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# Developing a product business in a Thai service company

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## Bachelor report

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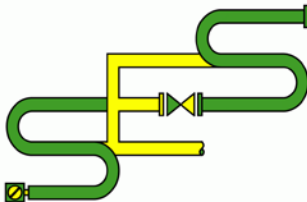
SES Thailand

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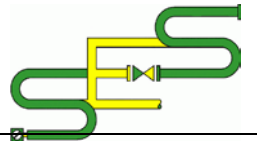
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## **Preface**

This Bachelor assignment report is the result of research study during a six month internship in Thailand. It is written on behalf of completing my Bachelor in Industrial Engineering and Management at the University of Twente in the Netherlands.

I would like to thank my supervisor Martin Stienstra for the guidance and help along the way, along with Stephan Maathuis for the initial setup of my research plans. The possibility to come to Thailand would not have been made possible without the help from AIESEC, thanks to my coaches here and abroad, Marielle 't Hart and Chutirat "Ying" Aphithanamontri. Finally, my colleagues at SES get my special thanks for giving me a place at their office, and letting me be a part of their daily lives.

## Nederlandse samenvatting

In dit onderzoek was het aanvankelijke doel om vanuit de wens van het bedrijf op zoek te gaan naar gerichte oplossingen om klanten te vinden voor een software pakket. Het gaat hier om een klein, service gericht bedrijf in Thailand dat zich richt op het in kaart brengen van instrumentatie systemen. De klanten zijn grote bedrijven, voornamelijk olie en petrochemische giganten in Thailand. Het bedrijf is in bezit van een verkooplicentie voor een software pakket dat specifiek gericht is op deze taakverlening. Voor dit product wenst het bedrijf klanten te vinden.

Een probleem dat opduikt is het feit dat er een grote concurrent op deze markt bestaat, en dat de bedrijven waaraan service verleent wordt vaak al in bezit zijn van deze concurrentiesoftware. Een ander probleem is dat SES puur gericht is op serviceverlening, en geen ervaring heeft met het commercialiseren van een product. Het doen van zaken gebeurt vanuit een bedrijfsnetwerk waarin de eigenaar veel mensen kent, en hieruit klanten vindt voor service contracten.

Vanuit de literatuur is een raamwerk opgesteld met daarin een gestructureerde manier van klanten werven en selecteren. Op elk van de punten die in dit raamwerk naar voren komen is de vergelijking gemaakt met de situatie van SES en hoe er op dit punt verbeteringen kunnen worden aangebracht. Tegelijk is de markt onderworpen aan een analyse om te zien hoe toetreding mogelijk is vanuit het huidige perspectief.

De onderzoeksvraag die in deze studie gesteld wordt is: Hoe kan SES haar marketing strategie voor het vinden en werven van potentiële klanten voor het software product 'Instrumentation Design Office' op de Thaise markt verbeteren? Om deze vraag te beantwoorden wordt het onderzoek opgesplitst tussen operationele en strategische oplossingen.

Uit het onderzoek is naar voren gekomen dat het bedrijf een stap moet zetten richting *productization* van de serviceverlening. Doordat het bedrijf zich wil richten op het aanbieden van een product dient de markt strategie hierop te worden aangepast. Het is hierbij essentieel het huidige bedrijfsmodel grotendeels te handhaven, aangezien dit de kracht van het bedrijf vormt. Het bedrijf opereert in een niche markt, waarin de ervaring en de kennis van zaken op het gebied van service de drijfveer is om succesvol te zijn. In de relationele aanpak dienen elementen te worden geïntegreerd die het aanbieden van het software pakket combineren met algehele service gerichtheid. Niet alleen moeten er klanten van buiten het kennisnetwerk worden aangetrokken met een zoekmodel, hiernaast moet de aanpak ook bestaan uit het betrekken van de huidige serviceverlening in het totaalpakket.

## Abstract

In this research the initial goal and wish from the company was to find solutions to find customers for a software suite. The company in question is a small service establishment in Thailand, aimed at mapping instrumentation networks. Customers are big companies, mainly oil and petrochemical giants in Thailand. The company owns a license to sell a software suite specifically aimed at this type of service. The company wishes to find customers for this product.

A problem that arises is the fact that there is a major competitor on the market, and most companies that are serviced are already in possession of their software products. Another problem is the fact that SES is solely aimed at delivering service, and has zero experience with commercializing a product. Doing business happens in a close business network, in which the owner has a lot of contacts that are the source for service contracts.

From the literature a framework is constructed with structured methods of finding and selecting customers. On each point present in this framework, the distinction is made between SES' situation and the improvements that can be made. Concurrently market analysis is done to see what possibilities exist for entrance with the current perspective.

The research question that is asked in this study is: How can Smart Engineering Services improve its marketing strategy for finding and soliciting potential customers for the software product 'Instrumentation Design Office' on the Thai market? To answer this question, the research is split up between operational and strategic solutions.

From the research it is clear that the company should make the step towards productization. The marketing strategy should be adjusted due to the focus on offering a product. It is essential that the current business model is maintained, because this is the strength of the company. They operate in a niche market in which their experience and knowledge form the unique selling point that offers success.

Elements should be incorporated in the relational approach that combine offering a software package with complete service orientation. Not only should customers be attracted with a search model, but also the approach should be to include the current service assets into the total package.

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## 1. Project design

### 1.1 Introduction

This research takes place in the setting of the engineering market. Many large firms with extensive plants and instrumentation equipment rely on subcontractors to install this equipment at the hand of complicated schedules. The firm where this internship takes place is specialized in services in this sector. In addition to this the company has a license for selling a software product that supports this industry.

Smart Engineering Services (SES) is a small firm in Bangkok, the capital of Thailand. Business takes place among the giants in the industry, in a growing Asian industry with traditional values at the cornerstone. The Thai industry is characterized by the strong influence of personal relations. SES is clearly a business wherein contacts are made through close networks.

The internship offered by SES offers the chance to research marketing possibilities for their product. SES is looking for ways to attract more customers for their software product on the market, and expanding the company name. Having a good name is an important facet of Asian culture, directly influencing results on the market.

SES is an organization with engineering, design and IT background, providing engineering integration solutions for various industries. The company is distributor of engineering software, and provides implementation and programming of engineering solutions. One of SES' main distribution products is IDO, Instrumentation Design Office.

SES already has much experience and name on the market when it comes to providing services in the engineering field. Selling a software product is an additional task for providing full service. With the acquiring of the license for selling IDO, SES wants to provide the market with a product that is more user-friendly and convenient than the current standard.

But the sale of IDO lacks an approach that convinces the customer to step over to a new standard in instrumentation software. The company knows how to sell services, but for selling a product it requires a



business plan. This research will form the desired concept for providing the market.

## **1.2. Company description**

This section gives a brief overview of Smart Engineering Services' core business. This will give a better understanding of the market fit and the product in question.

### **1.2.1 Products**

SES is currently the distributor for two main products:

#### **Instrumentation Design Office (IDO)**

This product has the focus of this project, being the sole product where the company is actively searching for customers.

IDO is a software suite meant for managing instrumentation information. Basically it's a database program with various functions for documenting information about physical instrumentation equipment. It is applied in many different industries, like oil and gas, mining, petrochemical, pharmaceutical, etc.

