MARKET RESEARCH AND MARKET ENTRY CHALLENGES OF FINNISH COMPANIES IN TURKEY

A comparison of technology-centric and product-centric approaches

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Hakki Meseci

HAMK
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ABSTRACT

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Author Hakki Meseci **Year** 2013

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ABSTRACT

Each market has its unique characteristics. Depending on these characteristics companies and marketers face various challenges. Over the last several decades, the marketing concept has been changed due to an increasing focus on customers and technology issues that impact the market. Most of the well-established techniques for traditional market research do not apply to high-technology products or small innovative companies.

This thesis work aims to shed light to the business-to-business marketing challenges of Finnish companies in Turkey with the guidance of Innovalogy Oy. We compared market research and market entry challenges of a high-tech product and medium-low-technology product which relatively require different expertise. The social and economic differences between Finland and Turkey make marketing practices both challenging and demanding. We further discussed the effects of countries' development levels as to high-tech understanding, technology adoption and innovativeness.

Qualitative research methods were used in this thesis in the form of text analysis, interpretation and interviews. In order to provide insights to the aforementioned markets and products, we conducted market research interviews with potential business-to-business customers in Turkey. We also aimed to create a market research framework to be used exclusively for high-tech products and innovative solutions based on the results of the interviews. By identifying the challenges and developing a market research questionnaire framework for two different product types, this thesis work aim to help businesses and business consulting firms such as Innovalogy conduct an efficient fast-paced market research.

The findings were used to develop a market research framework for both technology-driven and product-driven approaches. The frameworks were proposed at the end of the thesis and detailed versions were delivered to the commissioning company.

Keywords Technology marketing, product marketing, market research, cold calling, B2B, Finland, Turkey.
Pages 58 p. + appendices 5 p.

ABBREVIATIONS

B2B	Business-to-business
B2C	Business-to-consumer
CATI	Computer-assisted telephone interviewing
CEO	Chief executive officer
CNT	Carbon nanotube
CTO	Chief technology officer
CU	Customs Union
GDP	Gross domestic product
IMF	International Monetary Fund
IT	Information technology
ITC	Information and communication technology
NLP	Neuro-linguistic programming
PBX	Private branch exchange
R&D	Research and development
ROI	Return on investment
SME	Small and medium-sized enterprises
TEKES	the Finnish Funding Agency for Technology and Innovation
TUBITAK	The Scientific and Technological Research Council of Turkey
USPTO	United States Patent and Trademark Office
VoIP	Voice over Internet Protocol
VTT	Technical Research Centre of Finland

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1 INTRODUCTION

1.1 Motivation and background

Most of the well-established techniques for traditional market research do not apply to high-technology products or small innovative companies. The reason is that both organizational culture and product characteristics are different to product-centric manufacturers and products such as rubber and plastic products, basic metals, fabricated metal products (excluding machinery), wood products, ships and boats. Although there is a number of strategies proposed by studies on high-technology product marketing, businesses still face challenges in marketing, especially when exporting and importing.

This thesis work aims at shedding light to business-to-business marketing challenges of Finnish companies in Turkey with the guidance of Innovalogy Oy. We compared market research and market entry challenges of technology-centric and product-centric companies which relatively requires different expertise. The social and economic differences between Finland and Turkey make marketing practices both challenging and demanding. We further discussed the effects of countries' development levels in education, high-tech understanding, technology adoption and innovativeness.

The aim of this thesis work was also to develop a framework for technology-driven and product-driven questionnaires to be used during business-to-business market research. We aimed to apply traditional and modern marketing approaches coupled with customer responses for developing two different questionnaires. These will help business consulting firms such as Innovalogy Oy and other businesses to save time during the market research and to better understand the business-to-business marketing in Turkey.

1.2 Commissioning organization

Innovalogy Oy is a company specialized in business and technology consulting services and it is based in Tampere (Finland) and has a local presence in Istanbul (Turkey). It was established as a result of Finnish-Turkish partnership and the growing demand on services for Finnish and Scandinavian companies that are looking for opportunities in Turkey. The company provides consulting services related with business and technology development by offering innovative solutions and manufacturing alternatives. Innovalogy also participates in product development process in order to contribute the growth of its partner companies. Main fields of company's business activity are medical and healthcare industry, textile industry and electronics. (Innovalogy Oy 2013.)

This thesis work was guided and commissioned by Innovalogy Oy and the implementation was conducted with two of its partner companies. The company conducts market research for companies that are looking for partners and customers in Turkey and provides sales guidance during entry to Turkish market. The company also arranges meetings with potential business partners from the market research report and create a schedule for business trips and relevant trade fairs in Turkey. In addition to these, Innovalogy also provide services on distribution channel, direct sales and partner development and offers supply chain management in technical and medical textiles, technical consulting on novel materials, technology consulting and innovation services for alternative electronic manufacturing techniques. (Innovalogy Oy 2013.)

1.3 Research question, objectives and methods

The main research question of this thesis study was:

What are the market research and market entry challenges of Finnish companies in Turkey in comparison with product-centric and technology-centric approaches?

In order to answer the research question, this thesis work aims to achieve the following objectives which were raised by the above mentioned research question:

- Studying technology-driven and product-driven market characteristics
- Identifying market research and market entry challenges of Finnish companies in Turkey
- Identifying the factors which influence technology adoption and uncertainty in Turkey
- Developing a B2B market research framework for product-centric and technology-centric approaches
- Identifying potential customers for the case products

Qualitative research methods were used in this thesis in the form of narrative analysis and interviews. The materials in the theory part were gathered from scholarly, trade and professional literature, publications and internet articles. The practical part of the thesis contains primary data collected through interviews in addition to above mentioned methods.

1.4 Structure of thesis

This thesis is divided into two main parts. The theoretical background begins with an introduction and continues with basic terminology and theories related to the main subject. The structure of the theoretical part enables the reader, regardless of his/her background, to understand the complex theories discussed in the last sections and to better understand the analysis in Chapter 3.

Chapter 1 is the introduction part of this thesis. Information on background of thesis work, the commissioning company, research question, objectives and structure of thesis is given in this chapter.

Chapter 2 contains materials gathered from various sources as mentioned above. The theoretical part begins with definitions of relevant terms and continues with in-depth information on the subject. There are also previous studies and projects mentioned in corresponding subsections. The chapter ends with the need for different market approaches in order to overcome challenges.

Chapter 3 discusses the social and economic differences between Finland and Turkey. In this chapter, we also discuss the factors affecting innovativeness, technological uncertainty and technology adoption in both countries. The Turkish market is discussed more in detail since it is the target market for this study. The market research study which was conducted using cold calling interviews is also analysed in this section. Chapter 3 ends with comparisons of frameworks and results of the market research study.

Chapter 4 is the conclusion part of this thesis. In this chapter, a summary of the thesis work is given with links between the theoretical part and the findings.

2 THEORETICAL BACKGROUND

2.1 What is marketing?

Marketing is the process through which businesses deliver the value of their products and services to customers in order to generate sales leads. Marketing includes activities, such as promotion, advertising, segmentation and pricing. Although these activities aim to generate leads, sales are only one part of marketing. Therefore, it is important to consider marketing as a whole.

Marketing is also used for identifying potential customers, maintaining relationships with existing customers for the future and satisfying them. It is one of the most important functions of a company's management since all the marketing activities focus on customers. The reason why marketing became so important is that during the last two centuries, markets have reached the maturity level and customer demands exceeded the capacity. Especially in developed, medium-developed and rapidly developing countries, businesses started paying more attention to customers and thus to marketing process than they do to products and manufacturing in order to increase their profit and become more efficient.

Managers are responsible for allocating available resources among demands. Marketing managers are responsible for allocating these available resources among a set of tools which is used to configure the offering to suit customer's needs.

The *marketing concept* emphasis that an organization should strive to satisfy the needs of the consumers by identifying them and then produce the products accordingly through a co-ordinated set of activities (GJUST, Marketing Management n.d. 6–7). A general term and an accepted means of the marketing concept implementation is the model of *marketing mix*. Marketing mix is an appropriate combination of four elements which helps firms developing and implementing a successful marketing system. These elements are product, price, place and promotion. Popularly, these elements of marketing are known as the 4Ps. It is regarded as a business tool which has an important role in differentiating product's or service's value from others.

As shown below in Figure 1, four main variables are included in the scope of marketing mix concept. Although marketing mix have been referred as the 4Ps of marketing, marketing theorist have added a fifth P to the elements for marketing mix. This fifth P stands for "people". As the fifth P, "people" has not been adopted by traditional marketing theorists. However, the fifth P has a highly important role in today's marketing world. Ease of access to information, rapid competitive responses and social media interactions significantly influenced businesses and their decisions. As a result, the "people" concept has become a critical success factor for organizations to differentiate, and thus, to gain competitive advantage.

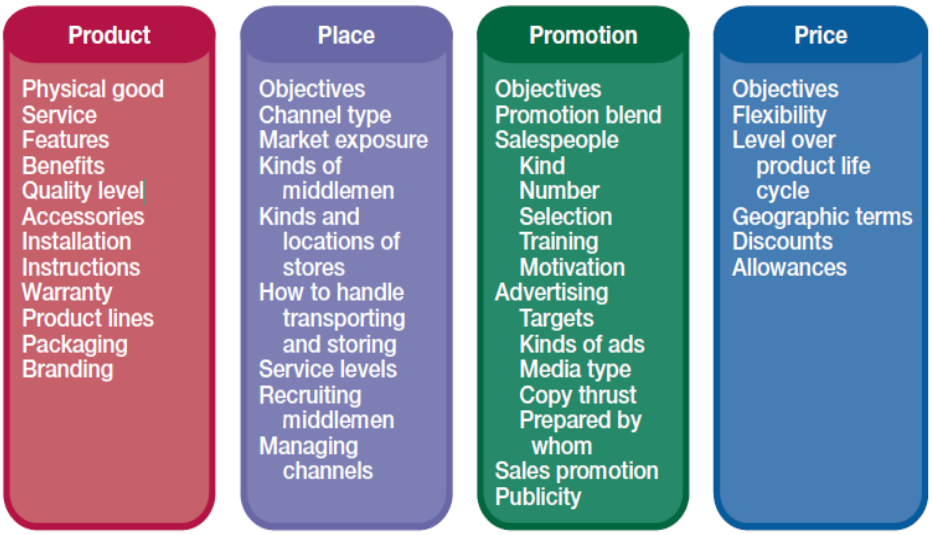

Figure 1 Strategy decision areas organized by the Four Ps (Perreault & McCharthy 2002, 612)

Another marketing mix thinking adopted by marketers is the "7 Ps" concept. In addition to the traditional marketing mix, this concept has three other Ps:

- People
- Process
- Physical Evidence

There are not many offerings that are pure services or pure goods. Most of the goods are sold with a surrounding service element. Similarly, most of the services have a tangible component. Therefore, it is wise for both manufacturers and service providers to consider the 7 Ps model.

Different offerings and different business sectors require different marketing strategies by nature. There are also other marketing mix models proposed by marketers and marketing theorists. New models are simply developed by increasing the number of Ps. Although for most business 4Ps model suffices, today's competitive world requires businesses to differentiate positively. The need for different marketing approaches for different businesses is further discussed in the following sub-chapters.

2.1.1 Business-to-business marketing

Business-to-business, also known as B2B, is a term to summarise commercial activities between businesses. Alternatively, B2B is defined as exchange of products, services, information, technology or strategies that exists between businesses. A typical supply chain includes many B2B transactions, such as between a wholesaler and a manufacturer, or a service provider and a wholesaler. Business-to-consumer is a contrasting term for B2B. One of the main differences between B2B and B2C is the volume of transactions.

B2B marketing deals with value chains. Traditional consumers are at the end of these value chains. While businesses create and add value to the offering along the value chain, consumers have the role of end user for whom the actual value is created. Business customers and traditional consumers are influenced by different factors. While businesses are driven by procedures, goals, strategies, systems and organizational disciplines, consumers are influenced by trends, brand or simply by a need. Therefore, B2B and B2C marketing require different approaches.

Table 1 B2B Marketing vs. B2C Marketing (McCleave 2010)

B2B	B2C
▪ Relationship driven	▪ Product driven
▪ Maximize the value of the relationship	▪ Maximize the value of the transaction
▪ Multi-step buying process, longer sales cycle	▪ Single step buying process, shorter sales cycle
▪ Brand identity created on personal relationship	▪ Brand identity created through repetition and imagery
▪ Educational and awareness building activities	▪ Merchandising and point of purchase activities
▪ Rational buying decision based on business value	▪ Emotional buying decision based on status, desire, or price

B2B aims to meet the needs of other businesses. However, these businesses are driven by the demand of consumers. Decision making in B2B environment is not as simple as in consumer markets. B2B buyers make purchases rationally. Being rational is an advantage for businesses since rational approach avoids conflicts between departments. For instance, while production manager is convinced about a purchase decision, finance department might have fears. Rational approach is therefore a good means to overcome the complex decision making process.

B2B marketing is considered as easier than B2C marketing since B2B buyers are generally well-informed, accountable and less susceptible to whims and indulgences (Harrison, Hague & Hague n.d. 4). A study on B2B marketing shows that there are ten key factors that make business-to-business markets special and different to consumer markets. (Harrison et al. n.d. 2–10). These facts are listed as follows:

– Business markets have a more complex decision making unit.
– B2B buyers are more rational.
– B2B products are often more complex.
– There is a limited number of buying units in B2B markets.
– B2B markets have fewer behavioural and need-based segments.
– Personal relationships are more important in B2B markets.
– B2B buyers are long-term buyers.
– B2B buyers drive innovation less than consumer markets.
– Consumer markets rely far more on packaging.
– Sub-brands are less effective in B2B markets.

Consumers and industrial buyers (B2B) are now in more interaction than before. Technology is constantly changing and developing. As a result, access to information is easy for both businesses and individuals. Social media and other means of internet enable businesses to reach both current and prospective customers. In the same way, consumers and industrial buyers reach other parties and their offerings.

There are numerous benefits of social media and internet to buyers and sellers. Businesses are now able to market their offerings online. With the growth of internet, it is also possible to create and deliver value even more effectively and efficiently. Many SMEs consider a change in their marketing tactics. For instance, companies prefer own webpage optimization rather than paying for adds.

Understanding the need of change in developing B2B marketing is required since we are in the era of technology, innovation and internet. Companies need to determine tactics and strategies based on what they aim to achieve.

2.1.2 Segmentation

Segmentation is a term used both in economy and marketing. For marketing, segmentation is a strategy that divides a target market into smaller groups of consumers by categorising these groups according to common attributes. After segmentation, targeted groups are analysed and a marketing mix for each group is implemented. Firms identify opportunities and needs by segmenting the market. This allows firms to focus on specific needs, to better allocate their resources and to improve marketing mix for each subset. Especially for small firms, it is therefore an important tool to exist. Similarly, the gain to consumers is that they can find offerings that better satisfy their needs. Although market segmentation is much prevalent in business markets than consumer markets, it still has a key role in businesses' marketing activities considering the advantages gained from segmentation (Reid & Plank, 2004, 72). Common bases for segmenting consumer markets are as follows:

- Geographical Segmentation
- Demographic Segmentation
- Psychographic Segmentation
- Behavioural Segmentation

In business markets, segmentation can be done on the same bases of consumer markets. However, inherent differences between B2B markets and B2C markets such as purchase volume and complex decision making process do not allow business markets to be segmented by the same variables. Below, Table 2 provides a summary of major variables by which business markets might be segmented.

Table 2 Major segmentation variables for business markets (Kotler 2000, 153)

Demographic
1. *Industry:* Which industries should we serve?
2. *Company size:* What size companies should we serve?
3. *Location:* What geographical areas should we serve?
Operating Variables
4. *Technology:* What customer technologies should we focus on?
5. *User or nonuser status:* Should we serve heavy users, medium users, light users, or nonusers?
6. *Customer capabilities:* Should we serve customers needing many or fewer services?
Purchasing Approaches
7. *Purchasing-function organization:* Should we serve companies with highly centralized or decentralized purchasing organizations?
8. *Power structure:* Should we serve companies that are engineering dominated, financially dominated, and so on?
9. *Nature of existing relationships:* Should we serve companies with which we have strong relationships or simply go after the most desirable companies?
10. *General purchase policies:* Should we serve companies that prefer leasing? Service contracts? Systems purchases? Sealed bidding?
11. *Purchasing criteria:* Should we serve companies that are seeking quality? Service? Price?
Situational Factors
12. ***Urgency:*** Should we serve companies that need quick and sudden delivery or service?
13. ***Specific application:*** Should we focus on certain applications of our product rather than all?
14. ***Size of order:*** Should we focus on large or small orders?
Personal Characteristics
15. ***Buyer–seller similarity:*** Should we serve companies whose people and values are similar to ours?
16. ***Attitudes toward risk:*** Should we serve risk-taking or risk-avoiding customers?
17. ***Loyalty:*** Should we serve companies that show high loyalty to their suppliers?

Havaldar (2010, 146–150) proposes that above mentioned variables are divided into two groups: Macro-variables, and Micro-variables. In some cases, in order to obtain a more detail segmentation scheme, after using one variable it might be necessary to further subdivide the market by using another variable. This approach is called sequential segmentation process.
Macro-segmentation is an approach that focuses on macro-variables on the basis of industry characteristics or organizational characteristics. These variables include type, size, geographic location or product application. Macro-variables are easier to identify than micro-variables. Secondary sources of information such as trade directories, business magazines, government publications and company sources provide the information on macro-variables required for macro-segmentation. (Havaldar 2010, 146–150.)

