MANAGING RISK WHEN COOPERATING WITH CHINESE PARTNERS

- A SWEDISH PERSPECTIVE IN THE PHARMACEUTICAL INDUSTRY

Linnéa Kühne
Louise Möller
Anna Nykvist

Supervisor: Nazeem Seyed-Mohamed
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Linnéa Kühne Louise Möller Anna Nykvist
ABSTRACT

Pharmaceutical companies experience new challenges in the face of steadily increasing costs for drug production coupled with a decrease in the number of approved drugs. While the pharmaceutical industry remains tentative in Sweden, it is extensively growing in China. Chinese businesses are now on the lookout for foreign experience and know-how in production and R&D. This provides an opportunity for both parties to engage in strategic alliances. Nevertheless, strategic alliances present risks that partner firms need to be aware of. This study investigates how Swedish pharmaceuticals can manage perceived risks when cooperating with Chinese pharmaceutical firms.

Through academic journals, two main mechanisms were identified as being of particular influence in the management of perceived risk: trust and control. A qualitative study of nine interviews was conducted in order to determine how Swedish pharmaceutical companies manage risk when engaging in strategic alliances with Chinese partners. Six men and women employed in three different pharmaceutical companies were interviewed along with three experts from the industry. The study results in a description of a sequence of trust-enhancing activities and control mechanisms. Network and communication are found to be essential trust-enhancing factors enabled by a Chinese employee. The study conclusively determines that a Chinese connector is the key in the management of perceived risk.

Key words: Perceived risk, risk management, strategic alliances, Chinese partners, pharmaceutical industry
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1 INTRODUCTION

This chapter introduces the potential for Swedish pharmaceuticals to create strategic alliances with Chinese partners. This is followed by a problem discussion about potential risks that might obstruct the formation of strategic alliances, which leads to the study’s research question and objective.

1.1 OPPORTUNITIES IN THE EAST

The average age of the world population is increasing, which leads to new healthcare demands in the pharmaceutical market. Pharmaceutics is therefore one of the world’s most important and fastest growing markets. (PWC, 2007) With AstraZeneca and Pharmacia as its flag ships, the Swedish drug industry has held a leading position for almost a century. Nevertheless, while the Swedish pharmaceutical industry has managed to stay among the top ten in the world, it faces unprecedented challenges as the number of approved drugs is at its lowest in modern history. (Unionen, 2008) Meanwhile the cost to discover and develop drugs has increased exponentially and shows no sign of slowing down (Owens, 2007).

While the Swedish pharmaceutical industry is tentative, China has become a central actor in the global pharmaceutical market (Reuters, 2008). China is now the world’s second largest economy as well as the fastest growing (CIA, 2011). The development of drug discovery and biotechnology is of great importance to the modernisation and sustainable development of the country, due to its growing and aging population (Innovaro pharmalicensing, n.d.). With an accelerating speed of change, China is shifting from a low-technology manufacturing industry to a high-technological and knowledge-based society (Kinnaman, 2008). Chinese pharmaceutical companies today look for experience and know-how in production and R&D. Their strategy is to acquire new technologies and develop partnerships and strategic alliances with firms originating from countries with a strong base of knowledge and expertise. (Invest Sweden, 2008, 2010)

Collaboration through strategic alliances is often initiated because of earning pressure, intensified global competition and increased consolidation in industries. There is a strong potential to reduce costs, develop new products, penetrate additional markets, pre-empt competition and generate higher revenue. (Ybarra & Turk, 2009) These benefits are made possible because alliance partners have complementary resources through which they create synergies (Das & Teng, 1998a). Swedish companies seeking to enter the Chinese market
might have the technical know-how but lack the local knowledge and networks necessary to operate in the market - skills that Chinese pharmaceuticals possess. Bengtsson (1998) points out that companies often choose to enter a new market by partnering with a local player, especially in developing markets where language, laws and authorities may present barriers. Consequently there is a great potential for Swedish pharmaceutical firms to create strategic alliances with Chinese companies in order to alleviate R&D cost and reach the fast-growing market for increased sales. Nevertheless, the number of strategic alliances between Swedish and Chinese pharmaceuticals has not yet reached a significant level (Bramberg, 2011).

1.2 Problem Discussion

While strategic alliances provide great opportunities for businesses, they also tend to present significant risk. Research shows that strategic alliances are characterised by instability caused by uncertainty regarding a partner’s future behaviour and the absence of regulation to ensure compliance (Delerue, 2004). Das and Teng (1998a) have conducted extensive studies on risk and risk management in strategic alliances. They warn of the risk of partners with the ulterior motive to steal a resource and gain access to valuable research. (Das & Teng, 1998a) Similar risk was expressed in the pre-study\(^1\) based on three interviews with experts from the life-science industry\(^2\). They revealed that the majority of Swedish pharmaceutical companies hesitate to engage in strategic alliances with Chinese pharmaceuticals because of the risk of being imitated. A strong protection of intellectual property is consequently vital in the pharmaceutical industry (Rajamäki, 2008). However, the protection of intellectual property rights is generally weak in emerging markets (Luo, 2001), which might explain the low number of strategic alliances between Swedish and Chinese pharmaceuticals. Despite the present risk of being copied, there are Swedish forerunners in the pharmaceutical industry who have overcome the perceived risk\(^3\) and formed strategic alliances with Chinese pharmaceuticals.

\(^1\) For more detailed information see the methodology chapter, p. 16
\(^2\) Life science business sector includes pharmaceuticals, biotechnology and medical technology.
\(^3\) Perceived risk refers to the probabilities of unfavorable outcomes under conditions of uncertainties. (Das & Teng, 2004)
Until today, no studies have been conducted to evaluate the risks that Swedish pharmaceutical companies perceive and how these are bridged when collaborating with Chinese pharmaceuticals. Such a study is relevant from a practical point of view for Swedish actors in the pharmaceutical industry when considering collaboration with their Chinese counterparts. It would also provide organisations\(^4\) in the industry, advising pharmaceutical firms, a deeper understanding of the perceived risks and how to successfully manage them. The thesis consequently deals with the research question:

*How can Swedish pharmaceutical firms manage the perceived risk when collaborating with Chinese pharmaceuticals in strategic alliances?*

### 1.3 OBJECTIVE OF THE STUDY

The objective of this thesis is to explain how Swedish pharmaceuticals can manage the perceived risks when collaborating with Chinese pharmaceutical firms. In order to fulfil the objective we also examine what risks Swedish pharmaceuticals perceive in this collaboration.

### 1.3.1 DELIMITATION

A wide range of factors affects the success of collaborations between companies. However, the thesis aims to affect only those factors that are specific to the pharmaceutical industry in a Chinese context. This means that cultural factors, which have been a widely researched topic in business relationships, will not be included in the theoretical framework.

\(^4\) E.g. SwedenBio and Invest Sweden.
2 LITERATURE STUDY

The chapter presents the concept of strategic alliances, the perceived risks in strategic alliances and the main mechanisms to reduce perceived risks: trust and control. A discussion of the theoretical framework is finally explained.

2.1 STRATEGIC ALLIANCES

In a dynamic and changing business environment, strategic alliances are viewed as a quick and cheap path to obtain resources and advantages that a company does not already possess. A key aim is to combine the resources of two partners in an alliance. (Das & Teng, 1998a) A strategic alliance is broadly defined as forming a voluntary arrangement between two organisations, where practically all inter-firm arrangements are included (Borys & Jemison, 1989; Lei & Slocum, 1991; Stafford, 1994). This includes joint ventures, joint R&D arrangements, technology swapping, equity investment licensing, buyer-seller relationships and more. In a more narrow view strategic alliances are seen as firms tied to each other in a long-term interdependence with shared control. This includes joint ventures, joint R&D, joint marketing, and equity investments (Devlin & Bleackley, 1988; Yoshino & Rangan, 1995). This study adopts the broader view of strategic alliances since this corresponds with the forms of collaboration that are used in the Swedish pharmaceutical industry.

