A case study

Researching Emerging Opportunities in the Chinese Telecommunication Industry

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Titel: Researching Emerging Opportunities in the Chinese Telecommunication Industry


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Datum: 2006-09-03

Ämnesord: Kina, Telekommunikation, BISC, Internationalisering

Sammanfattning

Syftet med den här uppsatsen är att undersöka BISC1, ett svenskt telekomföretags potential på den kinesiska marknaden. Vi har använt fem olika teoretiska hjälpmedel för att analysera företagets externa och interna miljö i Kina. De är i tur och ordning en Pest analys, Marknadsanalys, Porter analys, företagsanalys, samt en SWOT som har används för att sammanställa de möjligheter, hot, styrkor, och svagheter som analyserna redovisat.  Våra resultat gav såväl positiv som negativ information med hänsyn till vår frågeställning; Ska BISC träda in på den kinesiska telekommarknaden?


En sammanfattning av de fyra analysera i form av en SWOT fick oss att dra slutsatsen att företagets styrkor och möjligheter i Kina överväger de svagheter och hot som analyserna har visat på. Därav blir svaret på vår frågeställning att även om branschbarriärerna för BISC är resliga, så är dom övervinneliga med BISCs interna resurser och vårat råd lyder som följer; BISC bör träda in på den kinesiska telekommarknaden.

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1 BISC is not the real name due to the case company wants to be anonymous.
Abstract

The purpose of our thesis is to research the Swedish telecommunication company, BISC’s potential on the Chinese market. We have used five different theoretical tools to examine the external and internal environment of the company; Pest analysis, a market analysis, a Porter’s five forces analysis, a firm’s resources and capabilities analysis, and a SWOT. All have been used to categorise and summarize the findings in the analyses.

Our findings gave both positive and negative answers in terms of our research question: *Should BISC enter the Chinese telecommunication market?* The Pest analysis led us to conclude that BISC could potentially handle the macro environment of China well. The market analysis showed the astonishing market potential availability in the country. The Porter industry analysis gave a rather pessimistic outcome, with few customers and high entry barriers. The firm’s resources and capabilities analysis found several significant assets. The firm’s human capital, external network and financial health showed that the company is well equipped to potentially run a subsidiary within China.

A SWOT summary of the analyses made us draw the conclusion that BISC’s hypothetical strengths and opportunities in China outweigh the hypothetical weaknesses and threats, while the high barriers of entry can be overcome with the internal resources of BISC. Our advice to BISC is, therefore: *enter the Chinese telecommunication market.*
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Glossary

Cellular phone = Mobile phone

CDMA: Code Division Multiple Access. A technology for digital transmission of radio signals based on spread spectrum techniques where each voice or data call uses the whole radio band and is assigned a unique code.


CNY= Chinese Currency Yuan (Renminbi RMB)

Mobile operators = Mobile carriers

GDP: Gross Domestic Product

GPRS: General Packet Radio Services


2G: Second generation mobile network. Generic name for the second generation networks, for example GSM.

2.5G: Second generation enhanced. Named given to enhanced 2G networks, for example GPRS and cdmaOne.

3G: Third generation mobile network or service. Generic name for third generation networks or services under the IMT-2000 banner, for example W-CDMA.


Main telephone line: Telephone line connecting a subscriber to the telephone exchange equipment. This term is synonymous with the term ‘fixed line’ used in this report.

MII: Ministry of Information Industry (Chinese government).

MMS: Multimedia Messaging Service. MMS will provide more sophisticated mobile messaging than SMS. A global standard for messaging, MMS will enable users to send and receive messages with formatted text, graphics, audio and video clips. Unlike SMS, it will not be limited to 160-characters per message.

MSN Messenger: Microsoft Network Messenger.

Penetration: A measurement of access to telecommunications, normally calculated by dividing the number of subscribers to a particular service by the population and multiplying by 100.

SMS: Short Message Service. A service available on digital networks, typically enabling messages with up to 160 characters to be sent or received via the message centre of a network operator to a subscriber’s mobile phone.

TD-SCDMA: is a 3G mobile telecommunications standard, being pursued in the People’s Republic of China by the Chinese Academy of Telecommunications Technology.

VAS: Value Added Services (Offer mobile phone users, services beyond that of normal phone calls).

WAP: Wireless Application Protocol. A license free protocol for wireless communication that enables the creation of mobile telephone services and the reading of Internet pages from a mobile phone.

W-CDMA: Wideband Code Division Multiple Access. A third-generation mobile standard under the IMT-2000 banner, first deployed in Japan. The 3G net used in Europe

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2 The glossary is retrieved from Euromonitor International (EI, 2006c) and Phone Scoop (2006.08.30)
1 INTRODUCTION

In this chapter we present our research area, research question, the delimitation of our studies and purpose. It also includes a brief presentation of the company BISC. The chapter is concluded with an overview of the structure of thesis.

Expansion into new markets has the potentials to increase a firm’s revenue, productivity and profit. However, to be successful in foreign markets a company needs to learn about and compare benefits and problems that might occur in the entrance process. Different markets and industries face different success and problem parameters. In international market expansion, learning about these issues is the key ingredient in being successful in a foreign market. While an uneducated decision to enter a specific market may be a costly experience for the company, a rushed judgment to stay out of a market may mean the company misses out on extensive profits and market shares (Hollensen, 2004).

China has long been known for its production resources in the form of low cost labour. However, with increased standard of living amongst the Chinese population and improvement in the general business environment, China has also gained attention for its great market potentials. The Chinese regime is especially interested in foreign investments that contain technological knowledge. Foreign companies that provide high technological products have been favoured in terms of lower entry barriers and special tax reductions.

BISC is a relative young telecom software company offering value added service solutions to mobile phone operators on a global basis. Despite its relatively small size, the small amount of operators in the Swedish market implies that their home market is not large enough to foster company growth. This has encouraged them to offer their products on a global basis and the products of BISC are currently used by mobile operators in South America, North America, The Middle East, and recently they have entered the East-Asian market. So far BISC have not entered the Chinese market. However, China’s rapid development has encouraged the company to take a closer look at their potential in this market.

1.1 Problem Area

The telecom market in China has experienced a rapid growth in recent years and a continued expansion is expected in the future. Deregulation of the Chinese telecom market has enabled foreign companies to take part in this development. However, the question is whether BISC’s internal strengths and opportunities will be large enough to offset external threats imposed by a rigid, competitive and risky Chinese business environment?

There is a famous phrase in The art of war; “if you know the enemy and know yourself, you need not fear the result of a hundred battles” (Sun Tzu, 1991), which implies the importance of doing market research before entering a new market. Certainly, it is hard to consider and assess all aspects of a new market before the actual entrance has taken place; new factors not known by the investing firms in advance will inevitably emerge. However, by advanced planning and knowledge gathering, BISC may avoid being severely hit by unpleasant surprises. In addition, an educated decision is naturally the best one even if it means staying out of a particular market. For this reason, our research question is:

Should BISC enter the Chinese telecommunication market?

1.2 Purpose

The purpose of this thesis is to examine and evaluate BISC’s hypothetical strengths, weaknesses, opportunities and threats in China and, therefore, enable us to assess the potential of BISC in the Chinese telecommunication market.

1.3 Delimitations

Based on the limited scale of this thesis, we will only concentrate on BISC’s general market potentials in China. The additional steps, which are required in an internationalisation process, i.e. deciding on the most suitable entry mode or marketing strategy and financial calculations, fall outside the scope of
this thesis. Definitions of the telecommunication market and the linguistics of the industry are found in the glossary on page V.

1.4 Background

1.4.1 The Company – BISC

BISC was founded in 1989. The company’s headquarters is located in Stockholm, Sweden. After 17 years of development, BISC has today 70 employees. The company’s turnover is SEK 83 millions (USD 11.43), which has increased by almost 300 percent during the last three years, while profits have risen ten fold during the same time span.

Briefly, BISC produces Value Added Services (VAS) software systems, which enable telecom operators to offer mobile phone users services beyond that of normal phone calls. The company provides telecom operator solutions for sending text or image messages, using the mobile phone to access the internet and charge mobile users in “real time”, exactly when a service is being used. The core business is, however, their message solution (interview von Essen, 2006.08.12).

BISC sells a complete solution as following; the produced software is applied to purchased hardware, transported to the customer (the mobile operator) and then installed in their system. This is normally followed up by support services on a long term basis (interview Ordeberg, 2006.08.18)

The current product platform of BISC serves operators in more than 20 countries, with more than 80 million end users. They have four regional offices: Dubai for the Middle East and the African region, Dallas for the North Americas and Quito in Ecuador for the South American continent.

1.4.2 Structure of Thesis

To assert the potential success of BISC on the Chinese telecom market we will analyse the Chinese market in a four step sequence moving from broad to narrow.

A PEST analysis (Country level) will be used to give insight into China’s overall business environment. These country specific factors are important since trends and rapid changes in the macro environment may change potentials for BISC’s operations in China. Porter’s five forces (Industry level) will be used to give insight into the structure of the industry and a market analysis (Market level) will give insight into demand structure and future trends in the Chinese value added service market. An analysis of resources and capabilities (Firm level) will enable us to estimate whether BISC has the necessary internal resources to deal with issues raised in the above analyses. All levels are equally important when assessing the issues of entering a foreign market (Ellis and Williams, 1995).

Figure 1.1 Theoretical framework (modified Ellis and Williams 1995)

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2 METHODOLOGY

In this chapter we will briefly present research perspectives and also an overview of the prevalent research methods. The disadvantages that are associated with each of these methods will be discussed. The chapter is concluded with a critique of the methodology utilized in our thesis.

2.1 Research Perspectives

Generally, there are two basic perspectives for conducting research, the positivistic and the hermeneutic. The positivistic view originates from natural science and, as such, lays large weight of absolute certainty. According to the positivist, the world is real and not socially constructed; hence direct observation can serve as an independent test of the validity of a theory (Marsh, 2002). A hermeneutic approach focuses on understanding rather than explanation. According to the hermeneutic perspective, it is impossible to establish causal relationships between phenomena that hold truth across time and space (Marsh, 2002). In other words, one can not find an absolute truth without personal interpretation.

In this study, we aim towards the hermeneutic school. The motivation for this choice is the complex social context of our study. The research question is whether there are market potentials for BISC in China. Based on this, our research includes both macro factors (Pest parameters) and micro factors (telecom market research and Porter’s five forces), which do not fit into a strictly positivistic approach. We will use a case study approach based on interviews. Since we need to interpret the answers from the interviews, using a hermeneutic perspective is more appropriate than a positivistic one.

2.2 Quantitative and Qualitative Methods

Since the end of the 1960’s, it has been common to make distinctions between quantitative and qualitative methods to collect and analyze empirical data. The main focuses of quantitative methods are on the testing theories and generalising (Bryman, 2004), which means that this method is preferred when studying measurable objects and when the results can be presented numerically. The positivists advocate this method in their studies and it is especially popular in the statistic area.

In contrast, the qualitative method aims to interpret the empirical data in their specific and proper context and environment. Qualitative methods are often used in hermeneutic studies, where the objects of the study have gained understanding of the society phenomena (Bryman 2004).

According to the above, and considering the areas where our study examines, a qualitative method is employed. This choice is preferred since we do not have a controlled environment and every case study has different prerequisites.

2.3 Inductive and Deductive Approaches

Induction and deduction are two viewpoints of scientific research progress. The inductive begins by making observations, followed by the creation of theories from what has been observed, while the deductive is the opposite (Bryman, 2004). There are no clear boundaries between them and, as Perry and Jensen (2001) suggest, it is largely impossible to separate the two approaches, as both are always involved.

In this thesis we utilize a combined approach, being both inductive and deductive in different stages of the study. When we analyze whether or not BISC should enter the Chinese market, we have employed an inductive approach, where both the theories and collected empirical data are used. In addition, we take a deductive approach when we analyze general theories and compare them with the empirical results obtained.
2.4 Method of Research

2.4.1 Choosing a Method of Research

To gain a deeper understanding of the investigated subject, we have the opinion that the hermeneutic view is more suitable methodological approach for our study. For this reason, the opinion of the researchers will inevitably influence the results. On the other hand, the experiences and values of the researchers may enrich the information and, therefore, the readers may actually benefit.

Certainly, the results of the investigation will reflect some subjectivity, and all researchers will not draw identical conclusions. This is in contrast to positivistic approach, but the conclusions will probably be more profound.

2.4.2 The Case Study

Yin (1994) defines a case study as an empirical inquiry that investigates a contemporary phenomenon within a real-life context, especially when the boundaries between the phenomenon and the context are not clearly evident. The method is meant to deliver an understanding about a special phenomenon in a unique situation. The questions used are most often “how?” and “why?” Furthermore, a single case or multiple case design can be utilized. The single case design is mostly used to falsify or confirm a theory, whereas the multiple case design is generally used to generate new theories. In this study, we use a single case approach, a telecom/software company, BISC, where the intention is to research and verify whether it is beneficial for BISC to enter the Chinese telecommunication market. During this research process, we have utilized mostly the Internet as a major resource regarding the macro environments that affect the telecom industry in general. When it comes to special questions relating to BISC itself, we have chosen to take direct contact with the management of BISC via telephone, e-mail and face to face interview. In this way, we attempted to get up-to-date information and materials, making the case study more ideal and contemporary.

2.4.3 Interviewing

An interview consists of asking questions that are relevant to a study, often open-ended questions leading to a discussion. It is very important that the interviewees are prepared for the questionnaire and have the possibility to speak freely (Bryman, 2004). This argument has inspired us when performing the interviews. We sent the questions to the interviewees via email in advance so that they had time to think about the problems. After that, an in-depth interview was conducted. In this way, we sought to get answers that were more authentic compared with ones which were spontaneous during the interview.

There are different techniques for doing interviews: structured interviews, standard interviews, semi-structured interviews, unstructured interviews and intensive interviews (Bryman, 2004). When collecting our empirical data, we use both semi-structured and unstructured interviews.

