of this study is to review academic literature in order to contrast differences as well as similarities, to compare the perspectives’ value as theoretical models.

Method: This study uses academic literature from peer-reviewed journals to assess the literary consensus of the three perspectives. The literature has been found by using specific keywords and an assortment of scholarly databases. The analysis of the literature is structured according to explanations for alliance formation, the attainment of advantages, and disadvantages according to the perspectives. The study is written in article format.

Conclusion: The perspectives both overlap and differ from one another but focus on different aspects and incentives. There are, however, more similarities between the resource-based and knowledge-based views. Transaction cost theory and the knowledge-based view are narrow explanatory models, whereas the resource-based view offers a broader view on alliances.
Sammanfattning – “Strategiska allianser och tre perspektiv”

Datum: 8 jan, 2012

Nivå: Magisteruppsats i företagsekonomi, 15 ECTS

Institution: Akademin för hållbar samhälls- och teknikutveckling, HST, Mälardalens Högskola

Författare: Inti Lammi

3 december 1987

Titel: Strategiska allianser och tre perspektiv

Handledare: Cecilia Lindh

Nyckelord: Strategisk allians, transaktionskostnadsteori, resursbaserad teori och kunskapsbaserad teori.

Frågeställning: Hur förklarar transaktionskostnadsteori, resursbaserad teori och kunskapsbaserad teori alliansformation, hur fördelar uppnås och nackdelar relaterade till allianser?

Vilka likheter och skillnader har perspektiven, och hur väl förklarar de teoretiska perspektiven strategiska allianser?

Syfte: Studiens syfte är att granska akademisk litteratur för att se skillnader och likheter för att jämföra perspektivens värde som förklaringsmodeller.


INTRODUCTION

Strategic alliance is the term used to define the very broad range of relatively enduring interfirm cooperative arrangements (Parkhe, 1991). Examples of common strategic alliances are joint ventures, product and technology licensing, outsourcing agreements, joint marketing, and joint R&D. These arrangements can be distinct corporate entities, involving shared equity among partners, or loose contract based arrangements (Reuer & Zollo, 2005; Varadarajan & Cunningham, 1995). Equity in this regard refers to the mutual ownership of assets among parties in a venture, or a firm’s partial ownership of another firm (Hennart, 1988).

Perhaps due to the increased rate of alliance formation (Das & Teng, 2000a; Day, 1995; Elmuti & Kathawala, 2001), the supposedly high failure rate of alliances (Hadlik, 1988; Bleeke & Ernst, 1991; Reuer & Zollo, 2005), or the diversity of alliances and partners (Parkhe, 1991) there is an extensive amount of literature covering the topic. The problem is, however, that the literature does not form an all-encompassing theory of alliances. Indeed, the theories explaining alliances base on different and partly contradictory explanatory models. Furthermore, there is a lack of a suitable overview highlighting the differences between perspectives as well as comparing their explanatory strength.

The theoretical perspective referred to as the most dominating in regards to alliances is transaction cost theory (Das & Teng, 2000b; Eisenhardt & Schoonhoven, 1996; Tsang, 1998). The explanatory logic of this perspective is cost minimization as a guideline when firms choose their mode of transacting. Indeed, transaction cost theory bases heavily on the existence of two costs; transaction costs and production costs. Transaction costs exists due to the bounded rationality of actors and opportunism among actors, causing friction in markets (Williamson, 1981). Bounded rationality in turn exists because of the inability of human beings to adapt and act optimally due to the complexity of their environments (Simon, 1991). To avoid transaction costs firms are formed that internalize market functions (Coase, 1937). Internalization does on the other hand lead to increases in production costs, as these functions must be managed internally (Coase, 1937). The strategic alliance is a hybrid between the market and the firm, and can be a means to reduce the sum of transaction and production costs, thus formed to minimize costs (Kogut, 1988).

Another common perspective used to explain alliances is the resource-based view (Yasuda, 2005). According to Penrose (1959, p. 24) a firm is “a collection of productive resources”. It is the resources of the firm that provide the services and products the firm sells, thus the size of the firm depends on the productive resources it employs (Penrose, 1959, pp. 9-30). Resources can be defined as physical capital (machines, plants), human capital (experience, knowledge, experience), and organizational capital (planning, coordination mechanisms) (Barney, 1991). By acquiring resources and managing them, firms can create sustainable competitive advantages and impose barriers on competitors from achieving the same (Wernerfelt, 1984). In contrast to transaction cost theory, the resource-based view places emphasis on the internal aspects of firms and value creation, rather than cost minimization (Das & Teng, 2000b). Strategic alliances are seen as means to gain access to
resources the firm might lack and must acquire to be able to continue its operations (Day, 1995; Lambe et al., 2002; Varadarajan & Cunningham, 1995).

An emerging ‘theory of the firm’ is the knowledge-based view (Grant, 1996). This perspective can be considered an outgrowth of organizational learning theory and the resource-based view. In contrast to the resource-based view that acknowledges several kinds of resources, the knowledge-based view only focuses on one resource: knowledge (Grant & Baden-Fuller, 1995). Gravier et al. (2008) argue that the perception of knowledge being a source of competitive advantage has shifted pointing towards its increasing importance, justifying the formation of a theory of the firm revolving around knowledge. Knowledge itself is seen as the most important input in production, and machines and products are seen as the embodiments of knowledge (Grant, 1996). The goal, according to this view, is for firms to achieve the best possible fit between their knowledge domains, the knowledge the firms have, and their product domains, the knowledge the products require (Grant & Baden-Fuller, 1995). Grant and Baden-Fuller (1995) view alliances as means to better utilize own knowledge, while Hamel (1991) states that alliances can be seen as ‘platforms for learning’. Hence the knowledge-based view is applicable for explaining two different motives of alliance formation.

Other theories used to explain alliances are strategic behaviour theory, organizational learning theory, and resource dependency theory among others. These theories, however, are less influential and occurring in explaining alliances, hence the focus on transaction cost theory, the resource-based view, and the knowledge-based view.

THE RESEARCH QUESTIONS

The above-mentioned perspectives focus on different aspects of alliances and rationale for alliance formation. The theoretical perspectives also identify different advantages, including cost incentives and competitive advantages, and how these particular advantages are attained. Additionally, the perspectives view disadvantages related to alliances differently, addressing different negative effects on the competitive strength of firms or costs related to the formation of an alliance. Differences also exist in the definition of alliance success, as some view alliances as competitive arenas with sole victors (Hamel et al., 1989; Hamel, 1991), while others suggest that success must be mutual (Beamish & Banks, 1987).

Because of the differences among the theoretical perspectives the body of knowledge on strategic alliances is fragmented. Complicating this further, there are claims that there is no single theoretical perspective that provides an adequate explanation of the phenomenon (Johansson, 1995). Borys & Jemison (1989) argue that the generality of theories explaining alliances has resulted in weaker explanatory strength of alliance theories. Furthermore, certain scholars suggest that factors outside their frameworks could be valid explanations (e.g. Hennart, 1988; Grant & Baden-Fuller, 2004). Varadarajan & Cunningham (1995), however, view these various theoretical explanations for alliance formations as overlapping. This would mean it would be appropriate to view these as complementing explanations rather than competing explanations. While this indeed is possible, it bases on the premise of there mainly being similarities instead of differences between different theoretical perspectives. Furthermore, it is of importance to be able to determine how the theoretical perspectives complement each other. A risk related to this
fragmented body of knowledge is that theories present contradicting suggestions for firms. This could lead to the confusion of practitioners when looking at literature on alliance for guidance. A clearer understanding of the phenomenon could therefore be beneficial, in particular due to the increased rate of alliance formation making strategic alliances more relevant.