2.1.1 RISK PERCEPTION IN STRATEGIC ALLIANCES

Risk perception poses a significant factor in strategic alliances, where strategic decision-making is about assessing odds for successful performance (Das & Teng, 1998a). This refers to the uncertainty that alliance partners perceive about the future that might affect the performance of the alliance negatively (Das & Teng, 2001a). Ring and Van de Ven (1994) identify two dimensions of uncertainty: “Uncertainty whether the parties will be able to rely on trust” and “uncertainty regarding future state of nature”. Das and Teng (2001a) make a similar distinction between two types of risk, which they call relational risk and performance risk.

Relational risk concerns the cooperative relationship between two firms and the probability that a partner does not commit to the alliance. This includes relational problems such as opportunistic behaviour, where one partner acts to further its own interests at the expense of the other firm. It may be a withholding or distortion of information, a failure to fulfil
obligations or the appropriation of the partner firm’s technology or key personnel. (Das & Teng, 2001a)

Performance risk refers to factors that could obstruct the achievement of strategic objectives, given that the partner fully cooperates. One part of performance risk is a partner’s lack of competence or resources. Another refers to environmental factors such as intensified rivalry, new entrants, and demand fluctuations. (Das & Teng, 2001b) By engaging in strategic alliances firms are able to reduce the degree of performance risk faced by individual firms since cost and risk for i.e. R&D can be shared. While performance risk can be shared, relational risk is created in alliances. These two types of risks constitute the perception of risk in strategic alliances. (Das & Teng, 1998a)

2.2 MECHANISMS TO REDUCE PERCEIVED RISK

The relational and performance risk that firms in cooperation are exposed to basically concerns the predictability of the partner’s behaviour. There are two main mechanisms that make behaviour more predictable – control and trust (Gulati, 1995a). Das and Teng (2001b) point out that alliance partners need to rely on either trust or control, or a combination when risk is above an acceptable level. While trust can be seen as a more intrinsic source of lowering risk, control may be viewed as a more overt and active way of reducing risk. (Das & Teng, 2001b)

2.2.1 TRUST REDUCES PERCEIVED RISK

Researchers believe trust to be a key element in cooperative relationships (Das & Teng, 2001b). Trust promotes a greater exchange of information and facilitates interaction between firms, which is important for creating a successful alliance. (Gulati & Singh, 1998) While scholars interpret the concept of trust differently (Das & Teng, 1998b), there seems to be a basic mutual understanding of its main components. Researchers believe that trust is only necessary in risky situation and reduces the fear that a partner will behave opportunistically, which refers to Das and Teng’s thoughts about relational risk (Bradach & Eccles, 1989). This research uses Das and Teng’s (2001b) definitions, such as “positive expectations regarding the other in a risky situation”.

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Theorists have proposed that trust is not a one-dimensional phenomenon but should be divided into different types (Das & Teng, 2004). Nooteboom (1996) argues that trust concerns a partner’s intention to perform according to the agreement, goodwill trust, and his ability to do so, competence trust. Das and Teng (200b) make a similar distinction between goodwill trust and competence trust. Goodwill trust is about ‘dealing fairly and caring about its partner firm’s welfare in alliances’. The second dimension of trust, competence trust, refers to the “expectation of technically competent role performance” and deals with the expertise of the partner firm. Competence trust is based on resources such as capital, human resources, physical properties, market power and technology. (Das & Teng, 2001b)

Das and Teng (2004) explain that trust and perceived risk basically represent the same underlying concept of probability estimates, but with different psychological orientations, i.e. positive and negative mindsets. Low goodwill trust implies a perception of high relational risk, and vice versa. High competence trust implies low performance risk regarding a partner’s competence and resources.

2.2.1.1 Factors Enhancing Trust

Trust is indisputably vital in the creation of successful alliances, yet even so trust-enhancing activities in alliances have not been a widely researched subject. It is said that trust levels are not static in a relationship and need to be developed gradually. (Das & Teng, 1998b) The discussion about trust-enhancing factors is concentrated around the role of networks and communication.

Network

Firms may face uncertainties about which company to trust when setting out to create an alliance, especially when they have had no prior cooperative relationship. This is due to a lack of information and knowledge about a partner’s skills and reliability according to Inkpen (1998). One source of information that can lower uncertainties and thereby enhance trust between partners is the network that the company is connected to. (Gulati 1995b; Burt & Knez, 1995). Networks provide unique ways to achieve inside information about a firm’s capabilities and alliance history, information that is often not yet publicly available (Das & Teng, 2001b).
Gulati (1998) suggests that networks can offer information benefits through two means: direct and indirect connections. Direct connections refer to the direct cohesive ties that provide firms with highly valuable information (Gulati, 1998). This first-hand information is particularly effective because it is cheap and trustworthy (Granovetter, 1985). Indirect connections go beyond the immediate ties of firms and involve the firms’ common partners. In line with this, Granovetter (1985) points out that actors rely on “trusted informants” who have dealt with the potential partner and found him or her trustworthy. A firm may enter an alliance with a particular firm based on the fact that they already share a number of partners (Gulati, 1999). Trust is therefore more likely to develop between actors with mutual partners (Granovetter, 1985). Indirect connections suggest that firms have prior experiences of strategic alliances (Gulati, 1999). Gulati (1995a) suggests in his study that experience of prior alliances breeds trust between partners, which increases the likelihood of future collaborations. By participating in a strategic cooperation firms may develop experience in the forming of alliances, such as managerial skills (Gulati, 1999). Burt and Knez (1995) explain that indirect relationships make the cooperation more public, which increases a firm’s reputation as a trustworthy partner. This makes partners more careful about what cooperative image they display, which increases the probability of trust in their collaborative enterprises.

Indirect connections also refer to the notion of status, which entails a number of expected behaviours. It can provide powerful informational cues for actors about the likely behaviour of others in the network. (Gulati, 1998) Another aspect of networks is that trust can be enhanced if firms belong to the same professional organisation, same governance agency or do business with the same bank. This provides reason to believe that the partner has a certain level of competence, assets, and standards. For example, being listed in a well-known stock exchange suggests that the partner has a respectable standing. (Das & Teng, 2001b)

COMMUNICATION

When a trustworthy partner has been found and an alliance has formed, partners may still feel vulnerable and suspicious about each other’s motives. Firms might be reluctant to reveal true motives, business know-how, or technology. Typical fears and questions are, “Do they want to steal our technology?” or, “Are we giving away too many proprietary rights?” (Cullen et al., 2000) The authors therefore argue that it is important to initiate open communications as a signal of trust. Das and Teng (1998b) likewise state that sharing
unsolicited information can be a way of demonstrating goodwill and intimacy. This serves as a starting point for an information flow between alliance partners and sets in motion an increasing positive cycle of reciprocal trust. (Das & Teng, 1998b; Cullen et al., 2000) Furthermore, Madhok (1995) argues that ongoing interactions are crucial for keeping partners together. Only by communicating about their differences will partners be able to avoid fatal conflicts and develop a satisfactory working relationship. An open line of communication is the cornerstone of a trusting relationship. (Das & Teng, 1998b)

However, some researchers (Crossan & Inkpen, 1995) are critical toward the sharing of too much information. They warn that information and knowledge sharing may expose critical skills and knowledge to an alliance partner, which could lead to imitation and appropriation. (Crossan & Inkpen, 1995) Kumar and Seth (1998) suggest that the company can protect against the loss of competitively important knowledge by limiting the amount of information shared and the frequency of communication.