The software is used for creating and managing industrial instrumentation design data and documentation. Examples of its application are the managing of instrument data, making installation or instrument drawings, (integration with AutoCAD) and creating Bill of Materials.

IDO consists of three modules; Engineering, Designer and Wiring.

IDO Engineering is designed for the tasks of an engineer regarding the instrumentation. The functionalities allow the listing of instruments and datasheets.

Instruments in most equipment plants are connected through means of wiring. IDO Wiring allows the user to define the cables and wires used for the equipment. The terminal arrangement of the equipment can be defined, as well as cable schedules. Basically this module handles all the connections between the equipment, and the cataloguing thereof.

IDO Designer is centered on the handling of CAD-(Computer Aided Design) drawings. CAD drawings can be created from the

instrumentation design data. The module supports automatic creation of termination drawings and converting of loop and wiring design data in drawing files. The module contains an option for hookups. These are connections, which the module handles using standard arrangements for fast installation and detail generation.

### **AutoEDMS**

SES is also licensed to sell this software, but there are no outgoing activities for selling it, because marketing the product would not be very profitable. The current strategy is to sell it if at the customers' request. The software is found to be not in line with the way of work in which SES and its customers operate. Marketing it would demand effort and time which is better directed toward the other company activities.

### **1.2.2 Services**

The service providing function of the company is the main function. Selling the products is seen as a more supporting activity of fulfilling the customer need.

SES provides many customized flexible services for its client. Not only is the implementation and the support for the own products part of the services that are offered, but also a great scala of various database management support services. The main competitor product, SmartPlant Instrumentation (formerly called INTools, and still informally going under that name in the industry), is also supported by SES. Contracts with many big clients are involving database services for this software suite.

SES applies personnel on site with the customer, or working from the office on customer projects. This depends on whether it is possible to work on the database from the office or at location. For example, one project may involve importing data into a large database server in a customer's plant, another project might involve migrating data to a database standard which can be executed from the office.

### 1.2.3 Organization

SES is a small enterprise. Because the personnel is often put out under the customers, the number of people present in the office varies from project to project.

As of 2009 the ownership of the Thai subsidiary was sold to one of the managers. This resulted in the company being solitary based in Thailand, as opposed on a previous structure with subsidiary offices in other Asian countries. [Appendix A](#) shows the organization structure chart, to give an idea of the size of the company and the a flat hierarchical structure. Almost all of the employees are included in this structure.

SES is a Thai small and medium-sized enterprise (SME). This definition is based on the number of salaried workers, and fixed capitals. An enterprise is categorized as an SME when it has employees less than 200 and fixed capital less than baht 200 million, excluding land and properties (Office of Small and Medium Enterprises Promotion, Retrieved February 2009, from <http://www.sme.go.th>).

The organizational culture is formed by influences of both Thai culture and the size. On the one hand there are the characteristics present of a SME; informality, openness, transparency. On the other hand there are Thai business values as politeness, respect, trust and personal ties. Together they form a very personal but professional company.

### 1.3 Research problem identification and formulation

The main objective of the internship will be to redesign the sales and marketing strategies for acquiring customers for the product. By understanding the product and identifying target customers it must be possible to define the bridge that needs to be crossed to reach the desired situation. Targeting and soliciting potential customers for IDO will be the main subject of this research.

The problem cluster in [appendix B](#) shows a summarized overview of identifying the cause and effect relations of the problem. The primary problem is the lack of sales, due to a lack of customers. The lack of customer leads can further on be blamed on an insufficient marketing strategy, which is chosen as the core problem.

The research needs to be stated at the hand of a central management question, divided in multiple research questions. This can be summarized in the following question that needs to be answered in order to cover the desired outcome:

*How can Smart Engineering Services improve its marketing strategy for finding and soliciting potential customers for the software product 'Instrumentation Design Office' on the Thai market?*

### **1.4 Research questions**

In order to reach the desired situation of the company the central question needs to be approached by a systematical problem approach (Heerkens, 2002). The following research questions can be formulated for reaching the research objective:

1. *In which way can SES gain and sustain customers in the market for IDO?*
2. *What is the current situation for SES regarding the marketing approach?*
3. *Which strategic changes lead to a fitting marketing approach?*
4. *Which operational changes lead to a structured process for finding and soliciting customers?*

### **1.5 Research strategy**

To answer the main question, various steps must be taken to cover the total aim of the research. The research consists of systematic steps in order to reach conclusions and recommendations.

The first research question is based on the theoretical situation that fits the desired outcome. The way in which customers are found and sustained is gained by using a literature research. Both the strategic and operational aspects of designing the business process are important in this part of the research.

The second research question is investigating the market on which IDO is sold, to understand the delivering of value of the product in the industry. Analyzing the current methods for acquiring and sustaining customers is necessary for an analysis of the gap between the current and desired situation.

When it is clear what the theoretical and the practical aspects of the research are, the next step is the fitting change in process approach. Structural strategic changes will be discussed, as well as the operationalization.

## **1.6 Research Structure**

This report is structured in the following way:

Chapter 2 gives an overview of the literature review, in which prior work relating to the research problem is reviewed. This relevant collection of literature is used to form a theoretical framework. This framework will provide a design of the analysis, as well as the groundwork for the desired situation.

Chapter 3 offers the methodology approach which is used for this study.

In chapter 4 the report continues with results of the study. The first part consists of an analysis of the market and customers. The analysis follows the structure of the theoretical framework from the collected literature. For each part of this groundwork, the current and desired will be described and compared. Sub-conclusions are drawn for the business model.

Chapter 5 gives the overall conclusion of the research. A reflection on the research questions shows whether they have been answered, and if objectives have been achieved.

Finally, chapter 6 presents the discussion, wherein results are interpreted and compared with previous research. Shortcomings and limitations of the methodology will be reviewed.

## 2. Literature review

In this chapter various theories and excerpts from literature are presented. Together the relevant theory will form a framework that will be the basis of the research.

The elements from the research questions are divided in a strategic and an operational part, the strategic marketing approach, and the operational process for finding and soliciting customers. These two layers will be incorporated in the total framework.

### 2.1 Strategic marketing approach

One of the key concepts that arose from the problem definition is the desire to sell a product, with little-to-no knowledge about product business. The present know-how consists of the service area, with large projects. The shift from this so-called project business to product business is the starting point for a search in literature.

To narrow the search, literature is specified by selecting on relevance for SME's. Relevant literature is found for the strategic level by searching for the key terms *Product*, *Project*, *Business*, *Service* and *SME*. Different Boolean combinations of these terms with databases as Scopus, Picarta and Web of Science mainly result in articles about either product or process development. The combination of these two fields, especially the shift from one to the other, is particularly interesting for the research question. Specific to the change from a project-to-project business are the following articles with performed case studies within internationalizing software firms.

#### Product versus Project business

Changing a *product* business into a *project* business involves strategic changes. The core business of small, rapid internationalizing firms is often tailored services, which quickly changes into packaged products. This involves a leap in market orientation, requiring a change in strategy (Ruokonen, 2008).