The purpose of this study is to review academic literature in order to contrast differences as well as similarities, to compare the perspectives’ value as theoretical models. Through this comparison of the perspectives a deeper understanding of alliance theory is possible, at the same time as an overview of the selected theories is provided. The research questions this thesis aims to answer are:

*How does transaction cost theory, the resource-based view, and the knowledge-based view explain the formation of alliances, the attainment of advantages, and the disadvantages related to alliances?*

*In which regard do the perspectives differ or overlap, and how well do the theoretical perspectives explain strategic alliances?*

While there are studies that compare transaction cost theory and the resource-based view in relation to alliances, these either limit themselves to a certain industry (e.g. Yasuda, 2005) or do not include the knowledge-based view, albeit the existence of much literature on knowledge access and acquisition from alliances.

**Choice of literature and limitations of the study**

This study resembles a systematic review, as it aims to synthesise the results of several studies. A systematic review is defined as a kind of literature review that compares studies and contrasts these in a systematic fashion (Wright et al., 2007).

This study lacks own empirical findings, and instead relies on the findings of others to assess the literary consensus of the three perspectives. The major advantage of using secondary data is being able to gain access to high quality contents without having to carry out highly demanding data collections (Bryman & Bell, 2011, pp. 313-314). Due to the nature of the research questions of this study, the collection of primary data would not assist the understanding or the analysis of theoretical perspectives, making such data collection unviable.

As inclusion criteria, all literature used in the analysis has been acquired from peer-reviewed journals to ensure the use of high quality publications. The risk with narrow inclusion criteria is that it might introduce bias (Wright et al., 2007). By only selecting material from peer-reviewed journals this study is publication biased, meaning non-academic and unpublished contents have not been included. It has, however, been assessed that this would not affect the results of this study, since the study objects are theoretical perspectives and not alliances.

A wide range of journals has been accepted to minimize eventual bias towards certain journals and enable a more comprehensive collection of literature. As such the varying quality of journals has not been deemed to be an issue. To properly depict the theoretical perspectives some literature of considerable age has been included. This is due to their significant influence on certain perspectives, e.g. Coase (1937) and transaction cost theory. Contemporary literature has also been included to avoid a dated view on the literature. Hence this study might also provide insight into the development of the literature.
The keywords chosen for the search of the literature are: strategic alliance, transaction cost theory, resource-based view, knowledge-based view, learning, knowledge acquisition, knowledge access, and resources. The databases used for the search of literature are Emerald, JSTOR, Pro Inform/Global, SAGE journals, Science Direct, and Wiley Online Library. Additionally, the Google Scholar search engine was used.

Much of the literature on alliances has chosen to cover limited aspects, whereas other literature has chosen to also address and compare aspects extended beyond just one theoretical perspective (e.g. Das & Teng, 2000b; Yasuda, 2005). Additionally, some literature extends the framework of the perspectives to include other often-mentioned aspects such as strategic behaviour and social aspects (Eisenhardt & Schoonhoven, 1996), relational aspects (Gulati, 1995), coordination costs (Gulati & Singh, 1998), management of alliances (Lambe et al., 2002), and game theory (Parkhe, 1993). Although this has made it a challenge to organize the literature to form the three perspectives, also due to the lack of general descriptions of the theoretical perspectives in regard to alliances, it also serves to provide a more holistic overview of alliances. The resulting content has been structured in accordance to how the perspectives explain alliance formation, the attainment of advantages, and disadvantages related to alliances. The reasoning for this is to allow for a more structured review of the literature.

It is worth mentioning that although this literature review regards the knowledge-based view as including both organizational learning and knowledge integration, these theories do actually not base on the same premises. Grant (1996) stresses differences in regards to how knowledge is stored, and that the knowledge-based view places more importance on the application and integration of knowledge. Nevertheless, Grant (1996) also suggests that a more comprehensive knowledge-based theory should embrace knowledge acquisition. While Grant & Baden-Fuller (2004) stresses knowledge access and not knowledge acquisition, the knowledge-based view does not negate that alliances are formed with the purpose to acquire knowledge. As such, the knowledge-based view is presented with literature covering learning, also referred to as knowledge acquisition. Overall this study views integration, access and acquisition as related concepts.

A limitation of this study is that literature chosen often fails to distinguish between alliance types, something mentioned by Gravier et al. (2008) as a general issue with literature on alliance. For simplicity and uniformity in the use of terms, this study mainly differs between equity alliances and non-equity alliances. This distinction is also particularly important for describing transaction cost theory, which often emphasizes the role of equity in alliance formation (e.g. Hennart, 1988). Although other theories have been mentioned these will not be analysed, as the main focus lies on transaction cost theory, the resource-based view, and the knowledge-based view. As previously mentioned, the selected perspectives are more influential and more often used in explaining alliances.

**TRANSACTION COST THEORY**

According to transaction cost theory, the firm's decision of mode of transacting is influenced by the minimization of the sum of production and transaction costs (Kogut, 1988; Yasuda, 2005). Actors will presumably choose the option in the spectrum of ‘market and hierarchy' that leads to a minimization of these costs.
(Williamson, 2010). The term hierarchy in this case refers to actors internalizing functions in the form of firms instead of using the market (Coase, 1937). While markets and hierarchies are polar opposites, alliances could be seen as something in between the spectrum (Chen & Chen, 2003).

To better understand transaction cost theory in regards to alliance formation it is important to understand the occurrence of transaction costs in environments that could favour alliance formation. Narrow markets, in which firms must rely on individual suppliers for specialized products, can force actors to show high commitment due to high switching costs (Hennart, 1988). Williamson (1981) refers to this as asset specificity, meaning that assets can be highly specific for a transaction, leading to the existence of higher transaction costs. Distribution agreements can force a similar situation, as certain industries are connected to high economies of scale leading to fewer potential distributors. The trade of knowledge can also be impaired by transaction costs, due to buyer’s uncertainty regarding the nature of knowledge. All of these examples require firms to monitor and rely on one another, forcing them to sign contracts for protection against cheating and opportunism. (Hennart, 1988) It is, however, impossible to predict every change in the environment, which insures that contracts always will be incomplete (Williamson, 1981). According to Kogut (1988) it is the uncertainty over each other’s performance that is fundamental for choosing to form an alliance.

Hennart (1988) states that transaction cost theory could be extended to explain alliances, even if it perhaps is not the only viable explanation. When viewing alliances from a transaction cost perspective there is particular focus on one kind of alliance: the equity alliance. Equity alliances can be seen as limited form of internalization of market functions, referred to as quasi-internalization (Varadarajan & Cunningham, 1995). These alliances can, under certain conditions and due to structural arrangements, contain the opportunism that Williamson (1981) addressed would exist in interfirm arrangements (Beamish & Banks, 1987). Whereas the equity alliance is closer to the hierarchy end, non-equity alliances are much looser arrangements that more resemble market transactions. Besides categorizing alliances according to inclusion of equity or the lack thereof, the variety of alliances is explained in terms of link and scale alliances. Hennart (1988) suggests that scale alliances are alliances formed by actors within the same industry, while link alliances are cross industrial. Despite the heavy focus on equity alliances, the logic of minimizing the sum of transaction and production cost can be extended to explain non-equity alliances. Indeed, Yasuda (2005) argues that the use of non-equity alliances could lead to transaction costs that are lower than own production costs, suggesting such alliances are formed to mainly reduce production costs. Chen & Chen (2003) do, however, state that transaction cost theory makes for a poor explanatory model for non-equity alliances, as most literature on transaction cost theory almost exclusively argues for the reduction of transaction cost through alliances.

As previously mentioned, transaction cost theory assumes that own internalization would be a preferred means to reduce transaction costs. Shared internalization could also be a viable alternative, in particular if transaction costs are of intermediate level that do not justify own internalization (Kogut, 1988). Hennart (1988) mentions that certain assets are firm specific and have low additional costs.
of usage. If a firm wants to acquire these specific assets, own reproduction of these assets would impose higher costs than the cost of additional use (Hennart, 1988). Better alternatives for acquiring these assets would be to acquire, merge, or form an alliance with the firm that owns the assets.