Within macro-segments, there are homogenous groups of customers which are called micro-segments. There are five micro-variables in industrial market micro-segmentation: buying situations, organizational capabilities, purchasing policies, purchasing criteria and personal characteristics. Obtaining the information required for identifying these micro-variables is time consuming and costly for businesses. Therefore, industrial marketers do not subdivide macro-segments into micro-segments unless necessary.

Depending on how detailed the required market knowledge is, industrial marketers set the degree of segmentation. Yarom and Thomas (1994, 61) propose five interrelated questions on the major decisions defining the process of market segmentation for managers of industrial firms:

- Should this industrial market be segmented? *(the decision to segment)*
- If so, how should the market be segmented? *(segment identification decision)*
- Which segments should be selected? *(segment selection decision)*
- What resources should be allocated to each segment? *(marketing resource allocation decision)*
- Can a segmentation strategy be implemented? *(segment implementation decision)*

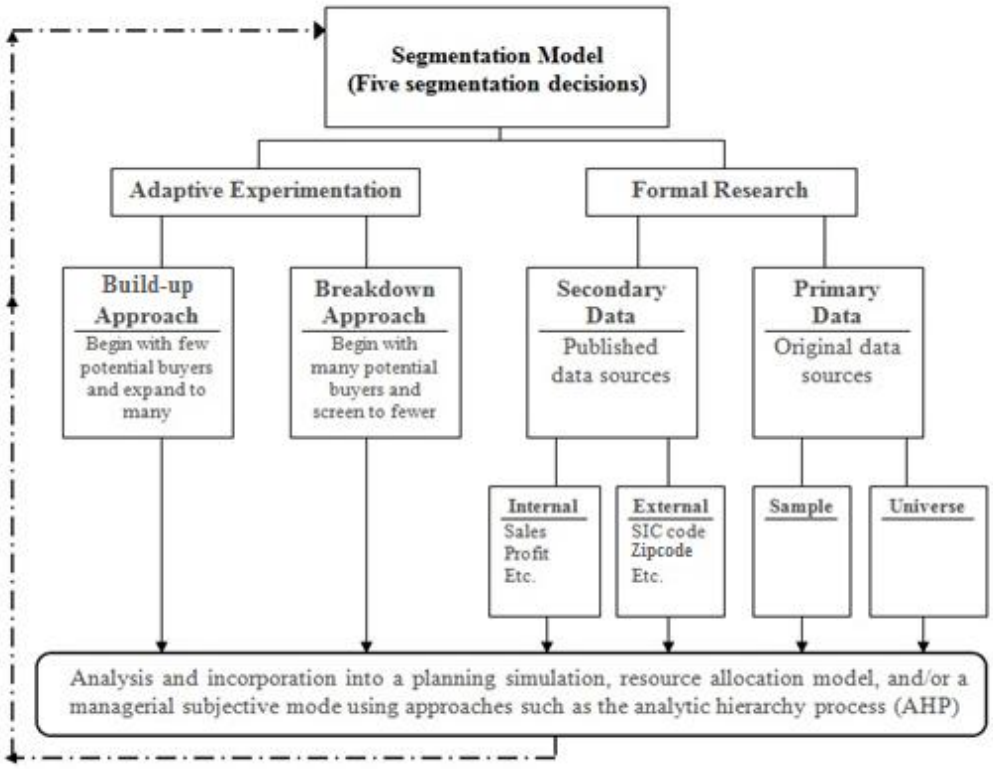

Figure 2 Approaches to segmentation research (Yarom & Thomas 1994, 76)

Yarom and Thomas (1994, 75) propose segmentation studies require research design that are responsive to the requirement of the segmentation model and the five decisions. Standardized research procedures will be inappropriate for thorough segmentation models. Therefore, these models will require more creative and imaginative approaches. In order to develop useful input to segmentation decisions, whatever the segmentation model developed, managers can choose from two general approaches:

- *Adaptive Experimentation:* Managers do not need to conduct an initial primary research. They might proceed into the market in an adaptive experimentation mode by taking two directions: breakdown approach, or build-up approach.

- *Formal Research:* Popular segmentation research approaches use formal marketing research methods which utilize primary and secondary data sources.

For better segmentation decisions, developments in data base, decision support technology and segmentation approaches should be merged to generate useful and creative research approaches. Figure 2 outlines multiple research approaches.

2.1.3 Targeting and positioning

Once the market has been segmented, firms need to evaluate various segments and identify in which segments they can serve best. This next task is called target marketing. Target markets consist of buyer groups who share common needs or characteristics that the company decides to serve. After segmentation firms can adopt one of the four strategies to target customers:

- Undifferentiated *(Mass Marketing)*
- Differentiated *(Segmented Marketing)*
- Concentrated *(Niche Marketing)*
- Micromarketing *(Local or Individual Marketing)*

The order of above listed strategies is from broad to narrow. While undifferentiated strategy targets large groups, niche is a narrower strategy which seeks offerings tailored specially to the individual needs and preferences. The objective of **niche marketing** is to reach potentially unsatisfied markets more effectively and profitably than competitors. The result is finding a market niche where company's capabilities or strengths are best matched with customers' needs. (Havaldar 2010, 155.) Niche marketing approach requires a good understanding of the following:

- Niche market customers have a complex set of needs which should be first identified by getting information with a marketing research. The next task is to develop a new product or promote an existing one in a new way to match the needs.
- Since niche customers are willing to pay a higher price to an offering which best matches their special desires or preferences, niche marketing achieves high profits.
- A niche leader has a competitive advantage which is difficult for competitors to gain by attacking the company.
- In order to achieve profits, a company should either be in top three of a mature market or follow a niche marketing strategy.
- Specialization is the key idea in niche marketing which can be achieved in several ways: Geographic specialization, End-user specialization, Customer-size specialization, Product-line specialization or Customer specialization.
- The major disadvantage of niche marketing is that one a niche is discovered large competitors might attack the market or demands might decline. In order to overcome this issue, companies should create new

niches and concentrate in two or more markets instead of a single niche. (Havaldar 2010, 155.)

As illustrated below in Figure 3, market segmentation is followed by targeting and market positioning. Marketers determine a positioning strategy after selecting target markets. The positioning strategy differentiates the company and products from that of the competitors'. By positioning itself against the competition, a company can be perceived by the target customers on important or benefits.

In business marketing, positioning is defined as the process of setting up and continuing a planned meaning for a market offering in the minds of targeted customers. According to Anderson and Narus, there are three critical components in writing positioning statements—target, offering concept, and value proposition. The target component mentions the characteristics of the target customers. The offering concept states the necessary attributes of the market offering for the target customers. The value proposition component indicates the difference of the offering compared to the next-best-alternative offering that are valuable to the target customer. Value proposition aims to answer the target customer's question: "Why should I buy the product from you, instead of from your competitor?". (Havaldar 2010, 156–157.)

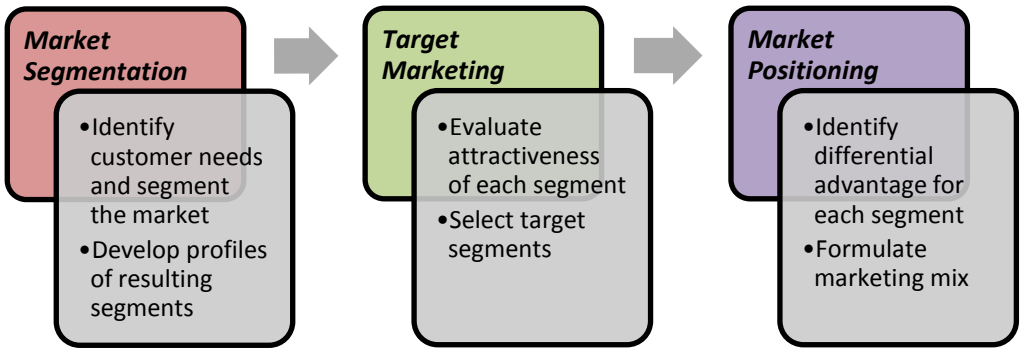

Figure 3 The main steps in market segmentation, targeting and positioning (Doyle & Stern 2006, 63)

2.1.4 Challenges of marketing

Every market has unique characteristics. Depending on these characteristics companies and marketers face various challenges. Over the last several decades, marketing concept has been changed due to increasing focus on customers and technology issues that impact the market. Some of the most common challenges that companies face are as follows:

- Creating awareness
- Effective targeting
- Generating leads and converting them to sales
- Keeping up with marketing trends and strategies
- Increasing ROI

In the 21st century, there is renewed emphasis in marketing on creating and innovating with new and better products and services rather than just competing against other firms and following the marketing patterns established by competitors. Five Forces Model of Porter (Figure 4) can be used by both new and existing businesses to analyze the environment and overcome the challenges. (Principles of Marketing, VU, 2011.)

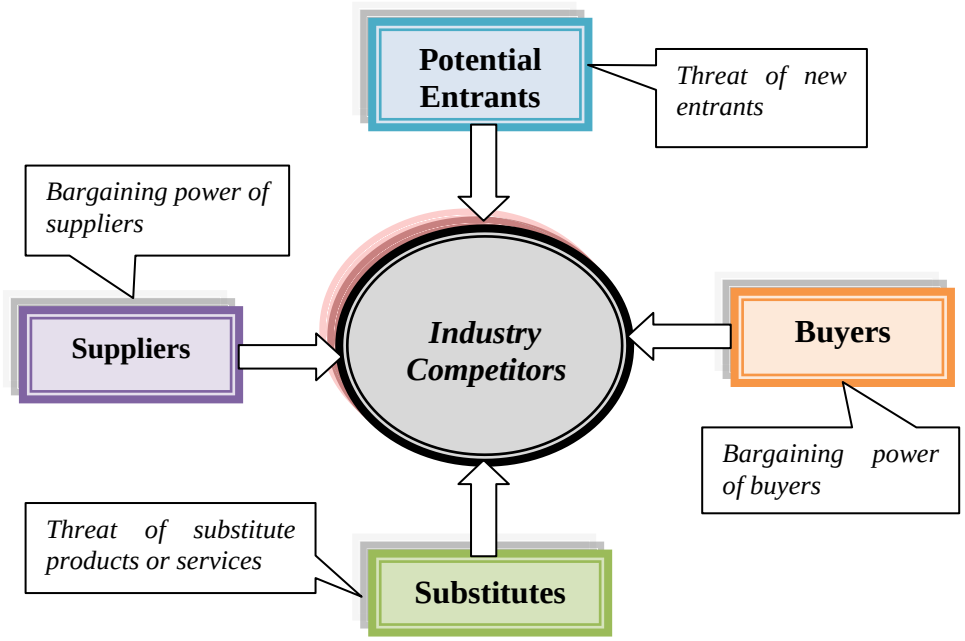

Figure 4 Porter's Five Forces

According to a research project called "Marketing in the 21st Century" including 5638 firms in 13 countries (UK; Netherlands; Greece; Austria; **Finland**; Ireland; New Zealand; Australia; Hungary; Poland; Slovenia; Hong Kong; China) there are four different pressures on marketing:

- Increasingly demanding customers
- Heterogeneous and fragmenting markets
- Rapid technological change
- Intense, global, fluid competition

The same research also proposes that customers are increasingly demanding for better quality and reliability in the products and services they buy. Due to rapid changes on customer wants, needs and expectations, new products and services are coming to the markets more quickly than in the past. In the research, it is also mentioned that today's competition is global rather than just domestic.(Hooley 2004.)

Some of the marketing challenges that small businesses might face are as follows:

- Not enough resources for an effective marketing plan implementation
- Budgetary constraints to hire the right marketing team members
- Not sure what direction to go or even how to begin

- Not enough time to do the desired marketing tasks (Louisville Inbound Marketing Blog 2012.)

Kotler and Keller (2011) propose that the marketplace is not what it used to be since major and interlinking societal forces have created new marketing opportunities, challenges and behaviours:

Network information technology: Digital revolution created an Information age that aims to lead more accurate demand estimation, more targeted communications, and more relevant pricing.

Globalization: Technological advances made it easier for businesses to market in and for customers to buy from any country in the world. The number of international travellers is continuously increasing since there are more people working abroad.

Deregulation: Many countries deregulated industries to create better conditions for competition and growth.

Privatization: Public companies have been converted to private ownership and management in many countries to increase their efficiency.

Heightened competition: Domestic and foreign brands raises marketing costs and shrinks profit margins. Strong brands became megabrands and therefore competitive threats.

Industry convergence: Industries with blurry boundaries are converging as companies take new opportunities at the intersection of two or more industries.

Retail transformation: Store-based retailers face competition from newspapers, magazines, TV and e-commerce.

Disintermediation: In order to create disintermediation in the delivery of products and services, traditional companies became "brick-and-click" retailers by adding online services to their offers.
Consumer buying power: Consumers have increased their buyer power due to disintermediation via the Internet. It is possible to compare product prices and features and order goods online from anywhere and anytime.

Consumer information: Consumers can collect information in depth as they want by accessing encyclopedias, dictionaries, movie ratings, consumer reports, newspapers and through personal connections and user-generated content on social media.

Consumer participation: In order to heighten their sense of connection and ownership, companies are inviting consumers to participate in designing and marketing offerings. This is a result of consumers' amplified influence on peers and public opinion.

Consumer resistance: Many customers are more price- and quality-sensitive and less loyal to brands since they feel there are few real product differences.

Today's managers and marketers face difficult challenges. Global economy increased diversity in the work force, and calls for more ethical conduct promise to keep things interesting. The challenge for today's and tomorrow's marketers is to be aware of changes and effects. Marketers who know just more than marketing are required today. (GJUST, Marketing Management, n.d.)

In this subsection, we covered some of the general challenges of today's marketing world. As one of the objectives of this thesis work is to analyse the need of different marketing approaches for technology-intensive products, market research and market entry challenges of high-tech or technology-intensive products will be discussed in the following chapters separately.

2.2 Market research, techniques and tools

Market research is a key component of business strategy. Although the "marketing research" term is interchanged with market research, the scope of each concept can be useful to understand the difference. According to European Society for Opinion and Marketing Research (ESOMAR) the definition of market research:

> *Market research, which includes social and opinion research, is the systematic gathering and interpretation of information about individuals or organisations using the statistical and analytical methods and techniques of the applied sciences to gain insight or support decision making. The identity of respondents will not be revealed to the user of the information without explicit consent and no sales approach will be made to them as a direct result of their having provided information.*

According to the American Marketing Association (AMA, 2004), the definition of marketing research:

> *Marketing research is the function that links the consumer, customer, and public to the marketer through information--information used to identify and define marketing opportunities and problems; generate, refine, and evaluate marketing actions; monitor marketing performance; and improve understanding of marketing as a process. Marketing research specifies the information required to address these issues, designs the method for collecting information, manages and implements the data collection process, analyzes the results, and communicates the findings and their implications.*

Market research, as stated, is a part of business strategy which is about collecting information in order to identify existing or potential customers

and opportunities, set targets and develop strategies. The information businesses gather and analyse is used for making decisions on products concerning the questions where and how. The research can be simple or in depth depending on company's objectives. Compared with marketing research, market research is a narrow concept since it focuses on a specific market. Briefly, each market research is a subset of marketing research.

Hague (2006) proposes that businesses need information to guide decision making. Therefore, the research sector has a valuable role in the commercial, social and political world. Market research is a map by which businesses can navigate. It can be large or small scale. In the same way, market research can be detailed or high level. Hague (2006) also proposes that there are four directions a company could look to expand its businesses:

- Seek more businesses by aiming to grow its market share with existing products and customers (e.g. customer satisfaction studies).
- Seek expansion by taking its traditional product range into new markets (e.g. expansion in export markets).
- Seek to persuade existing customers that they should buy different products and services – sort of product line extension.
- Explore the possibility of selling new products to a new range of customers.

One of the common ways of classifying types of market research is to describe work as qualitative or quantitative research. However, this division has become blurred since computer technology developed. Furthermore, the term qualitative is sometimes used to cover larger survey work where the data collection is extensive and the analysis allows for complex associations. Therefore, "qualitative quantitative research" is a better way of describing market research. (Philips, 2007, 39.)

Qualitative research is used to analyse people's attitudes by exploring the links between customers and products and services they use. Research findings on people's thoughts can be useful in the exploratory stage of a new research project. Some of the main reasons for carrying out a qualitative research are listed below:

- To evaluate a market, product or consumer if no information exists
- To identify and explore concepts
- To take researchers rapidly up the learning curve when they know very little about a group of consumers
- To identify behaviour patterns, beliefs, attitudes, opinions and motives
- To establish priorities amongst categories of behaviour, beliefs, opinions and attitudes
- To identify problems in depth and develop models for further research
- To provide verbatim comments and anecdotes from participants – so that the research findings can be brought alive for the client
- To test how a questionnaire works by going through question by question asking about routing, signposting, understanding and ambiguity
- Where direct questioning will give details about respondents. (Hague 2006, 75–76.)

