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# A Conceptual Model for the IT-supported International Subsidiary Establishment Process

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## Abstract

*This study examines how the IT-supported international subsidiary establishment process can be implemented. An in-depth literature review uncovered that there is a significant lack of literature to guide managers about how to execute the establishment process of a subsidiary through the support of various IT-tools. This study, by answering the research question “What are the phases in the establishment of a subsidiary through IT-support and how have the phases been executed?” introduces a conceptual model for the IT-supported international subsidiary establishment process. The research findings are useful for both practice and further research.*

## Keywords

Information technology, IT-support, software business, establishment of subsidiaries, internationalization

## INTRODUCTION

Western software companies are encountering increased competition in both their domestic and foreign markets (Nahar et al. 2002) mainly due to the liberalization of trade policies and a significant improvement of information technologies (ITs). Software companies are increasingly marketing their products and services to world markets and competing globally (Cusumano and Selby 1995; Hoch et al. 2000). This trend of globalization among software companies is further intensifying competition in software markets around the world. Commonly the domestic markets of Western countries for various software products and services are saturated, and the software companies of these countries are in a very difficult situation. Software companies can reduce these difficulties through expanding to foreign countries which have a high purchasing power (Nahar et al. 2002; Ojala 2004).

The costs of software products development are also increasing, whereas product life cycles are shortening significantly. Companies need to market their products in both domestic and foreign markets to recover the research and development cost, make profits and grow (Nahar et al. 2002; Ojala 2004). Due to the aforementioned reasons, it has become essential for most of the software companies to expand to foreign markets. Software companies have to globalize successfully if they want to expand their business in the global markets (Hoch et al. 2000; Nahar et al. 2002). To maximize the company's chances for growth and success, it is usually important to have a strong and very effective presence in the market area. Through establishing subsidiaries in the foreign countries, software companies often attempt to deliver high quality products and services to these markets effectively. Unfortunately, most of the companies fail to increase their market share and maintain a healthy profit in a new market area. Many companies even go bankrupt due to a variety of difficulties.

There is considerable literature on software business (Cusumano and Selby 1995; Hoch et al. 2000) and the internationalization of companies (Douglas and Craig 1995; Luostarinen and Welch 1990). However, almost no research has been done on how software companies could establish a subsidiary through IT-support. The establishment of a subsidiary is a very complex, demanding and risky process. Failure of the establishment process may inflict a significant financial loss and the loss of potential customers. In fact, there is no literature to guide managers about how to execute the establishment process of a subsidiary through the support of various IT-tools. Therefore, in-depth research is needed on how software companies can establish a subsidiary in the selected market

area through IT-support. Several researchers (Hoch et al. 2000; Nahar et al. 2002; Ojala 2004) indicate that software product companies should enter the leading software markets of the world if they want to survive in the long run.

The research question addressed in this study is: “What are the phases in the establishment of a subsidiary through IT-support and how have the phases been executed?” This research attempts to provide an answer to this question by a systematic analysis of relevant literature.

This paper proceeds as follows: past research on IT-support of business operations and establishment of a subsidiary is reviewed first. Based on the literature review, we develop a conceptual model. Finally, we draw the conclusions and limitations of this study, and suggest future research directions.

## **LITERATURE REVIEW**

### **IT-support of Business Operations**

IT drives companies towards globalization in a number of ways. IT facilitates and makes day-to-day global operations possible in software companies. “IT adds strategic value to an organization by providing support for the administrative infrastructure, business processes, and the operational skills of the staff” (Nahar 2001, 42). IT can provide support, e.g. to companies’ international market research, international promotion, selection of suitable business partners, negotiation and contract, implementation of business processes, handling of financial issues and delivery of the software products and documents (Nahar 2001; Nahar and Savolainen 2000). Effective utilization of IT enables companies to support and coordinate their business processes on a real-time and global basis over national borders (Blaine and Bowen 2000; Nahar 2001; Ojala 2004). IT-support also provides a global competitive advantage in several ways, e.g. IT helps companies to differentiate and customize products, make a preemptive strike against competitors and enter new markets (Huda et al. 1999; Palvia 2002).