A case that Hennart (1988) refers to from Stuckey (1983) serves as an illustrative example of a situation that favours alliance formation. A bauxite-mining firm (bauxite is an aluminium ore) requires substantial investment to establish an own aluminium refinery of efficient size. This refinery would in turn force the firm to deal with the bulk of the alumina produced, even though the firm might just require a fraction of the aluminium refinery’s output. The alumina market is also very narrow, so the use of the market would be difficult to manage in order to sell the output from the refinery. The principles of transaction cost theory would suggest that alliance formation would be a better alternative than establishing own wholly owned subsidiaries or using the market in this specific case.

Hennart (1988) argues that it is a will to avoid both transaction costs and management costs that motivates firms to share ownership. Although an acquisition could be an alternative means to internalize, it could also mean entering unknown business areas (Hennart, 1988). Hennart & Reddy (1997) argue that alliance formation can be better understood by viewing how alliance formation can be more advantageous than an acquisition or merger. First, acquisitions and mergers are encumbered by diseconomies of acquisition due to the costs of digesting and managing unrelated activities (Hennart, 1988). An acquisition can also lead to a reduction of transaction costs at the expense of an equally high increase in production costs, resulting in no real reduction of the sum of costs (Kogut, 1988). Hence alliances can be means to avoid inefficient markets while also avoiding risks of gaining unrelated activities and increased production costs. An alliance is not necessarily the better alternative in every situation. Das & Teng (2000b) mention that mergers and acquisitions are preferred when transaction costs are exceptionally high.

Reduction of transaction costs in alliances
Although Williamson (1981) assumed that opportunism and bounded rationality always would lead to transaction costs in interfirm arrangements, Beamish & Banks (1987) argued that certain preconditions would allow alliances to reduce opportunism. Important for the success of an alliance, and for it being preferable over wholly owned subsidiaries, is trust and commitment (Beamish & Banks, 1987). Gulati (1995, p. 91) defines trust as “a type of expectation that alleviates the fear that one’s exchange partner will act opportunistically”. This definition would suggest that perceived opportunism is the opposite of trust. If both parties establish an equity alliance in the spirit of mutual trust and commitment, the alliance is not only less hindered by opportunism but tolerance among partners is increased, improving the chance of an alliance being successful (Beamish & Banks, 1987).

Positive attitudes also need to be reinforced with mechanisms, which only are available in equity alliances due to their nature as corporate entities (Beamish & Banks, 1987). These mechanisms are crucial for the success of the alliance and can handle the division of profits and decision-making through reward and control systems, ensuring that both parties gain mutually (Beamish & Banks, 1987; Kogut, 1988). Beamish & Banks (1987) argue that the existence of mechanisms in alliance actively deter from
opportunistic behaviour among partners, such as the stealing of each other's knowledge. Kotler (1988) argues that equity alliances also incur a 'mutual hostage' situation because of the shared equity, forcing both parties to align interests and to work well together since neither wants to lose their investment.

Parkhe (1993) extends transaction cost theory by including game theoretic explanations. According to Parkhe (1993) actors need to be able to assess the behaviour of their counterpart to be able to assess whether opportunism within the alliance is favourable or not. Viewing the alliance as a long-term commitment, while having frequent interaction and transparency among partners lead to a better assessment of the other party in the alliance. This eases the need to establish contractual safe guards against opportunism within the alliance and as such lowers the transaction costs of the alliance. When perceived opportunism is low, alliance partners also see less risk in investing non-recoverable assets in the alliance, further improving the pay off of the alliance and increasing its stability. (Parkhe, 1993) The research of Dyer (1997) suggests that transparency and frequent interaction also reduce transaction costs in non-equity alliances. This would suggest that these aspects are generally important for both equity and non-equity alliances from a transaction cost perspective.

Gulati (1995) states that transaction cost theory often has a static point of view. Alliance formations are, according to Gulati (1995), not one-time occurrences, but occur repeatedly between firms. Through these repeated ties alliance partners become familiar with one another and trust each other more over time, which is similar to what Parkhe (1993) suggests with increased frequency reducing perceived opportunism. The increased trust due to familiarity in turn reduces the need to form equity alliances and hierarchical control instead of non-equity alliances, as equity is no longer considered important for controlling opportunism. (Gulati, 1995; Gulati & Singh, 1998)

Transaction cost theory and disadvantages

Alliances are not costless and the greatest costs are incurred when alliances fail to live up to expectations. Beamish & Banks (1987) mention that a lack of mutual satisfaction could lead to one of the partners enforcing contracts surrounding the alliance, leading to costs that would negate the reason for cooperating in the first place. Costs also arise from management having to first reassess the performance and rationale before deciding whether to end the alliance or not (Beamish & Banks, 1987). This is particularly true for equity alliances that due to the shared ownership also involve higher exit costs (Gulati, 1995).

According to transaction cost theory, alliances fail due to a lack of interfirm trust and commitment leading to opportunistic behaviour within alliances. This in turn could lead to the termination of the alliance and lead into traditional market transactions between actors. The opposite scenario can occur with equity alliances, as these could lead to acquisitions or mergers, thus ending alliances. These two outcomes occur if either cooperative or competitive attitudes within the alliance increase out of hand, which often happens when alliance partners lose sight of the original purpose of the alliance. (Das & Teng, 2000a)

There is yet another kind of cost that can arise from alliance formation, referred to as coordination costs. While Coase (1937) mentions that internalization creates a
need to coordinate functions internally, Gulati & Singh (1998) argue that coordination costs exist due to alliance formation. Even though management costs and production costs can be avoided through alliance formation, costs would still arise from the need to coordinate tasks within an alliance. The mechanisms within equity alliances mentioned by Beamish & Banks (1987) should assist in the coordination of tasks. The failure to coordinate tasks does, however, not only lead to the existence of coordination costs. Reuer & Zollo (2005) mention that alliances with broad scopes of purposes and poor division of tasks among partners tend to have higher degrees of uncertainty regarding the performance of alliance partners, leading to partners establishing contractual safeguards in case something unforeseen occurs (Reuer & Zollo, 2005).

As competition becomes more global, and the cost of competing in markets continues to escalate, firms find themselves lacking resources to compete efficiently (Day, 1995). Acquiring desirable resources on the market is difficult, however, as certain resources are not perfectly tradable while others are not tradable at all (Dierickx & Cool, 1989). Examples of non-tradable resources are certain knowledge, social status, and relationships. Acquiring reputation and trust on the market is obviously not possible as these resources are intangible, firm specific, and are developed internally (Eisenhardt & Schoonhoven, 1996). Knowledge-based resources and certain forms of technology on the other hand must be accessed through learning (Das & Teng, 2000b). That certain resources are not easily traded or transferred is due to the imperfect mobility of resources, making resource heterogeneity among firms a sustained phenomenon (Peteraf, 1993).

THE RESOURCE-BASED VIEW
Although resources are recognized by other theories, the resource-based view strongly emphasises the role of resources. Resources can vary greatly, leading to the heterogeneity of them and the firms to which they belong (Wernerfelt, 1984). It is due to the discrepancies between firms’ resource endowments that firms can achieve strong competitive advantages (Wernerfelt, 1995). These competitive advantages are gained by holding important resources, which in turn give favourable and strong strategic positions (Das & Teng, 2000b; Eisenhardt & Schoonhoven, 1996). Barney (1991) identified four desirable resource characteristics that lead to competitive advantages: value, durability, rarity, and imitability. Attaining resources that hold all four characteristics is difficult, meaning firms often find themselves lacking strong positions that are particularly critical in environments with high uncertainty (Eisenhardt & Schoonhoven, 1996).