We interviewed two people, one via telephone and one face to face. They were: Erik Von Essen from BISC. He is the General Manager for the Asian subsidiary in Singapore, who has a great deal of experience from the telecom market in South East Asia. We have had continual contact with him during our investigation, both via email and telephone; Jacob Ordeberg, a marketing analysist from BISC, who gave an in-depth interview. Ordeberg gave us a lot of useful information about the company.

2.4.4 Primary and Secondary Data

When doing global marketing research, both primary and secondary data are needed. Hollensen (2004) advocates that no primary research should be done without first searching for relevant secondary information and this secondary data should be used whenever available and appropriate. In addition, secondary data often helps to define problems and research objectives.

For secondary data, we used information that was available from literature, internal records and external published sources. The secondary data directs mainly towards the Chinese macro
environment related to our thesis. The information and materials that we utilised were carefully screened. Only those relevant were retained. On the other side, since we are business students, we have been required to read a lot about the technology associated with BISC’s telecom/software products. In the beginning of the research process, much of the information was collected from the Internet in the form of company and government home pages and journals in databases.

However, secondary sources cannot provide all the information needed, primary data must also be collected. The primary data in our thesis was the internal information that BISC provided us with directly and the information gained from the other interviews.

2.5 Reliability and Validity

There are two criteria to evaluate the quality of a thesis or research in general: reliability and validity. Reliability refers to whether or not the same results occur over and over again, which is strongly advocated by positivists. However, in our thesis, we have aimed to research the market potential in China for BISC, and the market characterized with the same social phenomena is hardly repeatable. In other words, one can not find another identical phenomenon and market as BISC faces today. Therefore, the findings and results provided in this thesis are not meant to be applied to other similar case studies. In order to increase reliability of this thesis, and to give BISC an objective picture regarding China’s status quo, we have tried to find the information from objective sources. On the other hand, not using the Chinese official statistics was impossible, even though several governments and international journalists question their reliability. We leave it for the readers to evaluate the reliability of the sources in our research.

Validity refers to whether a research accurately reflects the concept being measured and how truthful the research result is. During the whole research process, from gathering of materials and data, to the structure of interview questions, all of the work is aimed at completing the objective, namely, to investigate the telecommunication market related to BISC’s products. In other words, we wanted to provide relevant information for BISC’s future decision whether or not it should enter the Chinese market.

2.6 Objectivity

The objectivity is seen from the researchers’ perspective as interviewers. Performing research objectively is to perform study without personal biases and values. The researchers’ duty is to find out facts as they are, and not to adjust the information collected, i.e. the researchers’ personal values and experiences should not affect the research process and the academic final result. However, we suppose that the researchers will inevitably influence the shape of the investigation, the procedures adopted and the results obtained. As Gustavsson (2004) states when studying social phenomena with a hermeneutic approach, an absolute objectivity can be very difficult to achieve, if not impossible (Gustavsson, 2004).

2.7 Research Design

Figure 2.1 below shows that designing research for data collection calls for a number of decisions on research approaches considering contact methods, contact medium and research instruments.
2.7.1 Questionnaire Design

The questionnaire used in the interviews is structured to investigate and provide information usable for our theories of Pest, Porter’s five forces and firm capabilities and resources analysis. The interviews are available in appendix 2 on page III.

2.8 Critique of Methodology

When reviewing the methodology utilised in the thesis, there should also be awareness about the faults that are inherent. Having knowledge of the weaknesses in methodology is helpful when aiming to keep a realistic and accurate view on data and on the overall thesis. The criticisms are:

Firstly, we should have done more interviews with the people who have experiences about China, especially on those who are working in China and have knowledge about specific situations, and have expertise on how a small company, such as BISC, operates in China. This would have made our thesis more thorough.

Secondly, in order to bring useful and relevant material to BISC, we had to gather up-to-date information covering all areas. However, it was difficult to get all information in the same time period due to availability of research. For example, in the section labeled market analysis and competitors, a number of financial reports came from different years. In some degree, this leads to a lack of comparison.

Thirdly, most of our empirical studies were built on secondary data. It would have been more suitable to have gathered more primary data from the parties involved in our studies. A field-study in this scenario would be a better way to achieve our goal.
3 THEORY

In this chapter we present an overview of factors associated with internationalisation. Four theoretical tools to assert the international market are described in detail: Pest analysis, Market analysis, Porter’s five forces and Company’s Resources and Capabilities. This chapter is concluded with a summary in the form of SWOT.

3.1 The Factors Driving Internationalisation

The reasons for foreign market involvement are numerous. They may include economical concepts such as competitive advantages or internationalisation of activities, or marketing concepts such as extending the life of products or informational e.g. be based on a desire to extend a firm’s network (Búrca, Fletcher and Brown, 2004) (read more about this in Búrca, Fletcher and Brown, 2004).

In most firms, the fundamental rationales for foreign involvement are the potentials to increase profits. However, there is always a mixture of factors that determines if and where a market entry will occur. Hollesen (2004) divides these motives into proactive and reactive. Proactive motives include profit and growth goals, foreign market opportunities, managerial urge, technology competence, tax benefits and economies of scale (Hollesen, 2004). Reactive motives include competitive pressure in the home market, a firm’s excess capacity, a sufficient demand in home market, numerous spontaneous foreign orders and psychological closeness to foreign market. While proactive modes are internal triggers for strategic changes, proactive modes steam from pressure or opportunities in domestic or foreign markets (Hollesen, 2004).

3.2 Barriers Hindering Internationalisation

Just as there are forces encouraging companies to expand internationally, there are also factors hindering internationalisation. These barriers are associated with risks involved in entering a new market. According to Hollesen (2004), these risks can be divided into three groups: general market risk, commercial risk and political risk.

General market risk includes rate of competition from other active firms on the foreign market, differences in demand structure in the foreign market, language and cultural differences, logistics risk and service complexity associated with comparative market distance. Commercial risk is, for example, caused by exchange rate fluctuation, credit risk, logistics, and financing capabilities (Hollesen, 2004). Political risk is caused by intervention by domestic and foreign governments and may include governmental agendas, such as monetary policies, trade policies and policies on foreign intervention, bureaucracy and complicated legal procedures (Hollesen, 2004).

While some of these risks are inevitable and need to be accounted for in a decision making process, others can be avoided by good management. Companies may, for example, avoid involvement in high risk markets, diversify overseas markets so the firm is not over dependent on one single international market, insure risk, or make sure that most of the risks are worn by the buyer.

3.3 The Decision Process of Internalisation

An internationalisation implies that managers have to decide on several crucial issues following a step by step process. Initially, a decision has to be made on whether or not to expand business to other markets. Thus, features of the company, such as limited international experience, low financial capabilities and a weak position in the home market, may imply that the company is better off staying in its own domestic market (Hollesen, 2004). If the company finds that they have the required potentials for a foreign establishment, the second step is to decide which market to enter.

Since market knowledge is the fundamental issue in a successful foreign establishment, this decision needs to be based on in-depth assessment of general market structure; demand, supply, competitors, growth and regulatory framework. In addition to these external issues, an in-depth analysis of the company has to be made to assess its strengths/weaknesses in relation to its potential competitors (Hollesen, 2004).
BISC is currently active in several locations globally, so the decision to expand internationally has already been made. However, they have so far not decided on whether or not to enter the Chinese market. The subsequent theoretical framework will therefore include tools normally used in deciding whether or not to enter a specific market.

### 3.4 Theoretical Tools to Assert Market Potentials

As seen in figure 3.1, many necessary components contribute to the assessment of a company’s market potentials. To analyse these components in a structural way, we will use a framework for asserting market entry potentials, structured by Búrca, Fletcher and Brown (2004).

![Figure 3.1 Categorisation of data for assessment of market potentials (Hollesen, 2004).](image)

Búrca, Fletcher and Brown (2004) stress that the starting point for any international market plan is to engage in a detailed situation analysis, covering the overall business environment, market environment, competitive environment and the organisations resources and capabilities. All parts are equally important in assessing issues of entering a foreign market. Within the business, environmental analysis border trends can be found which change the general opportunity to enter a specific market. In the market analysis, industrial specific trends, structures and forces can be found. With a firm resources and capabilities analysis, it is possible to assert whether the company has potential to adjust to the requirements imposed by the new foreign market.

#### 3.4.1 PEST Analysis

The PEST analysis covers the key aspects of the external business environment that will have an impact on operational performance in a new market entry (Ellis and Williams, 1995). The term Pest stands for, political, economical, sociological and technological factors. In a new market analysis these features are difficult to ignore since they will “inevitably” effect the organisation. For example, political factors, such as new political agendas, and economical factors, such as economical instability, might change probability of the organisation and thus be of crucial importance.

Búrca, Fletcher and Brown (2004) state that when analysing economical factors, issues such as degree of stability needs to be included, since there might be a trade off between markets with equal potential rate of return, but with different stability. In addition, when analysing sociological factors, such as physical distance, which stem from cultural and language differences, these might affect the company’s adaptability to the new market (Búrca, Fletcher and Brown, 2004). Ellis and Williams (1995) state that the Pest analysis will include effects on the macro level. Thus, it is important only to account for issues that are external for the company and not account for issues that can be influenced by the company itself (see appendix 1 for some examples of issues typically included in a PEST analysis).

The combined factors in the Pest analysis provide a summary of the driving forces in the macro environment. The goal of the following analysis will be to display how they will interfere with the organisation or the industry. Only looking into the macro environment of a market will not be sufficient to make a decision on whether to enter a market or not, thus additional information is required. The company also has to look into the condition of the specific industry and the specific requirements of their potential customers and competitors. To account for this industrial specific
information, we will therefore conduct a market research aimed at the Chinese telecom industry followed by a competitor analysis.

3.4.2 Market Analysis

“A market analysis is the process of determining factors, conditions, and characteristics of an individual market or industry” (Random House, 1997). A market analysis aims at gathering information about the market place, to help the company to make a better business decision about strategic development. It can be used to create a business plan for a new business, introduce new products and services, or expand into international markets. When it is used for expansion into new markets, a market analysis enables the company to learn about potential customers and the company can get confirmation that the foreign market offers a demand condition sufficient for a successful launch (Wikipedia, 2006a).

3.4.3 Porter's Five Forces

Competitive pressure in an industry will affect company profit margins and, therefore, the profitability of a market entry. Thus, prior to entering a new market, a company has to evaluate potential threats from competitors and other market players. In this way, the company might find areas of company advantages and disadvantages and, therefore, be better prepared to tackle competitors’ strategies and launch superior market campaigns (Búrca, Fletcher and Brown 2004). Constant change in the industrial environment implies that identifying a company’s competitor is harder than it seems. Thus, there is a need to look beyond the competition from the current market competitors.

According to Porter (1998) competition in an industry is not limited to its current structure. He implies that there is a need to take a broader approach to market competition. Thus, the industry does not only consist of its current market competitors. New entrants, suppliers, substitutes, buyers and governmental policies might also influence competition (Hollensen, 2004).

Porter (1980) argues that there are five major forces that drive industry competition and determine the competitiveness of an industry. These can be seen in figure 3.1. Together these factors determine the profit potentials in an industry. Each competitive force can have both positive and negative impact on a firm’s position (Búrca, Fletcher and Brown, 2004). Since local government has the potential to affect all the factors in this model, governmental policies have been added as a sixth factor to the model (Hollensen, 2004). How the factors in the five force model interact can be seen in figure 3.2 below.

![Figure 3.2 Porters Five Forces Modified (Porter, 1980)](image)

**Rivalry Among Existing Firms** describes intensity of competition among existing firms in the industry. High intensity of competition will inevitably lead to lower prices and, thus, lower profitability for companies in the industry (Hollensen, 2004). **Bargaining power of Suppliers** is important since cost of input often has a major influence on companies’ profits. High bargaining power of a supplier will inevitably imply a higher cost and, therefore, lower profit margins. In addition, a supplier may have the potential to evolve further in the industry, i.e. change to a market competitor. There are ways for companies to reduce power held by the supplier. They can, for example, seek new suppliers or standardise their products so that more supplier can produce them (Hollensen, 2004). **Bargaining Power of Buyer:** Just as a supplier can influence the competitive environment in an industry, buyers also have
the same power. Buyers may have a large negotiating power and, thus, reduce sales prices (Hollensen, 2004). There are ways for companies to reduce power held by the buyer. They can threaten to integrate forward in the industry or differentiate products (Hollensen, 2004).

Buyers in general do not buy products; they consume to fulfil a certain need. This implies that substitutes can be equally competitive (Hollensen, 2004). Threats of substitutes exist if there are products available serving the same needs at a lower cost or higher quality. The potentials for new firms entering the market can affect the competitiveness of an industry. The threats of new entrants are related to the barriers of entry that exist in the industry (Hollensen, 2004). If entry barriers are low, new competitors might enter the market and change the competitive pressure, therefore, forcing other companies to reduce their selling prices etc.

The government plays an important role in affecting industry structure and, therefore, the competitive environment. Government can affect barriers of entry by its level of bureaucracy and policies. In addition, they can set up regulatory framework to encourage competition rather than collaboration among rival firms. They can also set up quality and product standards, which companies are forced to adhere to (Hollensen, 2004). There are ways for the companies to affect government agendas, through lobbying activities, involvement in interest organisations and through mass media (Hollensen, 2004).

In appendix 1, conditions are presented when each of these forces are expected to have a major influence on competition in an industry.

3.4.4 Analysing a Company's Resources and Capabilities

The decision regarding involvement in a new market requires in depth knowledge about the external environment, but also about the company’s financial, managerial, organisational and research capabilities (Dalmau-Porta, Segarra-Oña and Hervás-Oliver, 2003). Some authors even claim that corporate resources are the major determinate of the company’s success (Wenerfelt 1984; Grant, 1996; Peteraf, 1993; Welbourne and Wright, 1997).