According to Hague (2006, 76) the main qualitative research techniques are:

- Focus groups
- Depth discussions
- Observation

Quantitative research enables companies to obtain three different classifications of numbers: market measures, customer profiles (or segmentation data) and attitudinal data. Market measures quantify and describe a market. Customer profiling is quantitative in nature and unlike market measures, consumer profiling data can only be collected from customers. Attitudinal data is used to cover issues such as awareness, perceptions, beliefs, evaluations, preferences and propensities to buy products. The major quantitative research techniques are as follows (Hague 2006, 94–98):

- Direct measurement
- Self-completion
- Interviewing (phone and face to face)

There are two types of data that can be used for a market research. *Primary data* is the original data which is collected for the market research first hand. Experiments, surveys, questionnaires, interviews and observations are some of the commonly used sources of primary data. *Secondary data*, as its name implies, is a readily available source which has been collected for other purposes. Although secondary data is less valid than primary data, it can still suffice. Published sources, books, journals, magazines, newspapers, published electronic sources, unpublished personal records, government records and public sector records are some of the secondary data sources.

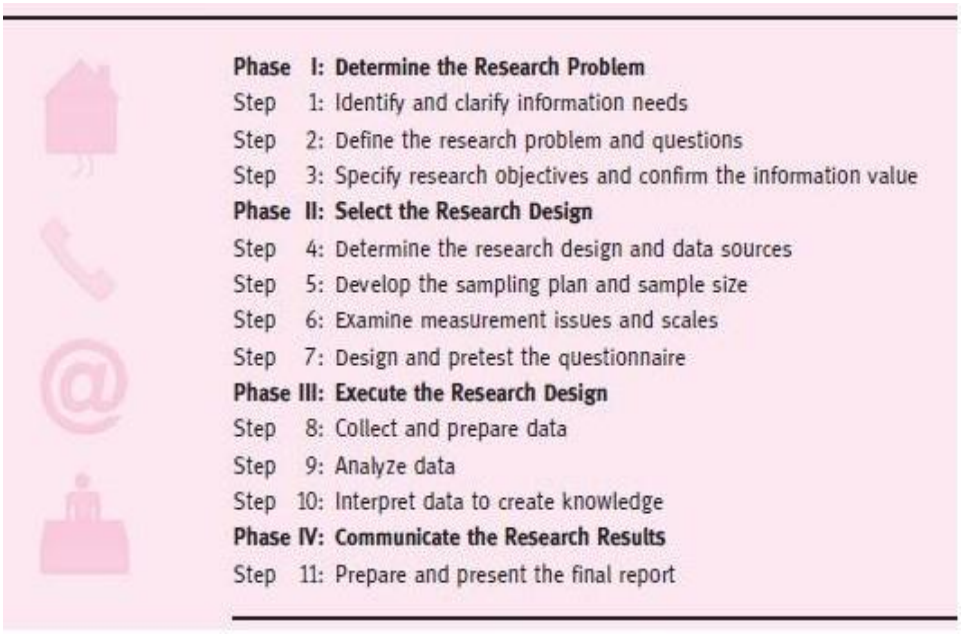

Figure 5 Phases and steps in the research process (McGraw-Hill Answers n.d.)

Due to complex purchase decisions of firms and the relationships which exist, industrial market differs from consumer markets. It is useful to utilize both qualitative and quantitative techniques for industrial market researches. Organizations might undertake the research project themselves or they might choose to commission it via a market research or consultancy (Sims, n.d.).

2.2.1 Telemarketing

Direct marketing plays a significant role in industrial markets. Telemarketing is one of the direct marketing techniques which is widely used in the industrial environment. Telemarketing can be done on an outbound or inbound basis. Outbound calls are made by a company's personnel to existing customer accounts or on a *cold-call* basis. (Mohr, Sengupta & Slater 2009, 380.)

A phone call has many benefits including receiving immediate feedback. It also helps firms to save time and money. It is especially useful while making calls abroad. Considering the large amount of prospects when companies have to contact to reach one actually interested in buying the product or the service, telemarketing is an important marketing technique for B2B markets. The popularity of telemarketing is rapidly growing. Large and small firms extend their personal selling efforts to new target markets or increase the frequency of contact with the customers to place orders or assistance. (Perreault & McCarthy 2002, 431–432.)

2.2.2 Cold calling

A cold call might refer to phone calls and physical visits. It is also known as a direct way of contacting a potential customers. The term "cold" refers to the fact that there has not been any groundwork for the call. Most salespeople think of cold calling in terms of the telephone. Although cold calling has been eclipsed by the many new sales channels available today, it is still one of the most efficient and effective way to reach new leads. (Connick, n.d.)

Cold calling is traditionally an early stage in the selling process which typically refers to the first telephone call made to a prospective customer. It is also known as canvassing, prospecting and telephone prospecting. Cold calling is the art of approaching someone, professionally, openly and meaningfully with a sensible proposition. It is strongly focused on initiative and action.(Galper 2007.)

The reason why cold calling is still an important method of sales promotion in today's world is that it reaches high value, difficult to approach customers while other promotion methods such as direct mail, e-market or a pitch stand on a trade show rarely win quality, high margin customers which tend to remain royal to their suppliers (Kingston 2007, 3). The majority of B2B promotional methods do not attract competitors' loyal customers. Loyal customers are the most difficult to cold call. Companies

might need to approach them over a long period of time before they agree to see the seller. However, once won, loyal customers are more profitable since they repeat buy which brings long-term secure income and few problems. (Kingston 2007, 4.)

There are various cold calling approaches with various kind of procedures proposed by marketing professionals and theorists. According to Weiss (2009) there are seven new rules for cold calling in the 21st century:

- Have a targeted list
- Answer your prospect's question: Why should they be interested?
- Understand the goal of your call
- Craft your approach
- Use all of the tools that are available
- Look for the prospects who are looking for you
- Have a system to track your prospects

Kingston (2007, 5-49) summarizes cold calling in nine tasks as follows:

- Target profitable customers
- Reach the real decision maker
- Uncover the purchase drivers
- Script your cold calls
- Make the call
- Turn around objections
- Close for the appointment
- Build a prospect list
- Integrate your marketing

Cold calling can be broken down into two parts. The first part is the mindset of the sales person when they are making the calls. The second one is the process they use. Both parts are critical to a successful cold calling. Neuro-linguistic programming is a tactic that is possible to apply to B2B cold calling. (Hameed 2013.)

> *NLP stands for Neuro-Linguistic Programming, a name that encompasses the three most influential components involved in producing human experience: neurology, language and programming. The neurological system regulates how our bodies function, language determines how we interface and communicate with other people and our programming determines the kinds of models of the world we create. Neuro-Linguistic Programming describes the fundamental dynamics between mind (neuro) and language (linguistic) and how their interplay affects our body and behavior (programming).*
>
> Dilts n.d.

As mentioned, NLP is applicable to cold calling in order to get effective and rapid results. Although the two parties of a B2B transaction are organizations, there is still a remarkable amount of human interaction in order to execute a transaction. In order to successfully apply NLP to B2B

sales, a strong rapport should be created with whomever it is the other party. This rapport helps people trust the caller and let relax to be eligible for NLP in the first place. For a B2B cold call, it is important to achieve physical and emotional pacing. Physical pacing involves patterning everything that the other person is doing such as breathing, speaking, and posture. Emotional pacing is about matching the overall attitude with what the other person has.

NLP helps us to understand how the mind stores and process information by providing a frame for the context and anchoring as a powerful tool. Anchoring tool is used to associate internal links with external reality. Marketing anchors can be used either negatively or positively. For instance, telling customers about the successful outcomes and results of buying the offer is a positive anchor. In order to change customer's mind about not taking an action, negative anchors are used such as costs of inaction and difficulties. Briefly, instead of pushing customers into making decisions, using NLP techniques leads them to make their own decisions.

As a form of telemarketing, cold calling enables companies to generate potential business actively. It is an efficient and effective way to generate leads since other activities such as advertising or hiring a salesperson are time consuming and costly.

2.2.3 Survey, questionnaire and interview

There are various methods to collect primary data including surveys, interviews and telephone surveys. According to Kotler (2002, 109) surveys are best suited for descriptive research. Companies conduct surveys to learn about customers' knowledge, beliefs, preferences and satisfaction.

In marketing research, surveys are used to collect primary data from respondents. Surveys can be personal, telephonic or by diary. There are limitations and advantages of each type. Telephonic survey is suitable when limited information is sought in a short period of time. In the case of postal surveys, a questionnaire which is prepared in advance is sent. It is necessary to design a suitable questionnaire, conduct a pilot survey and undertake a pre-testing of the questionnaire regardless to the type of the survey. (GJUST, Marketing Management, 24 n.d.)

Telephone interviews and personal interviews are both used for market research. **Personal interviews** require respondents and interviewers to be face to face. Although personal interviews are expensive and time consuming, they are useful when dealing with complex questions which require clarifications. Furthermore, the response rate for personal interviews is higher in comparison to other methods as respondents find it hard to refuse someone face-to-face. (Shukla 2008, 49.)

In case of a research which requires a broad geographic sample, national or regional, **telephone surveys** might be ideal. Today, telephone interviews are mostly computer controlled. This type of telephone interviews are called CATI (computer aided telephone interview). Since telephone in-

terviews have a high response rate and require no travel time, the amount of the time for the study and interviewing costs are reduced. However, there are few limitations such as outdated telephone numbers, inability to provide visual aids and length of the typical telephone interview. (Proctor 2005, 143–144.)

According to Ghauri and Grønhaug (2002, 94–95) surveys and questionnaires are among the most popular data collection methods in business studies. Major types of **questionnaires** are descriptive and analytical. In business studies, descriptive surveys are often used to obtain customer attitudes towards a certain product. In order to determine the type of survey, first a research problem and purpose should be formulated. Different surveys lead to different issues and demand different types of implementation. Analytic surveys are used to identify the independent, dependent and extraneous variables. On the other hand, descriptive surveys are used to describe variance of a phenomena. A descriptive survey is concerned with particular characteristics of a specific population of subjects for comparative purposes. The focus of this type of surveys is more on a representative sample of the relevant population than analytical surveys. A review of earlier research and literature is important to determine what kind of questions are to be included in the questionnaire.

Questionnaires require structured, closed or open ended questions which are presented and answered on a form. Questionnaires are usually self-administrated which are posted to respondents, completed by them and posted back. Therefore, considering the effort and the time needed for research, interviews are more suitable for business studies. Furthermore, the complexity and the sensitivity of research topic might require a flexible handling when questions need to be explained.

2.3 Modern marketing versus traditional marketing

The world has changed in many ways since the mid-90s. After Web was introduced, individuals and organizations started to publish information to a large audience. The benefits of internet such as data transfer, e-mail and VoIP (Voice-Over-Internet Protocol) enabled users to publish, access and send diverse and up-to-date information. The internet gained the interest of businesses since it offers the opportunity to reach people rapidly at very low costs. This new communication method among people and the ability of making transactions online created the industry of e-commerce. The number of electronic services has been increasing at an accelerating rate.

In the last three decades, the connectivity has become a dominant factor. Networks enabled people and businesses to exchange data, to flow information in and out, to share knowledge across human circles. These have become the new engine for economic growth. Furthermore, digitalization, globalization and deregulation have become three active forces at the end of 20th century. This means, with Porter's five forces (buyers, suppliers, competitors, new entrants and substitutes) a company has to deal with eight forces in total in the modern era. In today's world of networked society, a major value comes from being part of the network. Competition is

no longer one company competing against the other. The webbed society is increasing its overall wealth by coordinating these companies. (Corsi & Dulieu 2008, 3–6.)

> *We have now moved into a third epoch, under the ruling of the World Wide Web and typified by Internet-based tools, from routers to intelligent software agents. In this growing period, influence is key and you must give first. The Knowledge Society awaits you.*
>
> Corsi & Dulieu 2008, 7.

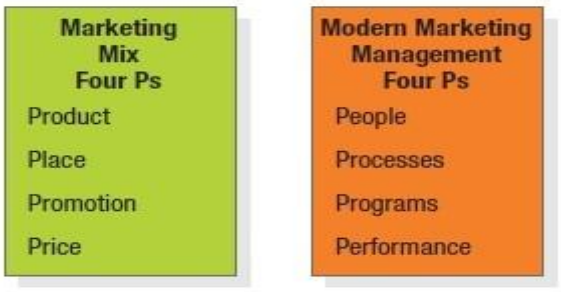

Figure 6 The evolution of marketing management (Kotler & Keller 2011, 25)

The focus of **traditional marketing** is to sell products to customers with promotion and to profit through sales volume. In traditional marketing, marketing activities take place while selling existing products. This technique requires aggressive selling and promoting in order to profit through sales. Traditional marketing is defined by the 4P's and the marketing mix. Segmentation, location and channel are main considerations of this understanding. Marketing activities are considered as a separate phase and do not interact with other organs in traditional approach. TV, print and radio are most commonly used marketing channels. Unlike modern understanding, traditional marketing has middlemen between manufacturer and customers. Above all traditional marketing is costly and time consuming and usually conducted on a more localized and focused level.

One of the most important changes in marketing approach in today's modern world is that marketing now has a direct route to customer. The focus of **modern marketing** is to sell products to customers and satisfy them with an integrated marketing mix. Kotler (2002, 13) proposes that integrated marketing is the result when all of the company's departments work together to serve customer's interests. This takes place on two levels. First, marketing functions must be coordinated from the customer's point of view. Second, marketing must be embraced by the other departments of the company.

> *The modern marketing has as orientation and tendency the concept of internal marketing, understood as an extension of the vision, marketing philosophy on persons and networks within companies. The concept, at large, is reflected by the apparition and development of specific instruments: integrated marketing, integrated marketing communication, management of the supply-sales relationship.*
>
> Valerică Olteanu 2008, 5.

Modern marketing aims to profit through customer satisfaction. Instead of marketing existing products, this approach aims to understand the needs and desires of customers and then design products accordingly. Attracting and bringing a new customer to the same level of profitability as that of the lost customer costs more than pit costs to please an existing one. As a result, customer retention has become more important than customer attraction with the new marketing thinking. Furthermore, companies moved from focusing on transactions to building long-term, profitable customer relationships. Through *relationship marketing*, organizations aim to build long-lasting and mutually satisfying exchange links with customers and other parties to earn and retain their long-term business. (Kotler 2002, 13–17.)

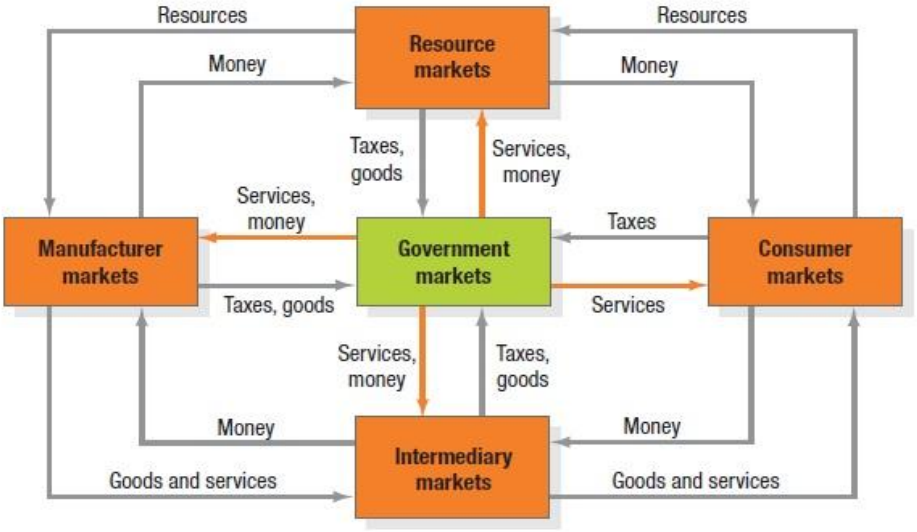

Figure 7 Structure of flows in a modern exchange economy (Kotler & Keller 2011, 8)

The trends and forces that have defined the first decade of the 21st century are leading businesses to a new set of beliefs and practices. The holistic marketing concept is based on the development, design and implementation of marketing programs, processes, and activities with a broad and integrated perspective. Today's successful companies keep their marketing changing with the changes in their marketplace and in the marketspace. (Kotler & Keller 2011, 18–19.)

In the face of the internet revolution, companies started personalizing their marketing communications to have more impact. Although new technologies enabled companies to reach a global audience at low costs, they now move to more targeted, two-way communications from mass communication. Direct and interactive marketing are among today's most commonly used ways to reach customers directly.