The revolution of IT has had a high effect on the structure of global economy and data transmission over national borders. Cross-border IT-support for business operations has increased due to the significant improvement of telecommunications technology, a decrease of costs of the hardware equipment, software applications and emerging worldwide standards (Nahar 2001). Usage of cross-border IT-support enables employees to work on the same project in different places in the world. Different IT-tools like groupware applications, Internet discussion groups, tele- and video-conferences enable long-distance community collaboration. Cross-border support of IT assists companies in controlling their global business tasks, reducing costs, and assisting information sharing and dissemination (Nahar 2001). Researchers (Blaine and Bowen 2000; Nahar 2001; Ojala 2004) indicate that IT has the potential to support and improve a variety of international business functions. IT has also the capabilities of supporting the subsidiaries in various ways and improving the performance of the subsidiaries (see Ojala 2004, 23-24).

### **Establishment of a Subsidiary**

In this study, a subsidiary is a business entity which is located in a foreign country, and owned and controlled by the parent company. Establishing a subsidiary in a foreign country is a strategic move made by a company to increase its market share and competitive ability in the global markets. A wholly-owned subsidiary can provide greater flexibility for decision-making and control over all phases of the company’s operations and a full right to control the unit established, within the host country legislation (Buckley and Casson 1976; Luostarinen and Welch 1990). Wholly-owned subsidiaries increase the potential for software companies to maximize their growth and obtain a strong presence in the global markets. A software company’s own subsidiary makes it possible to provide better after-sales services, improves market control and helps to react quickly to economical and other changes in the target country (Huda et al. 1999; Ojala 2004). The establishment of a subsidiary may be more time-consuming and costly compared with other international business modes like an exporting or a licensing one.

When a company establishes a subsidiary, it can use two different modes, either it can acquire an existing company (Acquisition mode) or build its own subsidiary from scratch (Greenfield mode). Both of these two modes have their own advantages and disadvantages that a company has to take note of when it is establishing the subsidiary in the target country (Douglas and Craig 1995; Luostarinen and Welch 1990). The acquisition mode offers a number of advantages. As it is time consuming to build from scratch, acquisition of an existing company enables rapid market entry and may provide access to distribution channels and an existing customer base (Douglas and Craig 1995; Luostarinen and Welch 1990). Using a Greenfield mode, a parent company can implement its business operations and management practices effectively (Douglas and Craig 1995). The Greenfield mode is suitable if the cultural

distance is wider (Kogut and Singh 1988), logistics are important, the product technology is the company's competitive edge and appropriate acquisition targets are not available or their cost is too high (Douglas and Craig 1995; Luostarinen and Welch 1990).

## A CONCEPTUAL MODEL FOR THE IT-SUPPORTED INTERNATIONAL SUBSIDIARY ESTABLISHMENT PROCESS

In this section, a conceptual model for IT-supported international subsidiary establishment process (see Figure 1) has been developed through an in-depth literature review in the areas of IT, international business, internationalization of companies, establishment of subsidiaries, international marketing, and IT-enabled cross-border support to business operations. The conceptual model deals with the subsidiary establishment process to serve mainly the market in which the subsidiary is located.