The resource based view of firms’ profitability and comparative advantage is based on the foundation that all firms differ from their competitors and that this heterogeneity of resources is responsible for differences in financial performance. According to Mahoney and Pandian (1992), advantages in comparison to other firms are developed through: 1) possession of superior resources and 2) resources are being used more efficiently. According to Wenerfelt (1984), resources can be defined as “any tangible or intangible asset which is semi permanently tied to the firm”. Thus, may include brand names, technology know how, product or service portfolio, skills of personnel, the firm’s external network, machinery, internal processes, capital etc. (Welbourne and Wright, 1997).

Barney (1991) divides a firm’s resources into three categories; physical capital resources, human resources and organisational resources. Human resource capabilities incorporate managers and other employee’s experiences, judgement and intelligence. Organisational resources consist of a firm’s structure, network, controlling and coordination system, both inside and outside the firm. Physical capital resources include things such as technological know how, a firm’s plant and equipment and localisation (Barney, 1991). When analysing BISC capabilities, we will use a similar frame work.

3.4.5 SWOT

SWOT is a common strategic tool used to summarize or identify a company’s key internal strengths and weaknesses, along with external threats and opportunities. The S-W-O-T structure produces a good overview of the organisation’s position, strategy or planned business activity, and can be used in all forms of decision making (Chapman, 2004). While some authors express SWOT as an analytical tool (see, for example, Chapman, 2004), other sees it as practical instrument to summarise results found in previous analyses, such as Pest analysis or competitor analysis (see for example Recklies, 2005).

When SWOT was developed in 1960, the intention was to explain why companies strategic planning failed. However, the SWOT has evolved and it is now commonly used in the analysis of companies,
industries and even countries, and can be included in an analysis of competitors’ competitive advantages, marketing plans, product development and research reports (Chapman, 2004). Most commonly the SWOT is used to determine to what degree the companies’ strategies (internal) are suitable to meet the challenges and changes in the organisations external environment (Recklies, 2005). Thus, there is an important separation between the SW-part, which compromise of the internal factors that are under control of company management, and the OT-part, which are external to the company.

Based on the findings in the theoretical framework, the following thesis will be constructed as in table 3.5. While the PEST analysis, market analysis and porter’s five forces will be used to determine external opportunities and threats for BISC on the Chinese market, an analysis of the firm’s resources and capabilities will enable us to explore if BISC has the necessary capabilities to be successful in the Chinese market. The SWOT frame work will be used in the analysis to summarise and categorise the findings into strengths, weaknesses, threats and opportunities that will affect BISC’s operations if entering China.

![Figure 3.3 Disposition of empirical finding, analysis and conclusion](our own model, inspired by Búrca, Fletcher and Brown’s (2004) framework).
4 Empirical Research

In this chapter the empirical results will be presented. They include the business environment in the Pest model, a Market analysis, a Porter’s five forces analysis and BISC’s internal organisational Resources and capabilities.

4.1 PEST - Business Environment

This chapter will include macro environmental issues under which BISC must operate if entering the Chinese market. Since the business environment of an economy is a broad area, it is impossible to include all features that might affect BISC if establishing itself in China. Therefore, we have chosen to focus on issues that we think are important for BISC.

4.1.1 Political Factors

Politically, China combines a socialistic political regime with the aim of a market economy. In practice, China is a unitary state, where the Chinese Communist Party (CCP) holds all political power (SIIA, 2005). A one party state may imply a stable political agenda, however, according to Euromonitor International (EI) (2005b), there are three major elements that can threaten China’s political stability. Firstly, tensions between richer and poorer areas in China are increasing and the Chinese authorities must contend with separatist movements in Tibet and Xinjiang. Secondly, China’s pension system is on the verge of a collapse, with only 6 out of 31 regional pension funds being solvent. Thirdly, international disputes with Taiwan on political belonging, Hong Kong with pro democracy activists and Japan on exploitation of natural resources, might threaten stability in the long run (EI, 2005b).

China has a bad reputation when it comes to corruption and transparency. According to the Transparency International Corruption Perceptions Index, China scored 3.2, which can be compared to the Western Europe average of 8.2 and the Asian average of 3.9. Compared to other countries in the Asian region, China scores well in terms of bureaucracy, but is way behind many high income states. On average it takes 12 separate procedures and 41 days to start a business in China (compare with 9 procedures and 61 days in East Asia). The system is, however, ridged in terms of closing down businesses; it can take 2.6 years to close down a business compared to 1.8 years in OECD countries. To enforce a contract, 20 separate procedures and 180 days are required (compare with 18 procedures and 213 days in OECD) (BMI, 2006b).

Since the early 1990’s, China has improved its foreign investment regimes. Wholly owned enterprises are the premier source of foreign investment. The authorities have encouraged Foreign Direct Investment (FDI) towards high tech industries (Business Monitor International, 2006b). China’s participation in international economical organisations displays its increased role in the world economy. In the beginning of the 1980’s, China became a member of the International Monetary Fond (IMF) and the World Bank (WB). Later during the same decade, China also joined the Asian Development bank and the General Agreement on trade and tariffs (Lardy, 1992). China’s accession to the World Trade Organisation (WTO) in 2001 was perhaps the most crucial indicator of its integration into the developed world (Asia & Pacific Review World of Information, 01.08.2005). The WTO accession has enabled foreign telecom companies to engage in the rapid growing telecom service market, while China’s effort in meeting the WTO requirements has improved the overall business environment. Despite membership in the WTO, China is still classified as a non-market economy by

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4 For comparison on Business Environment with other countries in the Asian region see appendix 1 Business Environment Ranking in the Asia Pacific Area

5 (1= high corruption 10=no corruption) For more information on this issue see visit the Word Bank Group online at: www.doingbusiness.org, where countries are ranked according to wariest issues of the business environment.

6 Numbers of procedures is the number of steps that is necessary to obtaining all necessary licenses and permits, and completing any required notifications, verifications or inscriptions with relevant authorities, under normal circumstances (World bank group, 2006) (for more information visit: http://www.doingbusiness.org/Methodology/StartingBusiness.aspx).
many of its trading partners. In addition, China has been blamed for imposing price dumping strategies to enhance export and to outperform its competitors (BMI, 2006b).

4.1.1.1 Legal Issues
The Chinese labour force is heavily regulated compared with other countries in the Asian region and with the OECD average. Regulations are tighter for dismissing workers than for hiring. Despite efforts, China still has poor protection of intellectual property rights. Since the WTO accession, several new regulations have been enforced to improve Intellectual Property Right (IPR), however, enforcement of these laws has not been completely fulfilled, and with penalties repeatedly failing to be imposed (BMI, 2006b).

The telecom service market is regulated by the Ministry of Information Industry (MII) and to enter the Chinese telecom market, foreign companies need their consent. Due to prohibiting regulations, no foreign company has entered the basic telecom service sectors, however, four VAS licenses have been approved by the MII. The Chinese National Developing and Reform Commission (NDRC) plays an important role in the industry by determining ceiling prices for telephone services. The regulation on Foreign Invested Telecommunication Enterprises (FITE) was issued by the state console in 2001, but China has no separate law on telecommunication. Efforts have, however, been made to enforce such a law, inspired by US regulations (U.S Department of Commerce, 2006).

4.1.2 Economical Factors
4.1.2.1 Stability of the Economy and Growth
China is now serving as the world’s primary engine of growth, having assumed that role from the US in mid 2003 (Bull and Cone, 2004). The GDP growth was 9.9 percent in 2005 and the economy expanded by almost 11 percent in the first quarter of 2006 (World Bank Group 2006.08.18). The forecast for the future development of the Chinese economy is a disputable issue, however, the World Bank’s (WB) forecast continues to be fare. The WB recently raised China’s GDP growth forecast from 9.5 to 10.4 percent for 2006, and from 8.5 to 9.3 percent for 2007 (DN, 2006.08.15).

The Chinese economy has proven to stand strong in times of economical turbulence, for instance, the Asian crisis in the late 1990’s and the SARS epidemic only had minor effects on the Chinese economy (Moore, 2002). China’s financial structure may explain a part of the stability. Compared to other emerging economies, China has a higher share of FDI to foreign loans and FDI is, in general, much less volatile than other sources of financing (Lemoine, 2000). Currently, China is the largest receiver of foreign direct investments worldwide (BMI, 2006).

Despite the rapid development of the Chinese economy, mainland China still displays structural problems in the financial sector. The capital market is underdeveloped and perceived by investors as highly risky, not transparent and loosely regulated (Asiamoney, 01.09.2005). Even with structural reforms, financial actors are still perceived as vulnerable to economical turbulence (Economist, 22.05.2006).

The transformation from absolute state ownership to a market with private ownership has been rapid, but far from smooth. While the private sector is generally displaying strong growth and accounts for most of the country’s job growth, the state owned enterprises have had a hard time adjusting to the increasing competition and are running high deficits (SIIA, 2005).

4.1.2.2 Monetary Policies
The Chinese exchange rate has long been strictly managed by the monetary authorities. After a 10 year fixed peg to the US dollar, which ended in mid 2005, the Chinese currency Yuan Renminbi (CNY) is now tied to a basket of foreign currencies in a crawling peg, meaning that the CNY is allowed to vary with three percent from the currency basket’s average. Despite several small adjustments in the exchange rate peg during 2005 and 2006, the contention is still that the CNY is undervalued (SIIA, 2005). Having a managed exchange rate normally implies a non-existing currency risk for financial transactions. Historically, however, pegged exchange rates have shown to be vulnerable to speculative
attacks and have also been blamed for causing economical crises. In addition, China lacks completely independent monetary policies regarding inflation and interest rates, since these monetary instruments need to be used to stabilize the pegged exchange rate. The contemporary exchange rate yields that 1 US$ is equivalent to 7.968 CNY and 1 SEK is equal to 1.10283 CNY⁷ (Universal Currency Converter, 2006.08.28).

4.1.2.3 Price Development

The price indices of most sectors have increased significantly based on price levels in the mid 1990’s. However, for transportation, communication and household goods and services, the situation is the reversed. Supported by computer technology, communication has become less costly and more available. Mobile technology has broadened the alternatives for communication and people can now send SMS, which is relatively cheaper. In addition, WTO membership is expected to reduce the price of imported products (EI, 2005a).

4.1.2.4 Labour Market

China has an active labour population of 737 million and the activity rate is 57.8 percent. According to official statistics, China’s unemployment rate is currently 3.6 percent. However, including under employment and new redundancies from state own enterprises, the figure can be expected to be significantly higher. Due to expected urbanisation and high internal migration, unemployment is likely to increase in the coming 20 years (BMI, 2006b). Although China’s labour market is limitless in terms of availability of cheap labour, high skilled labour may be hard to recruit (BMI, 2006a).

4.1.2.5 Taxes and Fees

To conform with the WTO requirements, China has lowered its import tariffs by 40 percent since 1990 (current level is 10.4 percent). China has a dual level tax regime, imposing different taxes for domestic and foreign firms. The standard rate for cooperate taxes are 33 percent (30 percent national tax and 3 percent local tax). The state tax rate for foreign companies can be reduced by 15 percent if they are located in special administrative zones. Foreign owned enterprises are subject to a three year tax exemption which is followed by another three years of 50% reduction in taxes (U.S. Securities and Exchange Commission Annual Report, 2005). Foreigners and Chinese individuals are taxed at a progressive rate, with a 45 percent limit on income. Value added taxes (VAT) are divided into three categories, a standard rate of 17 percent, 13 percent and 6 percent for small enterprises. Exporters enjoy zero VAT and can obtain VAT refunds. There is no tax on dividends and 10 percent tax is applied to interest and royalties (Business Monitor International, 2006b).

4.1.3 Social and Cultural Factors

4.1.3.1 Factors Influencing Customers’ Choice and Purchasing Power

Gross and disposable income has increased rapidly during the last 10 years and a continued growth is expected until 2015. Disposable income constitutes approximately 85 percent of gross income. The gap between high income takers and low income earners is becoming wider; with high income groups in urban areas earning as much as 20,000 CNY per month, while a significant share of rural population earns less than a dollar a day (EI, 2005a). Statistical figures show that the Engel coefficient⁸ has gradually decreased every year since the early 80’s. (National Bureau of Statistics, 2003). The figures imply that both urban and rural population has a level of welfare which allows them to spend a significant share of their income on non basic survival requirements.

The population of China is estimated to reach 1 313 970 000 in July 2006 (CIA, 2006). China’s population structure has been influenced by its one child policy and advancement in medical treatment. Thus, the country has now, by definition, reached a state of aging population (EI, 2005a).

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⁷ Chinese Renminbi (CNY) converted to USD and SEK (Universal Currency Converter, 2006.08.28 14:27) available at http://www.xe.com/ucc/

⁸ Engel coefficient indicates the average rate of income committed to basic survival
Population density differs greatly depending on region, with high density in the southeast and low density in the northwest. The population compactness is expected to increase by 10 percent from 2000 to 2010. Chinese consumers have strong interests in new products, and adaptation to new technology is rapid amongst those who can afford it. More than half of the population is male and men between 25 and 59 years of age dominate the age-range. They are also the group with the strongest purchasing power. These young males like to spend a lot on digital products such as mobile phones and digital cameras (EI, 2005a).

The average number of years for schooling in China is 6.4, which is 3.6 years lower than the OECD (Organisation for Economic Co-operation and Development) average. In 2000, the illiteracy rate was estimated to be 8 percent for males and 24 percent for females (BMI, 2006b).

Most Chinese prefer savings to investments due to cultural risk and attitudes. The savings rate in China is one of the highest in the world (approximately 40 percent) and the Chinese are, in general, not used to the idea of credit. Credit cards were not introduced until 2003 and the Chinese still use cash for daily payments. The younger generation has a more relaxed attitude to consumer credit and Euromonitor International, (2005a) states that in the future consumer credit has strong potential.