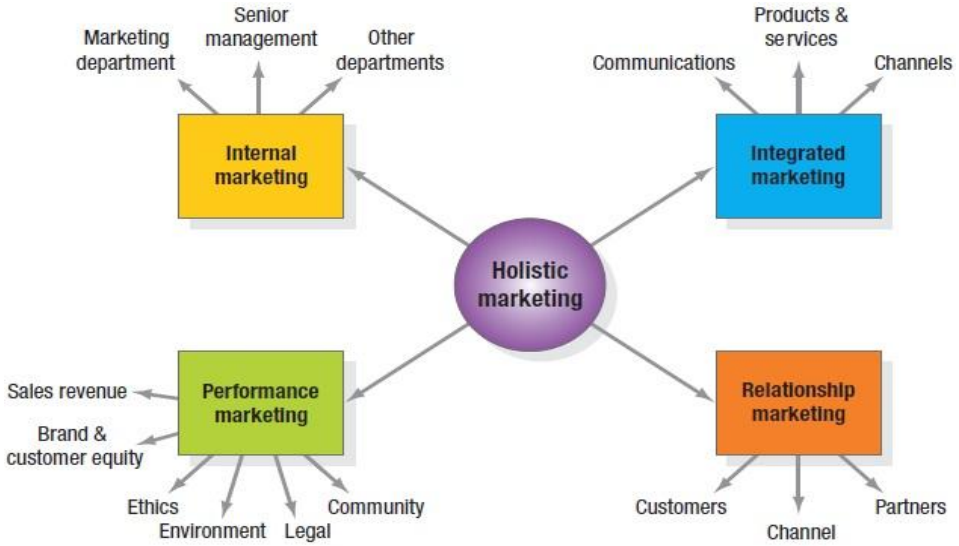

Figure 8 Holistic marketing dimensions (Kotler & Keller 2011, 19)

The focus of **direct marketing** is to reach and deliver goods and services to customers without using marketing middlemen. Direct mail, catalogue marketing, *telemarketing*, interactive TV, kiosks, Web sites, and mobile devices are some of the direct marketing channels to reach individual prospects and customers. Sales to the consumer market, B2B, and fund-raising by charitable institutions have been growing rapidly through traditional and modern direct marketing channels. Direct marketing let markets to reach prospects at the moment they want a solicitation and therefore be noticed by more highly interested prospects with a cost-effective approach.

Interactive marketing offers variety of online communication options for being in contact and selling directly to customers in electronic environment. By using Web, marketers can build or tap into online communities, inviting participation from consumers and creating a long-term marketing asset in the process. Some of the main interactive marketing communication options are web sites, search ads, display ads, e-mails, and mobile marketing. Although interactive marketing has some disadvantages, many feel the pros outweigh the cons since Web is attracting marketers of all kinds.

> *The first decade of the 21st century challenged firms to prosper financially and even survive in the face of an unforgiving economic environment. Marketing is playing a key role in addressing those challenges. Finance, operations, accounting, and other business functions won't really matter without sufficient demand for products and services so the firm can make a profit. In other words, there must be a top line for there to be a bottom line. Thus financial success often depends on marketing ability.*
>
> Kotler & Keller 2011, 3

Despite the emergence of electronic marketing and modern thinking, traditional marketing tactics are still useful. The main thing that modern marketing pointed out is that good marketing is constantly evolving and

changing. Furthermore, customer plays a vital role for companies to achieve their goals. It is therefore important to understand the target audience and deliver relevant information through a proper channel. Today's challenges require companies to determine the most profitable strategy by using suitable means of both traditional and modern marketing.

2.4 Product-centric companies

Product-centric companies are traditional actors of their industries. The key focus areas of this organizational culture are companies own products and production. The term "product-centric" is also discussed under different terms in the literature such as product-oriented, product-intensive, product-centered and product-based.

A product-centric company can be defined as a business which generates most of its revenue by selling the products it created. An example for a product-centric company can be a manufacturer that outsources raw material, process the raw material with other components to create its own product and sell to distributors or to end customers through distributors. Main offering of these companies are specific products. They aim to have a single price or pricing tier and reach as many customers as possible. These companies also aim to have long-term relationship with their customers in order to repeat sales as new products are delivered. However, in some cases, product-centric companies might not accept to fulfil customers' requirements and miss opportunities since their products are defined once and therefore not flexible.

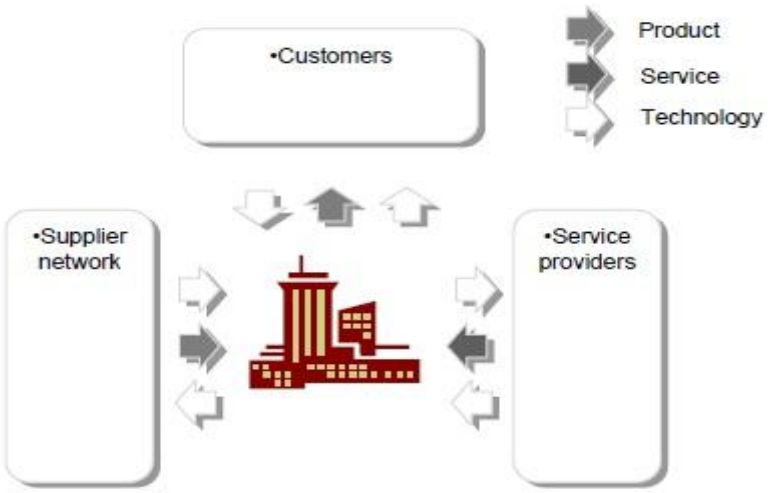

Figure 9 Product-centric business model (Petrusson 2007)

A product-centric organization is usually closed and hierarchical. Market analyses, development and design of product, supply and purchasing of components and raw materials, manufacturing and marketing are some of the processes of a typical product-centric company. These companies measure success by the sales volume and number of reached customers. Furthermore, market analysis do not aim to identify customer needs and desires.

Product-centric companies adopt marketing strategies which aim product differentiation and low-cost. A product-centric marketing strategy enables these companies to focus on what they do best. This also helps companies to develop a reputation by providing quality products or to win customers' loyalty by better promoting and offering low prices. However, product-centric marketing strategy requires companies to target the best market for their products since they neglect customers' needs and wants. If target market is not defined well, companies might face unexpected sales results. Alternatively, some products might be suitable for customer-based marketing strategies. By adopting a customer-based marketing strategy, companies can better understand customers' needs and wants and provide products accordingly. This also results a better level of customer loyalty.

2.5 Technology-centric companies

A technology-centric company is created to operate services or offer products that require the use of technology or knowledge developed through research activity. These businesses emerge from academic environments which base their development on knowledge as one of the principle assets found in research centres. These type of companies open innovation actors in their industries since they materialise years of research work in a process, lunch advanced technologies and innovations to the market. (Research and Technology Transfer 2013.)

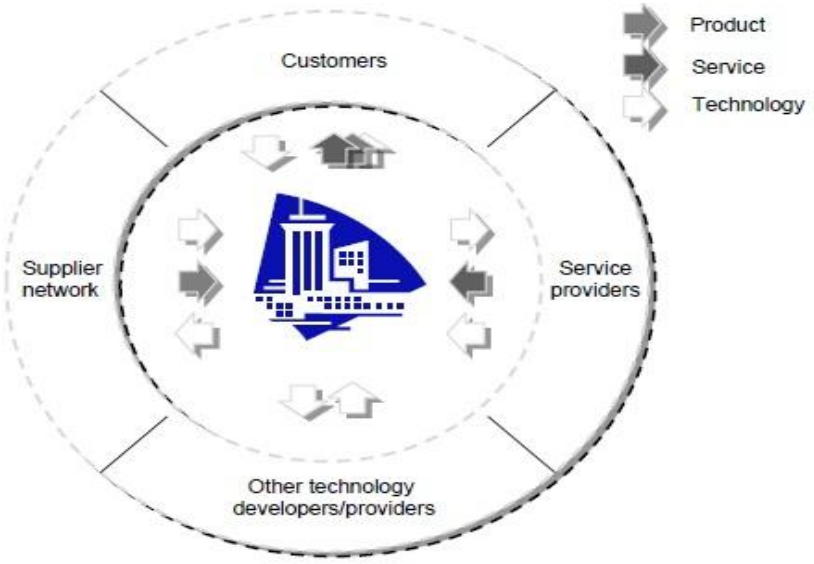

Figure 10 Technology-centric business model (Petrusson 2007)

Key focus areas of technology-centric companies are technology management and governance. Unlike product-centric companies, technology-centric companies are open and network-based. They package technology as different value proposition to achieve development through technology licences and R&D collaboration and leveraging through products, software, licences and services. They govern technology as part of relational networks and standard to develop and shape markets. In these companies, technology control, development and claim are managed through patents and other control measures.

2.5.1 Technology-based product market research and market entries

Most of the well-established techniques for traditional market research do not apply to high-technology products or small innovative companies. In the case of novel and complex products and services the characteristics of the innovation and relationship between developers and users is more important (EW ISME 2005, 20). Nystrom (1990) proposes that low technology companies might adjust their marketing strategies to reflect relatively stable technological conditions while it is important for high technology companies to recognize that both technological and marketing conditions are rapidly changing. (Yadav, Swami & Pal 2006, 63.)

One of the issues relevant to marketing of technologically advanced products relates to the difference between the manager's and the customer's perspectives. Since managers' perspective in a high technology industry is usually product-oriented, managers believe that customers do not know what they want and they are not able to articulate desires or are not knowledgeable about the products they seek. (Yadav et al. 2006, 64.)

Yadav et al. (2006, 63) propose that high technology product marketing strategies must take into consideration the following differentiating features of a high technology product:

- High technology product purchase is usually high involvement inducing since the perceived risk is greater.
- There is limited or even no choice available for high-tech products.
- Compared to the low technology analysis which is at brand level, the analysis for high-tech is at product level.
- The focus of a high-tech product is on problem solution.
- The communication for a high-tech product should have high information content.
- A high-tech product may involve a push strategy for communication, promotion, and distribution.
- High-tech products have short channels to facilitate manufacturer control and ensure the quality and usage during the initial market launch.
- Technology push brings in revenue for a high-tech product until it reaches mass markets.

Marketing becomes an essential element for the high technology business that is faced with confused customers and great deal of uncertainty on the realization of the technology. (Theocharakis n.d.)

Figure 11 High-technology marketing environment (Yadav et al. 2006)

Market Uncertainty: It refers to the ambiguity about type and extent of the needs to be satisfied by a particular technology. Market uncertainty arises from customer's fear, uncertainty, and doubt concerning the needs and problems the new technology will address as well as how it will meet those needs. (Yadav et al. 2006, 60.) Needs of the marketplace are more uncertain in a high-tech environment than in a low-tech environment. Furthermore, customers are not sure about the technology's potential uses and benefits. Customer anxiety might also be perpetuated by a lack of clear standards and dominant design for innovations. (Yadav et al. 2006, 60.)

Technological Uncertainty: Moriarty and Kosnik (1989) proposes that it refers to not knowing whether the technology or the company providing it can deliver on its promise to meet specific needs. The time-line for availability of the new product is questioned which can always take longer than expected. Concerns about the supplier and the service might also create technological uncertainty. Technological uncertainty exists because of the high degree of technological obsolescence. (Yadav et al. 2006, 60.)

Competitive Volatility: "It refers to the changes in the competitive landscape such as identifying the competitors, their product offerings, the tools they use to compete, and so on" (Yadav et al. 2006, 60).

Matching the features of high-tech products with real customer needs is the key challenge in technology-based innovations. Vercauteren and Vanhaverbeke (2007, 102) propose that in a radical innovation context, the supplier might experience difficulty in conveying the benefits of a new technology to customers.

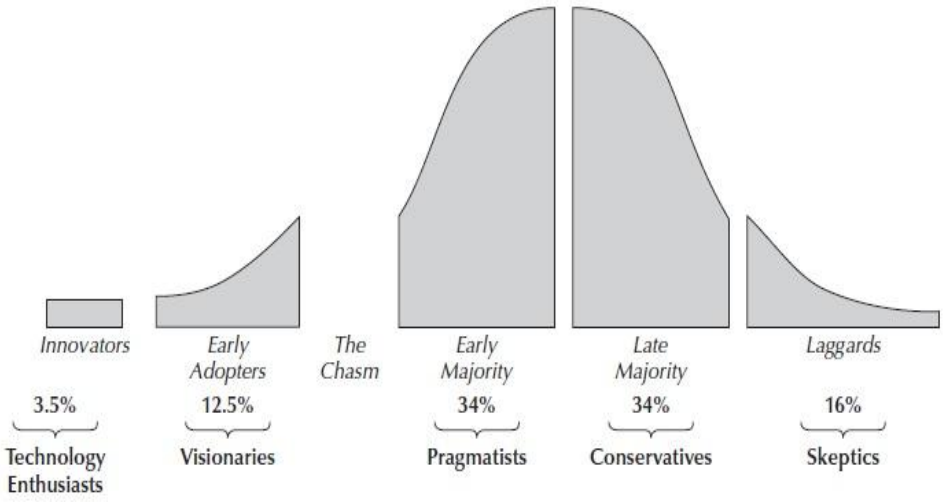

Figure 12 Technology adoption life cycle (Mohr, Slater, Sengupta 2009)

Figure 12 illustrates the stages of technology adoption. Moore (2002) defines the gap shown on the figure above as the chasm which is the gap in adoption of technology. The gap refers to critical differences between the early market and mainstream market. Visionaries are willing to undertake high risk while pragmatists are prudent and want to stay within the confines of reasonable expectations and budgets. The reason why the chasm arises is the word-of-mouth effects in the diffusion of the innovation breakdown: Visionaries see pragmatists as pedestrian, whereas pragmatists think visionaries are dangerous. (Mohr et al. 2009, 429.)

For solutions to cross the chasm, Moore (2002) argues that high-tech companies can cross the chasm by selecting a beachhead or a single target market from which to launch their marketing strategies for the mainstream market and developing a whole end-to-end solution that allows mainstream customers to simplify the process of getting their high-tech purchase working. (Mohr et al. 2009, 429.)

Complex products and innovations have slower adoption rates compared to those that are less complex. Complexity of a product refers to how difficult the product is to use. Especially high-tech marketers should consider the level of complexity of their products while setting expectations for customers in their marketing communications. (Mohr et al. 2009, 237.)

The likelihood of purchase is greater for products which the benefits are clearly observable. Therefore, benefits should be observable by the customer using the new product. (Mohr et al. 2009, 239.) Customer purchase decision is driven by the ease of communicating the product benefits to prospective customers. For high tech products, it is difficult to convey the benefits to customers. Another issue is that high-tech marketers tend to talk in technical terms when communicating about the product. As a result, customer receive information on product features and specifications rather than the real benefits. (Mohr et al. 2009, 238.)

As mentioned before, specific research tools or methodologies used in high-tech markets are different from those used in traditional marketing research (Yadav et al. 2006, 67). Sample size is an important issue in research design in market research studies. In contrast with sampling, a process called census which is a way to contact each relevant respondent and get their views on the marketing research problem. Conducting a census might be impractical for consumer products due to large population. However, it is useful for high-tech or industrial markets since they involve a small number of relevant respondents. Another reason for preferring to use a census is that niche application areas have small number of organizations present in any country. This makes a near-census approach quite relevant using the researcher's judgment and convenience during a market research. (Yadav et al. 2006, 67.)

Lead users can serve as a need-forecasting laboratory for marketing research since they are familiar with conditions which lie in the future and they have real-life experience with novel product or processes. In rapidly changing high-tech industries, this is an essential for accurate marketing research. (Yadav et al. 2006, 67.)

According to Ulwick (2002) when companies ask customers what they demand in a focus group or by conducting survey questionnaires, the process of asking the questions in terms of tangible attributes is faulty. Instead a new pragmatic methodology called the outcome-based methodology which gives successful results in practice should be preferred. According to this methodology, the researcher does not focus on what features the user-respondent. (Yadav et al. 2006, 67–68.)

2.5.2 Firm level context for the technology-based product marketing

According to a survey completed by high-tech company CEOs and consultants, there are specific areas of weakness and factors which might be improved addressed by the respondents of the survey. Most frequently mentioned points are as follows (Chorev & Anderson 2006, 21.):

- Too much focus on technology and lack of skilled professional management resulting a poor balance between marketing and R&D management.
- Lack of market understanding
- Late marketing activities
- Selecting a too small market niche
- Insufficient planning about new markets or products.
- Neglecting market changes and the need of continuous update

The study also proposes that focused methods such as applying the expertise and experience of the core team and specific consultants have to be used to gain the knowledge of the market. (Chorev & Anderson 2006, 22.)

As mentioned in the previous sub-chapter, there are two types of uncertainty in high-tech industries. These are market uncertainty and techno-

logical uncertainty. These uncertainties are not avoidable since a technology-intensive market is part of dynamic business environment which possesses changing characteristics. Although these two uncertainties are liked to each other, they can be reduced by means of intensified understanding and experience. (Karin & Eiferman 2006, 21.)

There are a number of **managerial implications** which high-tech industry companies should consider. For instance, some innovations lack value while trying to be the first product on the market. Instead of developing a complete product aiming to be the first on the market might not fulfil promises when introduced. Therefore, developing a complete product with an improved performance and improved marketing mix is more important. While marketing practitioners maintain that customer cannot participate in product development, product developers expect the customers to provide their own solutions. This, however, requires a close relationship with customers before the actual product launch. (Rosen, Schroeder & Purinton 1998, 12.)

Market segmentation and identification of the target market are critical as well as the market research. While identifying the customers most likely to purchase the product, knowledge of the adopter categories can be useful in determining workable market segments. High-tech marketing requires a continuous change in marketing practices since the product and the appropriate market change are constant. Describing the target market and paying close attention to the differences in group repeatedly are necessary. (Rosen et al. 1998, 12.)

According to a survey and the observations of a group of experts from the field, high-tech company CEOs believe a good product will sell if they simply offer it. Need for more marketing is rarely greeted in high-tech. Leaders do not consider marketing as a profession and often lack marketing background to undertake the marketing missions. They neglect the need to build rapport with the decision makers. Experts recommend considering the best composition of the marketing team and their geographical location. Services offered by external consultants might assist with access to customers and other marketing efforts. (Chorev & Anderson 2006, 14.)