A distinction can be made between tailored systems (project business) and packaged products (product business) (Alajoutsijarv et al, 2000). The main distinction lies in the customer base and nature of the market, where the project business is narrow with well known customers in a closed network, and broad and open for product

business. Since SES is basically used to work on project basis in a narrow market, and IDO is a typical packaged product, the choice of marketing approach is an interesting one.

Project business is commonly followed by small and locally operating companies, while Product business is the way to go for larger players, often in the international market.

When small companies used to the project business try to move their scope to packaged products business, various challenges arise regarding the market approach.

Two different ways of marketing approaches can be identified in Alajoutsijarv's spectrum, the marketing mix and the relational marketing approach. The traditional marketing mix is the development of an optimal mix consisting of product, price, place and promotion decisions for competing for the preferences of the chosen target segment of consumers or organizational buyers. In the relational approach the interaction, relationships and networks play a central role. Buyer and seller form a dyadic relationship with interactive communication, mutual learning and adaptations.

These two approaches are opposites of each other on the marketing strategy range. The distinction can be made between a total collaborative relationship and the purely theoretic view of the marketing mix. While the 'real' situation may lie somewhere between these two approaches, in general it's always towards one of the two alternatives.

Whether a company uses which approach and has either a project or product focused business defines the marketing challenges that it faces.

Table 1 presents the combinations along these factors, and the kind of business challenges that form as a result.

	The relational marketing approach	The marketing mix approach
Project business	(1) The typical situation faced by most small software companies: unique tailored projects within long-term customer relationships	(2) An impossible situation. Tailoring is not currently possible without cooperation with the customer
Product business	(3) Product business within long term –oriented customer relationships. Productization of learning from projects.	(4) Traditional mass marketer functioning in atomistic, competitive markets. Product development mainly through formal market research and immediate sales response.

*Table 1: A framework for identifying major managerial challenges in the software business (K. Alajoutsijarvi et al., 2000)*

When a company wants to move from one cell to another, an important issue is managing the risk perceived. The most common case is a company moving from cell (1) to cells (2) or (4). From project business with a relational marketing approach, towards the product business with either the relational or marketing mix approach.

The critical question in this matter is not whether to adopt either the relation marketing or the marketing mix approach. The approach is a given, depending on the product in question and the existing company profile. The question is to identify actions which decrease the uncertainty and risks perceived by customers. This typically calls for the simultaneous adoption of some features from both marketing approaches.

#### Porter's Five Forces Analysis

In the context of this research, an analysis of the market and the strategic position will lead to more insight on the research problem. A view is required on current situations and approaches, so that further research questions can be answered.

Porter's Five Forces Analysis is a useful framework for analyzing the micro environment of a company, with both internal and external



sources (Porter, 1979). Although Porter's research is based on large scale industry analysis, the model is widely used for organizations in a specific industry to make a qualitative evaluation of the strategic position.

This model shows how five forces influence the organization and determine the competitive intensity and attractiveness of a market.

These include the following:

- The rivalry between existing sellers in the market.
- The power exerted by the customers in the market.
- The impact of the suppliers on the sellers.
- The potential threat of new sellers entering the market.
- The threat of substitute products becoming available in the market.

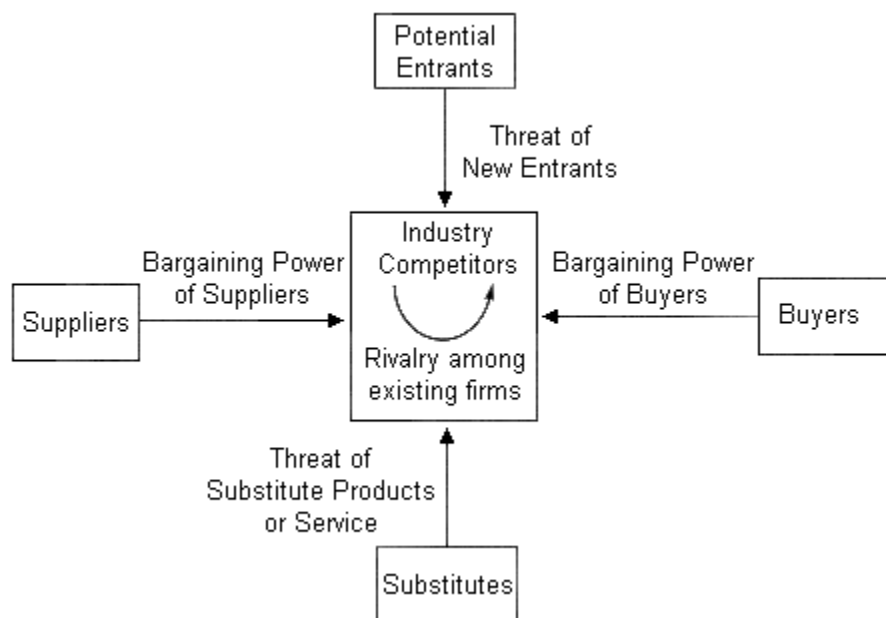


Figure 1: The Five Forces Affecting Industry Competition (Porter, M.E. (1979))

## 2.2 Operational process for finding and soliciting customers

The second part of the literature research concerns the operational process. The structure in question must support direct ways of finding and soliciting customers.

A literature search for the operational level results in multiple key concepts for finding customers. The first blank searches on the subject

'customer finding' gives similar stages identified in multiple literature sources: Leads, Inquiries and Prospects. In the following more specified search, these concepts together were used as key Booleans (customer\*, lead\*, prospect\*, soliciting). Combinations of these Booleans formed the input for databases as Scopus, PiCarta and Google Scholar.

The multitude of the results given by this are very specific guides for certain small areas of customer relations. Examples are guidelines for attending seminars, statistical models, salesperson interaction, et cetera. More general definitions are found in the works of Carroll (Carroll, 2006) (Carroll, 2009), wherein systematic business-to-business (B2B) customer finding methods are described for the entire process.

For the process of finding customers three different stages are often identified in literature. These are *leads*, *inquiries* and *prospects*. The terminology in literature is often different, with overlap and different usage of the terms. In this thesis the classification of J.C. Anderson and J.A. Narus is used (Anderson & Narus, 2008).

Anderson and Narus state that potential customers come in three types: Leads, Inquiries and Prospects.

- *Leads* are potential customers derived from business market databases.
- *Inquiries* come from customer initiated contacts with the supplier firm
- These two types lead to *prospects*, customers with significant sales and profit potential.

The process of *prospecting* lead to new customers, which in turn lead to established accounts, and finally a loyal profitable customer base.

### Lead generation

The first step in the process towards creation of prospective customers is the generating of leads.

This phase involves collecting large numbers of leads leading to qualified customers.

In Carroll's model (2009), Inquiry, Lead and Prospect have slightly different meanings from the definitions of Anderson and Narus. Inquiry's resolve into leads and finally in qualified prospects, while with

Anderson and Narus leads and inquiries are separate categories coming from different sources. Both have to be qualified as prospects to result in a customer. Both models are based on the process of funneling out large quantities of potentials to a narrowly targeted base of customers. Along this process 'screening' takes place, where criteria and customer demand decide which leads and inquiries pass.