2.2.2 Control Reduces Perceived Risk

The second mechanism for reducing perceived risk is control. Compared to trust, control is more proactive and interventionist. Control in this context means to influence the behaviour of a partner through regulation. (Das & Teng, 2001b) They define control as “a regulatory process by which the elements of a system are made more predictable through the establishment of standards in the pursuit of some desired objective of state”. The purpose of control is to form activities in accordance with expectations so that the goal of the organisation can be achieved (Das & Teng, 1998b).

There is no generally used division of different types of control. However, literature suggests two approaches to control – external measure-based control and internal value-based control (Eisenhardt, 1985). Das and Teng (2001b) describe the first approach as formal control, which includes the establishment of formal contracts, procedures and policies through which desirable performance is monitored and rewarded. Gulati (1995a) suggests that a contract is an important mechanism through which a firm is protected from a partner’s opportunistic behaviour. The use of a contract reflects the risk the partner perceives in the alliance (Ring & Van de Ven, 1992).
Another way of controlling risk is to engage in protective activities, especially in strategic alliances involving technology resources. Although a free transfer of technology is not always necessary, the nature of cooperation makes it difficult to protect. A possible safeguard is, for example, a strong patent system. (Das & Teng, 1998a)

The second approach to control refers to the development of shared norms, values and goals among members so that appropriate behaviour is reinforced. This approach is called informal control. (Das & Teng, 2001b) Nooteboom (1996) argue that formal control inhibits flexibility because of difficulties in adapting to changing environments. The formation of detailed contracts can be costly and time consuming (Gulati, 1995a). Another implication of formal control is that alliance partners may feel that their competence is being questioned. The development of competence trust becomes less likely. (Das & Teng, 2001b)

2.3 The Relationship Between Trust, Control and Perceived Risk

The relationship between trust and control has been widely recognised among scholars (see for example, Inkpen & Curall, 1998; Ring & Van de Ven, 1992). Theorists (Das & Teng, 1998b; Bradach & Eccles, 1989) suggest that trust may serve as a substitute for control in relationships. This is because a high level of trust results in trusting action such as a reduction of formal control, less detailed agreements and greater communication and information exchange (Norman, 2002). When partners trust each other they will not rely upon detailed contracts to ensure predictability (Gulati, 1995a). Das and Teng (2001b) argue that formal control may undermine trust, because rules restrict the partners in their decision-making - “members’ goodwill is thrown in doubt” (Das & Teng, 2001b). Cullen et al. (2000) comes to a similar conclusion and point out that control mechanisms can be a negative signal, destroying the trust that has been built. However, Vlaar et al. (2007) argue that irrespective of the level of trust, a certain level of coordination and control is necessary to provide members of the alliance with a degree of certainty, stability and guidance.

Scholars (Ring & Van de Ven, 1992; Das & Teng, 2001b) also incorporate perceived risk into the relationship between trust and control. It is suggested that trusting actions are realised because less risk is perceived with highly trusted partners. The authors argue that a higher
perceived risk demands greater trust, when control levels are held constant. (Das & Teng, 2001b) Ring and Van de Ven (1992) observe that “the greater the ability to rely on trust, the less risk inherent in a transaction, ceteris paribus”. The same pattern is recognised for risk and control: higher perceived risk results in higher need of control, if trust levels remain the same (Das & Teng, 2001b). Ring and Van de Ven (1992) come to the same conclusion that alliance partners choose tighter control mechanisms when there is a lack of trust and a high-perceived risk. In other words, more control is the answer for lowering risk when it is difficult to rely on trust (Das & Teng, 2001b).

2.4 Theory Discussion

Engaging in cooperative relationships has become an important factor for achieving competitive advantages. However, strategic alliances are not unproblematic. (Barney & Hansen, 1994) Firms initially perceive high levels of risk that might obstruct the formation of alliances and destroy the cooperative relationship (see Figure 1). Perceived risk refers both to the risk that a partner firm acts opportunistically, that is in its own interest, and that strategic objectives are not met because of e.g. a lack of competence. (Das & Teng, 2001a, 2001b) As Figure 1 shows, alliance partners need to manage these hazards and actively seek to diminish the perceived risk by either relying on trust or control (Das & Teng, 2001a).

Trust is viewed as a process where the level of trust increases in the course of time if trust-enhancing activity is managed correctly. The networks a company is connected to determine the initial stage of trust, which is especially important in the beginning of the alliance creation since they lack knowledge of their partner. Direct and indirect connections give the company information that may indicate the trustworthiness of the partner. (Gulati, 1995b, 1998) Network is a structural phenomenon that provides a foundation of trust, from where the trust-enhancing process starts. Trust is then increased throughout the strategic alliance by communication between the partners. By initiating open communication and increase information sharing trust is developed (Cullen et al., 2000). Trust and control are viewed as dependent and to each other replaceable variables, which explains the need of trust when full control is not possible. Similarly there is a need for control when full trust is not reached. (Das & Teng, 2001b)
Figure 1: Model interpreted from the literature study
3 Methodology

This chapter presents the research approach of the study, followed by an explanation of the pre-study and theoretical framework. Theoretical variables are operationalized, after which we describe the data collection and discuss criticism to the research.

3.1 Research Approach

This study takes a deductive approach, where existing theories about perceived risk, trust and control are used to collect and process empirical data. Since the life-science industry and its collaborations are complex, the purpose is to interpret how it functions in reality rather than making claims of a guaranteed truth. This is conducted by interviewing employees at three Swedish pharmaceutical companies involved in collaborations with Chinese pharmaceutical firms, complemented with three industry experts. A qualitative method is used since the research is primarily based on empirical data and aims to identify and explain the workings of the companies. This method enables us to gain a deeper understanding of the reality by asking open-ended questions to the respondents.

3.2 Pre-Study

Since the life-science industry is complex we conducted a pre-study to capture an interesting problem. We talked to several people in different organisations and businesses, all with connections to collaborations in the life-science industry, many of them with connections to China. Apart from talking with these respondents by phone, face-to-face interviews were conducted with experts from two organisations. First, we met the head of life sciences and a senior investment advisor in life sciences at the governmental organisation Invest Sweden. Second, we interviewed a project manager at SwedenBIO, the only national organisation for all life-science companies in Sweden. Numerous respondents brought up risk and uncertainty as crucial factors to explain the lack of cooperative relationships between Swedish and Chinese companies. Even so, most people agreed that there is a great potential. After exploring the area we approached the research explanatory, in an attempt to explain what risks Swedish pharmaceuticals perceive and how the risks can be managed.
3.3 Theoretical Framework

The pre-study guided us to focus on theories of risk and risk management in strategic alliances. From an extensive literature study, theories of perceived risk, trust, and control in strategic alliances were identified as relevant for our objective. These parts of risk management have been widely examined by scholars since the 1950s. Das and Teng and Ring and Van de Ven have primarily developed theory that treats all three elements simultaneously. Their works constitute the theoretical framework used in this thesis, along with a number of complementary critical voices and the writings of other theorists. Since the theories of risk in strategic alliances are general for various collaboration types, industries and countries, they are applicable on Swedish and Chinese collaborations in the pharmaceutical industry.

Another theory that treats risk in strategic alliances is the transaction cost theory developed by Williamson. It focuses on appropriation concerns in collaborations, which originate from contracting hazards and behavioural uncertainty at the time of the alliance formation. An important shortcoming with transaction cost theory is that the approach is static. It only concerns the discrete, independent activities involved at the time of the alliance formation. (Gulati, 1998) Because the social structure resulting from prior interactions between partners is an important part of the decision to create a strategic alliance, we have chosen not to include the transaction cost theory.