For many customers high-tech means risk and fear. The key to overcome this is to spend time talking with customers and make sure company's road map matches road map. Considering the cultural differences and the difficulty of understanding customers' real needs, strategic alliances with customers, other companies or marketing organizations become a key for success. (Chorev & Anderson 2006, 15.)

Companies should pursue a relationship with high-potential customers who will generate revenue stream for the company. Although it might not be feasible for high-volume and low-price sellers, customer analysis should be done at the segment level. Satisfied customers have longer relationship with their service providers and have higher proportion of purchases in their category. (Mohr et al. 2007, 174.)

> *The specific recommendation for high-tech companies is to clearly articulate the superiority of non-price elements in the value proposition while offering a modest price inducement to encourage trial and switching. The new customers who will be attracted by a low price strategy are the price-sensitive customers who are neither loyal nor profitable.*
>
> Mohr et al. 2007, 176.

In many industries, **customer visits** for market research are used in order to overcome challenges faced by managers. These visits are useful for customer satisfaction studies, identification of new market segments and other issues. (Mohr et al. 2007, 194.)

Mohr et al. (2007, 194) propose that effective customer visits enable the company strengthen the following characteristics:

- *Face-to-face communication*: Complex information related to new-to-the-world products is delivered through personal communication.
- *Field research*: A research if customer's business place allow personnel to understand product's role in the customer's total operation and to talk to actual users.
- *Firsthand knowledge*: Key players of the company find out the problems and needs directly from the most reliable source.
- *Interactive conversation*: The ability to clarify and to address unexpected insights provides in-depth conversation with spontaneously asked questions.
- *Inclusion of multiple decision makers at the customer's location*

Another issue in high-tech industry is that compared to low-tech products. Sales forecasting for high-tech products is difficult due to limited traditional techniques and lack of historical data of new products. Although gathering information regarding high-tech industry and customer is challenging, companies should seek available tools to develop the forecast. (Mohr et al. 2007, 217.)

According to Mohr et al. the seller should ask questions that encourage customers to address problems and sources of dissatisfaction and update the offering accordingly to better serve customer's needs. (Mohr et al. 2007, 177.) Estimations derived from sales force and market research provide the most common routes to developing a customer share database. This enables the company to better understand the growth potential. Developing a sufficient knowledge about the customer's business is required to build a value proposition that clearly articulates the advantages of the offering relative to next best alternative. (Mohr et al. 2007, 178.)

There are six critical issues a firm needs to examine to assess customer's motivation for purchase decision:

- What are the steps that customers go through in making a technology or innovation purchase decision? How do these affect marketer's strategies?

- How is the technological adoption process work in the market? What are the factors affecting purchase decisions?
- What strategies do marketers follow in case of a decline in sales?
- How can high-tech markets be segmented?
- What are the factors affecting the timing of technology migration and upgrade decisions?
- What are customer's paradoxical relationships with technology? (Mohr et al. 2007, 231.)

2.6 Need for different marketing approaches for different types of product

When we have a close look at different industries, markets and products, we see that characteristics and attributes are driven by different influences. While high volumes of consumer goods can easily be marketed in the same way for a long time, industrial goods and especially technology-intensive products require short term strategies and frequent updates in marketing understanding. The reason is that by nature technology related products are subject to a rapid change. Once they are outdated they cannot offer the same value. Another example is that consumer goods and low-tech products are easily communicated to markets through both modern and traditional means of marketing. However, due to technological and market uncertainty, marketing of technology-intensive products cannot be easily communicated. This, however, should not be limited only to challenges of communication. Complexity of products and difficulty of transferring technological knowledge to customers before and after sales are commonly faced problems.

According to Corsi and Dulieu (2008, 14–15) high-tech products and services demand a new marketing approach. Due to a large number of abundant products and services in the market, positioning of a new product becomes more important. Corsi and Dulieu (2008, 15) also proposes that a new idea should be given to those who actively engaged in making the novel value emerge instead of classical marketers.

According to contingency theory, companies can enhance their odds of success by appropriately matching marketing strategies and tools to different types of products and services. (Mohr et al. 2007, 31.)

Mohr et al. (2007, 32) also propose that choosing the appropriate type of market research tool is important since the value of customer feedback through standard marketing research can be questionable.

After reviewing the literature and case studies, findings show us there are different strategies for marketing of services, B2B and B2C products as well as different approaches for marketing of technology and innovation. There are limitations of both traditional and modern marketing thinking on specific issues. As addressed in previous chapters, high-tech product marketing is one of these areas where managers, marketers and sellers are required to go beyond the routine and make an extra effort in order to succeed in technology-intensive industries.

2.7 Linking people, markets and technologies

The modern world of innovation requires closing the gaps between scientific findings, world of products, processes and services and people in order to be successful (Corsi & Dulieu 2008, 14). "While markets and technologies represent poles of innovation, people express competencies; they need to be put in direct harmony" (Corsi & Dulieu 2008, 14).

According to Bender (1989, 161) in order to survive, companies should enhance their technology focus with a marketing thrust that concentrates on generating customer value.

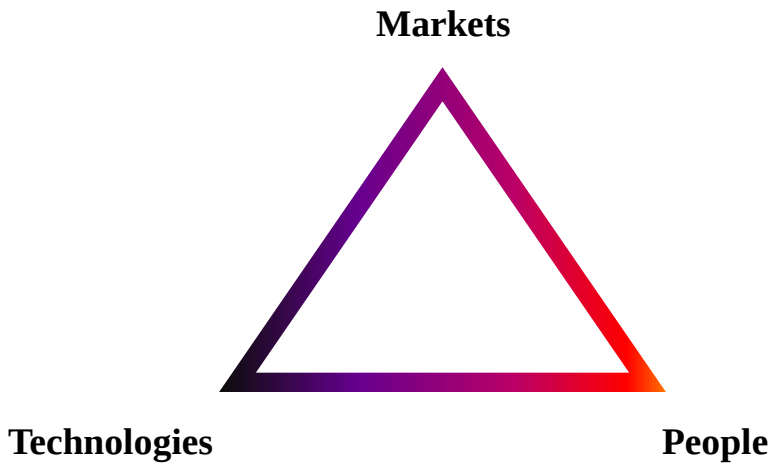

Figure 13 The three constituents of high-tech marketing. (Corsi & Dulieu 2008, 14)

The responsibility of management in a technology-based company should be aiming to pull together the organization. This can be achieved by considering marketing as a business function to close the gap between the company and its customers. In order to survive and succeed the company's technological and service innovation capability needs to be enhanced by organizational innovation through the integration of all business functions towards generating customer value. (Bender 1989, 164.)

3 MARKET RESEARCH ANALYSIS AND RESULTS

Market research, as mentioned in the theoretical part, is a subset of marketing research and it provides a road map to businesses. Therefore, it is important to handle it as a whole. In order to perform a successful market research, collecting information from the target market is not enough by itself. Especially in the case of targeting foreign markets, it is vital to identify the differences between the point of origin and the target market.

In the following subsections, we discuss the differences between Finland and Turkey in terms of level of development, education system, technology adoption, value creation, innovativeness and market situation in order to provide insights for the market research study in the corresponding section.

Turkish market is handled broadly since it is the target market for this study. A swot analysis of Turkish industry is also included in the following section.

3.1 Turkish market

3.1.1 Market and industry overview

Turkey has been a bridge between Europe and Asia and has been hosting different cultures over centuries. The estimated population for July 2013 is 80,6 million (The World Factbook). Although the city of Istanbul has the highest population, the capital of Turkey is Ankara.

Turkey has become one of the largest industrial countries in the world specializing mainly in medium-technology and low-technology industries. Purchase of imported machinery and equipment increasingly continued between 1960 and the end of last millennium. Due to growing public deficit, unstable macroeconomic environment and mediocre productivity growth, Turkey could not establish a well-functioning national system of innovation. However, the previous mode of technology development based on imitating foreign technology was not sustainable. Therefore, the attempt to establish a national system of innovation was still a better option. (Taymaz & Lim 2009, 64–65.)

The Scientific and Technological Research Council of Turkey (TUBITAK) was established in 1963 to develop science and technology policies and conduct basic and applied research in natural sciences. TUBITAK, later, put more emphasis on scientific research and technological development and had an important role as an advisory council to the Turkish Government. Due to poor export performance, growing import bill and dominance of state in key industries, the government announced a long-term program backed by the IMF, in order to adapt an export-oriented growth strategy. Accordingly, the import regime was changed,

quantitative restrictions and non-tariff barriers were eliminated, tariffs were reduced and Turkey joined the Customs Union (CU). (Taymaz & Lim 2009, 66.)

Table 3 Turkish Industry SWOT Analysis (Turkish Industrial Strategy Document 2010)

STRENGHTS	WEAKNESSES
• Geographical location of Turkey • Young human resource • Production at international standards and quality by Turkish Industry • Existence of entrepreneurship capacity • Developed industrial infrastructure and variety of industrial production • Number of SMEs and organized industrial zone potentials	• Shortage of qualified labour, R&D , technology and innovation and access to funding sources • Failure in effective management of natural resources and energy problem • Lack of cooperation and coordination among public institutions and organizations • Limited capability of production in high added value products • Shortages of infrastructure, investment and business climate • High level of informal economy • Incompetence of the manufacturing industry in technology production and failure in extending the use of modern technology • Failure in obtaining data on the industry systematically and from a single source • High cost of inputs and high tax rates • Development differences between the regions • Inadequate implementation of clustering strategies • Under-development of competition culture • Incompetency of SMEs in export and marketing
OPPORTUNITIES	**THREATS**
• European Union accession process and harmonization studies • Geographic location of Turkey and economical growth of Islamic market in Middle East • Entrepreneurial, young population • Markets in the neighbouring and surrounding countries	• Global financial crisis • External dependency in energy • High imports in supply of intermediate products • Globalization and increasing international competition • Environment and climate change • Political instability of neighbouring countries

In Turkey, indigenous technological activities and technology transfer are two main sources of technology acquisition. Firms also acquire new technologies by transferring them from others through licence and know-how agreements. The proportion of R&D performing firms was only about 1 percent in 1990s and increased up to 2.5 percent in 2000. Similarly, the number of R&D personnel per 10000 people was 8 in 1994 and jumped to 30 in 2007. (Taymaz & Lim 2009, 71–75.)

The share of private sector in R&D expenditure was around 46 percent between 2006 and 2007. Private sector played an important role for both funding and performing R&D. In 2007, 48 percent of all R&D was performed by universities, 41 percent was performed by public sector and the remaining 11 percent was performed by TUBITAK. Despite the rapid growth in domestic R&D activities, growth and productivity performance

were not satisfactory. However, R&D expenditure is expected to enhance innovativeness of domestic firms and other benefits will be realized in medium and in long term. (Taymaz & Lim 2009, 75.)

Table 4 Major Science and Technology Actors in Turkey (TUBITAK 2010)

- The Supreme Council for Science and Technology (SCST/BTYK in Turkish)
- The Scientific and Technological Research Council of Turkey (TÜBİTAK in Turkish)
- State Planning Organization (DPT in Turkish)
- The Council of Higher Education (YÖK in Turkish)
- Ministry of National Education (MEB in Turkish)
- Ministry of Industry and Trade (MoIT/ STB in Turkish)
- Undersecretariat of Foreign Trade (DTM in Turkish)
- Turkish Statistical Institute (TurkStat/ TÜİK in Turkish)
- Turkish Patent Institute (TPI/ TPE in Turkish)
- Turkish Standards Institute (TSI/ TSE in Turkish)
- Small and Medium Enterprises Development Organization (KOSGEB in Turkish)
- Union of Chambers and Commodity Exchanges of Turkey (TOBB in Turkish)
- Technology Development Foundation of Turkey (TTGV in Turkish)

Acquisition of embodied technology is the main form of technology upgrade in Turkey. However, small and medium-sized firms do not have sufficient knowledge about new technologies, machinery and equipment. For a sustained growth, Turkish firms should move towards high value added products and activities. Firms also need to be innovative since imitating foreign technology is not sufficient anymore. (Taymaz & Lim 2009, 91.)

Although Turkey was ranked near the bottom in indicators such as investment in R&D, patents, level of internet access, science and technology graduates, according to European Innovation Scoreboard 2007, Turkey was among top performers for three indicators: business R&D/GDP, USPTO patents/population and high-tech manufacturing value added share. (Taymaz & Lim 2009, 254.) Although Turkey displays strength in the areas of science and engineering enrolment, scientific and technical journal articles, patent applications and royalty and license fee payments, it is weaker than the Europe Central Asia (ECA) average in areas such as royalty and licenses fee receipts, researchers in R&D, university-company research collaboration, private sector spending on R&D and gross foreign direct investment. (Taymaz & Lim 2009, 255.)

As above mentioned Turkey has launched an export-oriented program and strengthen the national innovation system accordingly. In order to develop domestic industries and to be able to compete in international markets, technology upgrades were done either by imitating foreign technologies or simply purchasing them. Due to economic crisis and other related reasons, the development of national innovation system faced challenges. This also resulted lack of skilled-labour force. As reported by a study (Taymaz & Meschi 2008, 33.) there is a relationship between trade openness, technol-

ogy adoption and demand for skilled-labour in Turkey. The results of the study showed that imported new technologies are more skill-intensive than those in domestic markets. Due to negative effect of export-oriented policies on demand for skilled-labour, firms moved to less skill-intensive markets with higher shares and low costs. "Changes in the wage bill share of skilled workers in a given sector are related to observable measures of international exposure and technology adoption" (Taymaz & Meschi 2008, 33.)

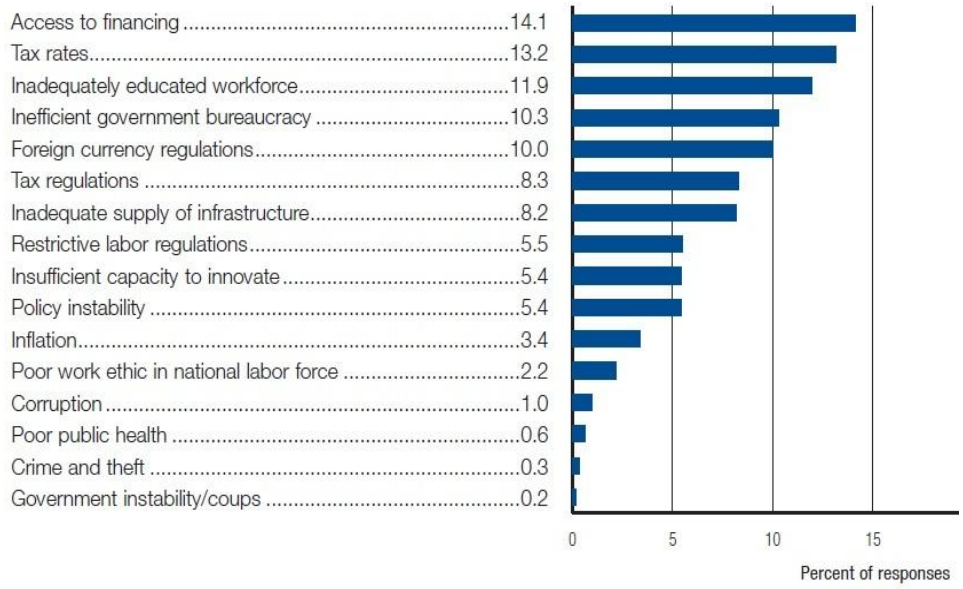

Figure 14 The most problematic factors for doing business in Turkey (Schwab 2012, 350)

Turkey has been considering export-oriented policies as the cure for economic growth. However, in order to export, firms also need to import goods. Due to lack of value-added products offered by Turkish firms, the gap between exported and imported goods has been huge. For instance, some minerals and metals are first exported without added-value for low prices and they are imported back after foreign companies process them and add value. In some cases, because of the added-value, Turkish firms or the government might even need to pay for their own products. As mentioned before, this is a result of labour-intensive industries and export-oriented activities. Although Turkish firms have been trying to capture international markets, their success has only been limited to intermediate technology consumer goods. There are few examples of high value creation within Turkey such as automotive industry. Although there are automobile manufacturing plants in Turkey which serve as a key player in the value chain, these firms are not Turkish.

The success of Turkish firms which offer low-price products both in domestic and international markets resulted a decrease in skilled-labour demand. These firms manufacture neither technologically advanced products nor high value-added goods and thus they do not need expensive skilled-labour force.