### Databases

Anderson and Narus (2008) define two different kinds of databases relevant to the prospecting process.

- Customer database  
Created by the company itself, it contains all relevant information about past and present customers.
- Market database  
A market database contains key manager names and addresses and descriptive information on every company in the defined market. Such databases can be acquired through vendors that offer industry lists.

Commonly the acquired market database will be merged with the customer database to create a comprehensive database that reflects market potential.

When pursuing greater market penetration, progressive managers may have information on all potential customers already in the firm's customer database. They develop a target segment profile based on the firm's most strategically desirable and profitable customers. Then, using statistical tools, managers examine the comprehensive database for firms that have similar characteristics.

Carroll (2006) sees the customer profile database as one of the foundational parts of the lead generation program. All information about prospects has to be captured in a single central location accessible to all in the company. The database has to be designed according to the ideal customer profile and universal lead definition. Suggested are fields like industry identification and description, annual revenue, employment size, geographic information, budget and decision timeframe. Also necessary are standard fields like company name, address, telephone and fax numbers, contact names and titles, web site address, e-mail addresses, division/subsidiary/parent company relationships and a unique identification number.

### Integrated modular tactics

A portfolio of tactics is recommended for generating leads, forming a direct operational collection of methods (Carroll, 2009).

A multimodal lead generation plan heightens the response rate potential, due to the fact that it more effectively impacts contacts and their spheres of influence. Instead of focusing on the most effective tactic for lead generation one should implement as much tactics as possible, spreading the success of lead generation over the assortment.

To get in touch with customers, many sources need to be sought out. Being visibly present at the market is necessary for having a chance at customers seeking out the company. In the case of a complex sale the following elements should be included in a lead generating model:

**Branding:** in order for companies to find the product, it has to be visible. Branding positions the product on the market through advertising in different ways.

Product promotion can happen through public media like the press, seminars, editorials and other various platforms. This widens the product name on the market.

**Website:** A company's website is one of the most important sources for attracting companies that are interested in the product. A website has to contain enough information about offered products and services, and must be able to provide means of contact with the company.

**Targeted advertising:** Online lead generation happens very often through targeted advertising. Leads are collected by online marketing, for example in the form of banners and data collection through online surveys.

A useful online tool is the possibility to have a quotation generated. The customer fills in required information of a request, and a customized quotation is provided. This kind of automation eliminates time in the process of getting a quotation, and the potential customer immediately possesses information about the price.

Spreading the name and knowledge about the product needs to happen at places where the target group is present. Conferences and

tradeshows in the targeted industry are for example places where one should be present to find leads. Networking at the right places will not only deliver potential customers but also contacts to these leads.

#### Customer profiling for lead definition

Carroll suggests the creation of an ideal customer profile. (Carroll, 2009) This should include the most important attributes that define the best customers. Next, a universal lead definition can be made. Basically this is the filter that determines what goes through the *Lead Generation Funnel* model. Suggested examples for profiling are:

- Annual revenue
- Type of industry
- Number of employees
- Level of contact and functional area
- Local, regional or national scope
- Business situation
- Psychographics aspects

Psychographics aspects may be corporate values, culture, philosophy, leadership and internal/external factors that have an overt affect on the company.

### **2.3 Theoretical Framework**

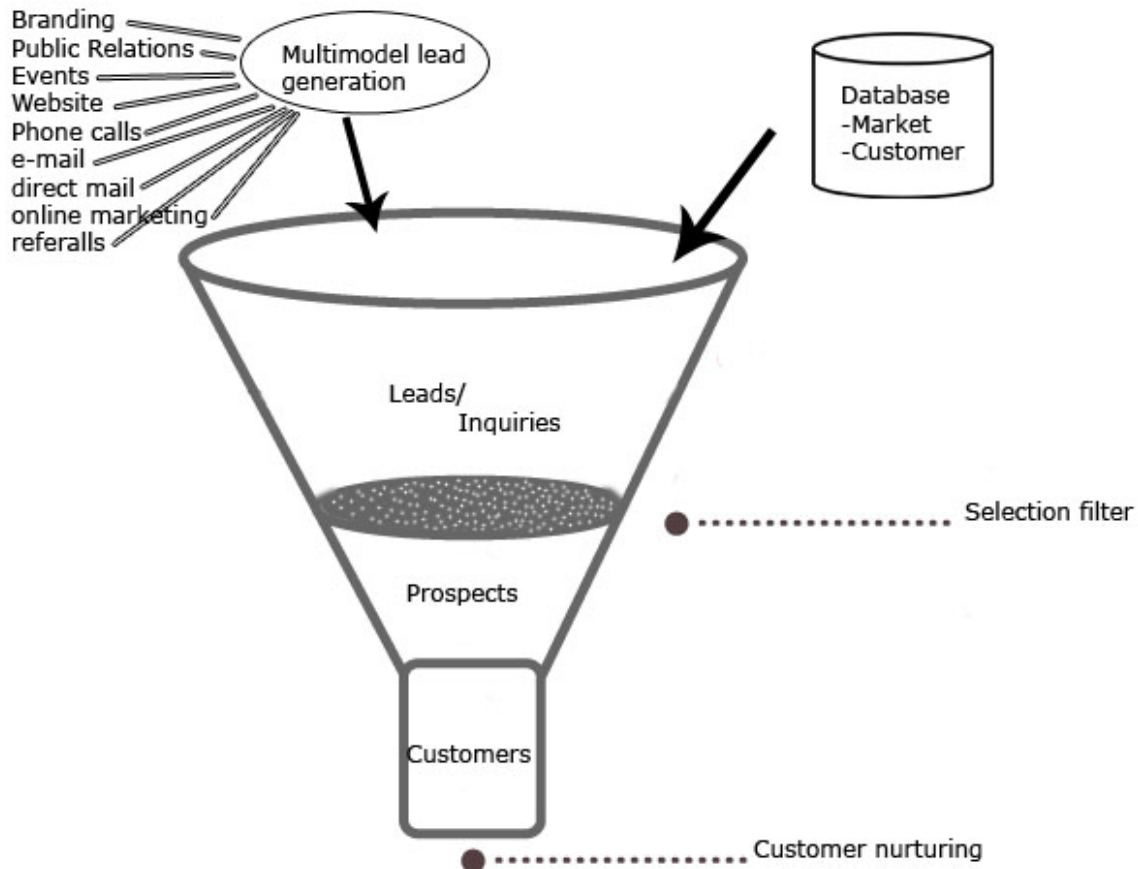
The operational and strategic layers together form the total picture of gaining and soliciting customers. The resulting model is the total process of gaining and sustaining customers for a small project firm. The lead generation step can be incorporated in the following structure:

Input comes from Databases as described in the theory of Anderson and Narus. Multimodal Lead generation will be the other source of input. This will require a model specific for the situation of this research, with a portfolio of sources for generating leads and inquiries.

The filter will be the decision process of which leads and inquiries will form prospects. This process includes the criteria for selecting which leads and inquiries are followed up to the prospect stage.

During this stage, the prospect will be approached to become a customer. If this is successful, the final stage is the nurturing and keeping of the customer.