4.1.3.2 Factors Influencing Business Procedures

China is a high context culture, which means that speech and individual behaviour can change depending on the situation (Johansson, 2003). Communication exists even though words are not spoken and the non-verbal messages are full of intended meanings. In high context cultures, people “read between the lines” when a person speaks and a western business person can often miss-out when a Chinese business person “talks around” an issue and not in direct terms (Johansson, 2003).

It is important to know the opposite partners cultural background in negotiations, not only the nationality, but also the particular ethnic background (Johansson, 2003). China is diverse in many subcultures and the spoken language varies from region to region. A person from Beijing cannot understand the residents of Guangdong or Hong Kong without special study of Cantonese. People from Beijing are, according to Chen (2004), “pure political animals” and most of them are up to date with the latest political news. Business persons from Beijing emphasize family status, background and social position. Someone that displays the title of board chair or president on his/her business card will automatically be treated with great respect. Beijingers are known for their humour, but they are also especially sensitive to face, thus they pay special attention to formalities (Chen, 2004).

In Shanghai, business people seldom mix emotions with business and exchanges favours of equal value. The Shanghainese value individualism and focus on economic welfare. They have a reputation of knowing their personal rights and interests. The business people are generally professional in negotiations and attentive to minute details. This means that even a minor issue can take a long time to be agreed upon. The citizens in Shanghai treat westerners more equally and the rule of law is stronger than in other parts of China. Cantonese business people in Guangdong are usually more welcoming to foreign people than other regions of China. In business, they prefer to take advantage of new opportunities, while people from the Cantonese area are more often risk-takers (Chen, 2004).

4.1.4 Technological Factors

As China has become better connected to the global economy, the government has placed more emphasis on science and technology. This has led to increases in funding, an improved scientific structure and more available money for research purposes. These combined factors have led to advancements in numerous fields, including agriculture, medicine and genetics (Wikipedia, 2006b).

Over 60 percent of the Research and Development (R&D) spending in China comes from the private sector, while the state contributes the rest. Currently, R&D spending in China constitutes 1.2 percent of GDP. However, the government has announced that they are going to boost that
figure in the coming years, aiming at 2 percent in 2010 and 2.5 percent by 2020, which is equivalent to R&D spending in U.S. and Japan (Business Week, 2006.03.31).

4.2 Market Analysis

4.2.1 Telecom Market

The telecommunication sector is growing rapidly around the world. New technology and cheaper telephones allow more and more people to become telecommunication customers. The cellular phone market has the largest global growth and in 2002 did the mobile phone subscribers overtake the fixed line telephone customers on a global scale (ITU, 2006a).

Since China has opened up its doors to the outside world, their telecom industry has developed in a leapfrog style from the early eighties. China had two million fixed telephone subscribers back then, while today there are over 300 million fixed line telephone users and almost 400 million mobile phone subscribers. The market growth in the telecom sector is tremendous. In the beginning of 2000, the telecom monopoly was reformed and the absolute revenues from the Chinese telecom operators are steadily increasing every year (ITU, 2006b). Table 4.1 illustrates the revenue and growth rate in percent for the Chinese telecommunication market, 2001-2005 (U.S Department of Commerce, 2006).

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (in billion CNY)</th>
<th>Revenue (in billion USD $)</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>357.2</td>
<td>44.7</td>
<td>16.1 %</td>
</tr>
<tr>
<td>2002</td>
<td>411.5</td>
<td>51.5</td>
<td>14.4 %</td>
</tr>
<tr>
<td>2003</td>
<td>461.0</td>
<td>57.8</td>
<td>13.9 %</td>
</tr>
<tr>
<td>2004</td>
<td>518.7</td>
<td>65.0</td>
<td>12.6 %</td>
</tr>
<tr>
<td>2005</td>
<td>575.7</td>
<td>72.2</td>
<td>11.0 %</td>
</tr>
</tbody>
</table>

Table 4.1 Telecommunications Service Market in China (U.S Department of Commerce, 2006).

Table 4.2 illustrates the increasing income and population in terms of fixed line and mobile penetration growth (BMI, 2006).

<table>
<thead>
<tr>
<th>Basic Economic and Demographic Indicators for China, 2000 – 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Population</td>
</tr>
<tr>
<td>GDP per Capita (US$)</td>
</tr>
<tr>
<td>Main Telephone Line Penetr. (%)</td>
</tr>
<tr>
<td>Mobile Phone Penetr. (%)</td>
</tr>
</tbody>
</table>

Table 4.2 Per capita income and population in terms of fixed line and mobile penetration growth (BMI, 2006).

4.2.2 Mobile Telephone Market

Mobile phone services have been available in China since 1987. The sole provider at that time was the incumbent operator and former Ministry of Post and Telecommunications (current China Mobile). When China Unicom was established in 1994, it effectively challenged the monopoly situation of the mobile market. The customers benefited from the competition between the two players and the prices for different services started to decline and the quality to improve (ITU, 2006). Today, there is free competition (even though some analysts still imply it is a duopoly, see Diagram 4.1) and the mobile operators compete with each other in terms of market share, which is resulting in favour for the customers with reduced prices (ITU, 2006).

Chinese Renminbi (CNY) converted to USD (Universal Currency Converter, 2006.08.27 12:10) available at http://www.xe.com/ucc/
Mobile Telephone Subscribers in China, 2000 – 2005 (in millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Market Size (in millions)</th>
<th>Market growth (in percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>85</td>
<td>N/A</td>
</tr>
<tr>
<td>2001</td>
<td>145</td>
<td>70.6 %</td>
</tr>
<tr>
<td>2002</td>
<td>206</td>
<td>42.1 %</td>
</tr>
<tr>
<td>2003</td>
<td>268</td>
<td>30.1 %</td>
</tr>
<tr>
<td>2004</td>
<td>335</td>
<td>25.0 %</td>
</tr>
<tr>
<td>2005</td>
<td>est. 390</td>
<td>est. 16.4 %</td>
</tr>
</tbody>
</table>

Table 4.3 Growth of cellular phone subscribers in China from 2000 to 2005 (ITU 2006a).

Since it has been cheaper to buy and use cellular phones in China, there has been a tremendous growth of mobile users. In 2005 was it 73.5 percent of the subscriber base contracted customers and 26.5 percent were prepaid customers (see Diagram 4.2). The country now harbours the biggest mobile telecommunication carrier in the world, China Mobile. The company took the leading position (in August, 2006) from the British company Vodafone, in terms of market value and subscribers (DN, 2006.08.15).

Diagram 4.1 Dominant telecommunication operators in China (Snapshot Report, 2006).

Diagram 4.2 Mobile phone service segmentation (Snapshot Report, 2006).

China has today by far the largest market of mobile customers in the world and the growth rate is still in double figures. Diagram 4:1 below illustrates the leading position of China in early 2005. The country had at that time 335 million cellular users, while United States, as the second largest mobile market, had 181 million subscribers (ITU, 2006a).

Diagram 4.3 The top 15 economies in terms of total amount of mobile phone subscribers in January 2005 (in millions) (ITU, 2006a).
4.2.3 The Value Added Services (VAS) Market

Asia is the region with the largest proportion of mobile subscribers and accounts for nearly 40 percent of global mobile users. According to International Telecommunication Union (ITU), Asia was the first region to launch the next generation technology in the form of the new 3G (third generation) infrastructure (CDMA2000 and W-CDMA). It was first introduced in South Korea and Japan in 2001. China will launch its own 3G system in early 2007, if there are no further delays. Their own technology structure is named TD-SCDMA and will, according to the government (MII), be of excellent quality and provide capacity to manage high numbers of subscribers in urban and suburban areas. It is the mobile customers in the eastern developed parts of China that will be offered the technology to begin with. The prepared telecommunication carriers are all lining up for the licences that the MII will hand out early next year (ITU, 2006b).

Today, China uses mainly the 2G (second generation, GSM) technology. The penetration rate is still quite low in the country and the demand for 3G is initially in the developed larger cities. The countryside and western parts of China still have a huge unpenetrated market in terms of GSM. Recently, the Swedish company, Ericsson, launched a GSM order to China Mobile, worth 550 million dollars, which will handle 200 million subscribers in 17 provinces (DN, 2006.08.15). Due to the available western technologies, China has a limited access to 3G today, but this will be stopped when the country introduces its own 3G technology next year. In the beginning of 2006, there were 8.7 million 3G users in China. This makes China the fourth largest market in the world in terms of 3G mobile penetration (ITU, 2006b).

There are 2,826 mobile value added services companies in China. Of them, 2,425 operate locally in their particular home provinces and 401 are penetrating the whole domestic market. The total revenue of these companies was 1.5 billion US$ in 2004, with SMS generating 70 percent of the total amount (U.S Department of Commerce, 2006). Diagram 4.2 display the source of revenues for existing VAS companies in terms of product offered.

Diagram 4.4 Market shares of VAS (U.S Department of Commerce, 2006).


Industry Forecast

The Chinese cellular market is forecasted to have 450 million subscribers in the end of 2006. The industry is predicted to maintain 825 million mobile users in the end of 2010. The growth rate is expected to stay high during the five year period and the customer base of the Chinese mobile telecommunication carriers will almost double itself in actual numbers (BMI, 2006c). Table 4.3 illustrates a five year forecast of the subscriber numbers and growth from 2006 – 2010 (BMI, 2006c).

<table>
<thead>
<tr>
<th>Year</th>
<th>Market Size (in millions)</th>
<th>Market growth (in percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>393</td>
<td>N/a</td>
</tr>
<tr>
<td>2006</td>
<td>457</td>
<td>16.3 %</td>
</tr>
<tr>
<td>2007</td>
<td>538</td>
<td>17.7 %</td>
</tr>
<tr>
<td>2008</td>
<td>629</td>
<td>16.9 %</td>
</tr>
<tr>
<td>2009</td>
<td>736</td>
<td>17.1 %</td>
</tr>
<tr>
<td>2010</td>
<td>825</td>
<td>12.1 %</td>
</tr>
</tbody>
</table>

Table 4.4 Forecast of the subscriber number (BMI, 2006c).

The economical development within China is forecasted to continue with strong GDP growth. As the nominal income is rising, the growth rate will partly decline, although past analyses have often been modest when giving their future figures in terms of China’s economy. More or less ever year has the growth figure been increased by the Chinese regime at the end of the particular year. The nominal income is quite badly divided among the Chinese regions, but the overall GDP per capita is expected to raise with almost 110 percent by 2010, from US$ 1,705 in late 2005, to 3,572 US$ in 2010. Table 4.5 illustrates history and forecast of Chinese macro data between 2003 – 2010 (BMI, 2006c).

<table>
<thead>
<tr>
<th>Macro Economic Data and Forecasts, China, 2003 – 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
</tr>
<tr>
<td>Population (bn)</td>
</tr>
<tr>
<td>Nominal GDP (US$bn)</td>
</tr>
<tr>
<td>GDP per capita (US$)</td>
</tr>
<tr>
<td>Real GDP growth (%)</td>
</tr>
</tbody>
</table>

Table 4.5 forecast of Chinese macro data (BMI, 2006c).

As shown above, the growth of the mobile telecom industry is predicted to be huge and the penetration rate of mobile users is expecting to grow from 35 percent in late 2006 to nearly 59 percent in 2010. According to the forecast, there will be 1.8 mobile phone for every fixed telephone, while the domestic 3G market that will start in 2007, will contain over one hundred thousand mobile customers in 2010 (BMI, 2006c). Table 4.6 is illustrating the forecasted growth of the mobile phone sector in China from 2006 to 2010 (BMI, 2006).
<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of mobile phone subscribers (in millions)</td>
<td>456.7</td>
<td>537.8</td>
<td>629.3</td>
<td>736.3</td>
<td>824.6</td>
</tr>
<tr>
<td>No of mobile phone subscribers/100 inhabitants</td>
<td>35.0</td>
<td>40.7</td>
<td>47.4</td>
<td>55.1</td>
<td>58.9</td>
</tr>
<tr>
<td>No of mobile phone subscribers/100 fixed line subscribers</td>
<td>188.6</td>
<td>131.3</td>
<td>144.5</td>
<td>165.0</td>
<td>180.7</td>
</tr>
<tr>
<td>No of 3G subscribers in ('000)</td>
<td>0</td>
<td>22,500</td>
<td>57,500</td>
<td>96,600</td>
<td>136,200</td>
</tr>
<tr>
<td>3G market as percent of the total mobile market (%)</td>
<td>0</td>
<td>4.2</td>
<td>9.1</td>
<td>13.1</td>
<td>16.5</td>
</tr>
</tbody>
</table>

Table 4.6 Forecasted growth of the mobile phone sector in China (BMI, 2006).

### 4.2.5 Market Trends

The telecom service providers will continue to recruit more users. The enormous population of 1.3 billion people makes the market potential even larger. According to research within the industry, there is still about half of the population in China who have no service at all or are under-serviced in terms of telecommunication penetration. Even the development between the subscribers is unbalanced. In urban areas, a family may have one, two, or three home phones and two or three cellular phones, while 15 percent of rural areas and villages do not have any telecommunication at all (U.S. Department of Commerce, 2006).

In 2005, approximately 26.5 percent of the total pool of mobile subscribers was prepaid customers. This bracket usually consists of low income earners or teenagers who do not frequently use their mobiles and have low incomes. The western and middle regions are catching up slowly compared to the eastern and coastal areas, which generate the major revenues for the telecom companies. The demand for VAS is increasing in the eastern regions of China, while the demand in the western regions is nonexistent. This is due to the unbalanced economical development in China. There is rapid economic growth in the east and lower development of the economy in the west (U.S Department of Commerce, 2006).

As the competition increases amongst the Chinese telecom carriers, all the companies have began to turn towards VAS, where the revenues and demand amongst the customers are raising. Value added services companies have also started promotion towards fixed-line users to try to get them to use their IP access at lower prices than fixed telephone companies. The public is accepting towards new technology in China and the demand for call records, voicemail, telemedicine, online gaming, e-commerce and e-government is rising. The opportunities for VAS companies will grow even larger when the 3G mobile communication networks will be in place early in 2007 (U.S Department of Commerce, 2006).