3.4 Operationalization of Variables

In order to analyse how Swedish pharmaceutical companies can manage risks when collaborating with Chinese, we operationalize the variables of perceived risk, trust and control. We aim to understand the collaboration processes that the respondents have been involved in when collecting data. This implies an understanding of how and why the alliance was initiated, milestones and problems in the relationship, the outcome of the alliance as well as future ambitions and plans.

Perceived Risk

Perceived risk is the first variable to be identified in the interviews. This research uses the theoretical distinction between performance risk and relational risk. Relational risk deals with the probability that the partner firm does not commit itself to the alliance, while performance
risk includes factors that may obstruct the performance, given that the partner firm fully cooperates. Questions regarding perceived risk (see theme 1, appendix 1 and 2) concern the factors they believe could overturn the alliance and how these changed throughout the relationship. In order to capture the essence of risk inherent with Chinese firms we asked the respondents to describe how risk differed from other strategic alliances. Follow-up questions were asked to clarify if the respondents’ risk perceptions were related to performance risk or relational risk. Examples of such questions are whether the risk regards opportunistic behaviour of the partner firm or its competence. We then continued to ask open questions about how the respondents tried to manage their perceived risks.

**Trust**

Our research uses the definition of trust stated by Das and Teng (2001b): “positive expectations regarding the other in a risky situation”. To find out how trust was developed between the firms, questions concerning their relationships and expectations were asked (see theme 2, appendix 1 and 2). We found out how the structural part of trust looks like through asking how the strategic alliance was initiated, why the particular partner was chosen, and what connections the companies had to each other before the alliance formation. This concerns trust through networks. To see the process of enhanced trust, questions about the partner’s communication was asked. These deal with the frequency of contact, how the partners communicated, and how the contact developed throughout the relationship.

**Control**

Since trust and control are argued to be parallel concepts, the manifestation of trust among alliance partners is tied to the control mechanism. Das and Teng (1998) suggest that the development of trust is the opposite of tightening control. We use the following definition of control: “a regulatory process by which the elements of a system are made more predictable through the establishment of standards in the pursuit of some desired objective of state” (Das & Teng, 2001b). Because the subject of control is rather confidential, we asked questions related to control in the end of the interview. In order to understand how control is used we tried to identify how detailed the contracts are and how the firms monitor their behaviour with for instance weekly reports (see theme 3, in appendix 1 and 2). We asked the respondents to compare the control used with Chinese partners to other alliance partners.
3.5 Data Collection

3.5.1 Primary Data

As there is almost no documentation in the field of Swedish pharmaceuticals collaborating with Chinese companies, the primary choice of data collection has been interviews. The scarcity of documentation can be explained by the fact that Swedish collaboration with Chinese pharmaceuticals is a new phenomenon, but also because of the high level of confidentiality. The Swedish pharmaceutical reputation may be damaged if Chinese companies would find out what risks Swedish companies perceive in their collaboration. Because of the confidential reason we conducted deep interviews based on open-ended questions.

In order to create a trustful environment, six of nine interviews were performed face-to-face while the other three were conducted by phone. The respondents tended to be more time-pressed when they were interviewed on the phone. Nevertheless, phone interviews were a good complement since they were time efficient. Before each interview we informed the respondent about the objective of the study and the main themes. An interview guide based on the chosen theories was used, to assure that we received useful information. Semi-structured interviews enabled us to adapt questions to the interview situation and capture what each respondent found important. The freedom of conversation gave us more in-depth information.

We sent the questions to one of the respondents, who asked for this in advance in order to prepare for the interview.

We tried to make the interviews as comfortable as possible because risk in an ongoing collaboration is a sensitive and confidential subject for the companies. Consequently, one interview was taped. By not taping we risked losing important comments or misinterpret sayings. To avoid misunderstandings and assure the confidentiality level the respondents checked the interview scripts afterward. The respondents were given the choice to stay anonymous before the interview, which allowed us to take part of valuable and sensitive facts and opinions that we would not have received otherwise.
THE RESPONDENTS

Our research is based on three Swedish pharmaceutical companies, all with different collaborations with Chinese companies. The Swedish firms have different conditions, including size, products and goals. Due to the high confidentiality all company names will be fictive. The first Swedish company, referred to as Alpha, aims to develop a drug jointly with the Chinese partner. The second firm, Beta, has distributor agreements with two Chinese partners. The third Swedish pharmaceutical company, Gamma, collaborates through outsourcing of contract research. Two of the companies were chosen based on recommendations from industry experts, while one of the companies was selected through browsing the Internet. Regardless of how they were selected, all companies had to meet the same criteria. They had to be active in drug development, be situated in Sweden and have an ongoing collaboration with a Chinese company.

First contact was always made by phone to increase interest, followed by e-mail to confirm. We interviewed two people at each company to obtain two perspectives and to assure that we understood the collaboration processes in an objective way. This gave us valuable information and opinions. The respondents were chosen based on one single criterion: the two most involved employees in the collaborations available. At each company one of the two persons happened to be born in China. Because of anonymity the respondents at the companies will be referred to Alpha 1, Alpha 2, Beta 1, Beta 2, Gamma 1 and Gamma 2. Number 1 represents respondents born in Sweden and number 2 represents respondents born in China. Since respondents from the companies may have a tendency to frame their own company in an overtly positive way we also interviewed three industry experts, which increased the objectivity of the study. Jack Yu, Frédéric Cho and Björn Ericsson all have a long experience of the pharmaceutical industry, China and collaborations.

3.5.2 SECONDARY DATA

Besides interviews we used secondary data to collect information about the Swedish and Chinese pharmaceutical industries, collaboration types and risks involved in collaborations. The secondary data was used as a foundation of the research. The sources for the secondary data consist of three types: governmental institutions or organisations (e.g. Invest Sweden), industry organisations (e.g. SwedenBIO) and sources on the Internet (e.g. REUTERS). The data from the governmental organisations plays an important role because it includes
information about goals and work on national level. Data from industry organisations provides good descriptions of the Swedish pharmaceutical industry and its implications. Internet sources might show the current picture and provide up-to-date information about the subject.

3.6 CRITICISM TO THE RESEARCH

The subjectivity can be questioned in the research design because the authors have their own view of the world and perception of risks. This subjectivity cannot be ignored when interpreting a respondent’s answers. To reduce this affect no leading questions were asked. Furthermore, the respondents validated our interpretations of the interviews afterward to make sure we had understood their comments correctly.

Due to the confidentiality issue, it is unavoidable that the respondents might limit their answers and understate the perceived risks involved when collaborating. As noted they may also picture the company and themselves in an overtly positive way during the interviews. It is therefore important to consider what the respondents did not mention.

A final criticism to the research design is the small number of respondents. However, since generalising is not the aim of this study, a larger number of respondents would not have provided any help in generalising the study to a population.
4 Empirical Study

This chapter introduces the respondents at each company and the experts. Results from the conducted interviews are subsequently presented in themes of perceived risk, trust, control and “testing the waters”.

4.1 Introduction of the Respondents

The Companies

Alpha is a medium-sized pharmaceutical company within drug discovery and development with 150 employees. Their research is focused on the development of a specific enzyme inhibitor. Research collaboration was initiated some years ago with a Chinese company for the purpose of jointly developing a new drug to combat a widespread heart disease. Advantages are derived from synergies of Alpha’s biology resources and the partner’s chemistry resources. The Chinese partner will receive the territorial right for China while Alpha retains the right for the rest of the world. Two employees who both have a long experience in company Alpha were interviewed. Alpha 1 was previously a researcher but has since the collaboration started been employed as the project manager. Alpha 2, with Chinese origin, handles Alpha’s business development in Asia. He moved to Sweden for his PhD study and has been working at Alpha ever since.