In their search for resources firms have to consider reaching out to other firms, either by acquisition, merger or interfirm cooperation. Acquisitions and mergers can be limited means to acquire resources. Mody (1993) mention that mergers lead to more rigid structures than alliances when firms seek complementary knowledge resources. Since firms are bundles of resources (Penrose, 1959, p. 24), an acquisition or merger would also not result in the acquisition of isolated resources (Wernerfelt, 1984). The heterogeneity of resources among firms also impairs the identification of resources prior to the purchase, adding a level of uncertainty regarding acquisitions and mergers (Wernerfelt, 1984). Additionally, there is the risk of acquisitions and mergers leading to the suffocation and deterioration of wanted resources due to major organizational changes, e.g. due to different management systems or
organizational cultures (Schillaci, 1987). This is particularly important to note, as resources only are effective if they fit well with one another and the firm (Wernerfelt, 1984). Because of these various factors alliances are an alternative for accessing resources from other firms without the risks involved with acquisitions or mergers.

Alliances can also lead to advantages through the pooling of resources resulting in economies of scale, increased market power and the sharing of risk (Das & Teng, 2000b; Day, 1995) By forming an alliance, a firm can facilitate product differentiation as well as avoid keeping profit margins too low (Eisenhardt & Schoonhoven, 1996). These advantages in turn can result in exclusive competitive positional advantages for alliance partners in relation to others (Day, 1995; Varadarajan & Cunningham, 1995; Yasuda, 2005). Alliance formation also allows firms to achieve enhanced legitimacy by tying themselves to others (Varadarajan & Cunningham, 1995). The latter advantage could especially be useful for firms in vulnerable strategic positions (Eisenhardt & Schoonhoven, 1996). Strategic considerations such as the above could explain why firms, as noted by Zhang & Zhang (2006), might form alliances with negative direct effect on profit in the short-term to deter others from entering their business sector.

The lack of resources and the potential gains of alliances could be seen as a strong incentive for firms to form alliances (Day, 1995; Johansson, 1995). Alliance formation can also be a strategy for retaining or expanding the usage of underutilized resources (Das & Teng, 2000b; Tsang, 1998). Reasons for this could be having a temporary excess of resources or finding opportunities to gain more from currently held resources through cooperation.

Obtaining resources from alliances
While the collective strength of an alliance depends on the pool of resources (Das & Teng, 2000b), the resource-based view gives more insight on how resources are obtained. Chen & Chen (2003) argue that resources either are accessed through exchange or integration of resources. Exchanging resources allow firms to use each other’s resources outside of their own organization, as can be seen in outsourcing agreements or distributing arrangements. Integrating resources is on the other hand done with the purpose of relying on the synergy of resources and as such requires these to be brought into the firms, as can be seen in joint R&D. (Chen & Chen, 2003)

Besides the exchange or integration of resources, the alignment of resources within the alliance is important. Depending on the resources that are exchanged or integrated, resources can be categorized as either supplementary or complementary in an alliance. Supplementary resources are types of resources that both alliance partners have access to prior to the alliance, thus meaning the alliance offers more of the same kind of resources. These resources can allow firms to pool their strengths to achieve economies of scale and the sharing of risk. (Das & Teng, 2000b)

Complementary resources allow larger firms to leverage the own depth of resources and smaller firms to compensate for a lack of resources (Day, 1995). These resources can be defined as the degree in which firms can cover for each other’s lack of resources, thus eliminating pre-existing deficiencies (Lambe et al., 2002). An example of this are airline alliances in which alliance partners offer complementary geographic capabilities to provide more extensive travel routes to passengers.
When alliance partners pool resources, new opportunities can arise that neither would be able to exploit individually (Varadarajan & Cunningham, 1995). Lambe et al. (2002) argue that complementary resources when combined yield different and much more valuable resources, referred to as idiosyncratic resources. Idiosyncratic resources can be either tangible or intangible and yield stronger differentiation advantages when these are combined in ways competitors cannot match. These resources are only available through the alliance and are unique to the alliance itself. (Lambe et al., 2002)

Day (1995) mentions that certain firms are particularly good at managing alliances, showing necessary trust and commitment for these to work, giving these firms a significant edge over competitors. Such ability could be compared to the notion of core competencies. Core competencies are composed of the collective knowledge in the organization, and the firm’s ability to coordinate different skills and technology (Prahalad & Hamel, 1990). In an alliance context Lambe et al. (2002) refers to such competence as alliance competence, which is required to succeed in alliances and obtain resources. Alliance competence is defined as the organizational ability to find, develop, and manage alliances. The effects of this competence are two fold. It has a direct positive effect on alliance success, while also having an indirect positive effect on alliance success through its effects on the acquisition of complementary resources and creation of idiosyncratic resources. (Lambe et al., 2002)

According to Lambe et al. (2002) alliance competence is composed out of three resources: alliance experience, alliance managerial capability, and partner identification propensity. Alliance managerial capability is important for securing attractive alliance partners, managing the alliances, as well as working together within the alliances to combine resources (Lambe et al., 2002). A firm’s accumulated learning from its involvement in alliances has an impact on the effectiveness of future alliances (Anand & Khanna, 2000; Emden et al., 2005; Varadarajan & Cunningham, 1995.) Partner identification is important as firms that systematically and proactively scan for partners not only find promising partners, but also receive access to scarce resources from partners before competitors, keeping these away from the grasp of the competition (Lambe et al., 2002).

Eisenhardt & Schoonhoven (1996, p. 137) state that “firms must have resources to get resources”. The effects of alliance competence are best seen when all involved partners have it. An unskilled alliance partner will diminish the ability to work together and hinder necessary resource investments (Lambe et al., 2002). Dollinger et al. (1997) argue that the firm’s reputation is important as it encourages others to approach in hopes of forming an alliance. Furthermore, a firm lacking the necessary intangible resources connected to what can be perceived as social status, such as legitimacy, trust, and reputation, will not only lack the ability to attract partner firms but also lack the awareness and knowledge necessary to assess risks (Eisenhardt & Schoonhoven, 1996). This would lead to firms approaching less desirable partners (Day, 1995).

Disadvantages according to the resource-based view
According to the resource-based view, alliances can also involve risks. Varadarajan & Cunningham (1995) mention that although alliances enable firms to broaden or fill gaps in their product lines by gaining access to each
other’s resources there can be disadvantages. Firms entering alliances accept greater dependency in exchange for access to resources (Gravier et al., 2008). Extended reliance on each other’s complementary resources can also lead to constrained growth, e.g. in the case of shared distribution networks. These forms of agreements can enable one partner to expand its product line with the products of the other partner that lacks access to markets, allowing both to gain from each other’s specialized resources. There are two possible negative outcomes from such an arrangement. First, the party providing the distribution network might come to diminish its own development of products, becoming a mere conduit for the products of others. Secondly, the party providing the products might not come to establish own access to markets, relying solely on the support of the other party that in turn might falter. (Johansson, 1995)

Another risk is uncertainty in the environments of firms. Although alliances might offer more flexibility than mergers (Mody, 1993), Harrigan (1988) argues that firms in uncertain environments require more flexibility than alliances allow. The inflexibility of alliances in turn stems from the sharing of resources within an alliance (Harrigan, 1988). Connected to changes in environments are also the potential internal changes within partners, which can lead to changes in the resources of either partner. This in turn could make an alliance become obsolete, as resources that previously were wanted are no longer accessible. (Schillaci, 1987)

If alliances are established to acquire resources, a means to acquire these can be through imitation (Tsang, 1998). Thus alliances involve an inherent risk of resource imitation (Yasuda, 2005). This is particularly true for knowledge resources in equity alliances. When working together partners get to know each other’s resources and how these are coordinated, but have difficulties exiting due to the equity involved (Das & Teng, 2000b). If a firm’s resources erode or are imitated, the alliance will lead to a negative shift in competitive strength for the victim. This further states the importance of having durable and imitable resources to gain sustainable competitive advantages.