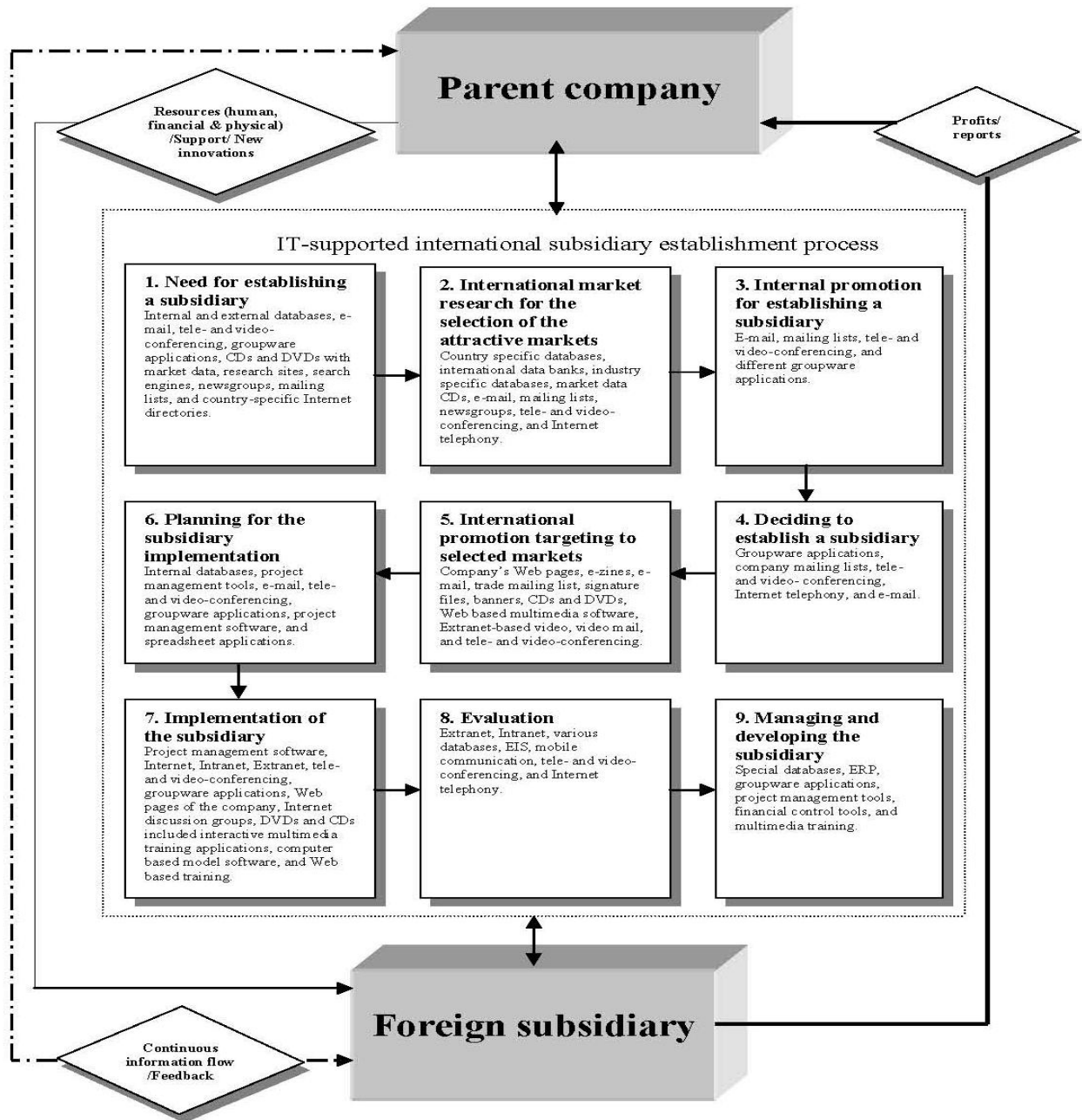


Figure 1: A conceptual model of IT-supported international subsidiary establishment process.

In the conceptual model, the key actors are the parent company and the foreign subsidiary. The nine phases of the IT-supported international subsidiary establishment process are between the parent company and the foreign subsidiary. Appropriate IT-tools and services for each of these nine phases have been selected by considering the tasks in a specific phase and the IT-tools that are capable of performing these tasks rapidly and cost effectively. The nine phases of the IT-supported international subsidiary establishment process are presented in chronological order, however some of the phases can be executed concurrently.

### **Need for Establishing a Subsidiary**

In order to identify the needs of a company for establishing a subsidiary in a foreign country, managers should evaluate the suitability of the company's capabilities, goals and products for the international markets (Douglas and Craig 1995) and opportunities in foreign markets. Establishment of a subsidiary is a very costly and time-consuming process, therefore it is important to examine and analyze the company's internal (e.g. technology competency, developed IT-tools, innovative products and/or services, sales growth in domestic market) and external (e.g. saturation of domestic market, estimated growth potential or opportunities in foreign market, tax benefits) factors in order to find its capabilities for successfully establishing a subsidiary (Nahar 1999, 2001; Nahar et al. 2002).