Beta is a small biotechnology firm of 30 employees. The company has commercialised a kit for analysis used by pharmaceutical companies and academia. The company currently has distributor agreements with two Chinese partners since three years back. Beta 1 is employed as the sales manager and has been working at the company for five years. She is also the most involved person in the collaborations. Beta 2 has a Chinese background and is temporarily employed at Beta as a technical expert in order to facilitate the communication with their Chinese partners. She moved to Sweden five years ago to take her PhD.

Gamma is a small pharmaceutical company with 11 employees focusing on pharmaceutical research, especially medical chemistry. Gamma initiated research collaborations six years ago with two Chinese companies for the outsourcing of contract research. Gamma has an intimate relationship with the first partner while the second relationship is less intimate and concerns small projects. Gamma 1 is the research manager and responsible for the Chinese collaborations. Gamma 2 has Chinese origin and is a researcher at Gamma.
THE EXPERTS

**Jack Yu** is the Vice President at Health Care division at Sensa Corporate Advisors. The company supports Scandinavian life-science companies to start and expand their business in Asia, as well as introduce investments to the life-science industry in Scandinavia. Yu is moreover the Chairman of the Chinese Bio-Pharmaceutical Association in Sweden (CBAS). He holds a PhD from Uppsala University and an EMBA from Copenhagen Business School and the Swedish Trade Council. Yu has acted as the Export Manager and as the International Regional Director at two different pharmaceutical companies during more than 15 years, both in Europe and Asia.

**Björn Ericsson** is an Associate Consultant at Sensa Corporate Advisors and a colleague of Jack Yu. Ericsson has many years of experience in senior positions in the pharmaceutical industry, particularly at AstraZeneca. For many years he has worked as the Regional Marketing Manager at AstraZeneca in Asia and further as CEO for East Asia, CEO for Hong Kong and finally CEO for China. Ericsson has a B Sc from the University of Gothenburg.

**Frédéric Cho** is Executive Advisor at Handelsbanken Capital Markets, as well as the Vice Chairman for the Sweden-China Trade Council. Cho has many years of experience in the financial sector with focus on the pharmaceutical industry. He has worked for AstraZeneca in China when the company initially entered the Chinese market by a joint venture. He then continued to work at Handelsbanken in China to advise European life-science companies doing business in China. Cho studied at Stockholm University and at Peking University.

4.2 RISK PERCEPTION

THE RISK OF BEING IMITATED

The drug development process is extensive and the cost of research covers more than 90% of a drug’s price. Consequently there is a strong incentive to copy products according to Gamma 1. Nevertheless, Yu does not put too much emphasis on the copying activity in China and says that companies with a weak IP can be copied anywhere. Even so he says that the IP protection is a critical issue in China. The risk is greater for established pharmaceutical products because they hold larger market shares and business potentials, Yu explains. Even if the risk is greater for larger firms, all experts agree that the consequences of being copied are worse for smaller
companies. Larger companies have the position and resources to take action against copying attempts, which small firms lack.

Gamma 1 is not too concerned about this risk and explains that the company’s early phase of development function as a form of protection. Even if a partner would imitate the substance they would have nothing to introduce to the market, he states. As the drug development proceeds, other companies take over (Gamma 1). Neither his colleague, Gamma 2, is worried about products being copied by partners, because she believes it would be too risky for them to engage in a business where they lack essential knowledge in such an early phase. Copying or leaking confidential information would destroy the partner’s reputation, which would impact their future business. “Why would they do that?” she asks and points out that the partner’s business has been running well and is growing.

Both Beta 1 and 2 believe that the company’s product is not easily imitated because it is technically advanced. Beta 2 says that copies of products often have reduced quality and the market usually demands the original products. If Beta’s product would be copied, the consequences will be limited to the Chinese market (Beta 1).

“You think more of the risks” when it comes to collaborating with Chinese firms, Alpha 1 states. However, he did not see a risk that the partner firm would appropriate vital competence but instead highlighted risk on an individual level. He expressed the concern that employees working in the project in China would leave and bring valuable knowledge to a competitor, which potentially could apply for a patent before Alpha does so. It is impossible to protect against such situations, nevertheless this risk is also present in in-house projects and when collaborating with European and American companies (Alpha 1).

**The Risk of Failure**

All except one respondent are confident that their partner has the resources and competence necessary to carry out the project. However, Gamma 2 is worrying about if the Chinese partner firm actually is capable of doing what is agreed upon. She expresses the dilemma that the Chinese partner wants to keep Gamma pleased and does not ask for help when problems arise. Instead, the chemists at the Chinese company work day and night to find the solution by themselves. She says, “I worry that they say everything is fine, but in the end they don’t finish in time or cannot do it”. However, she adds that this concern is her own and not necessarily
Yu describes that risk also arises with changes in the partner firm and the Chinese market. The firm’s position in the market place could be impacted by key personnel leaving the partner firm or by governmental changes. In the same way, Cho points out that the “rules of the game” constantly change in China. The Chinese government can suddenly modify laws and rules that affect the pharmaceutical companies. Alpha 1 explains that the government has recently adjusted the patent law in which Alpha was forced to change its workings towards Chinese pharmaceuticals and CRO. The situation today is more risky for Alpha.

4.3 TRUST REDUCES PERCEIVED RISK
Cooperation cannot function without trust, regardless of whether the alliance concerns licensing or R&D (Alpha 1). All respondents suggest that trust is extremely important when collaborating with Chinese partners. Ericsson describes that trust is especially important in the initial phase of the collaboration. Before trust has been built up, there is no point in discussing agreements (Ericsson). Even though Yu finds it very important to build trust, he explains that Swedish companies should be aware that trust is not as respected in China as in Sweden. Swedish firms have higher levels of trust and may be somewhat naïve in his opinion.

4.3.1 NETWORK
In order to rely on trust, Ericsson points out the importance of maintaining close connections to the Chinese partner, since it ensures the partner’s good behaviour. Gamma came in contact with its Chinese partner through an employee, Gamma 2, who is from China. She had personal contact with the owners of the Chinese partner, which facilitated the development of a close relationship. (Gamma 1) Gamma 1 and Gamma 2 knew that the co-founders had previously worked in America and Europe, which implied they knew the “Western rules” and “how to play the game”. This fact made them more trustworthy (Gamma 2). Gamma 1 states that without Gamma 2’s relationship to the partner, the alliance would not have taken place. He further argues that the close relationship between him and Gamma 2, and between Gamma

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5 The adjustment by the Chinese government means that the first patent application of a substance, developed in total or partly in China, must first be submitted in China. Thereby it becomes the priority application. In many cases, firms may wish to enter China after Europe and US. (Alpha 1)
2 and the Chinese partner ensured the partner’s good behaviour. “It would cost them a lot, on a personal level, if they let us down,” he says.

Similar to Gamma, Alpha also had a Chinese employee involved in the cooperation and Alpha 1 doubts whether the partnership would have come about without his presence. The company found a suitable partner through his contacts in China (Alpha 1). The fact that the partner firm had a consultant with connections to Sweden made it feel even more trustworthy, Alpha 1 adds. Furthermore, both Alpha and its Chinese partner had previous collaborations with the same Western pharmaceutical company. (Alpha 1) Alpha 1 states that a network linked the two together.

The companies that have the most success in cooperating with Chinese partners retain a pool of extensive experience of collaborations with Chinese pharmaceuticals, Cho argues. He also suggests that valuable knowledge can be collected from prior alliances with companies from other developing markets. Gamma always investigates what prior alliances the potential partners have had (Gamma 1). The risk of opportunistic behaviour was not perceived as high because the Chinese partner had been tested by other companies, Gamma 2 describes. She also states that networks affect a company’s reputation, which may give an indication whether a partner will follow the rules and deliver. “By recommendation from other collaborations, we formed a picture of the company’s trustworthiness” (Gamma 2). Gamma further uses its network to keep track on its partner’s performance by talking to contacts with insight in the company (Gamma 2). “If you want to stay in business you will behave, otherwise you are out,” Gamma 2 states. Yu likewise explains the value of keeping track of the partner firm during the collaboration process. He adds that companies should be aware that the information they receive directly from a partner is not always true. Information should therefore preferably be verified by a third part (Yu).