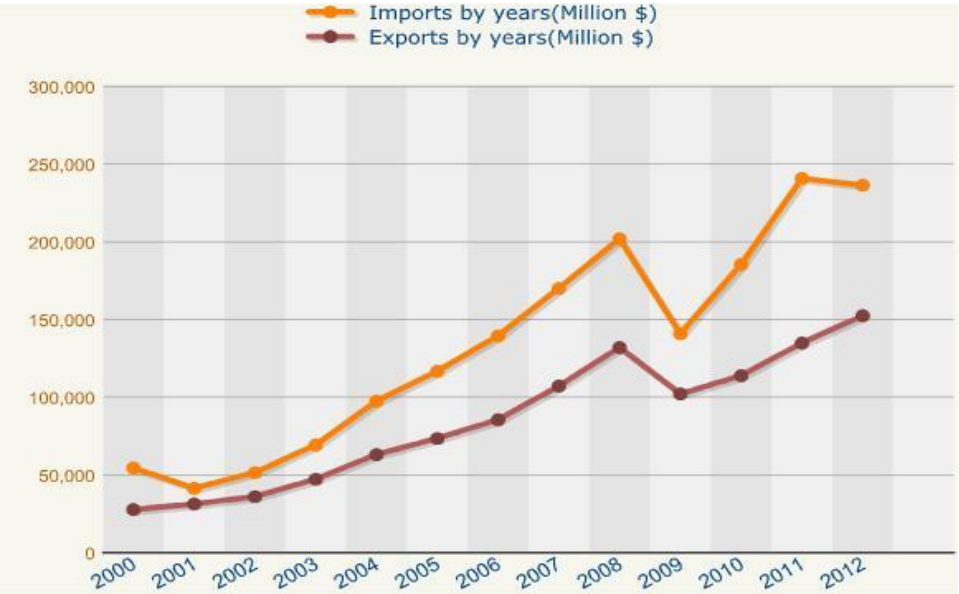

Figure 15 Total imports and exports by years - Turkey (TURKSTAT 2013)

Starting from 2009, consumption and investment expenditures in private sector have shown a rapid growth. This resulted a significant growth in imports. Between 2008 and 2009, when global crisis was still influential, import volume decreased and dropped below the potential level due to low economic activity and low investment demand. However, during the recovery period, imports increased accordingly. Due to its dependence on manufacturing and export, the import of intermediate goods has shown a rapid increase in growth periods. Import of capital goods has followed the investment demand of private sectors. (TÜSİAD 2011, 9.)

Table 5 Turkish industry growth rate by sectors in percentages. (TURKSTAT 2013)

Sector	2009	2010	2011	2012 (Q1)
Agriculture	3.7	2.4	7.1	4.5
Fishery	-0.3	1.7	12.5	4.8
Mining	-6.7	4.7	10.8	-0.6
Manufacturing	7	13.6	14.9	2.7
Electricity-Gas	-3.4	7.3	12.3	8.4
Construction	-16.1	18.3	15.3	2.8
Trade	-10.2	13.6	17.3	0.9
Hotels-Restaurants	3.7	0.3	5.2	2
Transportation - Communication	-7	10.6	12.4	4.7
Financial Corporations	8.5	6.8	10	4.8
Education	2	0.6	4.1	4.5
Sanitary & Social services	3.2	1.2	3.5	4.4

Industrial machinery is one of the largest import and export sectors. It is expected to remain the biggest sector over the next twenty years. It is also predicted that the share of clothing and apparel will decline in total exports as Turkey increasingly turns its focus to higher value added industries. In the next twenty years, chemicals and textile and wood manufactures will share the third place in total imports while industrial machinery and trans-

port equipment shares the first and the second places respectively. Furthermore ICT is expected to hold the fifth rank for the following twenty-year period. Although tightening policies are on authorities' agenda, Turkey is expected to have a steady growth and to continue benefiting from its geographical position. (Emmet 2013.)

Table 6 Imports by sectors and product groups - Turkey (TURKSTAT 2013)

Group (Billion USD)	2008	2009	2010	2011	2012
Medicinals and pharmaceuticals	4.7	4.4	4.8	5.1	4.3
Chemicals and related products	25.5	20.3	25.4	31.2	29.7
Manufacturing	150.2	111	145.4	183.9	176.2
Agriculture, Forestry & Fishing	6.4	4.6	6.5	8.9	7.5
Aircraft and parts thereof	1.6	1	3.2	3.9	3.2
Energy	48.3	30	38.5	54.1	60.1
Communication and apparatus	5.3	4.6	5.4	6.2	6.8
Telecommunications	4.3	3.9	4.7	5.2	5.9
Automative	12.8	9	13.4	17.2	14.5
Machinery	22.5	17.1	21.3	27.1	26.3

> *As countries shift towards higher value sectors there are significant opportunities for companies to evolve and grow. Some of the faster growing, emerging markets show a shift from basic commodities trading in sectors such as Cereals or Sugar, to become a refiner or producer of branded goods based on those raw materials. In many of the developed markets there is a shift towards increasingly specialised sectors such as Chemicals and Pharmaceutical products as companies seek opportunities for higher returns.*
>
> Emmet 2013.

3.1.2 Market and technological uncertainty

As reported by Turkish Ministry of Industry and Trade, there are serious barriers to increasing competitiveness of private sector as the rigidities in the labour markets (Turkish Industrial Strategy Document 2010, 80–81):

- Low level of skills in the labour force due to insufficient level of enrolment at all levels of education.
- Only 13.3 % of employees between the ages of 15 and 64 have a university degree (26.6 % in Europe by 2008).
- Turkish education system has a negative effect on labour force ability levels and, therefore, the competitiveness of the private sector.
- Problems in obtaining qualified employees for certain positions in private sector restrict sustained growth of Turkish economy.
- Young and existing labour force do not meet the needs of the firms. Especially, the low ability of workforce in computer and foreign language skills is perceived as an obstacle to competitiveness of the private sector.
- Inadequacy of technical education is the main reason for the lack of qualified employees.

> *For the entire three axes present in the focus of industrial strategy (i.e. weight of high-tech sectors; transformation in traditional sectors; increasing share of powerful companies), the issue of skills and human resources is a crucial policy component. Effectiveness of policies in this area will directly affect the success of industrial strategy and help to creation of a sufficient level and qualified employment which maintains to be one of the top priority problems of Turkey.*
>
> Turkish Industrial Strategy Document 2010, 79.

According to a study on technology acceptance in Turkey, perceived ease of use is more influential than other psychosocial factors in people's acceptance in technology. It was also found that technology acceptance does not differ with respect to demographic characteristics such as age, gender, education level and hometown. The study proposes that people believe that using technological devices will improve their job performances. The study also determined that people experience difficulties in using technological devices and they are not able to see the benefits of technology use. Finally, findings of the study suggest that education should be given to Turkish people throughout their education lives in order for them to be able to employ technology in all fields. (Şenel & Şenel 2011, 45.)

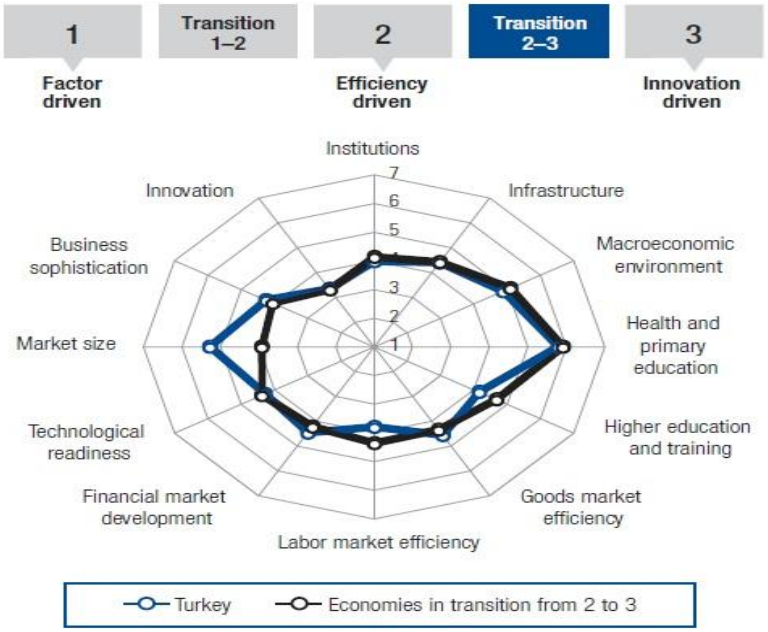

Figure 16 Turkey - Stage of development (Schwab 2012, 350)

As shown in the Figure 15, Turkey is still in the transition stage (from 2 to 3). Turkey has been a late adopter for decades since technology is purchased from other (developed) countries instead of producing it within the country. Turkey's technology policy allowed export of low-technology products with low added-value. Due to low added-value of exported goods, Turkey's purchasing power of foreign products has also been low.
According to the Global IT Report, Turkey was ranked 52nd for availability of latest technologies, 56th for government procurement of advanced technology products, 44th for firm level technology absorption, 71st for

capacity for innovation and 86th for extent of stuff training while Finland was among the top ten in all of these areas. (Dutta & Bilbao-Osario 2012, 334–385.)

When compared with Finland, Turkey was also outperformed in educational system. In 2012, Turkey was ranked 54th for tertiary education rate, 56th for quality of educational system, 93rd for secondary enrolment rate and 64th for internet access in schools. Finland was ranked 3rd for quality of educational system and it was among the top ten in other areas.

Although, export-oriented policies and foreign investments helped the country's economy settle and grow slightly, the cure to become a developed country with a growing economy is to save, invest, produce knowledge and build a strong knowledge-based economy.

3.2 Finnish market

3.2.1 Market overview

Finland is a republic with a population of 5,4 millions. Finland became a member of the European Union in 1995. The capital Helsinki has about one million residents with its neighbouring areas. Finland has one of the world's most innovative and advanced industrial economies. In Finland, the number of mobile phone users is higher than the number of land line subscribers. Its highly industrialized free-market economy is one of the best performing economies in Europe. The key economic industries are wood, metals, engineering, telecommunications, and electronics. The economy has successfully recovered from the recessions of 1990s and after joining the euro-zone, Finland has outperformed euro-area partners in terms of economic growth and public finance. (Sahlgren, n.d.) Finland was also the first country in Europe to grant women the right to vote and to have a woman president.

Two important ministries in the Finnish R&D system are the Ministry of Education and the Ministry of Trade and Industry. The National Technology Agency (Tekes) has an important role in the planning and financing of technical research and applied R&D. Technical Research Centre of Finland (VTT) is the most important R&D institute operating under the Ministry of Trade and Industry. Other significant players in the Finnish R&D system include the Finnish National Fund for Research and Development (Sitra) and industrial federations. (Eerola & Jørgensen 2002, 26.)

> *Finland occupies the top position both in the health and primary education pillar as well as the higher education and training pillar, the result of a strong focus on education over recent decades. This has provided the workforce with the skills needed to adapt rapidly to a changing environment and has laid the groundwork for high levels of technological adoption and innovation. Finland is one of the most innovative countries in Europe, ranking 2nd, behind only Switzerland,*

> *on the related pillar. Improving the country's capacity to adopt the latest technologies (ranked 25th) could lead to important synergies that in turn could corroborate the country's position as one of the world's most innovative economies.*
>
> Schwab 2012, 11.

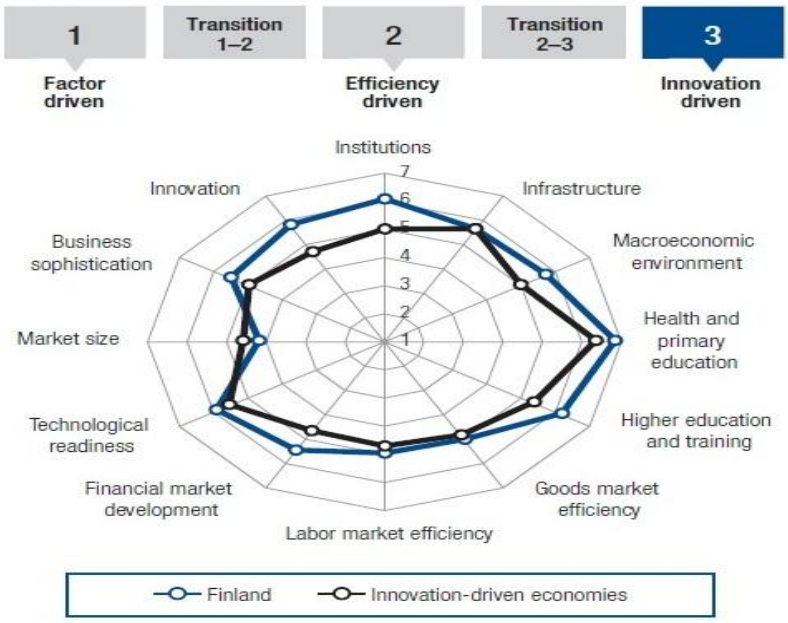

Figure 17 Finland - Stage of development (Schwab 2012, 166)

According to Global IT Report, Finland with its first rate level of networked readiness is second best performing country in the Nordics and third best in overall. This is a result of its world-class educational system, inexpensive technologies and excellent infrastructure. In Finland, over 80 percent of households own a PC connected to the Internet. Majority of individuals are regular Internet users and 61 percent of the population is subscribed to mobile broadband internet. (Dutta & Bilbao-Osario 2012, 17.)

> *A conducive environment, a skilled population, and pervasive technology all contribute to making Finland one of the most prolific innovators in the world, ranking 3rd for the number of patent applications per capita.*
>
> Dutta & Bilbao-Osario 2012, 17.

According to Hietala (2006) the background of Finnish knowledge-based society is based on the following:

- Lutheran Church taught people to read
- Public libraries since the beginning of 19th century
- Newspapers widely distributed

- The communicative skills of public were developed in associations (civil society)
- The follow-up system of the latest know-how (public sector)
- Gender equality
- Finland as one of the most non-corrupted countries
- Minimum brain drain when building the nation-state Finland

Finland is a successful high-tech exporter and it imports raw materials energy and some components for manufactured goods. Tekes has a significant role as an activator in Finnish R&D system. It has played also an important role in the development of entire sectors by networking universities, research institutes and businesses. According to the report published in 2012, Tekes is "funder, activator, networker" and "invester" in the Finnish R&D system. (Tekes Review 2012.)

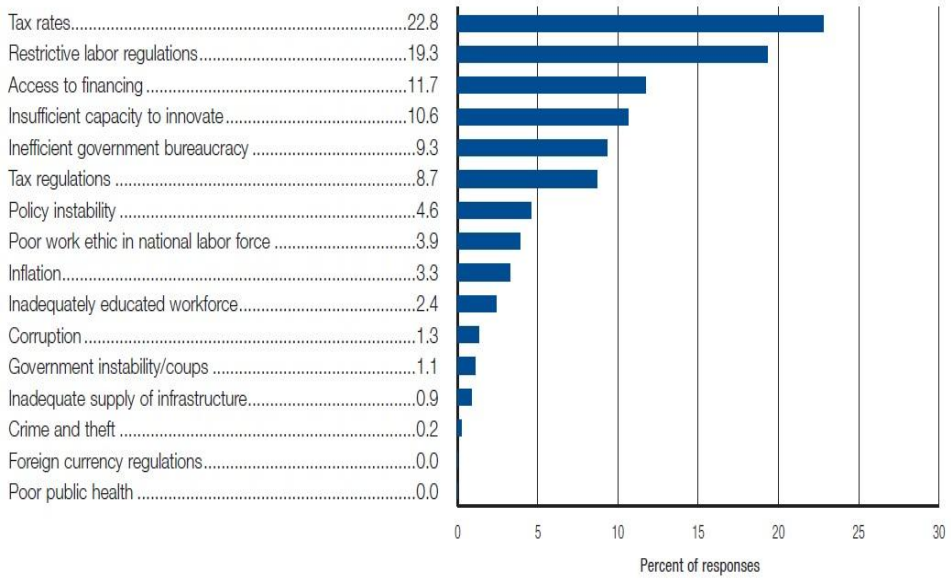

Figure 18 The most problematic factors for doing business in Finland (Schwab 2012,166)

Finnish economy has shown a great development success. People became wealthier and their purchasing power increased accordingly. Two critical actors in maintaining this continuous development are the government and the public sector. According to Tekes Review, the key to understand continuous renewal of the economy is looking at innovations. Innovations are considered as the union of newly created knowledge which turns into an invention and the offering of the innovation in the market place. The current R&D system and its success are the result of R&D activities and systematic changes with the country. These include the changes in the education system, social welfare and government policies in economy, industry, labour and environment. (Tekes Review 2012, 38–43.) Employment rate of highly educated people in Finland has been increasing recently. The employment rate people who have tertiary level degrees was 83,8 percent in 2010 and the employment rate in all levels of education also increased after the recession in 2008. (OSF 2013.)

Finland is an important place for international logistics centres, business and academic partnerships, expertise and innovation. "It is also a knowledge centre offering world-class skills, research and development in cutting-edge technologies, telecoms, e-business, software and semiconductor development, ship building, forestry, biotechnology, industrial design, and logistics." (Sahlgren, n.d.)

3.2.2 Adoption of technology and innovativeness

Finland and other Nordic countries are among top performers in terms of economy. Nordic countries also perform well in social and environmental sustainability. The top ten of the Networked Readiness Index is dominated by the Nordic countries. "The Nordic countries are the most successful in the world at leveraging ICT. They have fully integrated ICT in their competitiveness strategies to boost innovation and ICT is present everywhere and in all areas of society, such as education and healthcare." (Dutta & Bilbao-Osario 2012, 17.) As mentioned earlier, Finland's world-class education system, inexpensive technologies and excellent infrastructures resulted a conducive environment, a skilled population and pervasive technology. (Dutta & Bilbao-Osario 2012, 17.)