A company can use various IT-tools to support their acquisition of information in both internal and external factors. Information about the internal factors can be collected and analyzed by using a company's various internal databases (e.g. employee-, product- and sales- databases), e-mail, tele- and video-conferencing, groupware applications, etc. It should be noted that the quality of video conferencing over the Internet is not yet ideal due to limited bandwidth, but this problem will disappear when more appropriate ITs are developed (Nahar 2001; Ojala 2004). The internal factors analysis enables a rapid investigation of the company's internal resources, like the expertise of various employees and the financial resources. Information from the external factors can be collected, e.g. by using various databases, research sites, and country-specific Internet directories. The external factors analysis enables the company a fast and low cost collection of relevant, up-to-date information from multiple sources and their effective analyses and utilization. By analyzing the aforementioned factors, the company can develop a preliminary project idea for establishing the subsidiary.

### **International Market Research for the Selection of the Attractive Markets**

In order to recognize suitable market areas, a company should acquire information about international markets, which helps in selecting suitable markets and developing effective strategies to penetrate these markets successfully. This information is needed to identify which countries offer an attractive environment for a subsidiary and how to enter these markets avoiding barriers associated with the environment of the target country. Companies should monitor global market trends, competition and environmental factors among favorable countries (Douglas and Craig 1995; Hollensen 2001; Nahar 2001). Major country-related factors include: a) economic situation, b) IT environment, c) infrastructure, d) technology protection laws, e) repatriation of income, f) cultural factors, and g) political situation (Nahar 2001; Nahar et al. 1999).

The two major sources of information in this phase are primary data and secondary data. Primary data is information that the company should collect first-hand, by making tailor-made studies, surveys or qualitative studies to get answers to specific research questions (Douglas and Craig 1995; Hollensen 2001; Ojala 2004). Secondary data is information that is already collected for other purposes and is readily available (Hollensen 2001). A company can find secondary data by using government economic and social statistics and publications, international data banks (Douglas and Craig 1995), trade associations, directories (Keegan and Schlegelmilch 2001), industry specific databases, country specific databases, etc. (Nahar 2001). These sources help a company to explore an attractive market environment and evaluate business opportunities there.

Every market has its unique characteristics, and environmental factors vary widely from country to country. When a company selects a suitable market for its subsidiary, in-depth information from the macro level-, the industry level- and micro level-factors should be collected and analyzed (Huda et al. 1999; Nahar 2001; Ojala 2004). The usage of several data sources and data collection methods will enhance validity of the data and reduce the chances of warped findings. IT-tools can be used to collect data from local experts, professionals, and practitioners from different locations in the world (Nahar 2001). By using the findings of this phase, a company can make the selection of a potential market among several and find the most beneficial market for establishing the subsidiary. These findings also help to identify barriers associated with a selected market and determine the suitability of the market that matches the company's goals and competitive advantages.

### **Internal Promotion for Establishing a Subsidiary**

When the international market research is done and a suitable market area is selected, the next phase is to getting acceptance and consensus from managers of the company for establishing a subsidiary. Based on the results of the international market research, as well as needs and capabilities of the company for establishing a subsidiary, the idea of the foreign subsidiary is promoted inside the company (Ojala 2004). Internal promotion is targeted at the company's top management and other important persons within the company. According to Douglas and Craig (1995), managers' attitudes towards establishing a subsidiary are widely associated with the selected market area's environmental risks against expected profits.

The company needs highly specialized know-how and a lot of resources for the establishment of a subsidiary. This is also a very complex, demanding and risky process, and the management of the subsidiary needs a very detailed knowledge of the environmental issues of the target country. Communication with all important persons and their internal promotion is needed to induce them to carry on with the establishment of the subsidiary, and to allocate preliminary resources for completing various tasks. When a company is sharing internal information among the various stakeholders and between distant locations, usage of e-mail, tele- and video-conferencing, and different groupware applications can help handle these tasks (Nahar 2001).