Contacting a third part, such as the Swedish Trade Council or banks, is another strategy aside from finding trustworthy partners through existing and prior relationships. (Cho) This strategy was used by Beta who received five suggested companies from the Swedish Trade Council. After having been introduced to the Chinese firms by the Swedish Trade Council, Beta obtained valuable information from Swedish companies that had prior experience with some of these companies. (Beta 1) Beta 1 explains that these two factors made their choice safer. Alpha 1 also points out the fact that their Chinese partner was listed on the Chinese stock
exchange, which gave them access to public information.

**4.3.2 Communication**

All three companies point out language as a barrier when communicating with a Chinese partner. In the initial phase Beta had to go through intermediaries when communicating with its Chinese partner because of the lack of language skills (Beta 1). Beta 1 explains that not being able to communicate directly created a gap between the partners. To overcome miscommunication, Beta temporarily employed Beta 2, a Chinese PhD student (Beta 1). Alpha 1 expresses the value of having a Chinese employee who understands implicit messages and the informal talk after meetings have ended. Gamma 1 likewise describes how their Chinese employee, Gamma 2, always was present when communicating with their Chinese partner. He explains that a polite “yes” in China might mean “we’re listening” instead of “we understand”, which Gamma 2 was able to grasp.

When language barriers were overcome, Gamma shared the information required, but never more than needed (Gamma 2). “We know what they need and they never ask for more,” she says. Gamma 1 states that initial communication with new partners is limited by omitting details. He makes an analogy with a dinner recipe where the actual dish is unspecified and information about the type of meat and spices used are left out. As long as “the chef is good at cooking the meal will be good”, he says. However, the Chinese partners often reacted negatively but accepted their workings (Gamma 1). “We want to see if there are right conditions for collaboration,” Gamma 1 explains.

Alpha 1 never hesitated to provide the information the Chinese partner would need for the process. However, Alpha 1 indicated that the company did not communicate ideas in the same manner as in other collaborations. Ericsson says that sharing sensitive information can be inevitable in cooperation, but should not be a problem if trust has been built. By sharing information, trust is improved (Ericsson).

Beta 1 makes the conclusion that closer and more frequent contact with their Chinese partner resulted in a higher level of trust. Closer contact made the partner prioritise Beta’s product, she argues. Her colleague, Beta 2, says that “Customers are like babies, they want attention”. Beta 1 further argues that it is important to be present in China. Alpha 1 similarly highlights
the importance of visiting the partner company and says “Trust was built through physically meeting each other 2-3 times every year”. The expert, Ericsson, explains that face-to-face meeting, dinner, and lunch are important when collaborating with Chinese partners. He suggests that monthly contact is reasonable in the initial phase, either personally or through third parties.

4.4 Control reduces perceived risk

Yu explains that firms may find it difficult to know what to include in the agreement, due to a lack of information in the initial phase. Some problems must be dealt with as they arise (Yu). According to Gamma 2, one should use strict confidential agreements when collaborating with Chinese partners. Gamma 1 likewise describes the importance of writing very specific contracts with a well-defined confidential part. However, it is not always clear how to define, for example, indemnity in the contract (Gamma 1). He adds that agreements are simply paper and refers to other factors, such as a close relationship, that an agreement cannot replace.

Yu stresses the value of specifying how to exit the market and protect the company in case of a drawback. Unlike Gamma, Beta signed contracts based on the company’s standard agreements with their Chinese partner (Beta 1). Beta 1 explains that control was achieved by a short term of notice. Firms need to be specific about numbers and time limits in agreements, Ericsson states. Gamma 2 explains that some things in research need to be controlled as tightly as possible. She says, “It is about controlling if they keep the time line and how we can push them”. To keep track of the partner firm’s progress Alpha 1 received biweekly reports from the chemistry manager. Beta 1 also kept biweekly follow-ups of sales targets included in the agreement.

Ericsson states that confidential agreements are important, but not sufficient when collaborating with Chinese partners. Patents also provide a central safeguard. A first step toward protection against copies is to have the patent approved in China (Yu). By patenting the substance at an early stage of development, Alpha has been able to alleviate some of the risks perceived. To patent in an early phase can lead to a loss of sales revenue when the patent ends, because the protection lasts a shorter time when the product is for sale. In the pharmaceutical industry sales revenues can account for $1 billion a year. (Alpha 1) Alpha 1
explains that patent applications are made in a later phase when collaborating with a larger company because it implies less risk. The longer Alpha waits with patenting a substance, the greater risk that someone else applies for a patent that could complicate Alpha’s patent process. However, the probability of applying for a good patent will increase when more knowledge about the innovation has been obtained.

Cho argues that both partners need to have realistic expectations of what can be achieved in the alliance. Ericsson likewise states that Chinese companies often underestimate the time needed to introduce pharmaceutical products to the market. The partners need to develop a mutual understanding of what both sides want from the collaboration, Ericsson adds. Alpha 2 describes that the Chinese partner must establish the same consensus as Alpha for a collaboration to be successful. Alpha 1 argues that it is impossible to control everything: companies also need to take a chance. Gamma 1 explains that there must be a “catch” in all relationships, that is, reasons why the partner should not behave opportunistically or disappoint in another way.

4.5 Testing the Waters

Alpha 1 describes that the company was willing to collaborate with their Chinese partner because the alliance did not involve Alpha’s core project. The current project of drug development was not highly prioritised by Alpha and would have been closed down if the resources necessary for the project were not found. Yu, similarly, recommends that companies spend time together before signing contracts. This includes testing the partner’s competence to make sure that the partner is trustworthy both on the operational and financial level (Yu).
5 Analysis

This chapter analyses the empirical data from the interviews based on the basis of the literature study. The data are presented in similar themes as in the previous chapter: risk perception, trust, control and “testing the waters”. Network and communication are vital trust-enhancing factors.

5.1 Risk Perception

The pharmaceutical industry in China is up-and-coming, yet not as developed as other industries. Facing the specific industry characteristics, Swedish pharmaceutical companies need to understand the risks involved in collaborations with Chinese pharmaceutical companies. It is important to note that different types of strategic alliances imply different conditions and degrees of perceived risks.

Risk is by Das and Teng (2001a) categorised into relational and performance risk. Relational risk refers to the risk that an alliance partner acts in self-interest rather than in the interest of the alliance. When it comes to strategic alliances with Chinese pharmaceuticals, relational risk often relates to copying activities. The firm respondents are aware of the risk of being copied, but do not state the risk as high. The reasons include the early phase of development, the partner’s reputation and technically advanced products. The perceived relational risk may therefore be interpreted as low. Alpha 1, however, indicates a relational risk on an individual level. He refers to the risk that an employee of the partner firm brings valuable knowledge to a competitor. On a company level however he stresses the perceived goodwill.

The second type of risk defined by Das and Teng (2001b) is performance risk, which includes factors that affect the outcome of the alliance negatively, given that the partner fully cooperates. Almost all respondents are confident that their partners have the in-house capabilities needed to perform according to the objectives. The performance risk concerning the partner’s resources is therefore thought to be low. Gamma 2 on the other hand expressed personal reservations regarding the partner’s capabilities, which indicates that she sees a slightly higher performance risk than the other respondents.