For the design of the framework, a lead generation funnel is constructed for this specific situation. Figure 2 is a combined and summarized version of the models from the literature.



*Figure 2: Lead Generation Funnel*

This funnel, along with the strategic business modeling depicts the total desired framework that fits a small and medium enterprise:

### Strategic level

Table 1: An adaptation of the desired elements from the marketing and relational approaches from the level of a product business. The table shows the uncertainties and risks of both dimensions.

### Operational level

Figure 2: Funnel with inputs from marketing tools, leading to leads and inquiries, selected prospects turn into customers.

## **3. Methodology**

This chapter will deal with the methodology of this research. The theoretical framework from chapter 2 will be applied to find differences between the current and desired marketing approach for SES, with the required changes. These form the results of this study, which is designed along the lines explained in this chapter.

### **3.1. Research approach**

The general design of this study is a research to examine possible ways for improving the market strategy of SES. The literature research in the previous chapter is taken step ways to explore the case in practice, by structured interviews and field research.

The strategic models are compared with what happens in practice. Possibilities and shortcomings are explored within boundaries of the theory. The theoretical outlines for the operational level are taken step by step. Every piece of the funnel is observed in practice, by field research and interviews.

### **3.2 Type of research**

This research is based on secondary research to form new methods to tackle the main problem. The research type used in this study is *Exploratory Research* (Babbie, 2007). Exploratory research is used to gain more knowledge about a subject in a flexible and dynamic way, and expanding this knowledge during the course of the study. The literature from chapter 2 forms the knowledge framework, providing direction for the analysis of the problem.

### **3.3 Types of data**

In this research two types of data can be identified: secondary and primary data. Secondary data consists of information obtained through the use of secondary sources, books, articles etc. This secondary data forms the first part of this research, a literature research.

Primary data consists of what people say and do, collected through research respondents in interviews and qualitative research (Babbie, 2007). This research covers a review of the company, in which primary data will be obtained to form results.

The literature research is conducted to form a theoretical framework. Articles with relevance to the research is accessed through databases as Scopus, PiCarta and Google Scholar and other resources.

### ***3.4 Data collection***

Because this research is of qualitative nature, instead of discrete, numerical data, field research is conducted to gain data that consist of observing respondents. Field research consists of a process of observation, processing data and analysing. Data is collected through a deductive approach, applying the existing theory in the research situation.

The primary method of data collection in this research is using face-to-face interviews, with relevant key respondents using open-ended questions (Blankenship et al, 1998). The fitting type of interview is the unstructured informal interview, wherein the interviewer is guided by a pre-defined list of issues. Relevant remarks are pursued to reveal further sides of the subject that need to be explored. In a later stage of the study, interviews were more structured to answer the more specific questions.

### ***3.5 Research population***

The research population consists of key figures in the company. The management with decision making authority are used in formal approaches such as in-depth interviews. Overall, informal discussions with employees and customer are used in the field research. Because exploratory research has a flexible informal structure, this contributes to the qualitative research data.

To increase consistency, the personnel involved in the decision making and sales process where interviewed in similar fashion on similar subjects.



## 4. Results

In this chapter the analysis of the market and the customer for IDO will take place. The theoretical basis will be used in order to systematically analyze each step of the customer process.

Conclusions can be derived from the analysis of both current situation and the theoretical groundwork, so that recommendations can be made for reaching a desired situation.

### 4.1 IDO market and customers

#### 4.1.1 Definition of the local market

Currently business takes place within several countries in South-East Asia. Of course the domestic country Thailand is among the countries where SES does business. Other countries of interest are Malaysia, Japan, Korea and Singapore.

China would have been a possible market, if it was not already satisfied with its own supply of engineering companies. On top of that, market entry for foreign companies is very difficult, along with the language barrier.

Also coping with this language barrier are Japan and Korea, where the English language is not so wide spread. Singapore and Malaysia, are like Thailand, countries where English is widely spoken in business.

The language barrier in Japan is dealt with by a subsidiary office. One person acts here as an in-between for Japanese customers and the Thai company.

Summarized this gives us Thailand, Malaysia and Singapore as the base market, with Japan and Korea as enterable markets with language restrictions.

#### 4.1.2 Definition of an IDO customer

Target customers are instrument designers, EPCC's (engineering, procurement, construction contractors) and plant owners. Not only customers with physical plant assets, but also the subcontractors who

build them. Especially petrochemical companies are targeted, those are the main portion of the market.

The end-user of the software is usually a designing team. The designing of instrumentation lay-out for plants is the main functionality that is offered by using the software. When a company has physical instrumentation, the lay-out needs to be designed in order for construction or maintenance. Usually the construction is being done by a subcontractor, who in turn is provided with lay-out drawings by designing engineers. This can either be a separate company, or a team from the plant itself.

Basically three parties can be identified:

- The company with the physical equipment
- The designers of this equipment
- The subcontractor for construction of this equipment

IDO comes in play at the designing step of this process. So the second party is the target for selling the product. Because a company can either have its own engineering team or have the designing work done by a separate company, the target customer is not per se every company with the physical equipment in question.

Since IDO is used by designers of instrumentation lay-outs, EPC contractors are main customers. In an engineering, procurement and construction (EPC) contract, the EPC contractor (EPCC) are commissioned to execute projects for plant owners. These companies specialize in the execution of large capital projects, from the very beginning phases of engineering, all the way through construction and into startup/commissioning. They also provide ongoing engineering services to operating companies.

#### Instrument designers

The designing step of instrumentation projects is done by individual instrument designer companies. EPC's cover complete projects, but this kind of companies is specialized in this part of the project. Like EPC's, Instrument Designers are subcontractors for plant owners for the design of instrumentation schedules. IDO, especially the *Designer* module, is a powerful tool for this process.

### Plant owners

Not only the companies who design and implement the instrumentation are potential customers, but also the plant owners themselves. The *Engineer* module is a convenient tool for keeping track of the instrumentation. The software allows the company to have specifications and data available to have an excellent overview of their physical equipment. For example when maintenance or expansion of the equipment is required, IDO allows the company to easily access the required information.

### **4.1.3 Porter's five forces analysis**

The model of Porter is used to describe the market on which SES operates, as well as for the market for IDO (Porter, 1979). This gives way to answer the research question regarding the current situation for SES.

#### **Power of customers**

SES has many customers for which service is provided. None of the customers is of major importance for SES to depend upon. There are multiple customers who can be considered big companies, but because the customer base is spread out between multiple of these, there is just minor dependency on individual customers.

When IDO is purchased, the customer commonly buys a service contract along with the software. This entails customer support, implementation, training and other services for a given period. During this period the customer has a dependency on SES for proper use of the software. After this period the service agreement can be lengthened.

#### **Rivalry on the market**

On service level SES is operating in a niche market. SES is a known name when it comes to providing service and manpower for instrumentation database solutions. Some companies in the same market are able to provide the same services, but this is usually outside of their usual scope of work. Most of these companies do have the expertise, but not the contacts or experience.

For the product IDO it is a different matter. The major competitor, Intergraph with its product SmartPlant Instrumentation (INtools), is the major market leader. Although some other alternatives apart from

IDO exist, SES is not undergoing any competition from them, especially not on the local market. When marketing IDO, the focus usually lies on the advantages in comparison with INtools.