### **Deciding to Establish a Subsidiary**

When a company makes the decision regarding its international business operation, the company has to analyze and compare between different entry modes, such as subsidiary, exporting and joint venture. Each entry mode includes its own strengths and weaknesses, and in this phase the company carries out a comparative analysis recognizing what is the most suitable entry mode for its international business operation. The most common selection criteria that favor the subsidiary mode are: a) the large market size and future growth possibility, b) tariff and non-tariff barriers, c) distance, d) need for exact market information, e) possibilities for market control, and f) possibilities for after-sales services (Brouthers 2002; Douglas and Craig 1995; Luostarinen and Welch 1990; Nahar 1999, 2001; Ojala 2004).

In this phase, the company can use a variety of communication tools, like groupware applications, tele- and video-conferencing tools, and e-mail to share information between distant locations and among various stakeholders. This reduces traveling needs and makes the decision-making process faster. However, some face-to-face meetings may still be needed (Nahar 2001; Ojala 2004).

### **International Promotion Targeting to Selected Markets**

International promotion is important to make customers aware of the company, its products and services in the selected markets. International promotion is performed on the basis of the findings of the international market research and the analyses of the environmental factors (Nahar et al. 1999; Nahar and Savolainen 2000). This facilitates effective promotion targeting potential customers who can be individuals or other companies.

Companies commonly use international advertising and personal selling as their international promotional tools. Advertising is suitable if a product is widely used among consumers, the product is easy to use, is not very complex, and self-service is the major shopping manner. Advertising for individuals may be given through television, radio, printed media (Jeannet and Hennessey 1995) or by using IT-tools (Nahar 2001). Selection of suitable media and content for promotional materials are dependent on regulations, laws and culture of the target country, as well as the availability of different media (Hollensen 2001). Personal selling is usually targeted at selling products or services to distribution channel members and business-to-business (B2B) markets (Hollensen 2001). The personal selling process may be very complex and it requires very special skills of the salesperson, such as a deep background knowledge of the cultural issues of the target country, language skills, and business etiquette (Jeannet and Hennessey 1995).

Researchers (Nahar et al. 1999; Nahar and Savolainen 2000; Nahar 2001) state that IT-tools and services can enhance international promotion. Promoting to a larger audience can be handled by publishing brochures via interactive multimedia on a company's website, publishing articles in e-magazines, etc. In B2B mode, a company can use e-mail to target companies who might be interested in its products or services. If a potential customer is interested in the products or services, the company can perform a preliminary negotiation with the customer through e-mail or by tele- and video-conferencing. It is important to find the right contact persons from the customers' side and target promotion straight at them (Nahar 2001; Ojala 2004).

## **Planning for the Subsidiary Implementation**

When the decision regarding the establishment of the subsidiary is made, a company can start planning for the subsidiary implementation based on the international market research and the decision regarding the selected entry mode. In this phase, the company has to assign a project manager and project workers to make plans for the implementation and management of the subsidiary project. Planning for the subsidiary implementation includes the following phases: a) describing specific goals, b) subdividing the subsidiary implementation phase into specific tasks and activities, c) developing a schedule and the execution order for different activities, d) categorizing and allocating the needed resources, e) identifying employees and assigning responsibilities, f) making a decision how to organize teams, and g) recognizing the risks factors regarding the implementation (Nahar 2001; Ojala 2004).

In this phase, various IT-tools and services can be used to enhance the effectiveness of the implementation plan. A company can use various internal databases and project management tools to clarify and manage various phases of the project. Communication with various stakeholders and experts can be handled, e.g. by using e-mail, tele- and video-conferencing, and groupware applications. These IT-tools enhance communication among managers, employees, external specialists, as well as saving time and money. Project team members can be located around the world and collaborate on the same project in real time (Nahar 2001).