It needs to be remembered that performance risk also refers to the changing environment that could affect the collaboration negatively. Some interviewees describe the dynamic surroundings in China, and Alpha 1 provides an example of a new governmental regulation
that complicates Alpha’s collaboration with Chinese pharmaceuticals. This performance risk can be explained by the early phase of development of the Chinese pharmaceutical industry, and the country’s aim to be a main player in the world. Just like the dynamic changes in the Chinese market might affect the success of the cooperation, Yu also emphasises changes inside the firm. These changes could be key personnel leaving the company. Together with the relatively low perceived risk of a lack of competence and resources, the performance risk is perceived to be moderate.

5.2 Trust reduces perceived risk

Researchers find trust to be a key factor in successful cooperation, a point where all respondents agree when it comes to collaborating with Chinese pharmaceuticals. One of the experts, Yu, believes that Swedish pharmaceuticals may be naïve when it comes to the intentions of their Chinese partners. He states that trust should not be taken for granted, especially not at the beginning of the collaboration. This shows how important trust-building activities are when engaging in strategic alliances with Chinese firms.

5.2.1 Network

A certain level of trust may already have been developed before the actual decision of collaboration takes place. This is because firms have diverse connections to companies, which generate different degrees of reliability. All strategic alliances in our study seem to derive from their networks, and some respondents express the importance of networks in the initial phase of the process. This is explained by Inkpen (1998), who suggests that firms face uncertainty about which firm to trust in the beginning, due to a lack of information.

Out of the three investigated collaborations, Gamma had the closest and the most embedded connection to one of its Chinese partners. The personal component through their Chinese employee provided a strong sense of trust because the close relationship ensured highly reliable information. Gamma 1 explains, just like Ericsson, that direct connection will ensure the partner’s behaviour because, for example, opportunistic behaviour would mean a great personal cost. This is mentioned in the theory where perceived relational risk, that is opportunistic behaviour, is reduced by goodwill trust, which from our study derives especially
from close relationships.

The theory of indirect connections is particularly consistent with the case of Alpha. Alpha found a partner through their Chinese employee’s contacts. Trust seemed to develop based on the fact that they shared certain factors, such as Swedish and Chinese connections and one common partner. Just like Gulati (1999) states, firms may enter a collaboration based on common partners. The mutual factors consequently provided a foundation for trust to develop between Alpha and the Chinese pharmaceutical firm. The fact that other companies had engaged in business with the Chinese partner ensured a certain degree of trust, Gamma 1 explains. This is related to prior alliance experiences, which Cho argues can be vital in alliances. Theory suggests that a company may develop managerial skills of alliance experience, which can increase the probability of a successful partnership (Gulati, 1999). As Granovetter (1985) points out, Gamma seemed to rely on information from companies that have dealt with the potential partner. This is linked to the firm’s reputation, which Gamma 2 said provided information of whether or not the partner would follow rules and deliver according to the agreement. Gulati (1998) names this source of information status and likewise describes that it can be a way of predicting a partner’s behaviour. As Burt and Knez (1995) explain network makes the performance and behaviour of the partner firm more public, which might function as a safeguard against unwanted behaviour. This can be compared to Gamma 2’s description of their use of network as a way of keeping track of their partner.

A third part, for example the Swedish Trade Council, could also be of help when searching for a partner, like in Beta’s case. This can be compared to the trust enhanced by belonging to the same professional organisation. The Swedish Trade Council may serve as an objective way of receiving trustworthy information about potential partners. Yu states that it is important to have the information received from a partner checked by a third part. The fact that Alpha’s partner was listed on the Chinese stock exchange was another trust-breeding factor.

5.2.2 Communication

Communication between partners in a strategic alliance is claimed by theorists to be vital for developing trust. Especially important is the initial communication, which can serve as a
starting point for trust to grow reciprocally. However, all respondents from the pharmaceutical companies identify language as a barrier for proper communication. Beta had to go through intermediates when contacting their partner, which created a gap between the firms. This type of communication barrier could prevent a trust-breeding cycle from taking place because of misunderstandings and miscommunication. Acts of trust may be interpreted incorrectly due to different communication styles between the partners. We noticed from our study that it is difficult to develop a sense of trust if language barrier is not overcome. As a result, Alpha, Beta and Gamma all have a Chinese employee present when communicating with the Chinese partner.

When Alpha and Gamma had overcome the language barrier, they both provided the information needed in the process to their partner. Remembering theory, trust occurs when partners share more than required for the project. The acts of these companies can therefore not be seen as acts of trust. Furthermore, Gamma 1 explains that potential partners were not provided with detailed information because Gamma first wanted to identify the most reliable partner. Alpha, in a similar way, restricted its communication with the Chinese partner by not sharing new ideas. This indicates a sense of relational risk perceived by the companies, and thus a lower goodwill trust.

Worth noting are the industry-specific factors that characterise the pharmaceutical industry, such as critical science and high technology. The theory of communication as a trust-enhancing activity must, because of these factors, be countered by critical voices. Crossan and Inkpen (1995) suggest that companies may lose competitive advantages and knowledge when communicating sensitive information to an alliance partner. The hesitance in sharing more information than required and withholding new ideas can therefore be seen as following the “rules of the game”, not necessarily as a sign of mistrust. As Gamma 2 explains: “We know what they need, and they never ask for more”.

More than trust breeding through the sharing of knowledge, several respondents stressed the importance of ongoing communication with the Chinese partner. As contact between Beta and the Chinese firm increased, so did trust. This made the Chinese partner commit even more and prioritise Beta’s product. This is consistent with Madhok (1995), who argues that continuous interactions are crucial in keeping partners together. The respondents also argue that being present in China and dealing with issues face-to-face are vital for the creation of a
trustful collaboration with Chinese partners. This corresponds to the view held by Cullen et al. (2000), which was not included in the theory framework. They suggest that transnational alliance partners should invest in direct communication to overcome national and organisational differences. Retreating into the home company inhibits the speed of trust development. (Cullen et al., 2000)

5.3 Control Reduces Perceived Risk

Several respondents believe that control through signed contracts is central when collaborating with Chinese partners. Gamma 2 stresses the importance of using strict confidential agreements. Beta, however, used a standard agreement. Theory suggests that the contract reflects the risk perceived in an alliance, which implies that Gamma perceived greater risk than Beta. Even so it is important to remember that different types of collaboration involve different degrees of risk. The purpose of contracts is to make the partner’s behaviour more predictable. However, Gamma expresses the difficulty in knowing what to include because of a lack of information when the agreements are formed. To make sure that the Chinese partner would perform according to goals and timelines, Alpha and Beta received biweekly reports.

Another central safeguard in strategic alliances, according to several respondents, is the patent. Das and Teng (1998a) state that a patent system can be necessary, because cooperation makes it hard to protect valuable knowledge. Alpha alleviated perceived risk by patenting the substance in question at an early stage in the process. The risk that a competitor would apply for a patent that would obstruct Alpha’s process increased the longer Alpha waited with the patent. This indicates that Alpha perceived a relational risk with the Chinese partners, which the company removed by the patent.

When it comes to the softer part of control, informal control, two of the experts emphasize mutual understanding between the partners. It is especially important to have realistic expectations of what can be achieved in the alliance. As theory suggests, shared goals and norms will ensure appropriate behaviour. Gamma 1 also believes that there has to be a “catch” in the relationship. He refers to the personal link between the company and the Chinese partner, which ensures that they will not behave opportunistically.
5.4 Testing the Waters

One approach to overcome perceived risks in strategic alliances that was not covered in the theory framework appeared in the interviews – the so called “testing the waters” approach. This was used by Alpha, which reduced perceived risks through creating a partnership that did not involve their core business. The project would have been closed if the Chinese partner with the right resources were not found. This implies that the consequences of being copied would not be severe for Alpha, which would explain their low perceived relational risk. In a similar way, Yu recommends that companies spend time with their partner to test their competence before signing an agreement. Looking at the theory of risk management not included in the theory framework, this procedure is suggested by Gulati (1995a) and Ring and Van de Ven (1994). Gulati (1995a) explains that firms may initially engage in a loosely organised small-scale project to overcome risk and thereafter build trust. Ring and Van de Ven (1994) also suggest that a relationship between new partners often begins with small, informal deals that require little reliance on trust because they involve little risk. As the collaboration develops over time, and the partner firm meets basic norms, trust will evolve and partners might engage in a more risky project.
6 Final Discussion of Risk Management

This chapter summarises the findings of the study. The sequence of risk management and the key role of the Chinese employee are clarified. The chapter concludes with suggestions of further studies.