THE KNOWLEDGE-BASED VIEW

According to Grant (1996), the knowledge-based view is an alternative perspective on the organization and the competitive advantages of the firm. From this point of view all productivity is knowledge dependent, meaning the competitive advantages of a firm base on the creation and integration of knowledge (Grant & Baden-Fuller, 1995; Grant, 1996). Knowledge itself is divided in explicit knowledge and tacit knowledge. The key difference between these two categories lies in the transferability of these. Tacit knowledge is revealed by its application, and acquired through practice. Explicit knowledge, on the other hand, is revealed by its communication, making its transfer near costless. Distinguishing between these kinds of knowledge is important as the means of integrating these vary greatly. (Grant, 1996)

Firms require integration mechanisms such as directives, rules, and routines for proper coordination of knowledge. The more diversified the knowledge of firms, the more differentiated integration mechanisms are required of the firm leading to higher integration costs. (Grant & Baden-Fuller, 2004) Whereas the resource-based view defines the firm’s boundaries by the resource it employs (Penrose, 1959, pp. 9-30), the knowledge-based view instead states that the firm’s boundaries are defined by the amount of knowledge it can integrate (Grant, 1996). The knowledge-based view stresses that
the utilization of knowledge is important as much knowledge can be underutilized, meaning it is going to waste. Products generally require broad scopes of knowledge while existing knowledge itself has low additional costs of use. A firm that wastes knowledge is losing opportunities to create competitive advantages. Thus it is important that a firm’s knowledge domain matches the requirements of the product domain of the firm, to avoid underutilization of knowledge. (Grant, 1996)

Achieving full utilization is a difficult challenge as the firm might have an overabundance of knowledge, or lack sufficient knowledge. Firms might also lack the means to produce enough technology and knowledge to effectively compete on their own (Elmuti & Kathawala, 2001). Rapid technological change, shorter product life cycles, increased cost and risk in development, and the time required to producing knowledge are some of the reasons for the external search of knowledge (Mowery et al., 1996). Grant & Baden-Fuller (1995) assume that markets are not completely viable. The reason is that efficient use of knowledge requires coordination of various kinds of specialized knowledge, which is not possible through the market (Grant & Baden-Fuller, 1995).

Even though the market might be unviable, the problem remains that it is difficult to fully utilize knowledge alone. Therefore alliance formation is a preferable alternative, as alliances are more efficient means to transfer and integrate knowledge than the market (Grant & Baden-Fuller, 1995). Additionally, the concept of mergers forcing more rigid structures than alliances when seeking complementary knowledge resources should also apply for the knowledge-based view (Mody, 1993). By either accessing and acquiring knowledge provided by others or fully utilizing existing knowledge within the firm, firms can decrease the own mismatch between product and knowledge domain. Grant & Baden-Fuller (1995) argue that the greater the incongruity between product and knowledge domains, the greater the potential for an alliance to increase the efficiency of knowledge utilization. By collaborating firms can also help each other to share costs and risks, as well as increase the speed of knowledge creation, helping firms to compete in environments with high uncertainty (Mowery et al., 1996). Grant & Baden-Fuller (2004) claim that the knowledge-based view is particularly appropriate for firms in knowledge intensive environments, as these have higher rates of alliance formation.

Accessing or acquiring knowledge
Gravier et al. (2008) assess that although knowledge sharing can be the main objective of an alliance, there is a distinction between accessing knowledge and acquiring knowledge. Therefore the knowledge-based view can explain two different kinds of alliances in relation to knowledge sharing. The first is the knowledge acquisition alliance, which is formed for the acquisition of knowledge that the firm might lack (Hamel, 1991; Morrison & Mezentsseff, 1997). The other is the knowledge accessing alliance that is formed to allow for better and more focused integration of own knowledge, hence reducing integration costs (Grant & Baden-Fuller, 2004).

Nakamura et al. (1996) mention that in alliances between American and Japanese firms, certain firms would rely on each other by sharing market knowledge to achieve market access, whereas other firms would try to internalize the market knowledge to later compete alone. Important to note is that this distinction
between knowledge acquisition and access is not related to learning from experience, which refers to firms’ learning on how to manage an alliance from previous involvement in alliances (Anand & Khanna, 2000; Emden et al., 2005).

Knowledge access alliances are meant to alleviate the need to generate knowledge in a field not related to a firm’s core activities. These types of alliances are meant to improve efficiency rather than acquire new knowledge, and are often found in vertical alliances. This further facilitates improved economies of scale and leveraging of own capabilities. (Gravier et al., 2008) Grant & Baden-Fuller (2004) argue that knowledge is truly valuable when it is specialized; nevertheless, extensive mutual learning of specialized knowledge is expensive, hence reducing the gains from specialized learning. Knowledge accessing alliances can lead to higher returns on specialized knowledge, as the knowledge can be coordinated instead of learned. Knowledge access in alliances also allows firms to share knowledge with the intention of maintaining their own base of knowledge. This in turn allows firms to exploit complementarities from each other’s stock of knowledge. Efficient knowledge accessing alliances rely on both the ability to integrate various kinds of knowledge, as well as the ability to fully utilize the knowledge. This in turn requires cooperative attitudes and transparency among alliance partners. (Grant & Baden-Fuller, 2004)

Knowledge access alliances have an effect referred to as divergence that occurs when partners rely on each other’s accessed knowledge and start to specialize in different fields, leading to the firms becoming more different from one another (Nakamura et al., 1996; Mowery et al, 1996). These alliances therefore tend to lead to higher levels of dependence and alliance stability (Nakamura et al., 1996).

Knowledge acquisition alliances differ greatly in purpose. Gaining the benefits of these alliances relies on the firm’s ability to learn. Such alliances are also possible with competitors, and can be used to assimilate core knowledge from others while temporarily cooperating (Hamel et al., 1989). An advantage with knowledge acquisition is that the knowledge obtained also is available post-alliance, thus also suggesting an increase in competitive strength of the firm (Hamel, 1991). Hamel (1991) mentions certain determinants that affect the learning in an alliance. First, it is vital that firms have the intent to learn to actually learn. Secondly it is important that there is transparency between alliance partners so that the firms can gain access to wanted knowledge and learn from each other. The final determinant is receptivity: the firm’s ability to identify and absorb knowledge. This can be compared to what Cohen & Levinthal (1990) refers to as absorptive capacity, which is the firm’s capacity to absorb knowledge. The research of Mowery et al. (1996) shows that higher levels of absorptive capacity improve exploitation of external sources of knowledge, meaning such ability is required for efficient acquisition of knowledge. Additionally, managerial ability and reward mechanisms can also be important as they both create a learning vision within the firm and encourage mutual learning (Morrison & Mezentseff, 1997).

Hamel (1991) argues that there is a ‘race to learn’ in alliances, referring to how alliance partners try to acquire as much knowledge as possible from one another. This ‘race’ will lead to disharmony and alliance instability, but Hamel (1991) suggests these traits could be the sign of a fruitful collaboration. In partial agreement, Khanna et al. (1998) mention that
alliances are simultaneously cooperative and competitive by nature. By accepting mutual dependence the alliance might last as long as either party believes it can learn from its partner (Hamel et al., 1989, Khanna et al., 1998). Hamel (1991) argues that if alliances are seen as vehicles for learning, long-lived alliances can be the evidence of failures to learn, whereas Khanna et al. (1998) suggest that alliances in which common benefits outweigh individual benefits would be more durable.

The research of Kale et al. (2000) heavily contrasts Hamel (1991). According to Kale et al. (2000) firms in alliances have relational capital that bases on mutual trust, friendship, and respect. Relational capital is developed through interaction and problem solving in the alliance that leads to mutual benefit. The development of relational capital in turn has positive effects on the degree of learning in alliances. Through increased transparency and the deterring of opportunistic behaviour among parties, the parties are protected from knowledge leakage. As such relational capital acts as a form of safeguard, referred to as relational safeguard, against opportunistic behaviour between alliance partners. (Kale et al., 2000) This would imply that alliances are not necessarily ‘races to learn’ as stated by Hamel (1991).