### **Impact of the suppliers on the sellers**

Since SES is a distributor of a packaged software product, the supplier can be seen as the party that owns the license and rights on the suite. IDO is developed/supported from Melbourne, Victoria by iDesignOffice Pty Ltd.

SES is committed to market the product, but has the final decision regarding the marketing. During the contract period iDesignOffice has to provide SES with the license to the product for sales. This creates a strong position for SES regarding power of the supplier, as long as the contract stands.

SES has no other direct suppliers influencing the sales process.

### **How likely is it that new sellers enter the market?**

SES has a great advantage of having a good business network. The company has a name among the big engineering companies, and is often the only logical choice for the job. With the service activities SES is working in a niche market. This means that if a new seller with the same expertise would enter the market, this position would shift significantly.

However, SES has built up much trust, knowledge, experience and name on the market, so that its position in a competitive situation would still be the strongest.

### **How high is the threat of substitute products?**

IDO is a specific designed product for a certain niche. IDO itself is seen as a substitute product for the market leader product SmartPlant Instrumentation (INtools). Other alternatives exist, but not present on the local market where current customers are found.

On the local market the main focus is to compete with INtools. With the connections and experience that SES has on the local market, a competitor with another substitute product for either IDO or INtools would have a difficult time competing.

## **4.2 Lead/inquiry Generation**

This paragraph deals with the current process involving the gaining of both *leads* and *inquiries*.

### **4.2.1 Current generation**

SES doesn't have a different method of finding customers for its products than it does for its services.

The manager is in possession of a broad network of contacts in the industry. Through personal contact are deals established, and often customers come finding SES for required services. This is typical for the relational marketing approach (Alajoutsijärvi et al, 2000). In combination with the product business the suggestion is to form long-term oriented customer relationships, and the productization of learning from projects.

#### Database

Through business connections a list is acquired with current INtools service customer data. Because of the constraint that INtools customers are no potential IDO customers, this list is not useful for gathering leads. Instead it is used for gathering acquaintances for SES' service department.

A second source of customer data is present at a partner company, Prosper. Prosper is an electrical equipments trading company, under management of the partner of SES' owner. Since both companies share the same customer industry, the customer data from Prosper can be used for promotion for IDO.

Apart from these data sources, no single database customer system is currently present.

#### Website

SES' website gives an overview of main activities. This website includes an detailed overview of IDO, and provides contact information for interested customers. However, the site is not very user friendly, and does not use the full potential of getting in contact with customers.

#### **4.2.2 Sub-conclusion**

The two main sources for leads and inquiries from the framework are databases and the multimodel lead generation.

A company needs to have a basis collection of customer data to approach for products and services. From this basis a selection needs to be made with specific criteria to find out which customers are suitable for approach.

SES' database should include two kinds of customer information, that of past customers, and of all potential customers in a target sector. The objective is to reach total market coverage within the database. A data strategy should be involved in distinguishing the information that is needed in the database. This should act as a guideline to keep data up to date and complete.

For the database desired for SES, specifically for IDO, important fields apart from company name and address information: Annual revenue, employment size, geographic information, budget and decision timeframe.

There are various means for collecting data to fill the database with appropriate leads and inquiries. It is possible to buy market information through commercial list vendors. Various companies offer lists with ready to use market information on desired specific market segments. Another possibility is to collect previous contacts data. Many companies already have lists with contact data from previous customers. These are also potential customers for other products or services the company may offer. For SES this is hard to achieve, since most service customers are already in possession of a instrumentation tool like INtools. Other methods of data collection are scanning the contacts of contacts, and websearch. Known contacts have competitors and/or customers in the same industry. By analyzing these, the known network of businesses in the industry can grow like an oil stain. Every well respected company is present on the internet with an own website or other contact representations. By scanning the web on the desired industry a lot of data can be collected.

With the data covered in the database, leads should be contacted by various means. Getting brand awareness, informing about the product, keeping the company name familiar, these can all be goals for keeping direct contact which can eventually lead to successful leads.

Leads can be found through already established business contacts. These can be all kind of actors in the business network, like existing customers, vendors, partners, and so on.

### **4.3 Lead/Inquiry Selection**

The following step in the process is the passing of leads and inquiries through the selection filter.

In theory the selection of prospects goes according to certain criteria, specified for the product in question. In the case of IDO a potential customer is selected according to the criteria in the following paragraph.

#### **4.3.1 Current criteria for IDO**

The first criterion is derived from the needs that IDO fulfills for the customer. The end-user of the software is usually a designing team. The designing of instrumentation lay-out for plants is the main functionality that is offered by using the software. When a company has physical instrumentation the lay-out needs to be designed in order for construction of maintenance. Usually the construction is being done by a subcontractor, who in turn is provided with lay-out drawings by designing engineers. This can either be a separate company, or a team from the plant company itself.

So basically three parties can be identified:

- The company with the physical equipment
- The designers of this equipment
- The subcontractor for construction of this equipment

IDO comes in play at the designing step of this process. So the second party is the target for selling the product.

Because a company can either have its own engineering team or have the designing work done by a separate company, the target customer is not per se every company with the physical equipment in question.

The second criterion lies in the type of database that the target company is currently using. Appendix C gives an overview of these system requirements.

Furthermore the additional value of IDO above the product of the main competitor, Smartplant Instrumentation (or INtools), can be found in the price difference and ease of use. But once the database works on INtools, migrating of the data to IDO is a too costly and painstaking process. So when a company is already served by the competition, IDO can not compete.

The final restrictions are the market barriers for SES. Because of the intensive selling process involved with a complex sale, the communication is very important. Sales are limited to the local market.

#### **4.3.2 Sub-conclusion**

SES has a clear selection of criteria for the current business model. Once a lead/inquiry is generated it is an easy step for the company to gather information that will lead to the decision whether to pursue the potential customer.

The current criteria for SES are:

- Type of customer
- Hardware requirements
- No INtools customer
- Local market

These are the criteria that fit the situation of IDO according to the theoretical framework:

- Geographical location
- Size of the customer
- Payment, when, reliability
- Order size, profitability
- Segment of customer
- Future demand

These criteria can be implemented as addition to the current ones. The search will be more specific on wishes and desires of the company, resulting in cheaper and more effective gaining of qualified leads.



## 5. Conclusion

The goal of this study is to help SES to find customers for their product. During this study, it has been made clear that this problem was caused by the shift from project towards product business.

Although there are many ways to reach customers, SES is currently only using the business network to expand business. There is no clear, structured overview of past, present and potential customers. Promotion of IDO happens on a very small scale, and the website is not specified for SES and gives the customer no platform to reach the company. This report addressed different options for remodeling the process of customer generation in a structured way.

The unique selling point of SES consists of the specialization they have in a niche market. This should be taken advantage of by creating long term oriented relations with regard to IDO.

Instead of making a shift from full relational project business towards a marketing mix based product business, SES should look in between and find a new business logic while maintaining their way of doing business. The answer lies in productization, wherein the packaged product selling changes into a full-serviced total quality package.