## **Implementation of the Subsidiary**

Project implementation is carried out on the basis of the implementation plan. In this phase, the following tasks are performed: a) executing the implementation of the subsidiary project, b) organizing the subsidiary, c) recruiting employees for the subsidiary, and d) providing training and support for employees. According to Nahar (1999), a company can use several IT-tools to implement the project. These IT-tools include project management software, Intranet, tele- and video-conferencing, groupware applications, etc. By using these IT-tools, a project manager can acquire information from multiple sources and provide remote support to its customers around the world via computer network (Ives et al. 1996; Nahar 1999).

In order to implement the subsidiary, a company can use a Greenfield or an acquisition mode. In the Greenfield mode, a company has to rent, buy or build premises. In an acquisition mode they must adapt existing premises with the assistance of contractors (Luostarinen and Welch 1990). A company also has to buy different equipment, IT-tools and software applications for the subsidiary, and install equipment and applications. A company can utilize project management software for distributing different tasks to employees, assigning resources and evaluating results of the implementation (Nahar 2001).

A company also needs to recruit capable employees for the subsidiary. The company can use its own website or the websites of career service companies. An Internet accessible application could be made available to potential employees who could complete it and return it on-line (Nahar 2001). When a company is recruiting employees for the subsidiary, it has to train these employees to handle the specific tasks of the company. The company can use different IT training tools to enhance its training capacity for employees together with traditional training tools and methods. These IT-tools may be, e.g. interactive multimedia training applications and computer-based modeling software (Nahar 1999).

## **Evaluation**

In this phase, evaluation of the establishment process is done. Evaluation includes examination of the positive and negative results, suggested solutions for problems, collaboration with various experts to solve problems and storage of all analyses and documents in a lesson-learned collection (Nahar et al. 2001). A company can use various IT-tools to evaluate progress, problems, and results of the subsidiary. IT-tools, which can enhance the evaluation process are e.g. Intranet, various databases, executive information systems, tele- and video-conferencing, etc. These IT-tools increase the capacity to monitor the results of the establishment process, get feedback and react quickly to the problems, as well as enhance communication with experts and employees.

## **Managing and Developing the Subsidiary**

It is a very challenging and important task to manage the subsidiary and develop an effective management system of growth. According to Hulbert and Brandt (1980), the company has to make various preparations for managing and controlling the subsidiary, as well as having a set of objectives, strategies and programs to expand the subsidiary.

The organization structure, planning systems, and global communication channels have to be implemented efficiently to ensure success of the best strategies and the performance of the company.

Managers of the company have to set objectives for the subsidiary to enhance growth. Managers should determine the expected state and results of the subsidiary that the company wants to attain. When the expected state and results are defined, managers have to find suitable strategies and resources to meet the strategic goals to expand the business. After that, managers can set specific programs to ensure the implementation of the chosen strategies. The programs should define the responsibilities of the employees, implementation times and resources needed (Hulbert and Brandt 1980; Nahar 2001).

The management systems of the company can be used to control and coordinate the global business operations between distant locations and ensure global effectiveness. These management systems can provide information on a specific market environment and changes in the global markets (Huda et al. 1999), as well as assist in the transferring of skills, ideas, and experiences between distant locations (Douglas and Craig 1995). The company can utilize several IT-tools to enhance its capabilities to manage global business tasks. These IT-tools can be special databases, enterprise resource planning systems (Roche 2002), groupware applications (Nahar 1999; Nahar et al. 1999), project management tools, financial control tools and other geographically distributed systems (Ives et al. 1996; Nahar 2001; Roche 2002).

Table 1 summarizes the IT-supported international subsidiary establishment process.