### 4.2.6 Consumer Behaviour

Due to the improvement of living standards amongst the Chinese people, the demand for telecommunication is growing every year. Today, the mobile phone is a simple fashionable product and not a symbol of the rich, as it used to be. Young and middle aged people are changing cellular phones regularly and the curiousness and demand for value added services is growing among the young and educated subscriber base. The Chinese customers find that the cellular phone is more convenient and the mobile phone is gradually replacing the fixed telephone (EI, 2005).

The usage of VAS in China has been successful and the volume of sent SMS has risen every year. The growth in SMS usages is impressive. On Chinese New Years Day 2006 (29 January), 12.6 billions SMS were sent from only one carrier (China Mobile), with a generated revenue of US$121 million in only twenty four hours. The internet penetration is low though (5.5 percent in late 2004) and for every four
mobile users, less than one of them has an e-mail account. The rate of personal computers is even lower and the most common way to access the internet is through internet cafes in urban areas. For this reason, many mobile subscribers in China use SMS as a substitute for e-mail (ITU, 2006a).

Communication through SMS has become a social part of life and a new kind of literature in China. One reason is that China still exerts strict censorship on adult content and politically sensitive content in the public media. Therefore, SMS is a popular way to communicate to each other about social subjects such as politics or modern social humour. The technology is perceived as an acceptable way to bypass the government and to gain access to or send information, which is not normally available in the public state owned media (ITU; 2006a).

4.3 Porter's Five Forces

In this case study, we have chosen to research the industry for telecommunication that is relevant to BISC’s operations. We have used Porter’s five forces model to illustrate the Chinese telecommunication industry and to give the reader insight into the competitive environment of the telecommunication sector in China.

4.3.1 Barriers of Entry

There are several barriers when entering the Chinese telecom VAS market. Operations need approval from MII. Companies’ products also need to be adaptable to the GSM network and new 3G standard in China etc.

Telecommunication companies that are active in China need to oblige to a legal frame set up by the State Council, which is the highest legislative branch of the ministries in China. There are foreign ownership regulations on foreign direct investments. The law imposes a limit on companies that provide software services. Thus, 50 percent of ownership needs to be possessed by a Chinese citizen or company if an international corporation should offer value added service that makes the internet available through the mobile phone (U.S. Securities and Exchange Commission Annual Report, 2005).

In terms of a foreign direct investment, different licences need to be obtained by an international company in the telecommunication industry. The regulatory authorities require several licences if the firm wants to generate marketing activities or have a company webpage or both. The Ministry of Information has recently issued a regulation that requires messaging (SMS) providers to obtain approval from MMI. Licenses also need to be acquired if companies want to expand their business in China and there are no guaranties that these licences will be approved (U.S. Securities and Exchange Commission Annual Report, 2005).

Since the market of telecom operators in China is more or less a duopoly, with China Unicom and China Mobile covering 95 percent, a successful entry through the existing barriers will be highly dependent on establishing a business relationship with at least one of these two mobile operators (SnapShots Report, 2006).

4.3.2 Customers

BISC potential customers are the Chinese mobile telecommunication operators. The Chinese market of mobile telephone technology is dominated by two giants, China Mobile and China Unicom. Both are state-owned enterprises and covers 95.2 percent of the total market (Snapshot Report, 2006). There are some smaller potential customers in China. However, due to limitations in the scope of this thesis, this chapter will only include China’s two largest telecom operators, China Mobile and China Unicom.

10 See appendix 1 for more information about the restraints.
4.3.2.1 China Mobile

China Mobile is a state-owned enterprise and the company is the largest mobile telephone operator in China. China Mobile is the dominate actor on the mobile market and had 62.7 percent of the total subscriber base in the end of 2005. Their total revenue for the fiscal year 2004 was US$ 23.2 billion (Snapshot Report, 2006). China Mobile has wholly-owned subsidiaries in all 31 provinces in China and has also gone public on the Stock Exchanges in Hong Kong and New York (China Mobile, 2006).

The total subscriber base was approximately 274 million people during 2005. It is currently the largest mobile communication company in the world in terms of subscriber base and turnover (DN, 2006.08.15). According to the company, its future strategy is to develop mobile telecommunication in rural areas and actively develop the value-added businesses (China Mobile, 2006).

4.3.2.2 China Unicom

China Unicom is a state-owned telecommunication operator and is the second largest mobile company. The firm had a market share of 32.5 percent of the total subscriber base in 2005 and is also listed on the New York Stock Exchange (Snapshots Report, 2006).

According to the company’s financial report for the first half of 2006, the turnover of China Unicom reach US$5.9 billion and the total revenue of wireless value added services amounted to US$1.0 billion (China Unicom, 2006). The company had a total subscriber base of 135 million cellular telephone users in July 2006, which was a net increase of 7.3 million subscribers since the start of 2006 (Snapshots Report, 2006).

4.3.3 Suppliers

There are many suppliers of components to the telecommunication equipment. Sun is BISC’s strategic partner and also their only supplier. The advantage with only one supplier is that both parties can develop a good relation in the long term. On the other hand, due to the suppliers’ different system structures, it will be very difficult and expensive to change suppliers in this industry (interview, Ordeberg, 2006.08.18).

4.3.3.1 Sun Microsystems

From development and testing, through to implementation and production, BISC has come to rely on hardware from Sun Microsystems. The partnership between BISC and Sun began fifteen years ago. BISC can be among the first to gain access to the latest enhancements from its partner. Telecom is the most important vertical segment for Sun Microsystems (BISC, 2006).

4.3.4 Substitutes

Charging services mean that the end users pay directly to the telecom operators, regardless of which method is used, prepaid or post-paid. Thus, the substitute to charging services is that the end users pay to, for example, E-skype (Internet service). The Internet service will then bypass the VAS charging system that has been delivered and installed at the operators. This alternative is a modern technique and is not used frequently as yet, but it has great potential in the future. BISC predicts that it could be a real threat in five to ten years time (interview, Ordeberg, 2006.08.18).

Messaging services include among other things SMS and MMS. The existing substitute to SMS and MMS is MSN. MSN is an Internet service, i.e. the user can send text, pictures, or voice-messages over the internet, just as using mobile phone. MSN has become very popular and is convenient for those who have access to the Internet. Letter post and e-mail are other substitutes for messaging. In addition, some people may prefer to meet each other face to face instead of communication over mobile phones (interview, Ordeberg, 2006.08.18).

Packet data services provide the customers with access to the Internet via mobile phone, i.e the mobile users can surf whenever and wherever they want, as long as they have their mobile phone with them.
A substitute to the packet data service is, of course, to use the computer at home, instead of surfing the net with their mobile telephones (interview, Ordeberg, 2006.08.18).

4.3.5 Competitiveness among Established Firms

Rivalry amongst established firms in China is currently fairly low in the Telecommunication industry. However, competition may intensify in the future. Contemporary profit margins are high in the VAS telecom market. This may, however, change in the future if competition intensifies (U.S. Securities and Exchange Commission Annual Report, 2005). In the following, we will point-out BISC’s four major competitors, who are acting on a global basis.

4.3.5.1 Ericsson

China is Ericsson’s second overall largest market in the world and stands for eight percent of the company’s total turnover. The core business of Ericsson is the telecommunication infrastructure, but they are also developing software and value added services. The total turnover from China for 2005 was SEK 11.5 billion and there was 3,600 employees hired in the overall chinese business during 2005 (Ericsson, 2006a).

Ericsson Enterprise is the subsidiary that is managing the value added services. Ericsson’s net income for 2005 was SEK 3.1 billion. In the Asian region, the turnover for 2005 was SEK 308 million, which was an increase by 12 percent. There are 470 employees in Ericsson Enterprise, all located in Sweden. The value added service production is made and managed in Stockholm, where the product is also developed. The further installations and maintenance support service of the software is managed from the Chinese based Ericsson (China) Company Ltd (Ericsson, 2006b).

4.3.5.2 TOM Online Inc.

TOM Online Inc. is a wireless Internet company, which operates in Mainland China. It provides value added services, such as SMS and MMS, to the Chinese population. There were more than 150 million users in 2005 who signed up for its wireless Internet services (Tom Online, 2005).

According to their financial reports of 2005, their SMS services generated US$ 63.43 million in revenues, compared to US$ 54.96 in 2004, representing an increase of 15.4 percent. However, the proportion of SMS in total revenue dropped by 9.5 percent compared with 2004. In 2005, their MMS services generated US$ 12 million in revenues, compared to US$ 11.78 in 2004, representing an increase of 1.9 percent. Also, the proportion of MMS in total revenue dropped by 3 percent. This was caused by other wireless Internet businesses, who took over the market share (Tom Online, 2005).

4.3.5.3 PacificNet Inc.

Pacific Net has 1210 employees in China and the larger parts of the company are located there. The revenue for 2005 was US$44 million and the company has the two largest mobile operators, China Mobile and China Unicom, as their customers. Its core market is in China, even though the company itself is American. Their value added service product portfolio contains charging, messaging and packet data. The core products of the company are solutions for SMS, MMS and WAP solutions to provide mobile telephones connection to the internet. Pacific Net, like BISC, offers their customers a regularly following up support service to maintain its delivered software to the telecom operators. The company has several branches in different provinces within mainland China (U.S. Securities and Exchange Commission Annual Report, 2005).

4.3.5.4 Huawei

Huawei is a non-state-owned Chinese telecommunication equipment manufacturer. They are not publicly listed and, therefore, information on their financial performance is poor and unreliable. In 2005, revenue reached US$ 6 million. Net income increase has, however, been more modest, reaching US$681 million USD in 2005, which can be compared to 624 in 2004 (Huawei Technologies, 2006a).
Huawei is active in several locations globally, including Singapore, Hong Kong and Mainland China. China is Huawei's largest market, generating 80 percent and US$2.7 billion of Huawei's total sales, cover 33 percent of the total local telecommunication market. They have 33 local offices in China. Huawei works in several areas of the telecommunication market, one of them being mobile telecommunication (Business Monitor Online, 2006.08.30). Similar to BISC, Huawei offers solutions for real-time charging of mobile phone users, solutions for multimedia and text messaging, wireless access to the internet through the mobile phone and ongoing support services (Huawei Technologies, 2006b). In addition, products are adjusted to the specific needs of the customer. Their products are used by 270 operators globally and they currently serve 10 million subscribers. In China, Huawei's cooperate clients include China's largest telecom operators, China Mobile and China Unicom (Huawei Technologies, 2006c).

4.4 **BISC’s Organisational Resources and Capabilities**

4.4.1 **Physical Capital Resources**

4.4.1.1 **Financial Capabilities**

BISC has in later years displayed a great growth in turnover and healthy revenues, despite its expansion into new markets. The company’s turnover has increased by more than 300 percent during the last three years (from 25 to SEK 83 million) and profits have raised ten fold during the same time span. Solvency levels are high, spanning from 54 percent in 2003/04 to 57 percent in 2004/05 (the development of BISC’s financial capabilities are displayed in the diagram 4.3).

BISC is currently owned by its mother (93.1 percent) company BISC Holdings. The retaining part is owned by key personnel within the company. Until now, BISC has used organic growth, i.e. used their profits for expansion. However, to finance further expansions globally during the coming year, BISC will, for the first time, take in external capital. They will, for example, raise some of the money from transforming the company to a public listed company on the Stockholm Exchange (BISC’s Annual Report, 2005).

![Diagram 4.6 BISC's financial capabilities, in thousands SEK (BISC’s Annual Report, 2005).](image)

4.4.1.2 **Market and Size**

Since the establishment of BISC’s product portfolio, their products have been sold to customers in Europe, the Middle East, South America and Asia. Currently, their product platform serves operators in more than 20 countries, serving more than 80 million end users (BISC, 2006).

BISC has specialised in one segment of the telecommunication market (seen in figure 4.1 below), the business to business area, providing software to telecom operators, which guarantees accurate payment to the telecom operators for services used and that accurate VAS services are provided to the end-user.
4.4.1.3 Researchers’ Capabilities

BISC has no patent, since they only produce software, but the software is protected by copyright. This may seem a disadvantage, since the copyright right laws are more blurred in comparison to patent legislation. However, no private user benefits from the use of their software, thus, BISC estimates the risk of illegal plagiarism as insignificant. In addition, since their products are specialised for each customer, plagiarism will not be beneficial. Ordeberg (2006.08.18) states that they are up-to-date with the newest technology and they perceive their technological know-how as higher than most of their competitors (interview, Ordeberg, 2006.08.18).

4.4.2 Human Resources

Since the development of software is a labour intensive process, BISC’s main asset is its employees. The number of employees has grown simultaneously to their financial growth. In one year (2004/05 to 2005/06), the number of employees increased from 44 to 70 in total. In addition, employee turnover is at an overall low at BISC (interview, Ordeberg, 2006.08.18).

BISC has had, and still has, a very high requirement regarding recruitment, both in terms of academic qualifications and professional experience. “For software development only engineers with a master's degree in computer science are employed. In the area of telecom competence, the majority of employees have ten or more years experience in design, network management, system testing and live implementation” (BISC, 2006). The management and board of directors have high professional experience. Kurt Hellström (CEO in BISC) was the CEO of Ericsson and Sten Fornell was the CFO of the Ericsson group in the first years of 2000. Several of the other managers have international professional experiences. Kurt Hellström is also engaged in the Chinese telecommunication industry, acting as China Mobiles strategic advisor (Dagens Industri, 2005.04.19).

Historically, when BISC has established local offices abroad, personnel with local expertise have been employed to reduce the risk of problematic cultural differences and to indirectly gain knowledge of the local macro environment (interview, Ordeberg, 2006.08.18). In the process of opening up a branch office in Singapore, BISC has recruited a regional manager for the Asian market, with high local knowledge. The regional manager for Asia, Erik von Essen, has previously worked in Hong Kong, which could be seen as an advantage when, or if, the company enters the Chinese telecommunication market (interview, von Essen, 2006.08.18).