One of the strong points of SES is the forming of long-term service contracts. This aspect can be incorporated in a business strategy aimed selling the software, by combining the sale with total quality service during the product lifetime. It is especially important to reduce uncertainty and risk when moving to new and foreign markets, which is gained by offering personal relations and a basis of trust.

The various aspects of the lead-to-customer framework that are addressed in this report should be incorporated in the new business model. They offer the tools that are required to look behind the current network and into new markets.

These results can be translated to relevance for other companies. SES stands model for small and medium enterprises (SME's) ready to develop into productized businesses. These kind of businesses often make a leap towards internationalization with packaged software, while trying to maintain the relational approach typical for start-up companies. They are able to make this step by incorporating the

aspects necessary for a product business approach into their specialized area.

The research question at the basis of this study is: *"How can Smart Engineering Services improve its marketing strategy for finding and soliciting potential customers for the software product 'Instrumentation Design Office' on the Thai market?"*. Throughout this report, this question is split up between the operational and the strategic part. Concrete recommendations are as follows:

On the **operational** level the company should incorporate structured market tools to reach new markets for this product business. These include:

- The creation and management of a market-covered database
- Improving the company website for direct quotations and contact information
- Creating brand and company awareness
- Managing an active scanning procedure within the business network
- Increasing customer criteria to gain a more effective lead generation

SES should incorporate these operational steps towards design improvement. This will lead to an improvement in marketing strategy.

**Strategically**, the main recommendation is to incorporate SES' expertise on services in their sales model. This element is the strength of the company, and should be combined with long-term oriented business contracts. Putting this concrete, the above operational methods must form the basis of widening the market for SES, giving the opportunity to bind customers with a high service level along with the sale of the product. The key word is productization, changing the product in a full-covered service package.

## 6. Discussion

The goal of this research was to find means of improving a marketing strategy for finding and soliciting potential customers in a Thai company. Information was gathered on optimizing lead and inquiry collection, on both the operational and strategic level. The findings are significant for small companies trying to make the leap towards standardized product business.

The main method of data collection in this research was through personal interviews. The drawback of this methodology is that it might not have been quantitative enough. A method for structuring these interviews could have been in place, requiring a larger scale with more respondents and sources.

The main limitation of this research is the small sample size. This paper is based around analyzing a single company. Conclusions that have arisen can be applied to similar companies in similar situations, but the validity of the outcome cannot be generalized. Future studies could be deducted with multiple companies at the basis.

Another limitation is formed by language and cultural barriers, influencing the validity of gathered data. Because personal interviews where the main source of data, answers and their interpretations could have been influenced by these barriers. The cultural values influencing this study where on the one hand the openness and informality which made it easy to start conversation and gather data, but on the other hand this was restricted by the politeness and the personal ties among personnel. People where eager to talk, but to a certain extent and with a wariness to not tell about potential threats of losing respect or face. There was a certain shame present about the level of English, which could account for certain withholding of information of the correspondent, or misinterpretation due to this level of the English language.

Data is collected in a Thai company active on a part of the Asian market. The personal relation approach described throughout this paper is of special importance to companies in this cultural area. The conclusions derived should be taken into account when dealing with a similar focus on relational approach. It should also be noted that this

works the other way around, not in every situation is there as much emphasis on the relational approach.

The literature study that formed the foundation of the exploratory research was mainly performed during the internship. Because of time and technological constraints, the amount of literature collected prior to the result gathering phase could have been more complete and extensive. The resulting framework formed the basis for the analysis of the market and company, so it is important to note that the specific literature collected formed the research as a whole. Part of the literature included work subject to certain criticism, such as the model of Porter. The interrelation between actors is not taken into account, and the application on SME's of a model that is based on large-scale industry could be doubtful. However, the application of the model in this study is merely as a framework for the strategic position, and not for an in-depth qualitative evaluation.

The results of this study are useful for SME's searching for a practical application of finding and soliciting customers. When such a company is willing to adjust the company structure, and is able to both strategically and operationally make the leap towards the product market, this report can support the implementation of such changes.

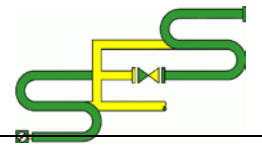
## 7. References

### Literature

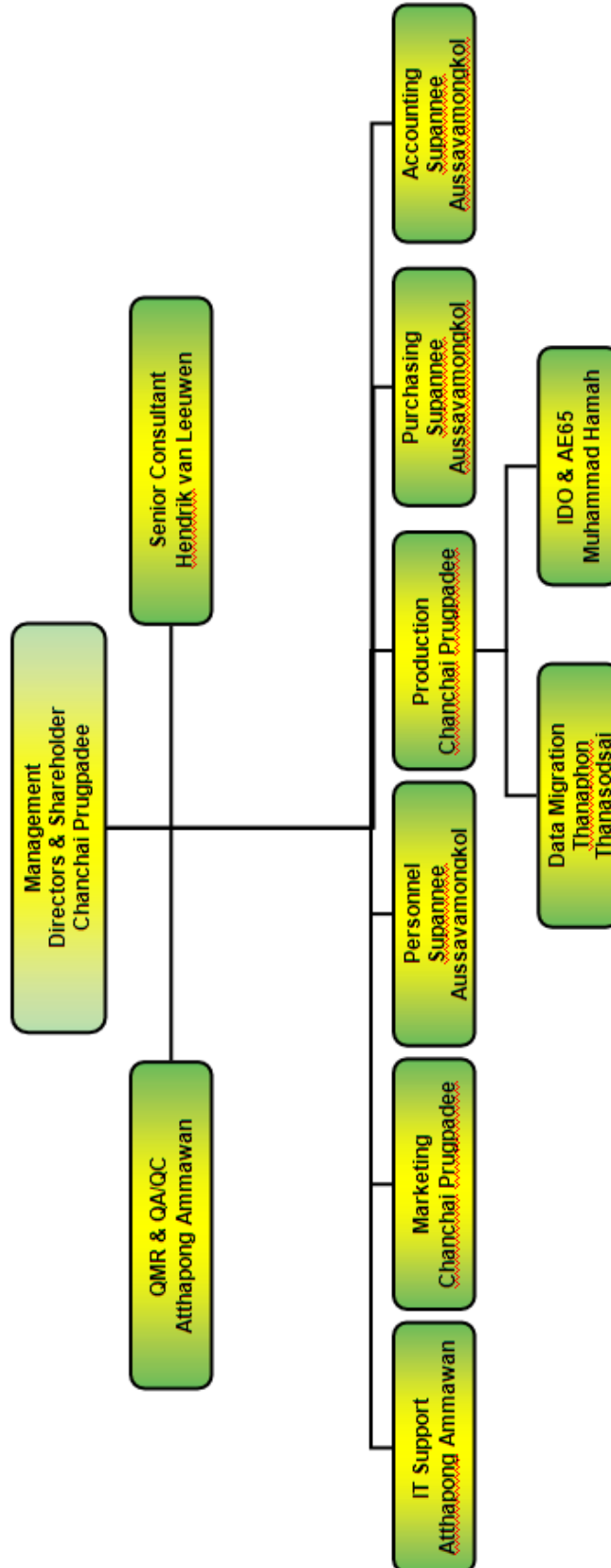
1. Alajoutsijärvi, K., Mannermaa, K., Tikkanen, H., (2000). Customer relationships and the small software firm: A framework for understanding challenges faced in marketing. *Information & Management* 37, 153-159.
2. Anderson, J.C., Narus, J.A., (2008) *Business Market Management*. Pearson Prentice-Hall, Inc.
3. Babbie, E. (2007). *The Practice of Social Research*. (11th ed.). Belmont: Thomson Wadsworth.
4. Blankenship, A.B., Breen, G.E., Dutka, A. (1998) *State of the Art Marketing Research*. Illinois: NTC Business Books.
5. Brassington, F., Pettitt, S. (2002). *Principles of Marketing. (3rd edition.)* FT Prentice Hall.
6. Campbell, N. C. G., Cunningham, M. T. (1983). Customer Analysis for Strategy Development in Industrial Markets. *Strategic Management Journal*, Vol. 4, No. 4, pp. 369-380
7. Heerkens, J.M.G. (2002). *Inleiding Technische Bedrijfskunde, reader deel 2: Inleiding Methodologie*. Enschede: TSM Business School
8. McCarthy, J. (2001). *Basic Marketing: A managerial approach, 13th edition*. Homewood Illinois: Irwin.
9. Millard, M.J. (2003). A million segments of one — how personal should customer relationship management get? *BT Technology Journal*, Vol. 21, No 1, pp.114-120
10. Phaprueke, U. (2008). Roles of organizational culture and environmental characteristics in earnings quality of Thai SMEs. *International Academy of Business and Economics*, Vol. 8, No 4.
11. Porter, M.E. (1979). How competitive forces shape strategy. *Harvard Business Review* 57, pp. 137-145
12. Ruokonen, M. (2008). Market orientation and product strategies in small internationalising software companies. *Journal of High Technology Management Research* 18, pp. 143-156