<i>The phases of IT-supported international subsidiary establishment process</i>	<i>The key tasks involved in the different phases</i>	<i>IT-tools and services used in the different phases</i>	<i>Advantages/Benefits obtained</i>
<i>1. Need for establishing a subsidiary</i>	<ul style="list-style-type: none"> <li>Evaluate the suitability of the company's capabilities, goals and products for the international markets.</li> <li>Analyze the company's internal and external factors.</li> </ul>	<ul style="list-style-type: none"> <li>Internal and external databases, e-mail, tele- and video-conferencing, groupware applications, CDs and DVDs with market data, research sites, search engines, newsgroups, mailing lists, and country-specific Internet directories.</li> </ul>	<ul style="list-style-type: none"> <li>Rapid investigation of the company's internal resources.</li> <li>Fast and low cost collection of relevant, up-to-date information.</li> <li>Analyze and utilize the information collected.</li> </ul>
<i>2. International market research for the selection of the attractive markets</i>	<ul style="list-style-type: none"> <li>Recognize suitable international market areas.</li> <li>Acquire information about international markets.</li> </ul>	<ul style="list-style-type: none"> <li>Country specific databases, international data banks, industry specific databases, market data CDs, e-mail, mailing lists, newsgroups, tele- and video-conferencing, and Internet telephony.</li> </ul>	<ul style="list-style-type: none"> <li>Quickly find an attractive market environment and evaluate business opportunities there.</li> <li>Rapidly collect data from local experts, professionals, and practitioners from different locations of the world.</li> <li>Identify barriers associated with a selected market quickly and at a low cost.</li> </ul>
<i>3. Internal promotion for establishing a subsidiary</i>	<ul style="list-style-type: none"> <li>Promote the idea inside the company.</li> <li>Get acceptance and consensus from managers of the company for</li> </ul>	<ul style="list-style-type: none"> <li>E-mail, mailing lists, tele- and video-conferencing, and different groupware applications.</li> </ul>	<ul style="list-style-type: none"> <li>Adequate and effective communication with all important persons.</li> <li>Allocate preliminary resources for</li> </ul>



	establishing a subsidiary.		completing various tasks.
<i>4. Deciding to establish a subsidiary</i>	<ul style="list-style-type: none"> <li>Analyze and compare different entry modes.</li> </ul>	<ul style="list-style-type: none"> <li>Groupware applications, company mailing lists, tele- and video-conferencing, Internet telephony, and e-mail.</li> </ul>	<ul style="list-style-type: none"> <li>Faster decision-making process.</li> <li>Decrease traveling needs.</li> </ul>
<i>5. International promotion targeting to selected markets</i>	<ul style="list-style-type: none"> <li>Make customers aware of the company, its products and services.</li> </ul>	<ul style="list-style-type: none"> <li>Company's Web pages, e-zines, e-mail, trade mailing list, signature files, banners, CDs and DVDs, Web based multimedia software, Extranet based video, video mail, and tele- and video-conferencing.</li> </ul>	<ul style="list-style-type: none"> <li>Effective and low cost international promotion.</li> <li>Facilitate to find right contact persons from the customers' side.</li> </ul>
<i>6. Planning for the subsidiary implementation</i>	<ul style="list-style-type: none"> <li>Make plans for the implementation and management of the subsidiary project.</li> </ul>	<ul style="list-style-type: none"> <li>Internal databases, project management tools, e-mail, tele- and video- based conferencing, groupware applications, project management software, and spreadsheet applications.</li> </ul>	<ul style="list-style-type: none"> <li>Adequate and effective communication among managers, employees, and external specialists.</li> <li>Allow better and faster decision-making.</li> </ul>
<i>7. Implementation of the subsidiary</i>	<ul style="list-style-type: none"> <li>Execute the implementation of the subsidiary project.</li> <li>Organizing the subsidiary.</li> <li>Recruiting employees for the subsidiary.</li> <li>Providing training and support for employees.</li> </ul>	<ul style="list-style-type: none"> <li>Project management software, Internet, Intranet, Extranet, tele- and video-conferencing, groupware applications, Web pages of the company, Internet discussion groups, DVDs and CDs included interactive multimedia training applications, computer based model software, and Web based training.</li> </ul>	<ul style="list-style-type: none"> <li>Allow acquisition of information from multiple sources and provide remote support to customers.</li> <li>Allow distribution of different tasks to employees.</li> <li>Reduction of traveling needs.</li> <li>Reduction of face-to-face training.</li> </ul>
<i>8. Evaluation</i>	<ul style="list-style-type: none"> <li>Examination of the positive and negative results.</li> <li>Find suggestions to problems.</li> <li>Collaboration with various experts to solve problems.</li> <li>Storage of all analyses and documents in a lesson-learned collection.</li> </ul>	<ul style="list-style-type: none"> <li>Extranet, Intranet, various databases, EIS, mobile communication, tele- and video-conferencing, and Internet telephony.</li> </ul>	<ul style="list-style-type: none"> <li>Increase capacity to monitor results.</li> <li>Rapid feedback and reaction to the problems.</li> <li>Effective communication with experts and employees.</li> </ul>
<i>9. Managing and developing the subsidiary</i>	<ul style="list-style-type: none"> <li>Make preparations for managing and controlling the subsidiary.</li> <li>Set objectives, strategies and programs to expand the subsidiary.</li> </ul>	<ul style="list-style-type: none"> <li>Special databases, ERP, groupware applications, project management tools, financial control tools, and multimedia training.</li> </ul>	<ul style="list-style-type: none"> <li>Assist transfer skills, ideas, and experiences between distant locations.</li> <li>Facilitate global effectiveness.</li> <li>Improve control and coordination of activities.</li> </ul>