Retraining is limited, however, foreign language courses have been offered for those how are interested. The approach of BISC is to keep their organisation rich of knowledge. They undertake this with three simple values; “learning by doing”, sharing new information among employees and recruit the top talents of the telecom industry (interview, Ordeberg, 2006.08.18).

4.4.3 Organisational Resources

4.4.3.1 Product Capacity and Internal Processes

BISC places key emphasis on flexibility and they adapt their products to each customer’s specific needs. This implies a long sales process, where BISC has to work in close relation with the customer, first becoming aware of the customer’s specific requirements, followed by a modification of the
software (BISC, 2006). When the software is ready, it is applied to the hardware, transported to the customer and installed in their system. This is normally followed up by support services on a long-term basis (interview, Ordeberg, 2006.08.18).

During the latest years, the competition has become harder and harder in the telecom industry both from providers’ and operators’ perspectives. The operators want to decrease the operation cost as much as possible, which affects their choice of providers. This also forces the provider to lower their costs. In order to achieve this, BISC has developed the Nobill Service Delivery Platform (see figure 4.2), a comprehensive single platform including all the three service areas; charging, messaging and packet data services. As a result of their platform solution, BISC can drop the telecom operator's operation cost and at the same time give the mobile company an improved competitive advantage in terms of better profit margins (BISC, 2006).

![Figure 4.2 BISC's product portfolio (BISC 2006b)](image)

4.4.3.1.1 Charging
The charging service that BISC provides is designed for the mobile telephone operator to facilitate the revenue process from the mobile telephone customers. When a mobile user is using the cellular telephone, the charging product provided by BISC registers the data and sends it into the accounting system of the mobile operator. The charging service will make it easier for the mobile operator to structure the revenue information from all of its mobile customers (BISC, 2006).

There are two solutions that BISC is offering the mobile operators in terms of charging. The first is a post-paid service, where a regular bill will be sent once every payment period and the mobile customer will pay for his/her usage that has been registered in the operator’s accounting system for the particular period. The second way is a prepaid service, where the customer is paying the operator before usage and will get an amount of credit to make use of. The software of BISC will register every time the mobile customer is using their telephone and so charge the customer in real time (BISC, 2006).

According to BISC, their charging service is reliable and the company guarantees that 99.9 percent of all mobile customer usage information will be sent to the particular operator.

4.4.3.1.2 Messaging
BISC’s software, called Messaging, is provided to the mobile telephone operator. The service gives the operator the possibility to deliver messages smoothly to its mobile telephone customers and to directly receive the revenue from the delivered message, which is registered at the same time as the mobile telephone user is using the product. Messaging is the core business and the most important service in the company product portfolio (BISC, 2006).

According to BISC, their service can deliver 10,000 SMS and around 300 MMS every second The company states that their software solution will improve the cost efficiency for the operator, which will be able deliver larger volumes of SMS and increase the operator’s revenue growth (BISC, 2006)

4.4.3.1.3 Packet Data
The packet data service is a software product provided by BISC, which makes it possible for the mobile telephone operator to provide their cellular telephone customers access to the internet. The packet data solution gives the mobile telephone users the possibility to surf the World Wide Web
when ever they want and wherever they are, as long as they have their cellular with them\(^{11}\) (BISC, 2006).

4.4.3.2 Internal Processes

BISC is organised into three operative units; operations, product development and sales. This organisation gives BISC an efficient operational structure for future growth. The largest emphasis is put on product development, which is evident when looking at the division of human resources. 40 percent of employees work in the development department (interview, Ordeberg, 2006.08.18).

![Figure 4.3 BISC's internal operations and division of employees (interpretation of Jacob's modelling).](image)

4.4.3.2.1 External Network

BISC regards that a physical closeness to their customers is important, that is why they have opened sales representative offices in several locations around the globe. The firm highly values its relationship with its partners and has developed a good and close impartial relationship with them on a long term basis (interview, Ordeberg, 2006.08.18).

BISC has worked with the same supplier since their establishment in 1989, and they are satisfied with their corporation so far. The process of choosing supplier quality has naturally been an important task. However, Ordeberg states that quality is taken for granted in the telecom industry; “if your quality is not of satisfactory, you will be out of business”. Prices have also been an issue, but the main concern has been the potential for long term collaboration (interview, Ordeberg, 2006.08.18).

With the rational for choosing well-known partners, BISC gains credibility from potential customers when having a globally known supplier. Long term relationships facilitate technical support and upgrading in technology. Changing partners would imply large switching costs for BISC, since their pool of technicians and customers are often time consuming and costly (interview, Ordeberg, 2006.08.18).

BISC is located in Sweden’s most well known cluster for information technology, “the IT cluster” in Kista, Stockholm. Just like the American example (Silicon Valley), this has proven to be a beneficial source for successful technological development (Dicken, 1998). BISC states, however, that the most important asset in terms of external networks is their employees (interview, Ordeberg, 2006.08.18).

4.4.3.2.2 Brand Names

Their marketing strategy is to promote their technological solutions at international trade fairs and in mobile company seminars. The management wants their brand name, BISC, to be associated with reliable and secure technology and is, therefore, promoting the products safety and credibility. They also want to be perceived as a young flexible organisation, which is a leader in technological development. Using strategic management recruitment and a well known supplier gives BISC the credibility they need (interview, Ordeberg, 2006.08.18).

\(^{11}\) For further product information please visit BISC company webpage at http://www.BISC.se/show.php?id=1021135
5 ANALYSIS

Our analysis will be focused on our empirical findings related to our theories in this thesis. Empirical findings and theories will be applied to the Swedish software technology firm, BISC, and its potential establishment on the Chinese market.

5.1 BISC’s External Opportunities and Threats in China

5.1.1 PEST - Political and Economical Environment

In the theory of Pest, political and economical stability is a key factor in determining whether or not to enter a market. China is a dictatorship with a communist regime and separatist movements may very well threaten political stability in China in the long run. High corruption and bureaucracy may also slow down business procedures and, thus, lower the profitability for BISC and make business planning more complex. This is a potential threat for a future foreign direct investment of BISC.

Since China entered the World Trade Organisation in 2001, the country has, however, made an advance towards increased transparency in the area of investments and trade, and they have made an effort to ease up their bureaucracy and existing corruption. In the future, all this will make it easier for a firm like BISC to analyse and predict the political and economical environment in China.

Intellectual property rights are poorly protected in China. This may appear as an external threat, however, BISC states that, since they are in the business-to-business sector, piracy will not significantly affect their business procedures when compared to companies offering products to end customers. Opportunity for BISC may also be found in a new telecommunication law that is inspired by U.S. regulations.

The Chinese regime is especially interested in investments that contain high technological knowledge. High technology companies have been favoured in terms of lower tariffs and special tax reductions. This is a large benefit for western technology firm such as BISC.

The economic development in China has been tremendous during the last decade. The income for a usual worker has multiplied over the period and, according to different forecasts, this economic progress will continue. Unfortunately, the economic development has not reached all the citizens. The politicians established a market economy approach in the eastern parts of the country as a test to see if the western way of establish growth was successful. That has resulted in a large income gap between the wealthier eastern part of China and the poor inland and western parts. The current policy is market economy over the entire country, but as the people in the eastern part have larger assets, it is more attractive for western firms to establish their branches and subsidiaries there.

Historically China has managed to avoid being hit by regional economical crises. However, there is no guarantee that this will prevail in the future, and with a vulnerable financial sector, China may be subject to economical turbulence. This needs to be accounted for when entering China. If establishing itself in China, BISC will also be subject to exchange rate risk of CNY. Since the currency is pegged and perceived as under valued, there is a risk of speculative attacks on the currency, which may have large effects on the exchange rate. This could badly affect future profits of BISC when transferring potential profits back to the Swedish mother company in Stockholm.

BISC has no need to employ low cost labour in China. Instead, BISC will need to recruit high-skilled labour, which is scarce. This is evidently a threat for BISC, since skilled labour is important for their customers’ support services.

<table>
<thead>
<tr>
<th>Remaining Opportunities</th>
<th>Remaining Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Since accession to WTO China has made effort to improve transparency, bureaucracy and existing corruption.</td>
<td>✓ Risk of political and Economical instability in the long run.</td>
</tr>
<tr>
<td>✓ Technology companies are favoured in terms of lower entry barriers and special tax reductions are available.</td>
<td>✓ High corruption and bureaucracy.</td>
</tr>
<tr>
<td>✓ Pending new law on telecommunication in China China may be subject to economical turbulences in the future.</td>
<td>✓ BISC will also be subject to exchange rate risk of CNY.</td>
</tr>
<tr>
<td>✓ Risk of political and Economical instability in the long run.</td>
<td>✓ Supply of high skilled labour is limited.</td>
</tr>
</tbody>
</table>
5.1.2 PEST - Social and Technological Environment

High growth and increasing living standards implies increased demand for technology, which benefits western high-tech companies. In addition, the population group that has the strongest purchasing power (young males), has also, according to research on consumer behaviour, a strong interest in high technological products. However, as stated above, the gaps are big between urban and suburban areas.

In the Pest theory, “psychological distance” is a key factor when analysing social environment. Based on differences from western values, such as language and business procedures, China is indeed “physically distant” from BISC’s home market, Sweden. The culture in China is diverse. There is a huge population and there are many different languages, factors which a company must take into consideration before establishment and when deciding which part of the country to locate itself. Even though Beijing, Shanghai and Guangdong are all located in the east and are all developed areas, they all have a specific business culture. This needs to be considered before the establishment of a western firm, which is dependent on low corruption and transparency of the legislation of local ministries. Based on BISC previous international experiences, however, this issue may not be of large concern. BISC has managed to overcome issues of physical distance before and managed to adapt to new external environments.

Due to cultural reasons, the Chinese are adverse to credit granting, which, may imply opportunity for companies offering pre-pay solutions, as BISC does. The Chinese government is currently interested in gaining access to modern western technology. The regime in China has made efforts to attract all sorts of different technological knowledge. This has improved the infrastructure of technology in all areas and especially in the coastal regions. In this respect, western technological firms have a opportunity to satisfy the demand of a growing appetite for new services in all high-tech areas.

Western technological firms can increasingly find personnel with good knowledge and education, while paying a relatively low wage in western standards, but one which is still considered a decent salary for a Chinese engineer. There is a current disadvantage that the demand for educated employees is high amongst firms and there is always a hunt for the most competent personnel. Companies are trying to surpass each other in terms of wages, while the Chinese academics do not have any particular firm loyalty and often change employment to the employer that offers the best wage. This results in a difficulty to keep human capital within the organisation. This is a problem for a technology firm that is dependent on their internal human resources.

<table>
<thead>
<tr>
<th>Remaining Opportunities</th>
<th>Remaining Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Increasing living standards imply increased demand for technology.</td>
<td>✓ High demand for educated employees - hunt for the most competent personnel.</td>
</tr>
<tr>
<td>✓ The population group, which has the strongest purchasing power, also has a strong interest in high technological products.</td>
<td>✓ Hard to keep human capital within the organisation.</td>
</tr>
<tr>
<td>✓ The Chinese are adverse to credit granting, thus, this may imply opportunity for BISC when offering pre-pay solution for telecom services.</td>
<td>✓ China is “psychologically distant” compared to Sweden.</td>
</tr>
</tbody>
</table>

5.1.3 Market Analysis – Telecommunication Market

The Chinese telecom market has grown tremendously since the early eighties, from two million fixed telephone users to the current figure of 700 million subscribers. The figure and development is hard to understand, as well as happening in such a relatively short time. The actual figure of people who use telephones is actually lower because many people who have a fixed line telephone also have one or more mobile phone. However, overall the market growth is astonishing.

China has 1.3 billion citizens, which is equivalent to four times the USA or Europe in terms of population. It is hard for a western person to imagine that figure inside one country. To establish a company in China and get a small market share will result in a huge customer base even though the market share could only be one or two percent. The mobile phone market is more or less a duopoly, with China Mobile and China
Unicom sharing 95.2 percent of the total market. It is normally not an optimal situation when there are only two players on a market and the competition is lacking. However, it is hoped that the situation will improve and small mobile companies will probably be allowed to grow and compete in all provinces over the whole country. Due to the effort of WTO membership, China may open up its different markets to competition. That will also improve the business situation in terms of big dominant state-owned companies and subsidised domestic markets.

There is obviously some sort of rivalry in the mobile market. Consumer prices of mobile phones and services have all declined. The mobile phone is no longer a product of status and consumers now change mobiles and keep themselves upgraded with the latest sorts of cellular phones and technology. The mobile market is developing even in the inland and western areas of China, which suggests that the situation is giving birth to a lot of opportunities for technology providers, such as BISC.

The market of value added services is having a boost in China. As the subscriber base is constantly growing, the demand for improved and cheaper technology increases. The provider that comes up with the best or cheapest solution will be the most successful one in an increasing competitive market. Later this year or in the beginning of 2007, China will launch its own 3G net. This will bring larger incitement for value added service companies to establish themselves on the market and be able to serve the end customer base with the newest and most tempting technology. The demand is growing for value added services and in the eastern rich parts of China, the need for the latest packet data technology (3G) as MMS is high. However, the GSM net is by far still the largest part, while the SMS usage is increasing all the time. Messaging and SMS is the core product of BISC. There is also a quarter of the total subscriber base which use the charging technology of prepaid. As BISC also provides a prepaid solution there is a potential for the company’s product within China.

The forecasted future of the mobile market development in China is good. The market growth will continue in double figured percentages and it is predicted that there will be over 800 million mobile phone users at the end of 2010. The market is nearly growing with the incredible figure of 100 million customers per year. This shows the potential that is in the marketplace and that the companies which are fortunate enough to get a market share, and keep their position through market-growth, will have a customer base of an astonishing size.