Finland is ranked third in the world for the number of patent applications per capita and it is now one of the most prolific innovators in the world. The constant efforts to maintain a developing national R&D system supported by country's world-class education system have led to development of business-friendly environments and well-rounded innovation systems. As a result, Finland became an important global player in high-tech and innovative products with its neighbouring Nordic countries. (Dutta & Bilbao-Osario 2012, 18.)

In today's Finland, there are many high value-added products being exported. Especially high-tech products, innovations and solutions are very important for country's economy. There is now a skilled labour force with the required know-how to maintain advanced manufacturing processes and to understand complex technical issues. The education system of Finland meets the demand for well-trained work force as well as the demand for professionals. According to the Global IT Report and the Global Competitiveness Report, Finland has the third place for the quality of education system, second for tertiary education rate, fifth for quality of education system and fifth for availability of latest technologies. In order to better understand the current situation in Finland, each of these rankings can be evaluated for their respective segments. The education system of the country as well as its supportive R&D policy increased the level of skilled labour force, their productivity and enabled businesses to create higher added values. People's high rate of enrolment both in secondary and tertiary education coupled with high level of social welfare and purchasing power created a suitable environment for a fast-paced technology adoption.

3.3 Marketing case study

As one of the objectives of this thesis work, in order to develop a framework for technology-driven and product-driven questionnaires, we conducted a business-to-business market research using the products introduced in the previous subsection. We aimed to apply traditional and modern marketing approaches coupled with customer responses to develop two different questionnaires. These will help business consulting firms such as Innovalogy Oy and other businesses to save time during the market research and to better understand the Turkish business-to-business market.

Before moving to the market research study, it is useful to identify the steps of B2B market research process. This is also important to understand the role of telemarketing (cold calling) in this process. Figure 18 illustrates a typical market research framework used by consulting firms such as the commissioning company of this thesis work.

Figure 19 Business-to-business market research process of Innovalogy

A long list is a list of potential buyers which is created according to product characteristics and seller requirements. The main purpose of creating a long list is to use it during the cold calling phase. The list depends on the case industry, target market, product range and regional parameters. The first version of a long list includes 50-250 potential buyers. This number is later reduced down to 20-40 companies. The final version of the list might include 5-15 potential buyers. These customers are chosen according to the seller company's criteria and requirements. The seller company might be looking for distributors, manufacturers, buyers, sales agents or growth options. Furthermore, there are also a number of questions which are asked in order to determine buyers' eligibility. Some of these questions are as follows:

- How long has the company been in the field?
- Are the references of the company sufficient?
- What is the business model?
- Does the business model match our customer's (seller company) business type or model?

Due to confidentiality of the commissioning company, this thesis does not include information on how the customers are found, what types of sources were used and how the company background and financial situation are checked. These steps include confidential information on Innovalogy's know-how in business consulting and thus cannot be revealed.

As an initial step, potential customers in the long list are contacted and those who are interested in the product are contacted again for follow-up purpose. Potential buyers are then forwarded to the seller company with an executive market report. After these steps, B2B meetings are arranged if needed (Caglar, interview 15.02.2013).

3.3.1 Introduction of case companies and case products

3.4.1.1 Climecon Oy

Climecon Oy is a Finnish manufacturer of high-quality air terminals and connection and balancing plenum boxes. Company's product range also includes hoods for professional kitchens, ceiling ventilations systems, intake air devices and exhaust air diffusers and chemical air purifiers. Another important part of company's business is marine ventilation. Climecon products are designed for homes, retail and office spaces, production and industrial spaces and public buildings and they are exported to Sweden, France, Germany, Austria, Belgium, Estonia and Latvia. (Climecon.fi)

In this thesis, we chose Climecon's air diffusers to be used during the cold calling part of the thesis work. Although the marketing process of air diffusers is considered to be simple, the main reason for choosing this product is its design, technicality and existence of equivalent products in the Turkish market. Another reason for choosing this product is that construction sector and the domestic market in Turkey is developed and demanding.

3.4.1.2 Morphona Oy

Morphona Oy is a technology startup company which has nanotechnology products. The company provides high quality; carbon nanotube (CNT) based protection solutions and chemicals for semi-finished products to its customers in various market segments such as mobile phones, TV, laptops, automobile and defence technology. All of the company's products are based on its own patented innovations. (Nemcel Ltd. former technology provider company, 2013)

In this thesis, we chose CNT based heatable technical fabric as the high-tech product for the market research study part of the thesis work. It is a printable solution which is based on infrared heating. The product is originally an applicable and flexible nanotech liquid offered as a raw material. CNT formulated chemical is laminated to textile. Transfer of atoms between electrical poles creates heating when electrical cables attached to plug and plugged to electric outlet. Thus the heating element product might be considered as competing technology against infrared and conventional heating systems. (Nemcel Ltd, former technology provider company, 2013)

Company's culture and the characteristics of the product do not allow the product to be marketed straight from seller to buyer. The reason for this is that Turkish companies do not have the required technology level to process the raw material. They are not able to put this solution neither on the market in applicable forms nor in other combinations. Moreover, the complex solution of Morphona becomes more understandable and reasonable with the heating solution offer.

3.3.2 Cold calling

Telemarketing is an important technique for business-to-business marketing. Especially while conducting a market research in a case where the buyer and the seller are in different countries, it helps companies to save time and money as it enables them to receive immediate feedback. Considering the large amount of prospects, cold calling is one of the most efficient ways to reach potential customers.

In this study, we conducted a market research with two different products using cold calling in order to understand the challenges faced during product-driven and technology-driven marketing. We followed the market research process of Innovalogy which was given above.

After having created the long list, we called potential customers for each of the products introduced in the previous subsections. We interviewed the customers and used their responses to shape technology-driven and product-driven questionnaire frameworks. Follow-up e-mails (Appendix 1 & 2) were sent to the potential customers who were interested in the case products. The results of the cold calling interviews addressed some challenges and provided insights into two different marketing approaches.

Responses of potential customers who were contacted through cold calling were clearly different for each case product. One of the most frequently asked questions was about the origin of the products. There were also questions regarding the presence of the products in Turkey. Customers wanted to know if the products are available locally. Finland's reputation for quality and durability enabled customers pay more attention to the products throughout the cold calling interviews. Furthermore, length of phone calls and the time spent for reaching to a decision maker were also different in each case. Each case is discussed in detail in the following subsections.

3.3.3 Questionnaire comparisons

During the thesis, two different questionnaire frameworks were developed according to customer responses gathered through cold calling interviews. Figure 20 illustrates the phases of the product-driven cold calling interview with a flowchart.

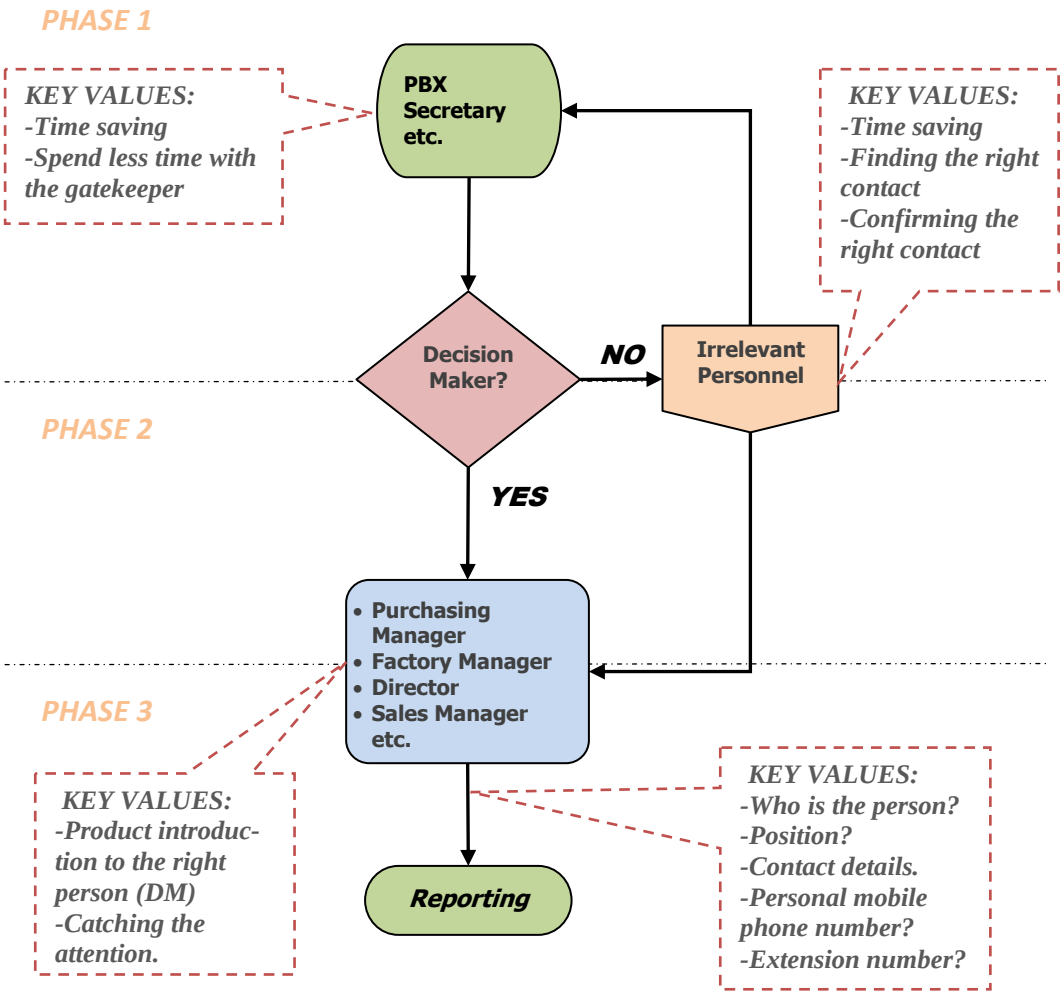

Figure 20 Product-driven market research framework

Phase 1: A cold call starts when it is answered by a gatekeeper (receptionist, secretary etc.). It is also possible that the call is answered by PBX. In Phase 1, the aim is to reach a decision maker as fast as possible. After shortly introducing the purpose of the call, consultant asks from the gatekeeper to be directed to a potential decision maker. The key value in this phase is spending less time with the gatekeeper.

Phase 2: This phase starts when the consultant is directed to a person who might be a decision maker. As shown in the figure above, the consultant first tries to confirm that the person is a decision maker. A decision maker might be purchasing manager, factory manager or director of the company. A sales manager might not be the right person since the reason of the call is not to purchase a product from the company in this case. However, he/she can better understand the reason of the call and thus direct the consultant to the right person. At the beginning of Phase 2, if the consult-

ant is directed to irrelevant personnel such as marketing manager, export manager or human resources manager, the consultant tries to find the right contact by simply asking a question and confirming the right contact. The aim of the consultant is to go through these steps as fast as possible as in Phase 1.

Phase 3: At the end of Phase 2, the consultant might be directed either to the gatekeeper or a decision maker. If the consultant is able to confirm that the person who answers the call is the right person, the consultant should introduce the product with its value proposition in order to catch decision maker's attention. Depending on how interested the decision maker is, the consultant asks for contact details as well as the position. Having accurate contact information including an extension number is helpful during the follow-up stage of market research process. As the last step of the flow-chart above, if the decision maker is interested in the product, the company and contact information are included in the market research report.

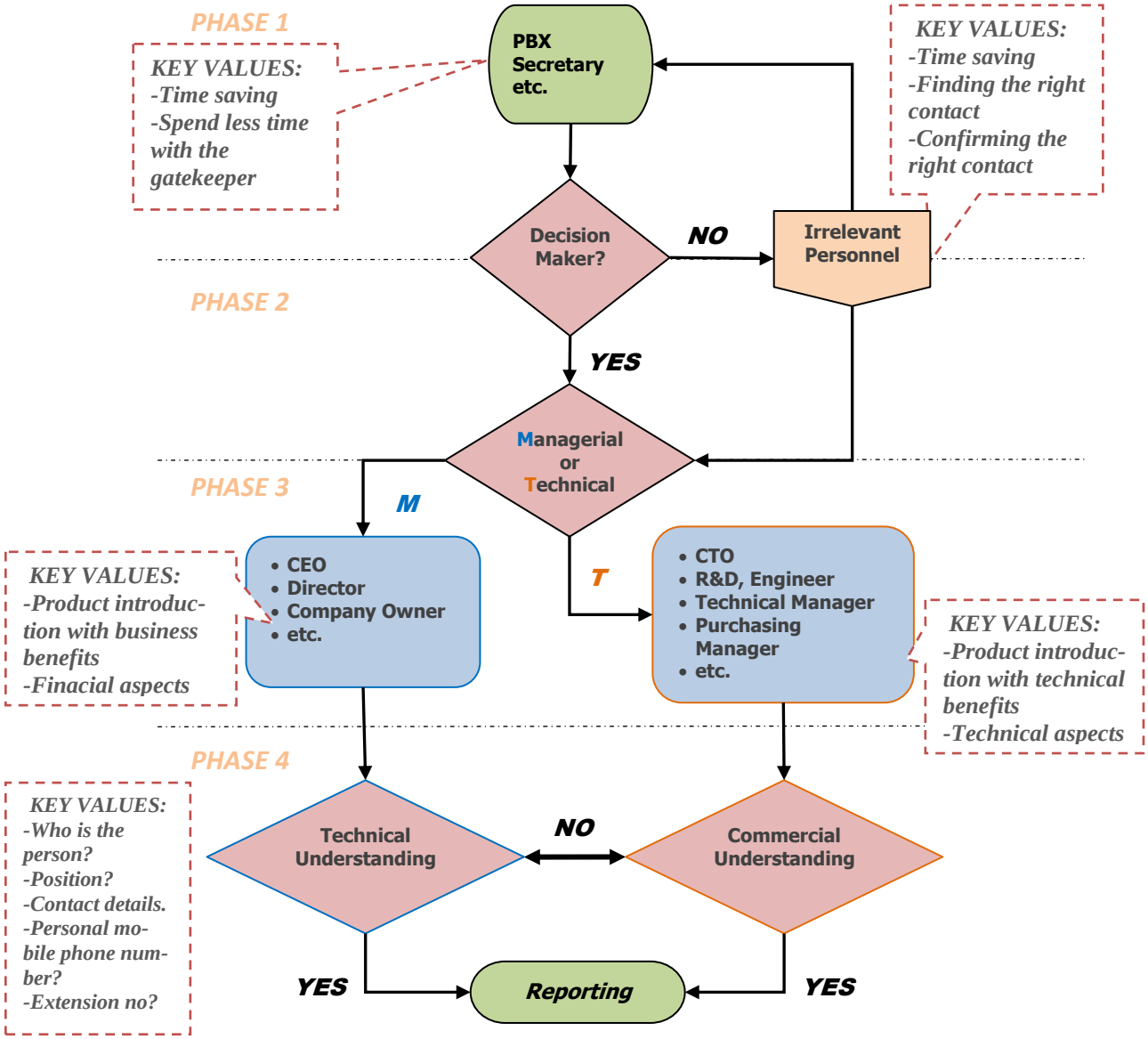

Figure 21 Technology-driven market research framework

Figure 21 illustrates the phases of the technology-driven cold calling interview framework with a flowchart above. As shown in the figure, there are major changes after the second phase compared to product-driven framework.

Phase 1: Same as the product-driven framework, in the first phase of technology-driven framework, the aim is to bypass the gatekeeper as early as possible. Considering the large amount of potential customers in a long list, saving time in the first phase of cold calling becomes very important.

Phase 2: As explained above, in this phase the aim is to reach a decision maker. If the person is irrelevant personnel, the consultant should try to reach the decision maker by also saving time.

Phase 3: After reaching a decision maker, the consultant should try to determine an appropriate approach for introducing the product. Depending on the position of the decision maker, it is possible to choose a managerial or a technical approach. In most cases, technologically advanced products are not communicated easily. Therefore it is important to determine the right approach for the right decision maker. On the managerial side of the flowchart, in Phase 3, the case product is introduced to the decision maker (CEO, director, company owner etc.) with business benefits and financial aspects since it might be challenging to introduce the product with technical benefits or aspects. Conversely, if the decision maker (CTO, R&D Manager etc.) is able to understand the technical information, the consultant should introduce the product with its technical benefits.

Phase 4: In this phase, after choosing the right approach for introducing the product, the consultant should try to determine decision maker's understanding. In order for the decision maker to be interested in the product, there needs to be a combination of technical and commercial understanding. For instance, a decision maker with a managerial authority might not be able to understand the technical benefits of a technologically advanced product, while he/she is able to understand the business benefits through product's novelty and newness. Therefore, the consultant should try to deliver accurate information to the right decision maker on both sides, as shown in Figure 21, in order to establish a rapport and to market the product. The last two decision diamonds of the flowchart illustrates how the consultant switches to managerial or technical approaches.

Before the phone call is ended, the consultant should ask for the contact details including extension number and mobile phone number. If the decision maker is interested in the product (technologically advanced), the company and contact information are included in the market research report in the last step.

3.3.4 Results

Main differences between product-driven and technology-driven were discussed in the previous section. Responses of potential customers who were contacted through cold calling were clearly different for each case product. One of the most frequently asked questions was about the origin of the products. There were also questions regarding the presence of the products in Turkey. Customers wanted to know if the products are available locally. Finland's reputation for quality and durability enabled customers pay more attention to the products throughout the cold calling interviews.