Table 1: IT-supported international subsidiary establishment process.

## CONCLUSIONS AND FUTURE RESEARCH

Software companies around the world are facing intensive competition and a shortening of the product lifecycles in both their domestic and global markets. The domestic software market of many countries is also quite small and saturated. These reasons are increasing the need to enter attractive global software markets. Recent advances in communication and information technologies are creating opportunities for the IT-supported internationalization of software companies. Unfortunately, most of the companies are failing to avail themselves of these opportunities as very limited literature exists on how to execute the establishment process of a subsidiary through the support of various IT-tools. This research was undertaken due to the aforementioned reasons and the growing importance of software companies' internationalization in the global markets through IT-support.

This research examined and analyzed how the IT-supported international subsidiary establishment process is implemented by answering the research question: "What are the phases in the establishment of a subsidiary through IT-support and how have the phases been executed?"

A systematic and in-depth investigation of the background literature has discovered that the IT-supported international subsidiary establishment process includes the following nine phases: 1) a need for establishing a subsidiary, 2) international market research for the selection of the attractive markets, 3) internal promotion for establishing a subsidiary, 4) deciding to establish a subsidiary, 5) international promotion targeting selected markets, 6) planning for the subsidiary implementation, 7) implementation of the subsidiary, 8) evaluation, and 9) managing and developing the subsidiary. This study makes a theoretical contribution by introducing the IT-supported international subsidiary establishment process. By introducing this IT-supported process, this study contributes new knowledge to both IT and international business. This research result is novel as no prior scholarly inquiry has examined in depth an IT-supported international subsidiary establishment process.

The conceptual model developed in this study can be used as a guideline for the establishment and management of an IT-supported subsidiary in a foreign country. It helps companies to enter the foreign software markets and establish subsidiaries through IT-support cost effectively by avoiding barriers.

This study suggests that effective and innovative usage of advanced IT-tools offer various assistance to companies to support their internationalization process. Usage of these IT-tools assists software companies in entering a foreign market rapidly with low cost and allows effective service and management of the foreign market. This study also suggests that traditional methods (such as face-to-face meetings, interviews, face-to-face training) are also needed to execute the subsidiary implementation process, as all the tasks cannot be performed by using ITs alone at present. Companies also face various challenges in implementing a variety of IT-tools, therefore further research is needed on how companies can avoid these challenges.

The conceptual model of IT-supported international subsidiary establishment process developed in this study has not been validated empirically. In the future, empirical research is needed to validate and refine the model. This research investigates internationalization of software companies through a subsidiary mode. Further research is needed to investigate and evaluate how the phases of the IT-supported international subsidiary establishment process vary if a company uses other modes of internationalization, e.g. an exporting or a joint venture through IT-support. This research develops a generic model of the IT-supported international subsidiary establishment process. It is also important to study how this process conforms to the internationalization process in some specific countries, e.g. in Japanese, Chinese or U.S. market.

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