5.1.3.1 Market Trends and Consumer Behaviour

Even though the telecommunication user figure of fixed and mobile phone users combined is 700 million subscribers, more than half of the population is without a telephone. The telecommunication penetration is uneven in China, as mentioned above. In urban areas, a family can have one to three fixed telephone lines and several cellular phones in a household, while a family in the rural area can be totally without telecommunication services. This shows that the Chinese people have a large appetite for telecommunications, as long as they can afford the product; Once they can, it is the norm to have several. When only half of the population is penetrated and there are already 700 million subscribers, how many subscribers will there eventually be when the whole nation is penetrated?

The trend and strategy among the mobile carriers is to attract customers in the middle and western parts, which have not been penetrated yet. In the eastern part, where the mobile market is more matured, the carriers are all turning towards value added services to get increased revenues from an already existing customer base. This gives companies that have the relevant knowledge and technologies the opportunity to provide the telecom operators with the latest VAS technology. BISC is one such company. There is also a new segment for the VAS companies in terms of IP (packet data). Through the mobile carriers, the VAS firms have a great opportunity to provide the customer base broadband technology and offer them cheaper services than the established fixed-line telephone companies do. This gives a VAS company with a product portfolio which contains packet data (IP) services an increased overall market opportunity.

Messaging is a VAS service that has had a marvellous acceleration in sent SMS. The usage of SMS is growing and it is seen in China as a great way of communicating. The internet rate on the other hand is
quite low. As more people in the inland and western parts turn into subscribers, the demand will probably rise for SMS, as it is a lot cheaper and more secure to communicate over SMS than using the internet. When sending SMS, the customers also avoid the national censorship regulations. This will give a huge opportunity to a technology company that wants to establish itself in the VAS market and has good messaging technology to deliver.

<table>
<thead>
<tr>
<th>Remaining Opportunities</th>
<th>Remaining Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ A small market share will result in a huge customer base.</td>
<td>✓ The mobile phone market is more or less a duopoly.</td>
</tr>
<tr>
<td>✓ Small mobile companies will grow and compete.</td>
<td>✓ Lack of potential buyers in only two mobile operators.</td>
</tr>
<tr>
<td>✓ Demand is rising for value added services.</td>
<td></td>
</tr>
<tr>
<td>✓ 2007 China will launch its own 3G net.</td>
<td></td>
</tr>
<tr>
<td>✓ Demand in eastern parts for the latest packet data technology (3G).</td>
<td></td>
</tr>
<tr>
<td>✓ Chinese people have a large appetite for telecommunications, as long as they can afford it.</td>
<td></td>
</tr>
<tr>
<td>✓ The markets in the middle and western parts have not been penetrated.</td>
<td></td>
</tr>
<tr>
<td>✓ The usage of SMS is growing - seen as a splendid way of communication to avoid censorship.</td>
<td></td>
</tr>
</tbody>
</table>

5.1.4 Porter's Five Forces

5.1.4.1 Entry Barriers

As findings in the empirical part shows, the Chinese value added service market is not easy to enter. In fact, it is like trying to pass through the Great Wall of China. There are more or less only two actors on the mobile market and there has to be a demand from one of those two to have a possible buyer. The marketing approach in the western world, where technology improvements are spread in the regular media, does not exist in China in the same way. It is hard to get a reputation without word of mouth and promoting a company through ordinary channels of marketing is not sufficient. Contacts and knowledge within the industry and a familiarisation with the legislation is needed. Normally, all of these conditions together would close all possible doors for a potential market entry for a tiny firm such as BISC. However, BISC has a magnificent network through the company’s human resources. This leads directly into the boardroom of the world’s largest mobile operator, within China, China Mobile.

Hollesen (2004) associates entry barriers with risk involvement. Thus, entry barriers may include risk of legal pursuits (where BISC will have a disadvantage against a local third party), risk of changes in political and legal environment and currency risks. In addition to these demand barriers discussed above, there are also legislation issues. If BISC would attract one potential customer in China and wishes to open up a regional branch there and wants to offer packet data solution, the law requires that at least 50 percent of the started subsidiary must be owned by a Chinese person or company. If they want to provide charging or messaging service, this must be approved by MII. If BISC would like to open up a company web page or to conduct marketing activities, further approval is required from MII. To go through all of these different procedures cannot be achieved in a short time period and it is, in fact, more or less impossible for a company without former knowledge about the culture or personal networks to successfully complete the process.

5.1.4.2 Customers and Supplier

The existing customers for BISC in China are the established mobile operators such as China Mobile, which is currently the largest mobile carrier in the world. As the mobile carriers meet an increasing demand from the end users in terms of value added services, the market opportunity continues to grow for a company such as BISC. We also believe that BISC could address the fixed telephone companies in their segment of broadband. BISC has IP knowledge (their packet data) and could provide knowledge to these
companies, which eventually could result in providing them technology and services and enter the company into the fixed line telephone business.

Sun Microsystems is the only supplier of BISC. They are one of the biggest actors on the global arena. This is an advantage of BISC in terms of being provided with the best products. It is also a benefit to BISC to be using a supplier with a globally famous brand such as Sun Microsystems, as this creates acknowledgments and goodwill for BISC. But there is also a huge risk when tied up to only one supplier. It gives the supplier a form of monopoly power and Sun could, theoretically, start to pressure BISC in terms of increasing prices. According to BISC, their switching costs would be high and it will be expensive for the BISC to change supplier. It is important to bear in mind, however, that an Asian establishment will not affect the relationship between the two companies, as BISC is already operating on the global arena.

5.1.4.3 Substitutes and Industry Competitors

There are no threatening substitutes today on the Chinese technology market in terms of the product portfolio of BISC. Theoretical threats could be using MSN over the internet instead, which is free (overlooking the internet provider fees). This is not a significant threat because the internet penetration is today almost four times lower than the mobile penetration. It is also more convenient to use the mobile phone wherever a person is, instead of running home and using the internet every time they want to send a message. The packet data service that BISC provides gives the cellular phone user the possibility to surf the internet from their mobile phones. The substitute to the product is, of course, the internet itself, from the customer’s own home computer. It is easier to surf the World Wide Web from a personal computer or a lap top, but the convenience of using the cellular phone is that the service can be used from wherever the customers are. It is also a lot more comfortable to carry around a mobile phone than a computer, especially if a person has to use the internet regularly for different reasons.

If BISC enters China, competitors will pressure the firm in terms of rivalry and the access to the two operators, China Mobile and China Unicom. The competitors in value added services are PacificNet, Ericsson, Huawei and TOM Online. They are huge giants compared to Swedish BISC. To be able to compete with these massive companies, BISC has to develop and provide superior technology compared to its industry rivals. It is hard for a small company to keep up in terms of technology, when the globally huge companies can invest billions in research and development (R&D), while a tiny company, such as BISC, does not have that financial capability. In positive terms, however, BISC harbours well educated human capital and they have also recruited top management from Ericsson, which gives them credibility and strategic know-how to compete with the large players of the industry.

<table>
<thead>
<tr>
<th>Remaining Opportunities</th>
<th>Remaining Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ As the mobile carriers meet an increasing demand from the end users in terms of value added services, there is an increased opportunity for companies such as BISC. We also believe that BISC could address the fixed telephone companies in their segment of broadband.</td>
<td>✓ Chinese value added service market is hard to enter.</td>
</tr>
<tr>
<td>✓ Chinese value added service market is hard to enter.</td>
<td>✓ BISC need to acquire demand from at least one of two possible buyers.</td>
</tr>
<tr>
<td>✓ It is hard in China to get a reputation without word of mouth and promotion of a company through ordinary channels of marketing is not sufficient.</td>
<td>✓ BISC needs to find a suitable partner in joint venture, since the law requires at least 50 percent Chinese ownership.</td>
</tr>
<tr>
<td>✓ Risk of legal pursuit or changes in political and legal environment and currency risks.</td>
<td>✓ BISC may not be approved licenses to offer messaging and packet data or to use a company web page or to conduct marketing activities.</td>
</tr>
<tr>
<td>No threatening substitutes today on the Chinese technology market in terms of the product portfolio of BISC.</td>
<td>No threatening substitutes today on the Chinese technology market in terms of the product portfolio of BISC.</td>
</tr>
</tbody>
</table>
5.2 BISC’s Internal Potential Strength and Weaknesses

5.2.1 Porter’s Five Forces
As read above, the Porter five forces model also shades light on some internal strengths and weaknesses of BISC.

<table>
<thead>
<tr>
<th>Remaining Strength</th>
<th>Remaining Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Sun Microsystems provides BISC indirect credibility and helps BISC to get their needed acknowledge in the industry.</td>
<td>✓ Huge risk to be tied up to only one supplier.</td>
</tr>
<tr>
<td>✓ BISC harbours well educated human capital and they have also recruited top management from Ericsson.</td>
<td>✓ Competitors on the Chinese market are huge giants compared to tiny Swedish BISC.</td>
</tr>
</tbody>
</table>

5.2.2 BISCs Organisational Resources and Capabilities
BISC is a knowledge based company with a turnover of around 80 million SEK. This turns them to a microscopic size in a global perspective. However, even if they are considered as small, the company already exists in four continents, serving 20 countries with 80 million end users. BISC has only one existing Swedish customer, which shows how complex the technology business environment is. Nation borders mean nothing in the technology world. A high-tech firm has to have the braveness to seek itself out on the global arena if they wish to grow and develop the organisation. Obviously, BISC has already taken the decision to establish itself internationally and its turnover has increased in impressive figures every year. It is quite extraordinary that a Swedish company with only 80 million SEK is established internationally at all. BISC has also already based itself in different parts of the world. The explanation to their expansion is their current product portfolio that has made it possible to open four regional branches and to have customers in nearly all parts of the world.

BISC’s financial condition is healthy and this is a necessary requirement for entering China, since an entry will most probably be a costly and risky economical undertaking. In addition, it may take time and money to promote BISC to local potential customers.

According to their annual report, BISC will bring in external capital in the near future. The transformation into a public listed company will imply that BISC has to acquire the permission of stock owners and, depending on their risk taking behaviour, they may prefer not to undertake such a high risk action such as a market entry.

As shown in the chapter of empirical findings, BISC is a small company in comparison to its potential Chinese competitors (both in terms of employees and turnover). However, specialisation in a small segment of the telecommunication industry may help them to compete regardless of size.

BISC poses a high asset in terms of their human resources. If entering China, von Essen’s previous experience from Hong Kong and Kurt Hellström’s engagement in the Chinese telecommunication sector may (again) be a crucial strength for a potential entry into the Chinese market.

In terms of product offerings, there are already players active in the Chinese telecommunication market, all offering VAS similar to that of BISC. However, according to available financial statements, profit margins on VAS appear to be high, which normally indicates room for additional competitors in the market. Thus, if BISC is able to offer charging, messaging, and packet data solutions at a lower cost or higher quality12, they may be able to win market shares in China.

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12 Ordeberg (20006.08.18) has stated that quality is taken for granted in the industry, thus, it is not easy to compete merely on quality superiority.
BISC lacks previous business experiences from the Chinese market. BISC previous experiences from the international arena are an advantage, but since each country is unique in terms of business environment, legal structure, demand condition etc. Advantages may be limited in this area.

<table>
<thead>
<tr>
<th>Remaining Strength</th>
<th>Remaining Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ BISC's financial conditions are healthy.</td>
<td>✓ Future stock owners may not prefer to undertake a risky market entry.</td>
</tr>
<tr>
<td>✓ BISC's specialisation in a small segment of the telecommunication industry may help them to compete regardless of size.</td>
<td>✓ There are players already active on the Chinese telecommunication market offering VAS similar to that of BISC.</td>
</tr>
<tr>
<td>✓ Von Essen's previous experience from Hong Kong and Kurt Hellström's engagement in the Chinese telecommunication sector may be a crucial strength on the Chinese market.</td>
<td></td>
</tr>
<tr>
<td>✓ Profit margins on VAS appear to be high for company in China, which normally indicates room for additional competitors on the market. Thus, if BISC is able to offer prepaid, messaging, and packet data solutions at a lower cost, they may be able to win market shares.</td>
<td></td>
</tr>
</tbody>
</table>
6 Conclusion and suggestions to future studies

In this chapter we draw our conclusions based on previous analysis.

6.1 Conclusion

The purpose of this thesis was to examine the potential of BISC in the Chinese telecommunication value added services market and from our findings make a decision whether the company should enter the market or not. We have analysed the potential establishment in an analysis of four steps.

The first step was the Pest analysis which evaluated the political, economical, social and technological development and also forecasted the different areas with regard to BISC. The Pest analysis revealed both positives and negative factors, which, in our opinion, cancel each other out. In terms of the macro perspective, a market entry is achievable.

The second step was the market analysis. The findings were astonishing and the market potential is unlimited. There are a few concerns though in terms of the number of potential buyers of the technology software. However, we believe that in the near future there will be several small growing mobile operators in the market that will demand value added services. Hence, in terms of the market development, a market entry would be favourable for BISC.

The third step was Porter five force’s analysis. This industry analysis went through five different areas and the results in terms of BISC were disappointing. The entry barriers are almost impenetrable and the customer base is more or less a duopoly.

The fourth step was the resources and capabilities analysis. The firm analysis went through the internal strengths and weaknesses existing within the company. They have an excellent product portfolio, but it is not unique. However, BISC is in a healthy financial condition and harbours excellent human resources, with existing connections in the top of the Chinese telecommunication industry. If management play their cards right, BISC could gain access to a tremendous market opportunity.

Summarising our findings, we perceive that BISC’s opportunities and internal strengths are large enough to offset the threats in China’s external business environment, and that BISC’s hypothetical weaknesses are not largely significant in a Chinese market entry. This leaves our analysis with the conclusion that, even if the barriers of entry are high, these can be overcome with the internal resources of BISC. Thus, based on the findings in this thesis, we advice BISC to enter the Chinese market.