### Internet

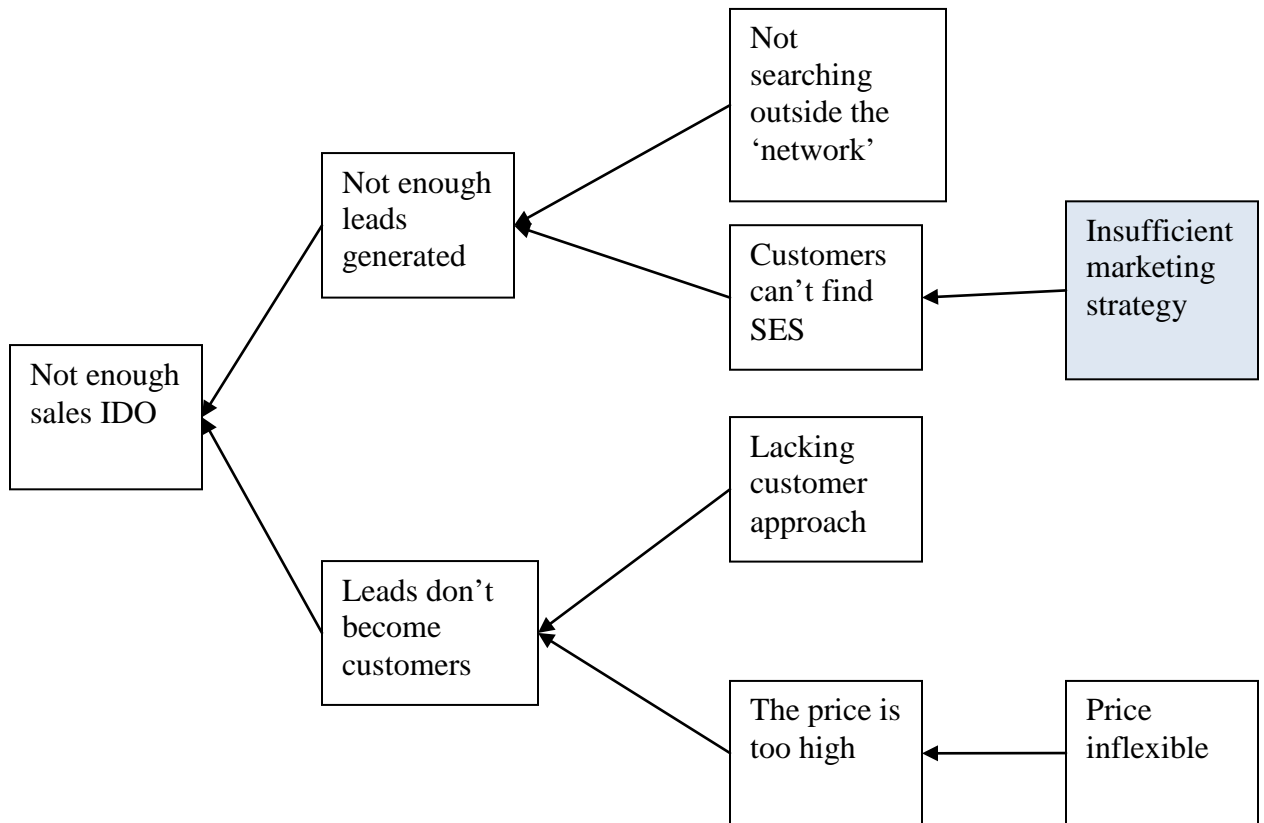
13. Carroll, B.J. (2006). Start with a lead. Retrieved February 2009, from <http://www.startwithalead.com/tools/download.asp?ITEMID=232>
14. Office of Small and Medium Enterprises Promotion. Executive Summary: White Paper on SMEs 2008 and Trends 2009. Retrieved February 2009, from <http://www.sme.go.th>



## Appendix A - Organization Chart



## Appendix B – Problem Tangle



## Appendix C – IDO system requirements

### System Requirements

**IDO Instrumentation requires the following minimum system configuration:**

#### Hardware:

The minimum hardware requirements are:

CPU Pentium II or later

Memory 512MB or greater

Available disk space 50Mb to 150Mb per project database (approx)

100Mb on local workstation (approx)

#### Software:

The minimum software requirements are:

Operating System Windows® XP (with .NET 2.0 or 3.5 Framework)

Other software Microsoft Excel® 2000, XP (2002) 2003 or 2007 for Datasheets.

AutoDesk AutoCAD® 2000 to 2009 for CAD drawing generation.

#### IDO recommends the following configuration:

- 3.0 GHz Pentium IV or 2.4 GHz Core2® (or equiv.) processor
- 1Gb RAM minimum (2Gb is recommended)
- 1280 x 1024 screen resolution (or higher), 24bit color
- Windows® XP Pro or Vista® Business
- For larger multi-user projects (3 or more concurrent users): SQL Server® 2000, 2005 or 2008 database & server (or SQL Server Express® 2005 or 2008)

#### Database Systems:

##### IDO Instrumentation supports three database systems:

- 1) Microsoft Access 2002 (*or later*)
- 2) Microsoft SQL Server (2000, 2005 or 2008)
- 3) SQL Server Express (2005 or 2008)

IDO Instrumentation includes the Access database file so clients are not required to have an

Access license to use IDO Instrumentation.