Regardless of whether alliances are intended for the access or acquisition of knowledge, the involvement of equity leads to better performance. According to Mowery et al. (1996) equity alliances offer increased transparency and proximity in the alliance, leading to stronger convergent and divergent effects. Non-equity alliances are in comparison inferior for the access or acquisition of tacit knowledge as these alliances lack the needed proximity and transparency. (Mowery et al., 1996)

Disadvantages according to the knowledge-based view

Harrigan (1988) mentions that the sharing of knowledge within alliances involves the risk of losing the shared knowledge, in particularly when alliance partners are cooperating closely. Protection of one’s skills is difficult, as the sharing of skills not only occurs at top management level, but also on operational level. The entire organization must be careful, and preferably have gatekeepers to ensure that no more than necessary is shared. (Hamel et al., 1989; Hamel, 1991)

Protecting own knowledge is difficulty if a party lacks bargaining power within the alliance. Hamel el al. (1989) mentions that being in a weaker position within the alliances could force the weaker party to share more of its knowledge to maintain the stronger party pleased. This would not only shift the alliance in favour of the other party but also lead to a competitive shift post-alliance.

As both parties share knowledge and learn from one another alliance partners tend to become more similar to one another. This effect is referred to as convergence and occurs when knowledge is transferred, thus correlating with the degree of knowledge transfer of an alliance (Nakamura et al., 1996). In contrast to divergence, convergence has a negative effect on alliance stability and can lead to alliance termination. This would suggest that knowledge acquisition alliances can be very unstable and that the instability can be expected to increase as parties learn from one another.

There is yet another issue related to knowledge acquisition alliances. According to the knowledge-based view knowledge requires integration, meaning a larger stock of knowledge would impose higher costs of integration (Grant & Baden-Fuller, 2004). This would imply
that knowledge acquisition alliances would inevitably lead to higher integration costs, something that firms should assess prior to the formation of an alliance.

A separate issue is that of dependence. Alliances are the most stable when partners are willing to grow dependent on one another (Hamel, 1991). By growing dependent, a firm will inevitably surrender some of its knowledge due to divergence (Nakamura et al., 1996; Mowery et al., 1996). This could be expected of knowledge accessing alliances and their focus on specialization (Grant & Baden-Fuller, 2004). If the pace in which one firm surrenders competence and skills is higher than the pace it adds to its stock of technologies and competence, the firm will be getting weaker due to the collaboration (Hamel et al., 1989).

**COMPARING THE PERSPECTIVES**

*Rationale for formation*

All three perspectives address market failure as a main reason for why alliances exist, albeit addressing different aspects. For transaction cost theory it is the existence of intermediate transaction costs and certain preconditions forcing firms to rely on one another that causes the need to form alliances (Hennart, 1988; Kogut, 1988). For the resource-based view it is the unavailability, or poor availability, of resources on the market (Dierickx & Cool, 1989; Eisenhardt & Schoonhoven, 1996) as well as the imperfect mobility of resources (Peteraf, 1993) that makes the use of the market difficult. According to the knowledge-based view it is the unviability of fully utilizing knowledge on the market that makes markets insufficient (Grant & Baden-Fuller, 1995). Regardless of perspective, the utility of the market is limited and forces firms to either internalize or reach to other firms for achieving their goals.

Internalization on the other hand is limited by a couple of factors. Transaction cost theory and the knowledge-based view both address how there are increased costs when internalizing, either through increased production and management costs (Coase, 1937; Williamson, 1981), or increased integration costs (Grant & Baden-Fuller, 2004). From the resource perspective the internal development of resources can be too cumbersome for firms, especially for firms in vulnerable strategic positions (Eisenhardt & Schoonhoven, 1996).

The difficulties of internalization are coupled with increased competitiveness on the markets causing a lack of resources for firms (Day, 1995), and making the creation of knowledge more expensive and risky due to shorter product life cycles (Mowery et al., 1996). Another difficulty with competing alone is the topic of underutilization. Firms might have difficulty utilizing own resources and can through alliances be able to retain or expand these resources (Das & Teng, 2000b; Tsang, 1998). Grant & Baden-Fuller (1995, 2004) argue that perfect utilization of knowledge is difficult through own operations. Firms would be unable to specialize in own stocks of knowledge to minimize integration costs, as they would not be able to rely on external sources for knowledge of secondary importance (Grant & Baden-Fuller, 2004). As such both the resource-based and knowledge-based view mention the use of external means to better utilize own ability.

If the market and own operations are not viable alternatives, firms must reach to other firms through acquisition, mergers or alliances. According to Hennart (1988) acquisitions and mergers could force firms to commit to a larger extent than wanted, imposing larger production costs, a need to manage a bigger organization, and force
Alliances is particular helpful when transferring knowledge states that the sharing of risks and costs based view. Resource risk, which are mentioned by both the achieving differences in alliances (Hennart, 1988), addressing dissimilarity in the terms of scale or link transaction cost theory refers to views acknowledge specific gains from another. This would suggest that both the knowledge-based view can provide a reason as to why alliances might be preferable over mergers. Alliances are therefore portrayed as legitimate alternatives in comparison to acquisition and mergers by both transaction cost theory and the resource-based view, and perhaps partially by the knowledge-based view.

An interesting aspect is how both the resource-based and the knowledge-based views can be used to explain the growth of alliances as a phenomenon. Either firms lack the resources to compete due to increased competitiveness (Day, 1995), or the development of knowledge has become more difficult due to increased competitiveness and rapid technological pace. These factors generally point towards alliances becoming more important according to both the resource-based and knowledge-based views, explaining the increased rate of alliance formation. Whereas the transaction cost theory mainly addresses that alliance formation can be explained by cost incentives, it does not address aspects related to the environmental changes or the wish to create new opportunities due to increased competitiveness.

**Attaining advantages**

While all perspectives address that trust and commitment are important, in varying degrees, there are perhaps more notable
differences regarding how advantages are attained. A notable contradiction concerning knowledge acquisition alliances must be addressed, as Hamel (1991) argues for opportunistic behaviour being positive while Kale et al (2000) argue that countering opportunism through mutual trust, friendship, and respect enhances relational capital and thus learning. Khanna et al. (1998) encompass both views and mention that alliances are simultaneously competitive and cooperative, leaving room for opportunism in the framework of the knowledge-based view. Besides the notions of opportunism related to knowledge acquisition, the consensus in all three perspectives is that opportunism is negative.

Transaction cost theory mainly argues for the reduction of opportunism, that in turns reduces transaction costs, through equity leading to a 'mutual hostage' situation (Kogut, 1988) and mechanisms (Beamish & Banks, 1987). Other means of reducing opportunism is by establishing long time horizons in alliances, transparency, frequent interaction (Parkhe, 1993) as well as repeated ties (Gulati, 1995). While the resource-based view addresses that trust and commitment are important (Day, 1995), most emphasis is on the alignment of resources (Das & Teng, 2000b), alliance management (Lambe et al., 2002), and whether resources are exchanged or integrated (Chen & Chen, 2003). What can therefore be addressed is that the resource-based view does not really point towards the use of equity and control mechanisms as important for attaining resources. Equity and mechanisms do on the hand play a role in the sharing of knowledge. As stated previously, equity alliances have a higher degree of converging and diverging effects related to the degree of knowledge transfer and are preferred for the transfer of tacit knowledge (Mowery et al., 1996). This does not mean that the knowledge-based view stresses equity to the same extent as transaction cost theory. Regarding mechanisms, Morrison & Mezentsseff (1997) argue that reward mechanisms coupled with managerial ability could create much needed incentives for learning. Besides the role of equity in regard to knowledge sharing or mention of mechanisms, literature on knowledge acquisition offers different recommendations for access and acquisition of knowledge. Even though transparency is relevant for both kinds of alliances, knowledge access alliances rely on cooperative attitudes and access to complementary stock of knowledge (Grant & Baden-Fuller, 2004) while knowledge acquisition depends on determinants of learning (Hamel, 1991.