6.2 Suggestions to future studies

In this thesis we did only a general research about the Chinese telecommunication market and our finding results gives BISC constructive suggestions. Further research needs to be done in terms of financial budget, marketing approach and mode of entry.
7 References

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DN - Dagens Nyheter (2006.08.15) “Ericsson i miljardorder med kinesisk mobiljätte”, Gripenberg, P.

7.5 Supplementary references


7.6 Interview

Erik von Essen (2006.08.04 -12) BISC’s General Manager in Asia Telephone interview Stockholm-Singapore and e-mail correspondence.
Jacob Ordeberg (2006.08.18) BISC’s Market Assistance, face to face interview, Stockholm.
Appendix 1

Asia-Pacific Business Environment Ranking

Table A1 shows the regional business environment ranking in the Asia Pacific Area (BMI, 2006).

<table>
<thead>
<tr>
<th>Country</th>
<th>Economics LT Risk</th>
<th>Politics LT Risk</th>
<th>Telecom Market Maturity</th>
<th>Telecoms Growth Potentials</th>
<th>Competitive Environment</th>
<th>Licensing/Regulation</th>
<th>Composite Score</th>
<th>Regional Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>8</td>
<td>8,5</td>
<td>10</td>
<td>4</td>
<td>8</td>
<td>9</td>
<td>49,5</td>
<td>1</td>
</tr>
<tr>
<td>Japan</td>
<td>7</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td>9</td>
<td>9</td>
<td>49</td>
<td>2</td>
</tr>
<tr>
<td>South Korea</td>
<td>8</td>
<td>6</td>
<td>10</td>
<td>5</td>
<td>8</td>
<td>9</td>
<td>46,5</td>
<td>3</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>6</td>
<td>5,5</td>
<td>10</td>
<td>3</td>
<td>9</td>
<td>10</td>
<td>45,5</td>
<td>4</td>
</tr>
<tr>
<td>Singapore</td>
<td>8,5</td>
<td>7</td>
<td>9</td>
<td>3</td>
<td>8</td>
<td>8</td>
<td>43,5</td>
<td>5</td>
</tr>
<tr>
<td>Taiwan</td>
<td>7,5</td>
<td>7</td>
<td>10</td>
<td>3</td>
<td>8</td>
<td>6</td>
<td>41,5</td>
<td>6</td>
</tr>
<tr>
<td>Malaysia</td>
<td>7</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>8</td>
<td>8</td>
<td>40</td>
<td>7</td>
</tr>
<tr>
<td>India</td>
<td>6</td>
<td>7</td>
<td>1</td>
<td>10</td>
<td>7</td>
<td>7</td>
<td>38</td>
<td>8</td>
</tr>
<tr>
<td>Philippines</td>
<td>5</td>
<td>5,5</td>
<td>2</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>35,5</td>
<td>9</td>
</tr>
<tr>
<td>China</td>
<td>7</td>
<td>4,5</td>
<td>4</td>
<td>10</td>
<td>5</td>
<td>4</td>
<td>34,5</td>
<td>10</td>
</tr>
<tr>
<td>Indonesia</td>
<td>6,5</td>
<td>5</td>
<td>2</td>
<td>9</td>
<td>6</td>
<td>5</td>
<td>34,5</td>
<td>10</td>
</tr>
<tr>
<td>Thailand</td>
<td>6,5</td>
<td>6</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>34,5</td>
<td>10</td>
</tr>
<tr>
<td>Pakistan</td>
<td>6</td>
<td>4,5</td>
<td>1</td>
<td>9</td>
<td>5</td>
<td>4</td>
<td>27</td>
<td>13</td>
</tr>
<tr>
<td>Vietnam</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>25</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: BMI Research (BMI, 2006).

Information on FDI in the Telecommunication Sector

This year is the fifth year since China joined the WTO (On 11 December 2001, China formally joined the WTO), which implies that the Chinese government has to fulfill its commission ie a concession over foreign direct investment in its telecommunications operators. According to the agreements announced, it was agreed to set the foreign investment cap for telecommunications operators at 49 percent, allowing the Chinese government to retain majority control. China’s detailed commitments under its schedule to the WTO’s General Agreement on Trade in Services (GATS) are shown in Table A.2.

13 Long Time (LT) economical and political risk is based on BMI Country Risk Service Long Term Political Risk Rating.
14 Telecom Market maturity is based on existing levels of telecommunications service penetration.
15 Telecom Growth Potential is based on BMI forecasts for sector growth from 2004-2008.
16 Competitive Environment is based BMI assessments of the level of competition in a given market (the degree of FDI that is permitted and plans for future liberalisations).
17 Licensing and Regulation is based on BMI assessment of the extent to which regulation is developed in a given country and if the regulators directly intervene in the telecoms industry.
18 Composite Score is the total of preceding six scores (60 scores are maximum).
19 Regional Rank is based on the highest composite score. The higher score the more attractive telecoms sector environment. The less score the less attractive sector environment. (BMI, 2006).
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VAS and paging service</td>
<td>30% in Beijing, Shanghai and Guangzhou</td>
<td>49% in 17 cities</td>
<td>50% with no geographic restrictions</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
</tr>
<tr>
<td>Basic Telecoms services Mobile</td>
<td>25% % in Beijing, Shanghai and Guangzhou</td>
<td>35% in 17 cities</td>
<td>No change</td>
<td>49% with no geographic restrictions</td>
<td>No change</td>
<td>No change</td>
</tr>
<tr>
<td>Basic Telecom services fixed</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>25% in Beijing, Shanghai and Guangzhou</td>
<td>35% in 17 cities</td>
<td>49% with no geographic restrictions</td>
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Table A.2: China’s Commitment under Its WTO Service Schedule (Source: The World Trade Organization).
Appendix 2 (Interviews)

Telephone interview – Erik von Essen – BISC’s General Manager Asia

1.) Will the whole product portfolio be offered in the Asian market or is it some of the charging, messaging or packet data/IP services that are considered to have a larger market potential?

We will offer all three products, but we will focus on messaging where we are strongest and it is an area where it is easier to get into in terms of the market.

2.) Which countries in Asia will BISC penetrate to begin with? Is it mainly the Singaporean market to start with or is the Singapore located subsidiary meant to be the base for a further Asian penetration?

BISC will firstly go into the Indonesian market and secondly Malaysia, thirdly Thailand and finally the Philippines.

3.) How would you define the company products – in which industry – and in which product category?


4.) Is there any current sales to China? Are there any customers available in Asia today? Which products are demanded in that case?

No there are no sales to China and no currently available customers in Asia. We have some bids out but have not yet heard any results of those.

5.) Are your products adaptable to all the different 3G-nets W-CDMA (Europa), CDMA 2000 (North America, Japan, South Korea), and TD-SCDMA (China)?

Yes, they are.

6.) Which companies do you see as the biggest competitors in Asia?

I do not know exactly, but I guess it would be Ericsson, Huawei, Logica, Voicestream and Siemens.

7.) Are the competitors in Asia acting regionally or are they established globally?

I guess they are all established on a global basis.

An Interview with Jacob Ordeberg – employed on BISC.

1. Does BISC have other suppliers than SUN? Do you share supplier/suppliers with your competitors? Which relation do you have with your supplier/suppliers?

BISC has a long term perspective with our suppliers. To the numbers are the partners few, only one, but the relationship to the existing partner is very good – on same conditions. BISC shares supplier with our competitors but can not see it as any problem. When we choose our supplier is the quality very important, but good quality is taken for granted. Good quality is required and a must in the telecommunication business and a company has to hold high standards in terms of quality, otherwise will the company be turned out of business directly. The price is of course very important - it is always mix of price and quality - but for us is the long term perspective with our partner the most important thing.

To choose big and known companies to collaborate with is strengthening the brand of BISC. Long term focus with the supplier makes the support work easier out at our customers because the structure in the provided technology is the same and no retraining of our employees is needed as much when a new sort of product is delivered from our supplier.

2. Which products do you see as substitutes to charging, messaging and packet data?

The mobile phone charging system of BISC is called “charging” which makes it possible for the mobile carrier to get their customers mobile telephone usage registered and that the amount will be deducted from the customer’s pre-paid card or alternative will the amount be sent as a bill.

Charging: The substitute for charging is to use the mobile to make a phone call over the internet (e.g. Skype: available for 3G cellular phones) and instead use ones credit card to pay with. This is not a currently common service though but has the potential to develop in the future. It could possibly be a potential threat in five to ten years.
Messaging: A potential substitute to messaging is to use one’s mobile and send the message over the internet (as instant messaging, for an example msn). There are of course more obvious substitutes as the choice to talk to one’s friends face to face instead of sending a SMS, a letter or an e-mail.

Packet data/IP services is making all sorts of communication over the Internet through one’s mobile telephone possible. The service includes everything you can do with your mobile over the internet. The substitute is of course to choose to stay at home surfing the internet over the home computer instead of over the cellular phone.

3. Previous empirical studies from the telecommunication industry show that size and funds of the company is an important factor for a domestic company in being successful on a foreign market. How do you and your company find it when you are opening up a new foreign branch? What are the pros and cons for a small sized company as BISC? How do you stay competitive? Is there any patent available?

Our domestic market in Sweden is not very large and we have only four current Swedish customers. BISC is working in the global basis and has customers in several parts of the world. For instance, Chile was one of the first. On the other hand, it is hard to say which one is the biggest (in terms of their size or in terms of contract size), but there are customers in different count. Also the competitors are acting globally and there are around 30 rival firms.

The biggest advantage of BISC in terms of our size is that we are very flexible and having an intimate relationship with our customers. Our software can be adjusted to each company’s needs and demand and the hardware from our supplier contains the best quality.

The disadvantage is our lack of size. We have to work hard for the credibility of our product portfolio and the negotiation process is often long before a business deal is closed. Then is the software adjusted to the need of the customer and then installed in the hardware from our supplier and later on delivered to the customer and installed.

BISC does not have a patent, because we produce software. But the software is protected by the copyright. The advantage is that no private persons can take advantage of the software so plagiarism is not as occurring as in other areas with copyrighted products.

4. BISC’s Erik von Essen in Singapore gave us five companies as potential competitors. LogicaCMG, Voicestream, Ericsson, Siemens and Huawei. Theses five companies are in comparison to BISC gigantic in terms of financial capital and employees. We would like to know – in what way is it possible for BISC to compete with these companies?

Yes! We have better quality than our competitors but our strongest advantage is our flexibility. We can offer the customer flexible support service and we are always available for our customer and also a physical closeness to our customers in terms of our regional branches. Another advantage is our broad product portfolio.

5. Before you make a strategic decision to enter a foreign market – is the macro environment in the new market important for your choice of country?

The procedure is usually that the customer comes firstly and then a new branch. The expansion has so far been driven by the demand of our customers. This has change a bit now though when we have started looking at markets where we think we could have potential customers.

Of course is the macro environment important and needs to be taken under consideration. We had for an example a potential customer in Afghanistan which we turned down because of issues of the macro environment. Of course is the structure of the industry an important part as well. In counties that have a large demand for prepaid services among their customer base are the countries and markets where we think we have our largest potential. Chile for an example has a 90 percent pre-paid market and in United States is it only 10 percent.

6. We would like to know what is unique with your products to be able to participate in one highly competitive industry?

We are more specialized while our competitors focuses on the total telecommunication structure, are we only focusing on the value added services part. As for Ericsson are the core business radio communication between the telephone and the network switches, but we focus on the machines connected to the switching system to transform the information to usable data for messaging and charging etc.
7. How are you working with your brand, and what values does BISC fancy being associated with?

*We want to have a brand communication which communicates security and stability. But at the same time be perceived as a young and knowledge leading organisation.*

8. How is your organisation structured and how many employees does BISC have?

*A lot of the firm’s resources are put in the research and development department. The company culture is an important factor in terms of product and technology development. This development department is the heart of the organisation. This is obvious when you can see how we have divided our employees over the different company sections.*

9. We have read in your company presentation that BISC has high requirement of potential employees in terms of education and technological or previous experiences in their different areas – but how do you estimate the employees/managements competence and knowledge about the foreign markets?

*The old CEO had experiences internationally from Japan and the management of the local subsidiaries has experiences from the countries the branches are placed in. All management employees have to have an academic degree in the area the person will work in the company.*

10. How important are your external network? The fact that you have the former CEO of Ericsson – Kurt Hellström as chairman of board – has increased your external network?

*Yes we do, Kurt is terrific. The fact that we are localised in small Kista is not a disadvantage for our external networking. However, we think the approach to success is to hire employees with long experience within the industry and in other companies with personal networks within the industry.*

11. How are your software products produced – and how is it delivered to your customers?

*Firstly is the software adjusted to the customer’s satisfaction and will after that be put in the hardware – then delivered and installed at the customer. This is followed up by support services.*

12. How do you see the future development of BISC? The company has grown with 50-100 percent every year. Last year had the company a large profit and a high solvency – do you expect the same company growth will continue?

*Yes, the future looks very good! We expect the company to continue its growth. But I cannot give specific numbers specifying at what rate.*

15. How do you get paid from your customers – is it a once time payment or is it continual payments (e.g “royalties”) as long as they are using your software – or a combination?
The usual procedure is that the customer is paying the product price only once – but then there is an additional cost in form of support and service of the software. We have no royalties – but the customer is buying a license to use our software to a certain amount of subscribers – and if the operator increases their subscriber base over the limit – will the operator pay a fee to get the software upgraded.

16. Are your products adoptable to the 3G nets of W-CDMA (Europa), CDMA 2000 (North America, Japan, South Korea), and TD-SCDMA (China)? If your technology are not adjustable to the new Chinese 3G net – would an adjustment like that be very expensive and time consuming or would it be possible to carry it out to a reasonable price? Are all your products adjustable to all GSM net?

The product portfolio is relatively adjustable to all different nets and it would not be a terrifying cost to do so if needed. The products are adjustable to all GSM nets in the world.