A company might perceive high levels of risk before entering a strategic alliance with another firm because of uncertainties about the partner's intention and capabilities. The investigated companies in this study did not perceive high relational or performance risk, which could be a result of successful risk management. Theory suggests that perceived risk can be bridged by either relying on trust or control.

From our study we find that companies aiming to create a partnership first try to identify what degree of trust that exists or might be developed with a potential firm, before the actual decision of cooperation has been taken. This is made by collecting information through the company’s network. The employees with Chinese background provide important connections through their network, which made it easier for the company to find a proper partner in China.

We observe that a direct connection to the Chinese partner increase the level of trust, especially in the initial stage. Direct connections ensure the partner’s behaviour because misbehaviour will damage their personal relationship. Further, indirect connections between two firms seem to be important because common partners link the companies together which is thought to reduce the relational risk, i.e. the risk of opportunistic behaviour. The network that the company is connected to consequently builds a foundation of trust.

Although trust through networks reduces some perceived risk there are remaining risks that need to be addressed. Control is needed when there is a high perceived risk and the levels of trust are held constant. The companies therefore employ control mechanisms adapted to the level of trust evolved from the network. Logically, less embedded connections provide lower levels of trust, which requires higher level of control mechanisms. However, this pattern is vague in our study. This can be explained by the different forms of collaboration, which implies different degrees of perceived risks. Our study indicates that confidential agreements and patents are vital to manage perceived risk when collaborating with Chinese partners.

Moreover, companies aiming to create strategic alliances with Chinese pharmaceuticals may begin the partnership with a “testing the waters” approach to manage perceived risks. The negative consequence from a failed small-scale, side project is less than the failure of a
When control mechanisms are formed, the process of trust might begin. Our research shows that language and culture barriers are especially important to manage. The barriers are overcome by the employee originated from China, who enables ongoing communication between the partners. Nevertheless, companies only shared the required information to carry out the collaboration. Physical meetings with the Chinese firm seem to be more trust-enhancing.

When trust is developed it may substitute the need for control and thereby reduce the reliance on the contract and agreement formed. As the environment in China is constantly changing it remains important to develop trust between the partners because it allows a more flexible partnership. Trust enables the companies to deviate from the contract according to the needs of the partnership and surrounding environment.

Our investigation reveals that information from companies’ networks and communication, especially face-to-face communication, are vital factors to manage the perceived risks in strategic alliances. Both network and communication are linked to the Chinese employee at the companies. An employee originating from China is therefore identified to be a key factor for a successful collaboration between Swedish and Chinese pharmaceutical companies.

**Further studies**

Because the pharmaceutical industry in China is becoming high technological and knowledge-based, it would be interesting to follow how these changes affect the Swedish pharmaceutical companies’ workings toward Chinese companies. Further, because the number of collaborations between Swedish and Chinese pharmaceutical firms is not yet significant, it could also be interesting to investigate how other countries’ pharmaceutical companies have managed the perceived risks.
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Yu, J., The Vice President of Health Care Division, Sensa Corporate Advisors, 110225, Face-to-face interview.
APPENDIX 1

INTERVIEW GUIDE 1

TO RESPONDENTS AT COMPANY ALPHA, BETA AND GAMMA

TO INFORM THE RESPONDENT ABOUT
- The objective of the study and the themes in the interview.
- The possibility for the respondent to stay anonymous.
- The interview script will be sent for approval before publication of the thesis.

INTRODUCTION QUESTIONS
- Explain your background and when you started to work at company x.
- What is your current position and responsibilities?
- What type of collaboration does company x have with Chinese partners?
- What previous experience does company x have of collaboration with Chinese partners?
- What is the purpose of the collaboration? The partners’ motives? What resources do you exchange?
- What is your role in the collaboration?
- Who were involved in the collaboration (in-house, external consultants, organisations)?
- When during the cooperation were they involved and to what extent?

THEME 1: RISK
- What factors do you believe could overturn the alliance? How did these risks change throughout the collaboration (describe initial phase, happenings during the process and in the final phase)?
- How did the risks differ from other strategic alliances with other companies (excluding alliances with Chinese companies)?
- How did you try to manage the risks in the collaboration with the Chinese company?

THEME 2: TRUST
- How did the collaboration initially start?
- How did you choose your partner? Why was the particular partner firm chosen?
- How do you communicate with your partner?
- Who are involved in the communication?
- How has the communication developed throughout the relationship?
- How often do you visit the partner firm? What do you discuss in phone/ e-mail/ when meeting the partner firm?
- What kind of information do you exchange with the partner firm?
- Have you ever hesitated to share information?
- Has there been any doubt about the partner firm’s intentions with the alliance? Has there
been any doubt that the knowledge in the partner firm is not sufficient?
- Do you consider the relationship with the partner firm close or not close? What is the reason behind this?

**Theme 3: Control**
- How do you use contract/patent?
- Do you consider the contract with the partner firm important? How did you consider it in the initial phase of the alliance?
- What has been especially important for you to include in the contract?
- How do you and the partner firm monitor your behaviours with for instance weekly reports?
- Do you obtain information about the progress in the alliance?
- How can you trust the information you receive?
- Do you control the partner firm in any other way?

**Closing Questions**
- What have you learnt from the collaboration?
- Is there anything you would have done differently today?
- Is there anything you would like to share or add to the discussion?
APPENDIX 2

INTERVIEW GUIDE 2

TO THE EXPERTS

TO INFORM THE RESPONDENT ABOUT
- The objective of the study and the themes in the interview.
- The interview script will be sent for approval before publication of the thesis.

INTRODUCTION QUESTIONS
- Explain your background and when you have been involved in collaborations with Chinese pharmaceuticals?
- What types of collaborations between Swedish and Chinese companies have you been involved in?
- What position and responsibilities have you had in these situations?
- What are the common motives for Swedish and Chinese pharmaceutical companies to engage in a strategic alliance?

THEME 1: RISK
- Which factors can overturn an alliance?
- How does risk differ in collaborations with Chinese pharmaceutical companies compared to collaborations with pharmaceutical companies in other countries?
- How can risks successfully be managed when collaborating with Chinese pharmaceuticals?

THEME 2: TRUST
- What is important to consider before starting a collaboration?
- What can go wrong if choosing the wrong partner? How do you recommend companies to choose a suitable partner?
- How do you recommend companies to communicate with their partners (in order to reduce risk)?
- How often should companies visit their partners in China? What is the reason behind this? What should be discussed on phone/ e-mail/ when meeting the partner firm?
- How should information be exchanged in the alliance? How open do you recommend companies to be with sharing information?
- How can companies understand the true intentions of the partner? How can they understand that the received knowledge is correct?
- Is it important to build close relationships in collaborations between Swedish and Chinese pharmaceutical companies? Describe how to preferably build relationships.
**Theme 3: Control**
- How important do you consider contracts, patents and other control mechanisms to be?
- Is there anything that is particularly important to include in the contract?
- Is it positive that firms monitor their partner’s behaviours?
- How should the Swedish companies obtain information about the progress in the alliance?
- How can the companies trust the information they receive?
- How do you recommend companies to control the partner firm?

**Closing Questions**
- Is there anything you would like to share or add to the discussion?