The average length of cold calling interviews for the technology-driven approach was greater than the average length of product-driven interviews. The reason is that, the technologically advanced case product (CNT based heatable fabric) required a detailed introduction and explanation. The presence of similar products in the Turkish market was also a confusing factor for potential customers. After the technologically advanced product is introduced to the customers, they ask for a brochure or an image of the product immediately. The reason is that when a technology is introduced to the customers, they think in terms of tangible goods. This might become a challenge since the outlook of a technologically advanced product does not necessarily differ from others.

Product-driven interviews were less complex since the product (air diffuser) was introduced without any problems. However, some of the potential customers provided misleading information on their interest of the product. For instance, some of the irrelevant personnel (non-decision maker) from the potential customers commented on the availability of the product in Turkey and stated that they only buy from local suppliers. There were also customers who asked for the possibility of procuring the products through a local distributor. Therefore, it is important to confirm that the person who is contacted is a decision maker. In addition to these, the limited ability of the commissioning organization to negotiate on product price during the interviews was also challenging. Especially when product differentiation does not suffice, potential customers tend to be more price-sensitive and thus want to negotiate on product price.

After the cold calling and follow-up stages of the market research process, detailed versions of the technology-driven and product-driven frameworks (Appendix 3 & 4) were delivered to the commissioning company. A marketing research report which includes a list of potential customers (Appendix 5) was also delivered to the case companies through the commissioning company.

4 CONCLUSION

This thesis work aimed to identify the market entry and market research challenges of Finnish companies in Turkey by comparing product-driven and technology-driven approaches. A market research study was conducted for two different product types and market research frameworks were developed for both approaches according to the results and customer responses.

As discussed in the theoretical part of this thesis work, technology-driven and product-driven companies require different marketing approaches due to differences in product characteristics. In order to determine the appropriate marketing approach for each product type, companies need to consider the target market, target segments and the characteristics of these. In the light of these, Finland and Turkey were compared as to their level of development, technology understanding, technology adoption and innovativeness. Furthermore, adequacy and qualification of labour force, education system, economic situation and the effects of these on the business environment in these two countries were discussed.

The results of the empirical study were used to develop a product-driven and a technology-driven questionnaire to be used for business-to-business market research. Potential customers who showed interest in the case products were listed and reported to the case companies through the commissioning organization.

The author gained valuable knowledge on high-technology product marketing, business-to-business marketing and had the opportunity to examine the Finnish and Turkish business environments as well as their differences in specific areas. The author also improved his writing and qualitative research skills through this thesis work.

Due to a shortage of time and a lack of resources to support a more comprehensive research, two different types of products were used and a limited number of respondents were contacted in the market research part of this thesis. However, the questionnaires were developed with a simple and versatile structure in order to be used for larger product groups as well. Therefore, the author recommends them to be applied to products and to other markets as well.

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Appendix 1

E-MAIL SAMPLE 1

This is an example of the e-mails which were sent to the potential customers. The e-mail shortly refers to the phone call which was made to the contact and gives a more detailed introduction of the company and the products. Case product (product-driven) and company brochures were also attached to the e-mail as per requested by most of the respondents.

Sayin ... Hanim/Bey,

Sizlere telefon gorusmemizde de bahsettigim gibi, Innovalogy olarak danismanligini yaptigimiz firma ve uretimini yaptigi hava difuzorleri hakkinda bilgi vermek isterim.

Climecon, Finli bir yuksek kaliteli havalandirma ekipmanlari ve cozumleri ureticisidir. (http://www.climecon.fi/en/) Firmanin urunleri arasinda tavan ve duvar tipi havalandirma sistemleri, kimyasal hava arindiricilar, kapali alan hava cikis dagiticilari (difuzorleri) ve profesyonel mutfak aspiratorleri bulunmaktadir.

Butun Climecon urunleri celik levhadan yapilmistir ve kesinlikle yanmaz. Urunler ev, ofis, imalat gibi endustriyel alanlar ve halka acik binalar icin dizayn edilmis olup hali hazirda bir cok avrupa ulkesine ihrac edilmektedir. Kolay temizlenebilen ve monte edilebilen hava difuzorlerinin performans ve hava karisim oranlari da Finlandiya Teknik Arastirma Merkezi (VTT) tarafindan test edilmis ve onaylanmistir.

Ekte size telefonda ve yukarida bilgilerini verdigim hava difuzorlerinin ve uretici firmanin brosurlerini bulabilirsiniz.

FINO-ENG.pdf - Hava difuzoru
TINO-ENG.pdf - Hava difuzoru
RINO-ENG.pdf - Hava difuzoru

Climecon-ENG.pdf - Sirket brosuru

Tesekkur ederim.
Saygilarimla.

Innovalogy & Climecon

Hakki Meseci
Stajyer, Tez Calisani
Innovalogy

Appendix 2

E-MAIL SAMPLE 2

This is an example of the e-mails which were sent to the potential customers. The e-mail shortly refers to the phone call which was made to the contact and gives a more detailed introduction of the company and the products. Case product (technology-driven) and company brochures were also attached to the e-mail as per requested by most of the respondents.

Sayin ... Hanim/Bey

Sizlere telefon gorusmemizde de bahsettigim gibi, Innovalogy olarak danismanligini yaptigimiz firma ve uretimini yaptigi karbon nanotup bazli infrared isitma teknolojisi hakkinda bilgi vermek isterim. Morphona, Finli bir yuksek kaliteli karbon nanotup bazli koruma cozumleri ureticisidir. Firmanin urettigi teknolojik cozumler cep telefonlari, televizyon , dizustu bilgisayarlar, otomotiv ve savunma gibi bir cok olanda kullanilmaktadir.

Infrared isitma ozelligine sahip karbon nanotup bazli filmler esnektir ve baski ya da boyama teknigiyle istenilen yuzeylere uygulanabilir. 80-100 cm genisliginde filmler halinde de temin edilebilen urunun en onemli ozelligi dusuk amperlerde calisarak isiyi belirli bir seviyede sabit tutabilmesidir. Ayrica dusuk amperlerde calisabilmesi urunun elektrik tuketimini diger isitma uygulamalarina gore cok daha ekonomik hale getirmektedir. Normal haliyle 60 C° sicakliga ulasabilen urunun kimyasal formuluzasyonunda yapilacak optimizasyonla bu deger beklenti ve istege gore yukseltilebilir.

Urunle ilgili sorulariniz olursa cevaplamaktan mutluluk duyarim.
Dilerseniz, daha fazla bilgi icin asagidaki adresleri ziyaret edebilirsiniz.

http://icanbymsm.com/en/products/icanheat-en
http://www.nemcel.fi/index.php

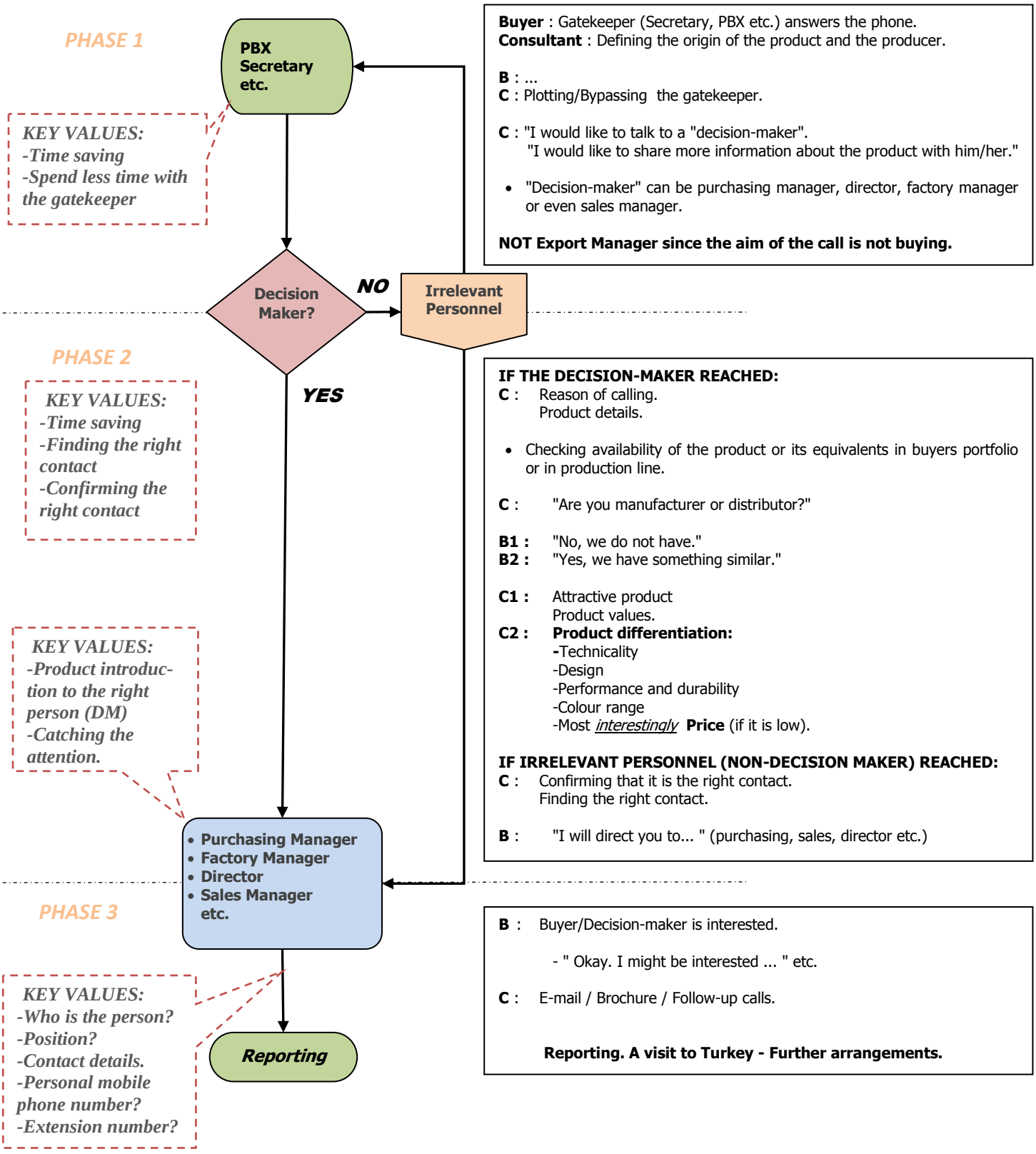
Tesekkur ederim.
Saygilarimla.

Innovalogy & Climecon

Hakki Meseci
Stajyer, Tez Calisani
Innovalogy

Appendix 3

PRODUCT-DRIVEN FRAMEWORK - DETAILED



Buyer : Gatekeeper (Secretary, PBX etc.) answers the phone.
Consultant : Defining the origin of the product and the producer.

B : ...
C : Plotting/Bypassing the gatekeeper.

C : "I would like to talk to a "decision-maker".
"I would like to share more information about the product with him/her."

- "Decision-maker" can be purchasing manager, director, factory manager or even sales manager.

NOT Export Manager since the aim of the call is not buying.

IF THE DECISION-MAKER REACHED:
C : Reason of calling.
Product details.

- Checking availability of the product or its equivalents in buyers portfolio or in production line.

C : "Are you manufacturer or distributor?"

B1 : "No, we do not have."
B2 : "Yes, we have something similar."

C1 : Attractive product
Product values.
C2 : **Product differentiation:**
-Technicality
-Design
-Performance and durability
-Colour range
-Most *interestingly* **Price** (if it is low).

IF IRRELEVANT PERSONNEL (NON-DECISION MAKER) REACHED:
C : Confirming that it is the right contact.
Finding the right contact.

B : "I will direct you to... " (purchasing, sales, director etc.)

B : Buyer/Decision-maker is interested.

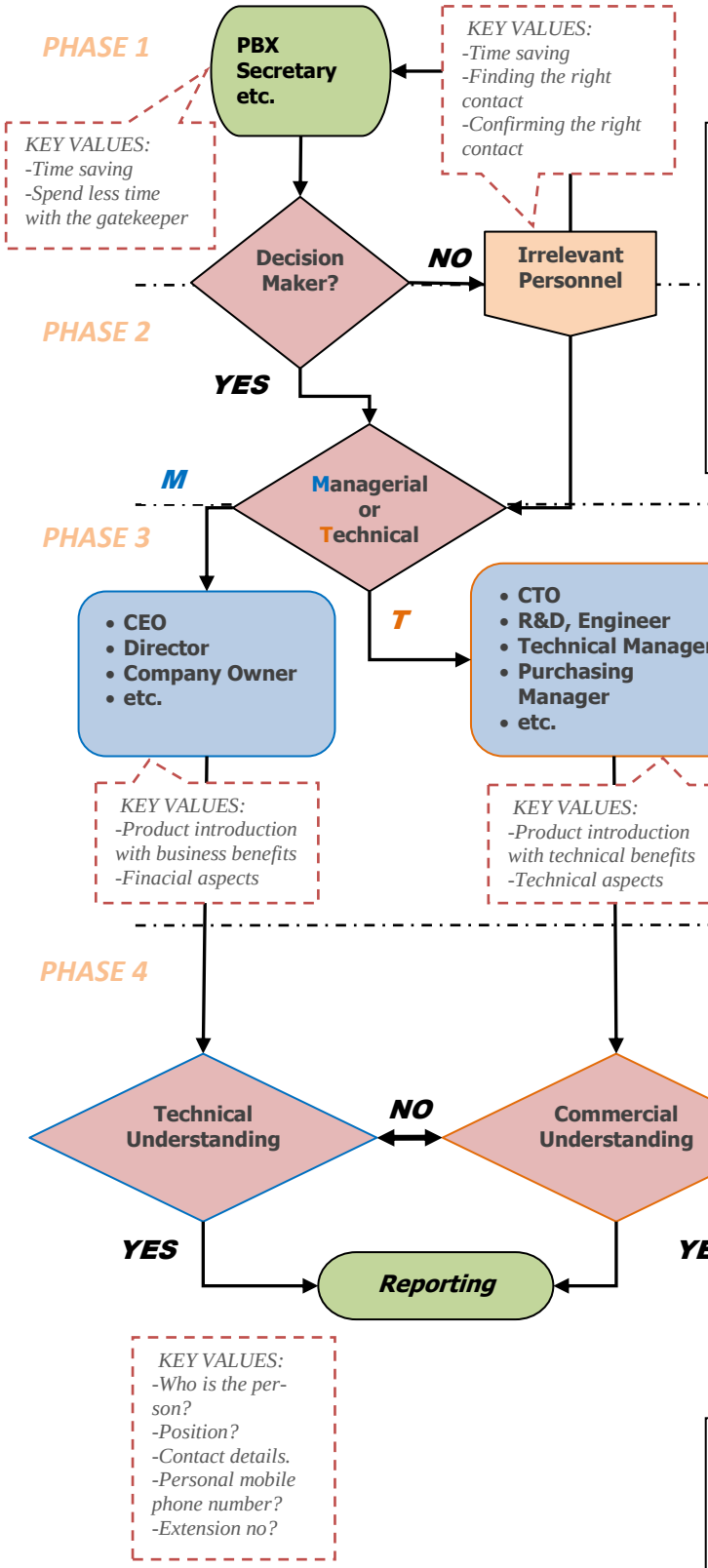
- " Okay. I might be interested ... " etc.

C : E-mail / Brochure / Follow-up calls.

Reporting. A visit to Turkey - Further arrangements.

Appendix 4

TECHNOLOGY-DRIVEN FRAMEWORK - DETAILED



Buyer : Gatekeeper (Secretary, PBX etc.) answers the phone.
Consultant : Defining the origin of the product and the producer.

B : ...
C : Plotting/Bypassing the gatekeeper.

C : "I would like to talk to a "decision-maker".
"I would like to share more information about the product with him/her."

- "Decision-maker" can be purchasing manager, technical manager, CEO, CTO, director, company owner or R&D manager.

-NOT Export Manager since the aim of the call is not buying.

IF THE DECISION MAKER REACHED:

- Determining decision maker's position.
- Determining the right approach to follow according to decision maker's position. (Managerial or Technical?)

Managerial (CEO, director, company owner etc.):

C: Product introduction with business benefits. (Novelty and newness etc.)

Technical (CTO, technical manager, R&D manager etc.):

C: Product introduction with technical benefits. (solution/innovation benefits with technical details.)

BRIDGING TECHNICAL & COMMERCIAL UNDERSTANDING:

Managerial - Is the decision maker able to understand technical details and benefits?

C: Move to the next step if the decision maker is able to bridge technicality of the product with commercial understanding.

Technical - Is the decision maker able to understand business benefits?

C: Move to the next step if the decision maker is able to bridge business benefits with technical understanding.

The consultant should try to reach another person, if the decision maker lacks either technical or commercial understanding. (Switching side: **Technical**<->**Managerial**)

B : Buyer/Decision-maker is interested.

- " Okay. I might be interested ... " etc.

C : E-mail / Brochure / Follow-up calls.

Reporting. A visit to Turkey - Further arrangements.

Appendix 5

MARKET RESEARCH REPORT
POTENTIAL CUSTOMER LIST SAMPLE

Company: **Address:** **Tel:** **E-mail:** **Website:** **Product Portfolio:**	 Contact: Position: Mobile: E-mail:
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