To acquire resources you must first have resources. This is the irony in alliance formation according to Eisenhardt & Schoonhoven (1996), suggesting there are higher demands on the firm's own capabilities to actually be successful in alliances. To obtain resources the firm requires own resources such as alliance competence (Lambe et al., 2002) or reputation and social status (Dollinger et al., 1997; Eisenhardt & Schoonhoven, 1996). The notion of the firm requiring resources to be successful can partly be found in the framework of the knowledge-based view, with the notion of receptivity (Hamel, 1991) and absorptive capacity (Cohen & Levinthal, 1990) being demanded to actually acquire knowledge, as well as managerial ability to envision learning (Morrison & Mezentsseff, 1997). Lambe et al. (2002) do, however, mention that it is preferred when all parties have resources in the form of alliance competence, suggesting higher demands on firms to achieve success according to the resource-based view.
Although the resource-based and knowledge-based views discuss various factors that allow for alliance success, transaction cost theory mainly views the reduction of cost as the definition of success. Besides Dyer (1997) there is also little mention of how transaction costs are reduced in non-equity alliances. The resource-based view also stands out as it addresses the creation of new opportunities through cooperation. Furthermore, only the resource-based view addresses how firms actually find alliance partners, e.g. through alliance competence (Lambe et al., 2002) and social status (Eisenhardt & Schoonhoven, 1996).

Comparing disadvantages
Perhaps unsurprisingly most potential disadvantages in alliances are related to the failure to cooperate among partners. The inability to divide tasks among partners and too broad purposes with alliances can lead to increased transaction costs (Reuer & Zollo, 2005). Also perceived opportunism within the alliance increases transaction costs (Parkhe, 1993), while a lack of mutual satisfaction could lead to the termination of the alliance and potential costs involved with the termination itself (Beamish & Banks, 1987). According to both the resource-based and knowledge-based views there is the issue of imitation (Hamel et al., 1989; Harrigan, 1988). Hamel et al. (1989) do, however, not properly distinguish between knowledge acquisition and knowledge access alliances, making it harder to determine whether the risk of knowledge leakage is equal for both kinds of alliances. It must also be stressed that Hamel et al. (1989) mainly covers alliances between competitors that perhaps have a higher degree of opportunism.

Another major potential risk with alliances is losing the major investments put into the cooperation. This is coupled with the supposedly high failure rate of alliances (Bleeke & Ernst, 1991; Hadlik, 1988), making alliances a risky endeavour for firms that have heavily invested in these. Access to resources created through the alliance, such as idiosyncratic resources, and the money and time invested in these could be lost through a sudden alliance termination or due to internal changes within alliance partners. Firms that have heavily specialized their knowledge through knowledge access alliances would be left stranded if their partner that they relied on exits the alliance.

Yet another risk lies with interdependency within an alliance. Heavily depending on an alliance partner could lead into hampered growth of resources, something seen when firms cease to work on their own deficiencies (Varadarajan & Cunninham, 1995). Coupled with the inflexibility of equity alliances when resources are shared (Harrigan, 1988), dependency has its risks. According to the knowledge-based view, specialization of knowledge through alliances also indirectly lead to the exit of business areas as knowledge is discarded (Hamel, 1991), being yet another example of the risk of dependency. According to transaction cost theory, dependence is expected due to the mutual hostage in equity alliances. This implies that firms wanting to exit a disadvantageous alliance would have difficulty doing so. This specific issue is not emphasised by transaction cost theory, as the risks of overdependence and imitation are not addressed.

Perhaps not entirely related to the dangers of overdependence, Das & Teng (2000a) mention that cooperative attitude within an alliance can lead to an acquisition or merger. The opposite can also occur with increased opportunism, meaning non-equity alliances could due to their flexibility instead lead to more market-like transactions. (Das & Teng,
2000a) This proposes that the minimization of the sum of transaction costs and production costs is not static, and that alliances can risk becoming transient stepping-stones.

There are some notable differences when discussing the disadvantages of alliances according to the perspectives. According to transaction cost theory, the main dangers occur due to the failure of reducing the sum of transaction and production costs, although most focus lies on the reduction of transaction costs. Instead of mentioning cost related disadvantages, the resource-based view addresses the risks of resource deterioration as well as the loss of previously accessed ones. What transaction cost theory and the resource-based view have in common is that most disadvantages are related to alliance failure. As long as firms manage to avoid alliance failure, the disadvantages can also be avoided. The only exception is the notion of coordination costs, as mentioned by Gulati & Singh (1998), although such costs could be reasonably reduced by the mechanisms within equity alliances. The knowledge-based view, on the other hand, points towards disadvantages that might be impossible to avoid due to the nature of knowledge. Higher degrees of knowledge sharing will inevitably lead to convergence or divergence effects (Mowery et al., 1996). Such effects will either lead to imitation or dependency. Furthermore, knowledge acquisition alliances will inevitably lead to increased integration costs due to larger stock of knowledge (Grant & Baden-Fuller, 2004). Knowledge access alliances on the other hand involve the inevitable surrender of knowledge and business areas (Hamel, 1991).

**Summarized overview**
As a means to present a summarizing overview, the table below shows some of the major points revolving alliance formation, the attainment of advantages and disadvantages according to each perspective.

As can be seen in the table, the theoretical perspectives address alliances fairly different, although they mention similar aspects. Transaction cost theory portrays alliances as a means to reduce costs. The reduction of these costs can be achieved by reducing opportunism through various means. Besides alliances transforming into other modes of transacting, disadvantages are related to the occurrence of costs due to the failure of containing opportunism. The resource-based view offers a myriad of reasons for forming alliances, while overall addressing resources such as alliance competence and social status as being key elements for achieving advantages. The disadvantages are related to various risks in extending resources externally as well as depending on alliance resources. Finally the knowledge-based view illustrates two fairly different kinds of alliances with non-related inherent risks, which not only are formed for different reasons but also require different means to acquire advantages.
<table>
<thead>
<tr>
<th>Reasons for forming alliances</th>
<th>Transaction cost theory</th>
<th>Resource-based view</th>
<th>Knowledge-based view</th>
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<tbody>
<tr>
<td></td>
<td>Reduction of the sum of transaction costs and production costs</td>
<td>Difficult to develop own resources</td>
<td>Alliances allow for better fit between knowledge- and product domains</td>
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<tr>
<td></td>
<td>Internalization is more expensive or not viable</td>
<td>Poor access of resources through other means</td>
<td>Harder to compete alone due to increased competitiveness</td>
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<tr>
<td></td>
<td>Acquisition/Merger require high commitment and lead to entry in unrelated business areas</td>
<td>Harder to compete alone due to increased competitiveness</td>
<td>Further development in own stock of knowledge lead to increased integration costs</td>
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<tr>
<td></td>
<td>Reasons for forming alliances</td>
<td>Obtaining economies of scale, legitimacy, market power, sharing risk, and cost advantages</td>
<td>Obtaining economies of scale</td>
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<td></td>
<td></td>
<td>Expanding or retaining underutilized resources</td>
<td>Sharing risks and costs, good in uncertain environments</td>
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<td></td>
<td></td>
<td>Eliminating own deficiencies</td>
<td>Eliminating own deficiencies</td>
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<tr>
<td>Attaining advantages</td>
<td>Shared equity and mechanisms keep transaction costs low</td>
<td>Alliance competence leads to better alliance management and acquisition of resources</td>
<td>Knowledge access lead to better specialization of own knowledge and interdependency</td>
</tr>
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<td></td>
<td>Transparency, long-term commitment, frequent interaction reduces perceived opportunism</td>
<td>Social status &amp; reputation allow for better finding of potential partners</td>
<td>Intent to learn, transparency, receptivity/absorptive capacity, mechanisms, and managerial ability allow for better acquisition of knowledge</td>
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<td></td>
<td>Repeated ties lead to familiarity</td>
<td>Alignment of resources lead to supplementary or complementary resources</td>
<td>Shared equity improves knowledge transfer</td>
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<td></td>
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<td>Resources are either exchanged or integrated</td>
<td>Opportunism vs. Relational capital for acquiring knowledge</td>
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<tr>
<td>Disadvantages</td>
<td>Failure to contain opportunism lead to alliance failure and termination costs</td>
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<tr>
<td></td>
<td>Coordination costs due to need to coordinate tasks within alliance</td>
<td>Inflexibility due to shared resources</td>
<td>Knowledge access leads to surrender of knowledge through specialization and dependency</td>
</tr>
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<td></td>
<td>Poor division of tasks and too broad purposes lead to transaction costs</td>
<td>Overdependence can lead to hampered growth and surrendering business areas</td>
<td>Alliance termination leaves dependent partner stranded</td>
</tr>
<tr>
<td></td>
<td>Alliances can lead to market-like transaction or acquisition/merger</td>
<td>Loss of resources if alliance fails or due to internal changes</td>
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</table>

Table 1. An overview of the theoretical perspectives in an alliance context.
CONCLUSIONS

Similarities and differences
All three perspectives depict alliances as preferable alternatives to own operations, the market, and acquisition or mergers under certain conditions. In this regard the resource-based view and the knowledge-based view argue in similar terms as transaction cost theory, stating that alliances can be a preferable alternative in the spectrum between market and hierarchy. Some differences do exist as to why firms would prefer forming alliances. Transaction cost theory’s main incentive to form alliances is the reduction of cost. The knowledge-based view argues in terms of cost reduction but also in terms of achieving a better fit of knowledge. The resource-based view offers a broader range of incentives, although the most note-worthy is value creation. Yet other differences lie in how both the knowledge-based and resource-based views refer to the need to cooperate due to increased competitiveness and advantages such as the sharing of risk through such cooperation.

All three perspectives address the negative effects of opportunism, stating how its reduction can be crucial for attaining advantages in the alliance. Although there is disagreement revolving the role of opportunism and competitiveness in knowledge acquisition alliances, most disadvantages in alliances are related to the failure of reducing opportunism, suggesting a general consensus among the perspectives on its negative effects.

Besides the reduction of opportunism, the resource-based and knowledge-based views mention certain traits required to be successful in alliances, e.g. reputation, alliance competence, intent to learn, and receptivity. Such requirements are however not mentioned by transaction cost theory, perhaps due to how this perspective mainly addresses reduction of transaction costs within an alliance and not success in any other way. The resource-based and knowledge-based views also mention the risk of surrendering business areas or knowledge due to the interdependency of alliance partners, yet another point not mentioned by transaction cost theory.

A note-worthy aspect is a key difference in regards to alliance termination. All three perspectives address how alliance termination has negative consequences for firms, either through significant costs related to the process of termination, or the loss of investment and accessed knowledge and resources. The knowledge-based view’s concept of knowledge acquisition does, however, imply that alliance termination is expected when firms have acquired the wanted knowledge in knowledge acquisition alliances.

In conclusion there are both similarities and differences among the perspectives. Many of these are related to how the perspectives focus on different incentives and aspects related to alliances. Transaction cost theory does, however, share the least similarities with the other perspectives. On the contrary, the resource-based and the knowledge-based views have considerable overlap, ranging from the concept of eliminating own deficiencies and the risks of overdependence and imitation. The main difference is that the resource-based view encompasses more resources than only knowledge.

The explanatory strength of the models
Generally the transaction cost theory stands out as mainly addressing the choice of governance structure of the firm guided
by the will to reduce costs. While there have been attempts to extend transaction cost theory by addressing social and relational aspects, it has only been done to address how transaction costs are reduced within the alliance or subsequent alliances. That transaction cost theory does not address other incentives besides the reduction of the sum of transaction and production costs, as well as being a poor explanatory model for non-equity alliances, makes this perspective narrow. This could suggest that transaction cost theory is insufficient for explaining alliances, not only due to its more narrow focus but also because of its inability to explain other relevant aspects. It is ironic that the most dominating perspective also might be the one that covers the least about alliances.

Similarly to transaction cost theory, the knowledge-based view is narrow. Its focus on knowledge integration and costs leads to a much more focused view on knowledge, ignoring other aspects mentioned by the other perspectives. Although the knowledge-based view argues for the focus on knowledge, it does not necessarily disregard the role of other alternative explanations (Grant & Baden-Fuller, 2004). The knowledge-based view might be a poor general explanatory model of alliances; nevertheless, it can explain two different kinds of alliances with different purposes. Furthermore, if alliances are indeed established as means to expand or specialize own stock of knowledge, the in-depth view of the knowledge-based view could be a preferable explanatory model.

In relation to the other perspectives the resource-based view does overall offer a much broader view of alliances. This is particularly so because of the broad definition of resources, including social resources and strategic aspects, as well as the mention of more varied incentives for alliance formations. This suggests that the resource-based view can explain a wider range of alliance formations. The perspective addresses the need of alliance management and social status, as well as the implications of varying capabilities within alliances, depicting a more extensive image of the inner workings of alliances. Furthermore, the resource-based view can also be used to explain knowledge, as it is a recognized type of resource within its framework. This could mean that an incorporation of elements from the knowledge-based view could be possible and eventually enhance the resource-based view.

**Discussion**

The study’s conclusions point towards the difficulties in using the theoretical perspectives as complementing explanations due to various differences between the frameworks. This is particularly true in regards to transaction cost theory that mainly shares the concern of opportunism reduction. This study does also suggest that transaction cost theory is the most limited of the three perspectives, despite its dominance within the field. It is difficult not to question the utility of transaction cost theory for practitioners and wonder which implications this has had for the understanding of the phenomenon.

As mentioned in the conclusions, the knowledge-based view has a peculiar and different view on alliance termination in regards to knowledge acquisition alliances. The implication of this difference could be significant. Many studies point towards alliances often being considered as failures (e.g.; Bleekke & Ernst, 1991; Reuer & Zollo, 2005), although the same alliances would not necessarily be identified as failures by the knowledge-based view if they resulted in the acquisition of knowledge. Another point worth addressing is whether the
knowledge-based view could be incorporated within the broad framework of the resource-based view. There are some reasons as to why this is possible. First and most importantly, the knowledge-based view originally stems from the resource-based view, suggesting they partially share frameworks. Secondly, there are negligible contradictions between these two perspectives in regards to alliances. Although such a discussion might be more suitable for a general analysis of the perspectives, a comparison of the theoretical perspectives in relation to alliances is difficult without comparing the perspectives in a more general fashion.

Finally, an issue encountered while collecting the material was how the literature referred to alliances. Although certain literature makes distinctions, other literature attempts to explain alliances as a general phenomenon. It is difficult to assess whether it is possible to adequately explain alliances through a single term, especially due to the variation of alliances. Admittedly this study aimed to only differentiate between equity and non-equity alliances but has despite this mentioned different kinds of alliances, e.g. scale/link, exchange/integration, access/acquisition, and equity/non-equity. The question arises as to whether it could be possible to adequately explain alliances unless a clearer distinction between alliance forms is made within the literature.

**Recommendations for further studies**

To properly assess how the views complement each other it might be required to understand the incentives for forming specific alliance forms within specific environments. Although this study points towards transaction cost theory and the knowledge-based view being limited explanations, they could still be useful within certain environments. Grant & Baden-Fuller (2004) have suggested that the knowledge-based view is more suitable for knowledge intensive industries. This could also be compared to Hennart (1988) who suggests that transaction cost theory can explain alliances formation in specific environments such as narrow markets leading to vertical alliances between suppliers and distributors. A recommendation for further studies is therefore to study the incentives to form different alliances within specific industries. Such studies would additionally also lead to knowledge regarding the applicability and relevancy of each perspective, and their respective advice for attaining advantages through alliances.
REFERENCES


